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INDEPENDENT PLANNING COMMISSION

PUBLIC HEARING

RE: HUME COAL AND BERRIMA RAIL PROJECTS STAKEHOLDER MEETING (SSD7171 & SSD 7172)

PANEL:	**PETER DUNCAN AM , Chair** **PROF ALICE CLARK** **CHRIS WILSON**
ASSISTING PANEL:	**JANET McKELVEY** **JANE TAYLOR**
OFFICE OF THE IPC:	**TROY DEIGHTON, Host**
LOCATION:	**VIA VIDEO CONFERENCE**
DATE:	**MONDAY, 12 JULY 2021**

MR DEIGHTON: Hello. Good morning, and welcome to this Independent Planning Commission public hearing into the Hume Coal and Berrima Rail projects. I'm Troy Deighton from the Independent Planning Commission. I will be the host of the live streaming for these proceedings. COVID has unfortunately forced this hearing online and our commissioners are participating remotely from their respective homes this morning. The hearing provides interested individuals and groups the opportunity to have their say on the projects and the department's whole of government assessment, which has concluded the projects should be refused.

Now, we have a busy schedule ahead this morning with more than 80 people registered to present to the panel over the two days. And, of course, it's not too late for you to have your say on the projects. You can make written submissions via post, email, or by using the have your say portal on the commission's website. Commissioners Duncan, Wilson and Clarke are standing by for day 1 of the public hearing, so let's cross to them now, and IPC panel chair Peter Duncan. Peter, good morning. Good morning, Peter. Peter, can you hear us?

MR DUNCAN: Good morning. I am Peter Duncan, and I am the chair of this independent planning commission panel. Joining me are my fellow commissioners, Professor Alice Clarke and Chris Wilson. We form the commission panel appointed to determine this application. We also have Janet McElroy and Jane Taylor as counsel assisting the commission at this public hearing. Before we begin, I would like to acknowledge the traditional custodians of the lands on which we meet, pay my respect to their elders past, present and emerging, and to elders from other communities who may be participating today.

Hume Coal PT Limited is the applicant and is proposing to build a new underground coal mine and associate infrastructure in the Southern Highlands region of New South Wales. The project involves two separate development applications. The Hume Coal project proposes to extract 50 million tons of run of mine coal over 19 years, and the Berrima Rail project includes the associated rail infrastructure to support the mining operations.

These projects are located approximately 100 kilometres southwest of Sydney and seven kilometres northwest of Moss Vale in the Wingecarribee Local Government Area. The Department of Planning, Industry and Environment has completed its whole of government assessment of the merits of the collective project and has recommended refusal. The Minister for Planning and Public Spaces has directed the commission to hold a public hearing into the application. He has asked the commission to determine the project within 12 weeks of receiving the final assessment report from the department. A full transcript of the two day hearing will also be published on the commission's website in the next few days.

The Independent Planning Commission is the consent authority for this state significant development application because the department received 50 or more unique public objections during exhibition of the projects, and there was also an

objection from Wingecarribee Shire Council. It is important to note that the commission is not involved in the department's assessment of SSD applications, nor in the preparation of its assessment reports. Commissioners make an annual declaration of interest identifying potential conflicts with their appointed role. For the record, no conflicts of interest have been identified in relation to our determination of this development application. You may find additional information on the way we manage potential conflicts on our website.

This public hearing forms just one part of the commission's process. We have also undertaken a virtual site inspection and met with the department, the applicant, Wingecarribee Shire Council, Coal Free Southern Highlands and independent experts. A transcript and the video recording of the virtual site inspection has been published on our website. Transcripts of the first four meetings have also been published on our website. The transcript of the meeting with the independent experts will be available on the commission's website in the next few days.

After the public hearing, we may convene with relevant stakeholders if clarification or additional information is required on matters raised. Following the public hearing, we will endeavour to determine the development application as soon as possible, noting that there may be a delay if we find the need for additional information. As Troy has already mentioned, written submissions on this matter will be accepted by the commission up to 5 pm next fray 23 July 2021. We invite interested individuals and groups to make any submissions they consider appropriate during the hearing. However, the commission is particularly assisted by submissions that are responsive to the Department of Planning, Industry and Environment's assessment report. All submissions made to the department during exhibition have been made available to the commission. As such, today's speakers are encouraged to avoid repeating or restating submissions that they previously made on the application. The commission must emphasise there are certain matters that, by law, it is not permitted to take into account when making its determination, and therefore submissions on such matters cannot be considered. These factors include the reputation of the applicant and any past planning or breaches by the applicant.

Before we get underway, I would like to outline how today's public hearing will run. We will first hear from DPIE on this findings of its whole of government assessment of the application currently before the commission. We will hear from the applicant second, and then proceed to hear from our registered speakers. While we will endeavour to stick to our public schedule, this will be dependent on registered speakers being ready to present at their allocated time. Troy, who is in our Sydney studio, will introduce each speaker when it's their turn to present to the panel. Everyone has been advised in advance of how long they have to speak. A bell will sound when a speaker has one minute remaining. A second bell will sound when a speaker's time has expired. To ensure everyone receives their fair share of time, I will enforce timekeeping rules. I do reserve the right to allow additional time as required to hear new information.

If you have a copy of your speaker notes or any additional material to support your presentation, it would be appreciated if you would provide a copy to the commission. Please note any information given to us may be made public. The commission's privacy statement governs our approach to managing your information. Our privacy statement is also available on our website. Thank you. It is now time to call our first speaker.

MR DEIGHTON: And first up this morning is Steve O'Donoghue, the director of resource assessments from the Department of Planning, Industry and Environment. Steve, good morning.

MR O'DONOGHUE: Good morning. My name is Steve O'Donoghue, director of resource assessments at the Department of Planning, Industry and Environment. I am here today with my colleague, Phil Jones, a consultant planner with the department. The commission has invited me to present at today's public hearing, and I will begin with a summary of the assessment process to date, noting that the Hume Coal project and the associated Berrima Rail project have been in the planning system since 2017. I don't intend to outline the project components in any detail, as this is well-documented in the substantial documentation available on the department's major projects portal and in the department's final assessment report.

Also, for the purposes of this presentation, when I make a reference to the project, it refers to both the Hume Coal and Berrima Rail projects together. I will then provide a summary of the department's assessment and conclusions on the key issues associated with the proposal, and in particular, the key reasons for the department's recommendation to the commission to refuse the project. On the assessment process to date, the project has been through an extensive assessment process already that has included public exhibition in March to June 2017, which led to more than 12,000 submissions on the project, 5,000 from the local area, with some 97 per cent objecting to the project, with impacts on groundwater resources being the number 1 issue raised in submissions. A preliminary assessment report prepared by the department in December 2018 followed the preparation of a submissions report by Hume Coal with the department at that point recommending that the project should be refused following a request from the then Minister for Planning, a public hearing that was held during February 2019 in Moss Vale with some 4000 submissions that are lodged, most by way of objection.

The Commission's hearing report was completed in May 2019 incorporating 30 recommendations that the department has carefully considered in its final assessment report. Hume Coal then provided its response report in April 2020 and submitted a formal amendment to the project in October 2020. A further request for a public hearing from the Minister for Planning and Public Spaces was made in June 2021 followed by referral of the project to the Commission. So that's an outline of the process to date that the department has been involved in.

So first of all, I would like to point out there has been very limited changes or amendments to the project since the application was first exhibited in 2017, even

following the department's recommendation to the Commission to refuse the project in 2018. This is a key point given the concerns raised by the department through the assessment process, concerns raised in public submissions, and concerns raised by government agencies. However, Hume Coal did amend the project in relation to three elements: first, to make it clear that the project would not include a water treatment plant as a contingency to treat and discharge mine water; second, the removal of a coal reject stockpile and an increase in storage capacity including increased height of the remaining stockpile; and third, selection of a preferred rail line alignment for the Berrima Rail project rather than two potential routes.

It's important to provide some strategic context about the project in relation to the existing land use and likely land use within and surrounding the site. First, the majority of the project area is zoned environmental purposes, mainly E3 zone with approximately 70 per cent of the project therein covers the zoning. The remainder is forestry purposes, about 26 per cent of the area, noting that mining is proposed beneath Belanglo State Forest. There are also similar areas zoned for rural landscape – smaller areas – sorry – zoned for rural landscape and infrastructure. Importantly, the objectives of the E3 zone are aimed at protecting existing historic, ecological, cultural and aesthetic values.

Whilst the Medway/Berrima area where the proposal is located has a long history of coal mining, the locality is more known now for its rural land uses, agricultural scenic landscapes and tourism resources. The department notes that the recent closure of the Berrima coal mine in 2013 located at Medway which employed around 38 people at the time of closure and had a smaller production rate of around 220,000 tonnes per year and was conventional bord and pillar operation at that time. Essentially, at the proposed scale of operation with up to 3.5 million tonnes per annum and up to 300 people employed during operations, the project would be establishing a substantial greenfield mining – coal mining precinct compared to recent and historical coal mining operations in the area.

The land use within and surrounding the site is predominantly rural residential with small to moderate scale agricultural enterprises with many of the properties relying on bore water for stock and domestic and irrigation purposes. Mining development is prohibited in the land use zones in the project area, however, the State Environmental Planning Policy known as the Mining SEPP allows underground mining on any land subject to development consent. The Mining SEPP sets out a range of matters for consideration that the consent authority must consider in determining whether development consent should be granted for underground mining including whether the project is compatible with existing approved and likely preferred land uses. This has been an important consideration in the department's evaluation of the project and ultimately in the recommendation to refuse the project, which I will expand on later.

Just on the assessment, I would like to move on to explain our assessment of the key issues associated with the proposal. I intend to focus on firstly, groundwater impacts and make good arrangements about the groundwater impacts, particularly water

supply bores, mine water management and water balance, mine design, and then move into other assessment issues such as noise and air impacts. Then in summary, I will go through an overall evaluation and the department's recommendation to refuse the project. So firstly, on groundwater impacts. The key concern of the department is the predicted impacts of the project on water supply bores.

The underground mining operation is located directly below the highly productive groundwater aquifer as classified under the New South Wales Aquifer Interference Policy which is the key policy guiding the department's consideration of whether impacts on groundwater resources are acceptable and/or could be mitigated, for example, through make good provisions on water supply works. The key aquifer that would be impacted by the project is the Hawkesbury Sandstone groundwater aquifer with some 363 registered bore – water supply bores within nine kilometres of the project. I would like to now draw the Commission's attention to some key points that are relevant for the consideration of groundwater impacts.

First, the coal seams being extracted are very shallow compared to other mines in the Southern Coalfields with a depth of cover, that is, the dept of the coal seam to the surface, ranging from 70 to 180 metres with the majority of the mining area in the order of 120 metres or less from the surface. Second, the Hawkesbury Sandstone and the coal seam are only separated by a thin layer in the order of 0.1 to four metres of shale in the project area compared to significantly thicker confining layers between the coal seam and higher productive aquifers associated with the Southern Coalfield operations. Thirdly, due to the smaller scale rural residential and agricultural land use in the surrounding project area, there is a relatively high density of water supply bores relied upon for stock and domestic and for irrigation for agriculture.

These aspects are important and are the key drivers that lead to the high number of bores predicted to be impacted when compared to other mining projects assessed by the department. The Aquifer Interference Policy states that there is a predicted – if there was a predicted drawdown or pressure decline of more than two metres, then this is considered to be more than a minimal impact. The project exceeds this minimal impact threshold at multiple locations and whether this is an acceptable impact is a key issue in the department's assessment. Pressure decline or drawdown exceeding the two metre minimal impact consideration is predicted on up to 94 registered privately owned bores based on Hume Coal's 67 percentile predictions from its modelling, or up to 118 bores based on the 90th percentile predictions from this groundwater modelling.

There are also a further 19 bores identified that do not have bore registration identification that would be potentially impacted by the project. These predictions are based on groundwater modelling that has been extensively peer reviewed by highly respected groundwater modelling experts including the department's Mr Hugh Middlemis and a number of experts engaged by Hume Coal including more recently Dr Lloyd Townley who undertook a further peer review of the modelling in response to the Commission's report following the first public hearing. The department's

water group also recommended further uncertainty assessment be undertaken as it remained concerned about assumptions using the modelling, particularly around hydraulic conductivity and that therefore, as a conservative approach, the prediction based on the 90th percentile should be considered as the minimum likely impact. So that's the advice from the department's water group.

The department notes that any further uncertainty assessment as recommended by the water group would likely increase predicted impacts on bores, so this is a key point. The department considers that there is no utility however in undertaking further groundwater assessment and that there is already sufficient information to inform decision-making noting the large number of bores already predicted to be impacted which the department already considers is an unacceptable impact.

I'd just like to make some comments about predictions compared to other projects, noting – particularly noting that Hume Coal has drawn comparisons of its predicted impacts to the recently approved Tahmoor South Project and arguing that this has set a precedent. The department's assessment report has considered this in some detail. First, looking at projects recently determined since the introduction of the Aquifer Interference Policy, apart from Tahmoor South, the predicted impacts on privately owned bores exceeding the minimal impact provisions of the AIP were zero for eight projects - there was no predicted impacts on bores – with the further project predicting impacts on only one bore.

That is, in summary, the scale of the predicted project-related impacts of privately owned bores in terms of the number of affected bores far exceeds that of contemporary coalmining projects determined in recent years, most of which predict none or only a very small number of affected bores. Hume Coal in its response also notes that, although the number of bores predicted to experience drawdown in excess of two metres is higher than other approved mining projects, there are other aspects of the groundwater impacts that are similar or less than contemporary approved mining projects: for example, peak annual inflows into mine workings, the aerial extent of the two metre groundwater contour, groundwater recovery times after mining, and groundwater recovery times after mining ceases.

While this comparison analysis is correct and considered in the department's assessment, the department maintains that it is the number of affected landholders, the greenfield nature of the project area, relatively shallow nature of the mine and the aquifers, and the practicality of making good these impacts in a manner that is acceptable to landholders that is the issue. In the case of Tahmoor South, the predicted impacts from the project was 46 bores exceeding a two metre pressure decline, with 20 bores predicted, potentially, required to provide make good to water supply, and 10 of these considered to be a higher risk based on the predicted magnitude of drawdown and the operational history and record of make good at the operating Tahmoor North Mine.

While cumulative impacts associated with the approved Tahmoor North Mine and the Acland Mine, along with Tahmoor South, were predicted in the modelling to be

in order of 200 bores under the worst case model scenario, a direct comparison cannot be made with the Hume Coal Project. First, the Tahmoor North and Bulli Seam mine operations predate the Aquifer Interference Policy, which was released in 2012, with the Tahmoor North Mine first approved in the 1970s and located in the Bargo mine subsidence district. So the existing groundwater policy settings do not apply. Second, the geological settings are different. The Tahmoor Mine and Acland Mine are mining at greater depths in the order of 400 metres.

The Hawkesbury Sandstone in this area is much thicker, with bores in the area relatively deep with large available drawdowns. The coal seams are also separated from the Hawkesbury Sandstone, the beneficial aquifer, by additional impermeable layers of the Narrabeen Group, which includes clay stones and shales. In the project area at Hume, the Hawkesbury Sandstone and the coal seam railings are separated by a thin layer, as identified earlier, at 0.1 to four metres of shale. The local geology is different to the rest of the Southern Coalfield as the Narrabeen Group has been eroded out of the sequence, which creates a unique situation where the Hawkesbury Sandstone is very close or adjacent to the coal seam. This is a major factor in the predicted high levels of groundwater drawdown.

Third, there is historical data available to show that the predicted impacts on water supply bores used for the Tahmoor South assessment were highly conservative, with only two borers required to make good for the Tahmoor North Mine over the mine life, with a model predicting the drawdown exceeding the minimal impact provisions on 72 bores. The same conclusion cannot be drawn for the Hume Coal Project, given the different geology and shallow nature of the mine. Noting the department's Water Group advice, the predicted impacts on up to 118 bores should be considered as the likely impacts from the Hume Coal Project.

This is numerically and proportionally a significantly higher number than the likely impacts on Tahmoor South, that is, in the order of about 20 bores, and it is also likely to cause greater impacts in the community, given the local context and greenfield nature of the proposal. I'd also like to just touch on the practicality of make good, which is a key part of the discussion here. Given the extent of predicted impact on bores exceeding the minimal impact provisions of the Aquifer Interference Policy, I would like to outline the department's concerns with the practicality of being able to make good, or to provide compensatory water to mitigate these impacts.

Under the AIP, where there is more than a minimal impact, the proponent is required to demonstrate that the decline would not prevent the long-term viability of a water supply works unless make good provisions apply. The New South Wales Government has no specific guidance on how an impact can or should be made good in the legislation or the Aquifer Interference Policy. For mining projects, these are generally dealt with through agreements between the mining company and the affected landowners, in some cases through acquisition of properties by the mine, and then supported by development consent conditions such as the compensatory water condition which has been provided to the Commission as an example.

Hume Coal has provided additional information in its response report to the Commission's first public hearing on the process it would follow in providing make good to affected landowners, including baseline monitoring, a dispute resolution process, and advised how it has now signed access agreements with up to 20 landholders. However, the department maintains its position that, given the large number of affected landowners predicted to be impacted, that make good is impractical.

First, the approach proposed by Hume Coal is based on the New South Wales Land Access Arbitration framework, which is a dispute resolution process set up under the Mining and Petroleum legislation to allow access to land and compensation associated with mining petroleum exploration, with the Land and Environment Court being the final arbiter to resolve a dispute. This process was specifically established to allow coal and gas explorers to access private land and the framework has a detailed set of rules and procedures that govern these access arrangements, which cover a wide range of issues, including baseline assessments, requirements for insurance and securities, and a variety of matters to address site specific impacts for access.

It is important to note that in relation to dispute resolution there are a large number of sections devoted to these issues in the Mining and Petroleum Acts, which provide statutory rules, including arbitration, mediation, legal representation, and decision-making in the case of disputes. It is also important to note that these rules have been strengthened over the past decade, particularly in response to an independent review that was called by the Minister of Resources and Energy in 2014. That review was undertaken by Bret Walker, senior counsel, and made 32 recommendations, including the establishment of an arbitration panel.

The New South Wales Government committed to implementing all these recommendations. However, there is no similar statutory process under the Water Management Act in relation to aquifer interference that can be applied and, therefore, any process would need to be managed under development consent conditions, for example, through the compensatory water condition used by the department. Second, there would be substantial disruption to the local community associated with any negotiation and the implementation process, and there would be a high likelihood of considerable disagreement between Hume Coal and landowners about the actual impacts and make good arrangements.

In the few cases that the department has been involved in where the compensatory water condition has been triggered, there has been considerable dispute over several years or longer, including the volume of water to be impacted, agreement around that, including potential consideration of future losses and landowner aspirations for the property, lack of baseline data due to restricted access and, therefore, the evidence base for any compensation claims, engagement of groundwater experts by landowners themselves and the department and the proponent to undertake technical reviews, and also consideration of any potential cumulative impacts from other developments or due to climate change.

In summary, in the case of land access arrangements for coal and petroleum exploration, there is a long-established process built into statutes that can ultimately require landowners to allow explorers onto their land, and this follows a long process based on procedural fairness. Nevertheless, this process still remains contentious and still causes many landowners great uncertainty and distress.

In the absence of any similar rules under legislation, the process around make good would need to be regulated through the development consent. It's a difficult and complex process compared against long-established processes under the Mining and Petroleum Acts. It's difficult to envisage how this process, under a development consent, could be guaranteed to be effective or, importantly, provide sufficient procedural fairness to the approximately 100 landowners where impacts are predicted to occur. It would require a significant injection of resources, both human resources and the appropriate expertise and monetary resources to support any such process. If such a process were established under a single development consent this would be a very significant administrative and financial burden for all the stakeholders involved. In conclusion to groundwater impacts and make good provisions, the department considers that the predicted groundwater impacts on such a large number of groundwater user bores is unacceptable, as is the practicality of the proposed maintenance strategy. So the principal water.

Just on – I'd like to touch now on probably another key issue, is about our concerns in relation to water management onsite and the potential for an untreated surface water discharges to Sydney's drinking water catchment via Oldbury Creek. From a statutory perspective, the mutual or beneficial effect or NorBE test applies to the project. The drinking water State and Environmental Planning Policy requires that a consent authority must not grant consent to the carrying out of a development in the Sydney Water Drinking Catchment unless it is satisfied that the carrying out of the proposed development would have a mutual or beneficial effect on water quality. This is the precondition of any determination to demonstrate that NorBE would be met.

Hume Coal's water management strategy is to store excess water from run-off from the surface to surface areas in groundwater influence into the underground waters in a primary water dam supplement by storage in underground workings, the down depth of operational areas, and behind the bulkheads as the mine progresses and uses available void space from earlier mined areas. The department noticed that Hume Coal has amended the project to make it clear that it would not be constructing and operating a water treatment plant; it proposes to be a nil discharge mine. That is, it would meet the NorBE test and there will be no surface water discharges from the project site.

The surface water assessment was informed by water balance modelling over the 19-year life of the project, with the key modelling parameter being the length of time in each year of the mine life that there would be capacity in the primary water dam if storage underground was suddenly not available, for example, for operational or safety reasons. Hume Coal highlighted, in its briefing to the Commission last week,

that the modelling shows that in year 1 if underground storage was not available that, based on the modelling scenarios, there would be 9.6 to 16.9 years of capacity in the primary water dam. The department notes, however, that from year 11 onwards of the 19-year mine life the minimum storage capacity available drops to around nine months, based on the modelling scenarios, reducing to about six months by the end of the operational life of the mine.

The available capacity in the primary water dam drops over the life, reflecting the change in the water supply demand balance over the mine life, which water deficits in earlier stages and water surpluses in later stages, largely due to the groundwater inflow into the underground workings.

Water New South Wales, in its advice to the department, while acknowledging that the risk may be low, remains concerned about the risk of untreated discharges to Sydney's drinking water catchment. This is given the novel Pine Feather mining technique and residual web pillar stability issues raised by the department's independent mine engineering subsidence experts, which I will outline further; the scale of the proposed underground mine water storage, with a very high reliance on underground storage of water; the potential risks associated with such storage, as well as the sensitivity of the downstream environment.
The department considers that risk from land associated with the removal of the provisional water treatment plant from the project, noting that any construction in an operation of such a facility would require further assessment and planning approval followed by sufficient construction in commissioning the time for installation. This would require assessment against the drinking water set in NorBE principle requirements for any discharges into the Sydney drinking water catchment at some later date.

I'd just like to now just touch briefly on mine design. A key issue through the assessment is the proposed use of the unconventional Pine Feather mining method, which has not been used in New South Wales or in a similar geological environment before. Due to concerns raised by the department's subsidence and mining engineering experts, Emeritus Professor Jim Galvin and Professor Ismet Canbulat, the Commission made several recommendations relating to the proposed mine design.

In preparing its response report, Hume Coal engaged an independent expert in mining engineering, Mr Russell Howarth, to peer review the proposed mining method and undertook further risk assessment involving technical experts from a range of disciplines. Hume Coal's review concluded that the proposed mining technique is technically feasible and that it should not be inferred as unsafe on the basis that it has not been used in New South Wales. So on this basis, Hume Coal has not proposed any changes to the mine design.

The New South Wales Resources Regulator, and the department's experts, reviewed this additional information, along with additional expert advice on the mine design which was provided to the Commission during the first public hearing. They

continue to have residual concerns about the geotechnical model and the uncertainties associated with the mine design, particularly in relation to the short and long-term stability of the proposed web pillars. Whilst the likelihood of web pillar failure may be low and localised, any such failure has the potential to result in significant consequences, for example, in workplace health and safety, as well as potential environmental impacts and including groundwater response to mining. For example, pillar failure or poor working conditions such that access to earlier mine works may not be available would also affect the ability to store water in undergrounding works, which would affect the mine water balance predictions.

The department also notes that in Hume Coal's briefing to the Commission on the 29th of June that reference was made to advice received by the resources regulator during the first hearing in 2019 about mine safety, and that its concerns could be managed through the submission of detailed mine plans as a high risk activity under the mining legislation. However, no reference was made to the advice by the resources regulator more recently, as outlined in the department's assessment report. In its latest advice the resources regulator raised concerns about uncertainty associated with the approach to the design of coal production barriers to critical infrastructure, including the Hume Motorway and the Moomba to Sydney high-pressure gas pipeline. The key issue of the resources regulator is the low depth of cover and the secondary extraction proposed to be undertaken, noting that, with few exceptions, the depth of cover associated with critical assets has typically ranged from 400 to 550 metres depth compared to the 80 to 170 metres with – or for the Hume Coal project, with the majority of the area less than 120 metres for the project.

The resources regulator flagged that, given the low depth of cover, there were risks associated with catastrophic safety and/or service ability consequences for the critical infrastructure, and that mismanagement systems have been well established for critical infrastructure for higher depths of cover. The resources regulator recommended that further offset distances should be considered from critical infrastructure, and that trials of the novel mining method should be undertaken away from infrastructure to ensure additional empirical data is collected; that is, recommending potential changes to the proposed mine progression. Again this provides significant uncertainty in assumptions related to other aspects of mining operations, including water storage underground over the life of the mine.

The department's experts consider that the uncertainties around web pillar failure could be addressed through further risk assessment, and changes to the panel and pillar dimensions, and recommended further modelling based on more conservative industry-accepted assumptions. Hume Coal has not chosen to undertake this additional work at this time and continues to assert that these matters should be addressed through post-approval requirements as the mine progresses.

The department considers that it may be possible to draft a complex set of consent conditions in an attempt to reduce some of this uncertainty, and could be conceptually similar to an extraction plant, for example, required for longwall mining. However, given that this proposal involves a novel mining method there are

no clear precedents of how this - how the mine design would be adequately managed through post-approval consent conditions. The department generally only allows aspects - with these aspects to be addressed via the extraction plan process where the range of environmental impacts has already been established well prior to the termination. The department does not believe that this threshold has been met at this stage.

Consequently the department is not satisfied that the proposed approach to deferring this work to the post-approval is acceptable in this instance, given the identified uncertainties and risks. Such an approach lacks finality and is inconsistent with the precautionary principle. As also outlined changes to the mine design to address the department's experts and resource regulator's concerns would also increase uncertainty about - around water management, given the reliance on underground water storage to manage the site water balance without discharge from the site. Further, I would also like to note that any changes to the mine design are unlikely to result in any significant improvements to the ground water impacts of the project which the department already considers is unacceptable. Any changes based on more conservative assumptions that reduce the amount of resource extracted would also likely affect the economic benefits of the project.

I would just like to touch briefly on just some other issues in the assessment. I won't take - I know I'm running out of time, but I just won't take too long. The department's final assessment report provides details of a range of other issues, including noise, air, greenhouse gas emissions, traffic, visual impacts, and historic and Aboriginal heritage. The assessment found that there would be some significant localised impacts, for example, noise impacts along Medway Road, such that mitigation acquisition rights under the New South Wales Government's Voluntary Acquisition and Mitigation Policy or the VLAMP would apply; however, under the VLAMP the application or voluntary acquisition rights are only applied where the proposal is assessed as having either a net benefit or it was in the public interest.

The department does not consider that the project is in the public interest. As such the department does not consider that the residual noise impacts on the Medway Road residence and provision of voluntary acquisition rights and mitigation rights are acceptable; however, the department acknowledges that the majority of these residual potential impacts are similar to contemporary underground mining project and could potentially be managed, mitigated or, at least, compensated for to achieve the acceptable level of environmental performance if the project was clearly in the public interest.

So just a few points in conclusion. The department acknowledges that there would be a number of benefits, including developing a high quality coal resource of which about 55 per cent is used in the steel-making industry. It would generate some 415 jobs during construction, and up to 300 during operations, with opportunity for some local employment. There's significant capital investment with some 533 million, with around 200 million in royalties, and would generate a significant economic flow

on benefits to the Southern Highlands, and providing a net benefit in the order of about 194 million based on the economic evaluation.

However, the department has completed a triple bottom line assessment, and whilst the department acknowledges the economic benefits that may arise, we don't believe they outweigh the substantial social and environmental impacts for the following key reasons. The predicted groundwater drawdown impacts on a large number of groundwater users' bores water supply works is unacceptable, as is the practicality of make good strategy. The impacts are likely to lead to significant dispute and disruption in the local community. There remains uncertainty about the potential surface water impacts on Sydney's drinking water catchment, given the mine design risks and the lack of a contingency strategy in the event that surface water is discharged.

There remains uncertainty about the mine design, particularly in relation to the stability of the web pillars, with resultant risks to workplace, health and safety, and potentially to the environment through potential required modifications to the mine design, and the synergy of this between surface impacts and the reliance on the storage of water and rejects in underground workings. The department believes that these residual risks cannot be adequately managed through the approval conditions. Proceeding with the project as proposed would not be consistent with the precautionary principle given these identified uncertainties and risks.

There also remains strong opposition to the project in the local and broader community, as well as by the local council, including 97 per cent or more of the 5000 submissions from the local area objecting to the project, reflecting that the local community does not consider the project has a social licence in the local area. And in summary the site is not suitable for a greenfield coalmine, given the rural residential and small-scale agricultural land use of the area, along with the growing tourism and heritage landscape focus, and the predicted impacts on these land uses. Our detailed consideration of the proposal can be found in our assessment report online, and I would like to thank the commission for the opportunity to present here today.

MR DUNCAN: Thank you, Steven. We have a few minutes left, are you comfortable to answer any questions at this stage?

MR O'DONOGHUE: Sure, that would be fine, and I will - I've got Phil Jones here as well, he might chime in and respond to some questions as well.

MR DUNCAN: Thank you. Does the panel have any questions that they wish to put to Steven at this stage?

PROF CLARK: Nothing from me at this stage, Peter.

MR DUNCAN: Chris?

MR WILSON: ..... too, thank you, Peter.

MR DUNCAN: I have one, Steven. Is the comparison to the Tahmoor South, the impacts on bores - you may wish to take this on notice, but can you point to documentation on that that shows that comparison clearly?

MR O'DONOGHUE: Certainly, like, in our assessment report we draw on - we draw some parallels about the differences between the two operations. I guess the key point really is the - it's more - I know Hume Coal, in their presentation, reflect on the accumulative impacts, that worst case 200 bores being impacted for Tahmoor. A lot of that is associated with the Tahmoor North project, the nearest mine adjoining the - where the South Tahmoor extend out to. I guess they have drawn a lot of information from Tahmoor North showing that in their risk assessment approach, and how - in their, sort of, analysis of likely impacted bores on the experience in Tahmoor North which showed that very few bores were impacted, and the ones that were impacted was generally through - due to direct subsidence impacts on the bore infrastructure itself, rather than drawdown in the bores, so it's a subsidence impact on the bore infrastructure was the issue, which was dealt with through the mine subsidence compensation provisions. But I'm happy to take any questions, you know, if you want more information, I'm happy - - -

MR DUNCAN: We may come back. Reserve the right to come back on that one.

MR O'DONOGHUE: Yes.

MR DUNCAN: Any further questions at this stage? Thank you for your presentation today, Steven.

MR O'DONOGHUE: Thanks for the opportunity; appreciate it.

MR DUNCAN: Thank you.

MR DEIGHTON: Okay. Up next we have Mr Rod Doyle on behalf of the applicant, Hume Coal Proprietary Limited. Mr Doyle, good morning.

MR DOYLE: Good morning.

MR DUNCAN: Good morning.

MR DOYLE: Can you hear me okay?

MR DUNCAN: Yes, we can. Good morning, Rod, and - - -

MR DOYLE: Good morning, I would like to share a presentation. All right?

MR DUNCAN: You can.

MR DOYLE: Thank you. I don't know if other people are having the same difficulty, but I'm having a bit of trouble actually hearing, the talk is quite soft. Nevertheless I will progress. This is just a photograph of Mereworth Farm. Today I'm speaking from the land of the Wodiwodi People, of the Dharawal Nation, and if people haven't read the Uluru Statement of Heart, I would thoroughly recommend that you do, and I look forward to the day when a treaty is in place for nations in Australia, and that we have a final voice to parliaments through the country. Just wanted to show a little bit about myself there. I'm a geologist. I am typically known as a rock hopper in the industry, a couple of degrees, etcetera. I've been a member of the AusIMM for over 40 years in the Illawarra branch - proud member.

Just a bit of background about where people believe metallurgical coal is going. This is a quote from Mike Henry, BHP CEO. He believes that there's increasing demand for metallurgical coal, and they think that that demand is going to be resilient, in particular, in light of decarbonising future aspects of the world.

Michelle Manook from the World Coal Association as CEO, she believes that coal is part of the solution going forward. For us to face a renewable energy we need dependence upon manufacturing which depends on steel, coal and concrete. And Hume's project is foremost a metallurgical coalmine and would contribute to that design. So some of the pros as listed in the FAR on page IX, Wongawilli seem is a high quality, semi-hard, coking coal, and it's used for steel manufacture. It is close to existing rail to existing industry areas. It's a local mining manufacturing to the port and of BlueScope Steel Steelworks.

As I already noted, there are proposed 415 jobs during construction and up to 300 jobs during operations, full-time equivalent jobs and local jobs available. A significant capital investment projected for the project in excess of half a billion dollars. Overall, we're generating something like $200 million in royalty; money going back to the state. Generating significant economic flow-on benefits for the Southern Highlands, and provided an estimate in that economic benefit for New South Wales approximately $194 million. I want to stress that this is a state-significant development for the benefit of all New South Welsh people not just the Southern Highlands.

I would like to go on to elaborate our environmental credentials. It's a low-impact, underground coalmine. Despite claims it is not nor will it ever be an open-cut mine. Experts from both sides are in general agreement that the mine design is safe. Two-thirds of all the coal will be left in situ to protect the aquifer and the overburden. There will be no goaf development and no fracturing and as a result there will be the negligible substance. The rejects will go underground. There will be no permanent surface reject in placement or associated disturbance with that. The proposed surface infrastructure is already cleared for agricultural use.

There's no significant impact on any threatened species or communities. The area is effectively devoid of the original now endangered Southlands Highlands Shale Woodlands. There is unilateral agreement amongst experts and confidence in the

water model that it is fit for purpose as we have always claimed. 93 per cent of Hume's modelled water take is actually licensed. Hume has the licences and the right to use its water. Make good is technically available and achievable although the DPI still consider that getting agreements with landowners could be problematic. The project's focus is on the production of metallurgical coal to meet growing demand and contribute to renewable futures.

Scope 1 greenhouse gas emissions will be significantly offset with 20 to 40 hectares of native plantings, and this is consistent with the New South Wales Climate Change Policy Framework. Hume will minimise scope 2 emissions, and scope 3 emissions will be accounted for by Paris Agreements. It is important to note that environmental awareness comes at a cost; a cost that Hume Coal is prepared to pay. This may be a new mine, but it's a leap ahead in its environmental benefits compared with old mines. These are the cons that are listed within the FAR, the final assessment report from page IX, and they're repeated in the conclusions on page 78. I won't be going through those because I will be dealing with them one at a time throughout the text of this presentation.

I have a couple of quotes here from the IPC hearing where the DPI, DPE at that time, stated, page 16, line 25, and generally, I put the cite reference of any quotes throughout this talk:

> *Certainly, the number of bores that are affected by this project is really unprecedented.*

And again:

> *The number of bores affected, privately held bores, would be unprecedented in the history that we've seen on coalmining projects.*

It's our contention that it is a bit of an exaggeration at that time. This slide is from the Department of Planning, and it was presented at the Tahmoor extension hearing. And they note there in the red circle that 46 boreholes were predicted to be drawn down as a result of the new extension. Yet, 228 bores are predicted to be impacted by cumulative drawdowns. Now, that is up to 180 additional boreholes that were previously impacted by the Tahmoor North operations as noted by Mr O'Donoghue here this morning.

So Tahmoor's pre-extension up to 180 bores, Hume's impact is 94, yet somehow department impact – the department believed we had unprecedented impacts in all of history. It's worth noting Tahmoor's estimate was based on a 50 percentile. Hume chose to be more conservative and use 67 percentile, while the Department of Planning continues to apply 90 per cent when it's talking about Hume, and that's where they get their 118 boreholes impacted figure. You also need to consider timing. Tahmoor's eight years versus Hume's nearly 20 years of mine life.

These are just examples of how Hume has been treated differently by the department. So when the department says Hume's impact on groundwater bores was unprecedented they're wrong. Regarding groundwater bores, all experts agree Hume's water model is now fit for purpose, that there is across the board confidence in the modelling. The water model is by nature a conservative model unlike the current make good arrangements in this state which require the landowner to propose usually with the mines, Hume communicated to landowners to talk to them, to put forward our proposal to make good to them, and reverse the onus to be proactive about the situation.

We have a credible and achievable pathway to make good for each and every bore. This figure shows the breakdown of the boreholes, the 94-odd boreholes, predicted to be impacted by more than two metres. You will note the split on the pie chart in the blue, the drawdown of two to four metres, about 33 per cent of the bores will require increased pumping costs, so they don't actually require access to the properties. The red section of the pie chart lowering the pump is about again one-third. The drawdown in these instances is about four to 10 metres. The boreholes have been identified by the New South Wales database, and the pumps can be lowered so that they maintain the same head of water above the pumps. That will require access.

The final third of boreholes breaks down into irrigating bores and stock and domestic, and have a broad range of drawdowns from 10 to 20, and 20 to 50 metres. Clearly, these will require additional work and access to the properties. To show that in another way we've broken this up into five-year timeframes. And you can see there in the first stage, zero to five years, there are 10 boreholes that are either replacing stock in domestic boreholes or replacing irrigation bores, and so on throughout the five years. These are a staged approached to managing the issues with boreholes throughout the life of the mine. On the right-hand side there you can see two graphs just showing the stage and where the mine plan is actually up to.

Our initial five years is heading west out underneath the Belanglo State Forest. So in those first five years there's 10 boreholes to address, and then in the next five years moving further to the east and finalising the development to the west, and there will be 24 boreholes to actually address during those five years that are in that period. Again, another quote from the first IPC hearing, this is the most significant damage to an aquifer of any mine project ever in New South Wales as covered by the department's spokesman in the morning.

Firstly, in trying to explain this, the solid part of the aquifer is the rock mass. The mine design will ensure that there is no goaf formation and no fracturing. The pine feather design will leave two-thirds of the coal in situ to support the overburden, unlike longwalls, etcetera, which remove 75 or more per cent of the coal and cause the goafing and fracturing. Therefore, the impact to the strata is negligible. There is no serious threat or irreversible damage, which is in direct contrast when compared to bord and pillar coal mining considered in the Dendrobium refusal. At the same time, pine feather also protects the surface from excessive substance.

The second part of the aquifer is the liquid or the water that flows through the solid rock due to its permeability. Hume Coal has purchased existing water licences, which account for 93 per cent of all the water it will need. These licences were all purchased on the open market. The water was already being taken by others. The mine will draw the water table down, but it will recover. Again, there is no serious threat or irreversible damage to the environment. There are no environmental precautionary principle issues here. In many ways, we're no different to any other groundwater bore users, with some exceptions. Our usage will actually be monitored and under far greater scrutiny.

Where we exist there are two sources of water storage, the Nepean Source and the Sydney Basin South Source, and this just focusing on the south, although they're fairly complementary, if you look at the 22 million megalitres in the storage of environmental water in the blue pie chart at the top, about one per cent of that is annual recharge and the flow down into that blue and green pie chart. And that becomes about two-thirds - that annual recharge becomes two-thirds environmental water and about one-third, which is required to be the long-term average annual extraction limit, which is basically the scientist telling us that if that amount were to be used, there'd be no adverse long-term effects.

So that green section then flows down into the red pie chart, and you'll see that some significant portion of it is unassigned, and then you have the pink and orange sections there that are the stock and domestic and the tradeable access licences. So the Hume Coal licences come out of that pink area. They were purchased on an available market. There are no long-term impacts and there's no triggering of precautionary principles. In terms of make good, other underground coalmines work within existing make good provisions, yet the department consider it's impractical for Hume. In reality, the department are ostensibly saying that if there are disputes, they don't want to help the affected landowners.

Hume have outlined their proposed make good arrangements and are committed to achieving them. Hume have attempted to make contact with all affected landowners and Hume have offered to undertake baseline monitoring for all affected landowners. At this stage, approximately 15 per cent of them have taken us up on that offer. If approved, we will continue to strive to communicate with the landowners and restate the offer of baseline monitoring. I quote from Richard Beasley SC, who's written extensively on water and particularly the Murray-Darling:

> *If you've been allocated a water licence to use a certain amount of water and you want to grow rice or cotton with it, then, in my view, go your hardest.*

Moving on the surface water issue, there remains unacceptable uncertainty and a potential of surface water impacts on Sydney's drinking water with regard to the mine design risk and to the contingency strategy. So this issue is about excess water ..... leading to an uncontrolled release on the surface. This issue could relate to any underground mine and, therefore, the mine design isn't relevant to this argument. The authors have overreached. Following on from that point, with respect to risk and

uncertainty, there is never any explanation as to why something is considered a high risk or an unacceptable uncertainty. These appear to be judgment calls or just exaggerations and would have benefited from clearer definition.

Based on the modelling that Hume has undertaken over 107 climate runs, the primary water dam has a capacity of 720 megalitres, would reach its capacity in the shortest duration at 9.6 years, and at its longest duration at 16.5 years. What this highlights is that there is substantial capacity in the dam to safely store water in the event that reinjection is unavailable for a period of time, even if that time were extensive. Appropriate contingencies are available. Even the DPIE acknowledged the timing for a water treatment plant. Water management plans and tasks, etcetera, would be put in place and would ensure that the risk would be closely monitored and identified with plenty of time to act.

Hume want to assure the community that it will have management plans in place to ensure that the water will be monitored and controlled in a professional manner. There will be no surface leakage. NorBE doesn't come into play. Sydney's drinking water is safe, at least from Hume, which is more than we can say about the current state of the Wingecarribee River. Dr Ian Wright, an expert in water analysis, stated in the last IPC hearing one of the worst waterways for water quality – I hate to say it – is the Wingecarribee River at Berrima. It needs addressing now. With regard to mine design, there is considerable uncertainty, blah, blah, blah.

If uncertainty remains, why did the department shut down further expert meetings on 30 July in 2019. Why, again, does the department completely ignore the Chief Inspector of Coalmines report? And I want to quote a couple of things from that report by the chief inspector. Firstly, he says:

> *It cannot be inferred that the mining method is unsafe. The use of bulkhead seals is prevalent at underground coalmines throughout New South Wales. Underground mining has inherent risks regardless of the extraction method.*

And that:

> *The resource regulator, whose primarily focused on ensuring mine operators implement and obtain effective risk controls to reduce the risk to workers to as low as reasonably practical.*

In government, no one knows more about mine safety than the chief inspector. So why was his report ignored? In terms of our mine design, it was put together by an expert, Russell Firth. He assessed it. He proved that it was robust. Then there was a check on the 3-D modelling by Dr Keith Heasley. He proved the stability of the mine design. Professor Bruce Hebblewhite reviewed the mine design and gave it a good to go. Russell Howarth, an experienced practical miner, who has introduced innovative features in the Australian coal industry, provides assurance that pine feather is a safe method of mining. In their final reports, the government experts, both Galvin and Canbulat are now generally in agreement with Hume Coal's experts.

So all six experts, plus the Chief Inspector of Coalmines, are now in agreement about the mine plan. Why have the department ignored their own mining engineers and experts? We have quotes from Galvin:

> *This is not to say that the mining method being proposed by Hume Coal cannot be safely and successfully executed. Changes in panel and pillar dimensions offer an effective engineering control for implementing the mining methods such that it safely delivers target hydrological and surface substance objectives.*

Canbulat says:

> *I generally concur with the points put forward by Professor Hebblewhite, to seek agreement with Mine Advice's proposed steps to manage the risks associated with the proposed layout. Hume commits to monitoring the underground geotechnical environment to ensure safety and stability. It will also investigate the behaviour of surface subsidence. Regarding subsidence, the principle subsidence engineer has prepared reports. Department completely misrepresents what he's presented. The principle subsidence engineer outlines methodology for progressing with mining, with a potential for amendments. He requires a 35 degree angle of draw for significant infrastructure. Hume have previously said that they are committed to work with the PSE to acceptable standards. Hume Coal accept the PSEs recommendations. Hume Coal will undertake monitoring to demonstrate that predicted substance reflects actual substance and these studies will be provided to the PSE. In response to the 21st of the 8th 2020 agency report by the PSE, Mr Doyle states that Hume Coal will work with the resource regulator and the principle substance engineer to ensure that mining will not impact upon critical infrastructure.*

Regarding amenity and residual risk. "Residual risk cannot be adequately managed" is what the Department claim. Firstly, this statement that it cannot be adequately managed is inherently wrong. Approval conditions are a proven method for addressing residual risk in many jurisdictions. Risk assessments fundamentally assist in managing risk. Why approval conditions weren't provided in the PAR, when they were specifically requested by the IPC in 2019, is anyone's guess. The IPC report ..... conditions of consent it said, "The Commission also notes the consideration of conditions of consent has not formed part of the present process" – that is, the PAR – "and would need to be given detailed consideration at the determined stage" – that's now.

Interesting to note that in the PAR, noise was considered capable of being adequately managed and the Department suggested six ways to address this issue. Also in the PAR, visual impacts didn't rate a mention. Nevertheless, Hume acknowledges that there will be visual impacts to four landowners on Medway Road, with acoustic impacts to 11 landowners along Medway Road. Hume will diligently work with these and all local landowners to mitigate and minimise impacts. There remain

strong and longstanding opposition to the project for the local and broader community and council and Hume Coal acknowledges there is strong opposition in the district.

However, we have updated the social impact assessment, considered the findings from the community engagement activities, submissions, academic research and technical studies to assess the consequences of the Hume Coal project against the revised baseline studies. All the identified social impacts that were supported by evidence and the perceived impacts were able to be effectively mitigated and managed, using established strategies and the adoption of transparent community and stakeholder engagement strategies, which are outlined in the social impact management plan. Hume has listened, it's studied and responded to local community issues.

We replied to all concerns in our reply to submission documentation. Hume has been part of the local community for 10 years and has always had an open door policy for members of the community. It has listened and engaged with the local community and the response to submission is an example of that listening. It's modified its mine plan to minimise impacts and it seeks an ongoing partnership with the community. It has assisted many local organisations and sustainability is a goal for our business. Regarding greenfields, fundamentally there is no government policy that prohibits mining in greenfield areas. In fact, the government are currently releasing new exploration areas, for example at Wallarah.

Why do that if greenfields are going to be rejected out of hand? The Department actually acknowledge that this does not directly apply to Hume. So I don't really understand why the Department paints just about every concern raised as being worse because it's defined Hume as a greenfield site. This tends to reflect more that the DPIE are not considering this project fairly. The Department has not actually defined what a greenfield actually is. I've always taken it to mean it's an area that has not been previously mined, but some definitions talk about lack of exploration. So, I guess, it isn't well defined.

My personal opinion is that this area has been totally denuded of nearly all its original habitat and fauna to try and convey that this area is greenfield is a stretch. Without belittling it, this area is mostly a cow paddock. Regarding the unsuitability of this site, how can a cow paddock be unsuitable, but the township of Bargo, with hundreds of houses impacted, be acceptable to the Department? Irrespective of whether the mine is new or an extension, it should be, and it must be, assessed on its own merits. Just for the record, both ..... have existing, albeit historic, mine workings within the authorisation.

In addition, although not coal mining, but, nevertheless, still within the authorisation, Mount Gingenbullen has had mining, as indicated in the lidar image below. The whole issue of greenfield is not relevant to the Hume Coal proposal, so why has it been plastered throughout the file? With regard to tourism, this is an image of the canola fields that have attracted hundreds of tourists to the area. They're going to

make them more accessible this year and make them positive for the community. The Remembrance Driveway facilities on the Old Hume Highway need a facelift and Hume recognises Australia's contribution during the Korean war and the grateful respect that South Korea has for Australia's sacrifice and we'd like to do something there.

Hume has assisted the New South Wales Fisheries to restock Medway Dam for quiet fishing activities. Hume is to seek input from the community on how to get the best out of Mereworth and its gardens. Hume will continue to support the local community. In terms of heritage, Hume extended an invitation to the Heritage of New South Wales to visit through – we extended this invitation through the Department to visit Mereworth, to see the property for themselves. This invitation was reportedly never passed on to Heritage by the Department. Heritage New South Wales, in their agency report, claimed that they had conducted their own assessment on Mereworth and the Hume Coal project.

When asked to provide a copy of this assessment, they sent back historic work done by others. Further requests fell on deaf ears and so a formal complaint was made regarding their submission and a meeting was held with Heritage following that. During discussion, while some of the people present dug their heels in and maintained the claim about their assessment, their team leader acknowledged ..... undertaken – they had not undertaken a professional assessment of the Mereworth house and gardens and apologised. This took courage and leadership and I openly acknowledge the team leader for correcting this.

Because of their view regarding cultural landscape, Heritage recommended, at the very least, that all the native screen trees and shrubs planted by Hume – some 4000 – should be removed following the completion of the project. Like most of the Heritage claims, I find this all just a bit hard to swallow. I want to go back to the IPC transcript with SHCAG from 2019 and on the left-hand side there you've got the quote – the text of the transcript, itself, and someone saying, "I didn't assume any longwall mining." Hume objected that I stimulated this as a longwall mine. At no stage have I represented this mine plan as having fracturing or anything longwall to do with it.

On the right-hand side, from the SHCAG report, 2014, their own groundwater study, highlighted there by the red circle and underlined in yellow, talk about simulating the impact of the fracturing of the Hawkesbury Sandstone that will occur as a result of the substance caused by longwall mining. I don't know how you can reconcile both aspects. This image shows the SHCAG water model on the right-hand side in plan view and ..... and in the centre there that's a copy of the front of their report, the 2014 groundwater study. You will note that, in the right-hand side at the top, there's about 160 metres of dry down indicated and stretches from the far north of our exploration licence there in the pink, the outline, and goes down to Bundanoon.

In the sections, however, it's a little bit hard to actually read the ..... and the scale of that dry-down but if you go to column 50, and scroll across – I've blown it up here –

and, again, you can actually see that this goes down to zero to sea level. Their water model actually shows the dry-down goes down to sea level and if you note, again, figure 35 down there in the bottom, talks about with fracturing. The water model is inappropriate.

Again, another IPC meeting with SHCAG. You can see here this last bit – image, this was part of ..... group, which you can pick up on the department's website if you want to go digging for it. There's an ATE in the middle there, there's a whole heap of words there, and I've put a red circle around it. This has been placed and obscures the existing words but let me go to some of the text first. And we're looking down here about one kilometre depth here and around 500 metres to the base of these boreholes here. The depth ..... is actually about 500 metres. So it's close but you're still not right in the scheme of things. The boreholes are about 100 to 120 metre depth here. Not 500. That's a pretty significant stuff-up.

Our deepest hole in the entire lease is actually only 215 metres and HU0019PZA, piezometer A, is only 108 metres deep. It's pretty clear these guys simply don't know what they're talking about. The Wongawilli seam has a range of depths between 80 and 180 metres depth but these people just seem to be out of their depth. So this is the original screen print of that seismic line. You can see the yellow boreholes. I don't know if you can see my mouse there showing HU24. And over here 19PZA and PZB, two holes alongside, measure the water models, and water levels, etcetera.

Over here, if you read through that, you would say that the interpretation notes, this is from ..... who actually undertook the seismic work and then made the interpretation after doing all their work on it. The data is poor data quality primarily due to the adverse nature and near surface conditions which exist. For the reason – for this reason, no structures have been interpreted with any confidence. An attempt to map the WW horizon has been provided. However, due to the poor quality data, this interpretation should be used as a guide only. So those notes were covered up previously. I can't tell you whether it was deliberate or not but it was certainly an obstruction of trying to get the information to the IPC.

So where on earth is this? You can see down in that middle section of the aerial photograph, 19PZA and B, and then 24 further to the south. This has now been relinquished. It clearly shows the borehole on the right-hand side with a coal thickness of about one metre and, as Mr O'Donoghue noted this morning, some of this area has been eroded away, and that also shows the depth of the borehole there at 108 metres. So this line, really, is irrelevant to the mine plant. For a long time we've been criticised as having no geological information. The SEARs did not request or require any geological information. Nevertheless, all geological information was provided to the New South Wales Government ..... the department, within the government, reviewed their data and issued statements to the effect that coal resources were economic.

Hume has significant geological data and the image on the right there is surface magnetometer work that has been undertaken and I know the Commission is interested. That dark line running in that direction from the southwest to the northeast is actually the gas pipelines. The white areas are actually homes and dams on the property. And that line running to the northwest is actually a full feature. Perhaps one of the biggest things I'm pleased with with the Hume project is that it's providing 300 full-time equivalent jobs. They are very, very different roles, environmental, surveyors, geologists, engineers, etcetera.

We have over 700 people on our ..... expressed an interest in working for Hume and more than 10 per cent are women. That doesn't include potential flow-on jobs. I've kept this slide in: Women in Mining Dr Germaine Joplin Order of Australia. She has actually undertaken work on Mount Gingenbullen. She is an early woman in mining. You can see her safety helmet there adorned with daisies and her field book under arm and armed with her geological pick ready to do work.

At a glimpse, Hume have the water licences in place to account for water use. Made good is feasible. We will maintain active farmland above operating mine and alongside mine infrastructure. It's innovative and environmentally sustainable. We have low greenhouse gas emissions and aim to have negligible scope 1 and 2 post-mitigation. All surface infrastructure to be fully rehabilitated following cessation of operations. The project uses significant existing infrastructure for Moss Vale to Port Kembla Rail, the Port Kembla Coal Terminal, and the BlueScope Steel.

We will be instituting ..... there will be zero trucks for product movement, exceptionally low impact to heritage, we satisfied ..... there will be no leakage, underground rejects and placement, no remnant surface stockpiles. We have positive economics over $200 million and net economic benefit. Establishing long-term relationships with local community organisations. 400 full-time equivalent jobs during construction and 300 full-time jobs during operations. The project ..... very good environmental credentials, good economics with significant economic flow-on benefits, the product is very much in high demand, it's a metallurgical coal, groundwater impacts are reversible and will recover. There are no irreversible impacts.

Groundwater boreholes impacts can be made good. The Pine Feather operation will see safe mining operations. There will be minimal surface substance impacts and Hume Coal will deal openly and fairly with all landowners affected. Commissioners, I commend this state significant project to you and look forward to your decision. No pressure but hundreds of jobs depend on you. Thank you.

MR DUNCAN: Thank you. Thank you, Rod. Thank you for your presentation. I will open it up for some questions if you're comfortable with that.

MR DOYLE: Absolutely.

MR DUNCAN: Are there any questions?

PROF CLARK: Thank you, Peter. Can you hear me?

MR DUNCAN: Yes, we can.

PROF CLARK: Just one question for you, Rod, and happy for you to take it on notice, if you wish. You mentioned a high level of geological information in part of your presentation today and I'm wondering if you can make a comment for me on what classification of mineral resource you've put on the resource there?

MR DOYLE: So you're specifically asking about the coal resource or are you interested in JORC issues?

PROF CLARK: I guess if you're able to give a classification according to the JORC code that would be helpful.

MR DOYLE: I will take that on notice just so that I provide the correct and accurate data. There have been ample reports written and I'm sure there is one in the summary in the EIS or the RTS. But I will provided that information through Lindsay.

PROF CLARK: Thank you, Rod, and if you could point me to the specific part of the report, that would also be very helpful.

MR DOYLE: I'm sorry, I just didn't catch that last bit, Alice.

PROF CLARK: Thank you. And if you could point me to the particular part of the report where that's referenced that would also be helpful.

MR DOYLE: Thank you.

MR DUNCAN: Any other questions at this stage? Looks like it was a very comprehensive presentation. Thanks, Rod. Thanks for your presentation today.

MR DOYLE: Pleasure. Thank you very much. Thank you, Commissioners.

MR DEIGHTON: All right. Well, Peter, that brings us to the end of our morning session. We will come back at 12.15, 12.15 eastern time, and that will be the afternoon session. See you soon.

MR DUNCAN: Thanks. Thanks, everybody, for presenting today. Bye.

ADJOURNED **[11.30 am]**

RESUMED **[12.15 pm]**

MR DEIGHTON: Welcome back to the second session of the Hume Coal Berrima Rail Project public hearing from the Independent Planning Commission. Our next speaker is Mr Chris Kim from Hume Coal. Mr Kim, good afternoon.

MR KIM: Good afternoon.

MR DUNCAN: Good afternoon, Chris. Please proceed.

MR KIM: Thank you. My name's Chris Kim and I'm the general counsel of Hume Coal. I have 13 years post-qualification experience working in top tier firms and with the last eight years with Hume Coal. Over the last eight years I have reviewed every single coalmine and development approval case in New South Wales, and other key cases, and every single assessment report issued by the DPIE. Based on my experience, I regret to advise that the final assessment report issued by the DPIE, or FAR, is a mixture of incorrectly applied law and inconsistently applied standards. Can the Commissioner see the PowerPoint slide?

MR DUNCAN: Yes. It's quite small, but we can see it. Yes.

MR KIM: Small. Okay.

MR DUNCAN: Well, you read to it, Chris, because we'll get a copy of it, I assume. So we can - - -

MR KIM: Sure. I'll go through it, just the main highlights, and we'll follow-up with a written submission.

MR DUNCAN: Thank you.

MR KIM: I'll be discussing how the precautionary principle is misapplied; how a non-existent greenfield assessment criteria is made up; how the treasury guidelines is incorrectly and inconsistently applied to remove all employment benefits from the net economic benefit calculation, and how the adequacy of the make good dispute resolution are inconsistently applied.

The sole effect of the precautionary principle is to deny one excuse for avoiding mitigating measures. It states:

> *If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. This has been consistently applied in the courts to mean just what the principle says; that the precautionary principle permits taking of preventative measures without having to wait until the reality of threats become fully known.*

That's the Land and Environment Court in the Telstra v Hornsby case.

So if the principle applied, Hume Coal is prevented from, like, using lack of full scientific certainty as a reason for postponing measures to prevent environmental degradation. Hume Coal has not, and will not, use lack of full scientific certainty as a reason for postponing mitigating measures. For example, unlike other coalmines recommended for approval by the DPIE, it's not a open cut or long wall. There's no fracking subsidence, permanent reject and placement above ground, water discharge during or after operation, permanent water table drawdown, and the coal will be delivered by covered trains, not trucks. It's not in the drinking catchment special area or under a lake.

Hume Coal is open for the IPC imposing further mitigation measures in light of the precautionary principle; that is, the precautionary principle is not a reason to refuse a project, which is precisely what the DPEI is trying to do. I have two quotes from their file where they state that it would not be inconsistent with the precautionary principle and therefore should not be approved. This is precisely the paralysing behaviour that the Land and Environment Court warned against. I quote:

> *If the precautionary principle were to be interpreted in this way it would result in a paralysing bias in favour of the status quo. The precautionary principle so construed would ban the very step that it takes.*

To explain that, what the court is warning against is, for the precautionary principle to apply it needs to mandate a mitigating measure. That's the effect. But if the project as a whole no longer exists because of the precautionary principle there is no impact to mitigate against, in which case the precautionary principle could have applied, which means the precautionary principle couldn't have applied to cancel the project, and so on. What the DPIE is seeking to do with the precautionary principle is going back in time to shoot your younger self, which creates a paralysing paradox. Because if you're younger self doesn't exist how could you have grown older to develop the time machine to shoot yourself? It's an impossibility. More importantly, it's an error of law if adopted by the Commissioners.
There is no Case Law act, regulations or planning policy that provides that a greenfield site is an assessment factor, or that a greenfield site is subject to a higher threshold. And yet the DPIE made up this criteria to recommend refusal, as seen by the excerpt in the slide.

The sentence from the strategic statement on coal exploration mining in New South Wales quoted by the DPIE explicitly states that it applies to release of new areas for coal exploration only. Hume Coal project is not seeking a release of a new exploration licence. So the excerpt that the DPIE used has no bearing on this project. The DPIE has invented a new standard just for Hume Coal from a sentence that doesn't even apply to Hume Coal. They really are throwing the kitchen sink at this.

Do you know what does apply from the strategic statement; areas that are prohibited from being granted coalmines. You can see on the right side of the screen that the areas marked with red near the region of Gunnedah is prohibited from being granted coalmines under the strategic statement. In contrast, you will see on the left-hand

side that the area near Hume Coal is not marked in red and therefore is not prohibited by the strategic statement on coal.
So not only did the DPIE take a statement regarding new exploration lease areas and try to apply it to Hume Coal, the DPIE ignored the section that did apply to Hume Coal. One rule for Hume Coal and another rule for everyone else. This new greenfield standard that is invented from an incorrectly statement will be an error of law if adopted by the IPC.

It is incorrect for the DPIE to discount a net economic benefit by employment benefits assuming that every employee would have been employed elsewhere, because the treasury guidelines do not apply to a private project; they only apply to private – public projects, excuse me. This was put forward by the DPIEs independent economic reviewer, and it was adopted in the DPI – in the FAR. Interestingly, the same external expert, BIS Oxford Economics, stated the same thing at the Tahmoor project, recommending that the net economic benefit should be reduced by the employment benefit pursuant to the treasury guidelines. However, in contrast, the DPIE didn't discount Tahmoor South Coalmine's net economic benefit by the employment benefits. Another example of one rule for Hume Coal and another rule for everybody else.

The make good resolution, Hume Coal is not asking for a special treatment; we just want to be given the same condition of consent that everybody else in the state receives. It's a standard compensatory water condition that's given to every single worked coalmine. The fact the DPIE keeps on accusing Hume Coal's make good process as being unworkable is a farce, because this isn't Hume Coal's dispute resolution. The only place that the make good is referred to is in the legal documents, is in the Aquifer Interference Policy, which simply states that the make good provision should apply.

The Aquifer Interference Policy is not Hume Coal's document; it's the government. We didn't issue it. We don't manage it. It is illegal and illogical for the government to criticise the proponent regarding the adequacy of a process that the government implements and manages and regulates. But we are just asking to be treated the same as everybody else. If the district regulatory system is fair for 46 bores, Tahmoor South, the system is fair for 94 bores. They're both the same orders of magnitude. If the legal system is fair for a citizen it should be fair for every single citizen no matter how many people are using it. Either the system is fair or it is not. We're just simply asking for the same treatment.

Another example of DPIs double standard is that the DPI reduced the 46 in the - of the - 46 bores in the Tahmoor project to 10 because of the reasoning that the drawdown effects are largely unnoticed by most bore users, yet Hume Coal doesn't get the same discount. And the lengthy legal dispute that the DPI mentions does not exist. For example, one-third of bores need money for the water pumps that will suck harder because the water is slightly lower. If the landowner refuse money - to refuse to receive money from us Hume Coal can simply put the money in the envelope and put it in the letterbox. Where is the dispute?

As an officer of the court I can confidently say that Hume Coal is the most environmentally safe mine design put forward in New South Wales. My only hope is that similar to the IPC panel members of the Dendrobium project the Commissioners will regard the FAR but one of the very submissions, and in doing so you would test assertions contained in the FAR for its veracity, and assess this project on its own merits. Thank you.

MR DUNCAN: Any questions for Chris at this stage from the panel? Thank you very much, Chris. Thanks for your presentation. We will now go to the next speaker.

MR KIM: Thank you.

MR DEIGHTON: Thank you, Mr Kim. Rowan Begg from Hume Coal is next. Mr Begg, good afternoon.

MR BEGG: Hello.

MR DUNCAN: Please proceed, Mr Begg, and welcome.

MR BEGG: Thank you. My name is Rowan Begg and I work as the Farm Asset Manager for Hume Coal, and have been employed as such for the last two years. I grew up on farms, and have tertiary qualifications in agriculture. I have managed large farms and worked as an agronomist advising farmers. In my role with Hume Coal I oversee the land use and maintain the infrastructure, including houses and gardens.

The first point I want to make is about social and community bullying. Every contractor and small business that I've had the pleasure of working with, such as electricians, plumbers, builders, gardeners, mechanics, etcetera, are all in favour of the project; however, they have been intimidated by bullies and standover merchants into saying nothing. This is because they are worried they will lose business and revenue. We have been told of residents visited at night by objectors to the project, and in some cases forced against their will by these bullies to not only erect a sign opposing a project, but have to pay for it as well when they didn't want it in the first place.

The level of intimidation is unprecedented, perpetrated by a few heavy hitters in the media and in political circles who think they know everything but in reality don't understand the project. Examples of misinformation spread through the community include it will be an open-cut mine, the district will resemble a lunar landscape like the Lower Hunter. Other people think it's a coal-seam gas project. People think the miners will drown in an aquifer of water. Others think the coal dust will billow over the district and cause them to get sick. These rumours have been spread with the intention of scaring people into opposing the project. In my dealings with the locals in this district over 95 per cent of the people I've met and talked to are in favour, but they are afraid to speak up. What sort of fair play is this? I don't seem Hume Coal

threatening anyone. Bullying shouldn't be tolerated in any instance or situation, and I'm disgusted these bullies think it's okay, but it's not okay.

Secondly, farming will continue. There will be no plumes of coal dust billowing over the district. No contamination of soils or pastures under this proposal. This means livestock can be grazed alongside the infrastructure of the mine. Every available hectare will be used for agriculture because the mine will have no impact on the productivity of the surrounding land, that includes land owned by POSCO and land owned by neighbours.

Thirdly, with regard to water use by local landowners. Many of the local landowners are small farms of 40 hectares, which classifies them as a hobby because it's not the main source of income for the owner. A farm of this size can run up to 40 head of dry cattle if they really push it. Most would only run 25 to 30 head of breeders. On average cattle use from 40 to 100 litres of water per day per head depending on the temperature. In peak summer at a temperature of 40 degrees Celsius a lactating beef cow will drink about 100 litres of water. A dairy cow drinks more but there are no dairy farms above the mine. 30 beef breeding cows would need 100 litres of water per head per day on extreme days, which is 3000 litres per day in total, or 125 litres per hour maximum. A low producing bore in the coal mining area produces about 1800 litres per hour. According to the Elders Weather website over the last 20 years on average only six days per year are above 40 degrees Celsius. Heatwaves are rare, hence maximum water use is also rare.

Of course, landowners have the right to use the water in whichever way they like, even if it might be considered inefficient by some. If they claim they're using all their water for the stock I would find that very hard to believe, but who would know; nothing is monitored. There are a couple of water intensive users, including a private golf course, an olive farm, among other enterprises, and the pledge by Hume is they will make good if the water supply drops. The make good system works for every other underground mine in the country. Examples of make good include putting the bore pump further down the hole, increasing the size of the pump, drilling a new bore, piping or even trucking water, to name a few. This will be dealt with on a case by case basis as every landowner is different.

In my opinion the benefit to the community far outweighs the inconvenience of a handful. Having said that, anecdotally other communities such as - near a mine, such as up at Orange in the Cadia Mine, they've reported an increase demand for housing putting positive pressure on real estate values, hence property prices will increase due to increased demand for housing. No one will lose. Every time the opponents of this mine purchase any item that has steel in its construction, like a car or a household appliance and every time they flick on an appliance or a switch, they connect to grid power, and they are continuing the demand for coal, and, therefore, the demand for this mine. Thank you.

MR DUNCAN: Thank you. Thank you, Rowan. Any questions at this stage for Rowan? No. Thank you again for your presentation today, Rowan.

MR BEGG: Thank you.

MR DEIGHTON: Up next we have Mr Viv May who is the Interim Administrator for Wingecarribee Shire Council. Mr May, are you there?

MR MAY: Yes.

MR DEIGHTON: Good afternoon.

MR MAY: Thank you. Vivien May is my name, and I'm the Interim Administrator of Wingecarribee Shire Council. You would be aware the Minister for Local Government suspended the council in early March 2021, and today I put the position of the formally elected body. Council made a submission on the Hume Coal Project EIS in June 2017, and it is from this submission that I will talk today. I will not read the whole submission, just make a number of points to keep time to the minimum. I will helpfully submit a further copy of the whole submission to you.

Wingecarribee Shire Council has been concerned about the prospects of a new coalmine in the shire since 2010. Council has adopted a policy of opposition to any new coal mining because of its concerns over the potential impacts on groundwater, water catchments, agricultural land and tourism. Council has adopted many resolutions since this time that reflect its long-held position. In 2016 the council reaffirmed this position, declaring the shire as a coalmine-free shire, and placing signage for this declaration at the shire's entry points.

The shire is located on Sydney's doorstep in the Sydney to Canberra corridor. Much of the shire's current growth and opportunity are being driven because of these regional influences, and the shire is not in the need of a growth stimulator such as the mine proposed by Hume Coal, rather it is argued that the impacts from a new coalmine puts some of these regional opportunities at risk. Protection of the region's water assets is fundamental to the agricultural industry, and these are the foundation of our future growth and economic opportunities. The majority of the shire falls within the Sydney drinking water catchment area, and the integrity of this catchment is critically important to the residents and economy of Greater Sydney and New South Wales.

The impact on both surface water and groundwater resources is one of the most contentious parts of the proposal. It's always been known that a new mine was going to impact on these water resources. The community has been concerned about these impacts from the start of the Hume Coal project and this has been the key message of the ongoing concerns. The EIS and successive reports have not silenced the debate on the impact on water.

The reports show a high level of impact on ground water resources triggering Aquifer Interference Policy provisions across more than 90 bores. From all reports, and considering the size of the project, this level of impact is unprecedented. This is alarming and a strong indicator that this is the wrong region for a new coalmine.

Tourism is well established and one of the key economic drivers for Wingecarribee Shire. Along with its natural, rural and heritage appeal of the region, our tourism identity also includes growing – a growing food and wine sector and a number of niche markets, startups and other opportunities. It can be argued that one of the Southern Highlands' key tourist attractions is the historic village of Berrima. In fact, Berrima has just won the New South Wales top tourism town category in 2021.

Berrima is located just two kilometres from the project area and is one of the best conserved towns from a colonial period in Australia. The surrounding landscape and rural setting is integral to the attraction as a tourist destination. The uniqueness of the village attracts a sizeable number of tourists each year which has a flow-on effect for the rest of the Southern Highlands. There are fears that an impact on the tourism appeal of Berrima could be felt by the whole area. Protecting visual amenity from a project of this scale cannot be achieved by any amount of conditions of consent. Tree plantings will not remove the impact.

The undulating nature of the shire will mean that the mine will be visible at numerous vantage points across the landscape. Even glimpses of views that have negative connotations impact on the perceived aesthetic qualities of the landscape. The social impact of the proposal is a major concern for council. The Hume Coal project is already having a significant negative impact to residents in the shire. For the past 11 years the threat of a new coalmine has caused considerable distress to some members of the community. This concern has distended well beyond the hundreds of property owners in the exploration area, but also to residents and businesses across the shire.

Residents have been well informed and well organised in campaigning against the proposal because of the potential impacts from a new mine. The community have organised campaigns, rallies, public meetings, information centres, public gatepost signage campaigns and petitions throughout the 11 years. Considerable fear and anxiety on some of our community over the impacts of the coalmine would have on their environment, to their properties, their farms, their livelihoods, their health and their way of life. Many residents have had poor personal experiences with coal – Hume Coal. This has ranged from having their properties earmarked for exploration, the mine wanting access to their properties and bores, forced arbitrations, property blockages and even court cases – blockades, I should have said, and even court cases.

This community are not radical advocates. Rather, it includes farmers, business people, property owners, parents, grandparents, families, locals both short and long term, and people who just want to love this area and who want to protect it. Their concerns are genuine and well grounded and relate to impacts on the region's important groundwater resources, agriculture, business, tourism, biodiversity and character. The Hume Coal project is already having a physical and mental toll on residents in the shire. Residents have described their fears, their feelings of anxiety, fear, angst, depression, traumatisation, helplessness, uncertainty and stress. These types of social impacts are unlikely to disappear quickly.

No amount of tree screenings, barrier, making good, offsets, buybacks, or other conditions of consent are likely to resolve this social impact nor turn the project into a no-impact mine. In conclusion, and on behalf of the Wingecarribee Shire Council and this community, I appeal to the Commission to endorse the recommendation of the Department of Planning, Industry and Environment to reject the application with a view to its obvious impacts and to bring this marathon to an end for all parties. Thank you for listening to me today.

MR DUNCAN: Thank you, Mr May, and if you have time, Chris Wilson has a question for you.

MR WILSON: Thank you. Mr May, just since council made its submission, has council now formalised its local strategic planning statement?

MR MAY: Try and pick up the – has the council - - -

MR WILSON: Formalised its local strategic planning statement.

MR MAY: Yes, it – it has, but the question of the housing strategy is being reviewed. It was reviewed by the Wingecarribee panel last week and it goes to council on Wednesday night.

MR WILSON: Okay, but in terms of your submission, this submission was made in 2018, the statement generally reflects council's position in this – in your original submission, so - - -

MR MAY: Yes.

MR WILSON: - - - statement.

MR MAY: I'll have to – have to take that on notice, but I – I'm pretty confident the answer is yes.

MR WILSON: Fine.

MR DUNCAN: Thank you.

MR WILSON: Thank you.

MR MAY: Thank you.

MR DUNCAN: Thanks, Mr May.

MR MAY: Thank you.

MR DUNCAN: Thanks for your submission today.

MR DEIGHTON: Okay, our next speak is Nic Clyde from Lock the Gates. Hello, Nic.

MR CLYDE: Good afternoon, Commissioners.

MR DUNCAN: Good afternoon, Nic. Please proceed.

MR CLYDE: Thank you very much. I'm joining you from Gadigal Country in Sydney. I'm just going to share my screen. Bear with me just for one moment. Okay. Are you able to see that? Ladies and gentlemen? Yes. Great, okay. Thank you. So – yes, there's a slide of Jimmy Barnes opposing Hume Coal's mine here. What I would like to do just in the next nine minutes or so – and I'm appearing today on behalf of Lock the Gate Alliance – is just talk about where Lock the Gate has common ground with the department in their assessment of this mine, talk about the context of your mine assessment and why the Southern Highlands community is opposed to this mine, and also just touch at the end on what has changed since POSCO acquired this project back in 2010 and what I think the implications of that are for your determination.

So in terms of common ground, we absolutely agree at Lock the Gate that the impact on groundwater is unacceptable. We agree this is not an appropriate location for a greenfield coal mine, and we agree that this mine is not in the public interest and should be refused consent. Where we don't agree with the department is that the climate impacts should be characterised as minor in the global context or in Australian context then – and can be managed by things like planting trees on the site or by only burning coal locally in Australia or in countries that have signed the Paris Agreement, but I will come to that shortly.

In terms of the strategic context for this project, as I mentioned, you know, 11 years ago POSCO acquired this project and almost immediately the project was running into opposition from the local community, and here's the Southern Highlands Coal Action Group with an early demonstration about this project back in December but almost 11 years ago now. Wingecarribee Shire Council has just read this tremendous statement from their submission, so I won't reiterate that, but it speaks to this question of the broad cross-section of the community in the Highlands opposing the mine. What have – what have groups been doing? What's the community been doing over these 11 years? Well, many, many things to make their views known about this mine including protests. Here's one that I joined in Sydney, almost as soon as I joined Lock the Gate Alliance back in October 2015, led by Jimmy Barnes.

My – my screen has – appears to have just frozen. Sorry about that. That's just annoying, sorry. There we go. The community has organised fundraisers. There's some of the best known artists in Australia organising a fundraiser doing some artwork down at the mine site through Watters Gallery, Reg Mombassa doing an artwork there in the foreground. The community has done all kinds of awareness raising. There is an ad on a local taxi in the highlands talking about the campaign and why it's important to protect this area and protect tourism. There have been

events and issues briefings. Here is one organised by Coal Free Southern Highlands. Here is another one, organised by Battle for Berimah, interrogating impacts on water that this project would have. And, of course, there have been precedent-setting legal interventions from the local community. And I believe you have already heard about some of those directly from Coal Free Southern Highlands in your meeting with that organisation.

Local organisations have produced expert reports. Many such reports, including one that won an award from the National Trust that was trying to investigate ways to protect that incredible heritage in the highlands from Hume Coal Mine. And, of course, there has been lots of opinion polling, community surveying outreach with the highlands community. And that has found overwhelmingly that the community does not support the mine, does not want it to go ahead. It has no social license for many reasons. Some of these were communicated directly to the premier by Battle for Berrimah off the back of their extensive community consultation. And there they are with the premier and the local member at the time, Pru Goward. Now, this sort of work led, ultimately, to communities declaring themselves democratically coal-free. And there's an event I attended in Berrimah many years ago to make that opposition known clearly to decision-makers.

And, of course, all of this community opposition doesn't come from nowhere. It comes because this mine would have very significant impacts on the community and, of course, on water. I don't have time to go into detail on that, but you will hear much over the next two days about the impacts of this mine on groundwater resources. Ultimately, that and other reasons, as you know, led to the government itself recommending this mine should be approved, which we agree with and endorse that position.

So now I would just like to come to the areas where we do – we don't agree with the Department of Planning and Environment, and that is on climate. And I would ask you, commissioners, to make a different finding to the department on climate with this particular mine assessment. When Hume bought the coal – this project back in 2010, as I mentioned, a lot was different in the world, including the concentration of CO2 in the atmosphere. So there we are, 386 ppm back in 2010. Eleven years later, still no decision on this mine, the PPM has risen to 411. That's almost a 10 per cent increase. And they – and, you know, the mine hasn't even been started yet. That already, 411 parts per million in the atmosphere, is creating change, as you know. And we saw that horrific fire season, with experts declaring that that fire season has now been extended by four months in parts of Australia, leading people like the New South Wales minster for energy to declare look, this is not normal. We need to do something about this. We need to take action.

But, of course, he's not alone. The Australian Academy of Science and scientists all around the world urging governments to accelerate the transition to net zero or risk diabolical consequences of a three degree warm up world. And they're not alone, either. The United Nations doing the same – urging world leaders to declare a state of emergency and get serious about action. There is the UN secretary-general urging

all OECD countries to commit to phasing out coal by 2030 – or thermal coal generation, at least, by 2030.

But, of course, companies like Hume Coal want to keep developing coal projects as though nothing has changed and want to pretend that they are consistent with Paris agreement pledges. They are not. And, you know, some of the biggest investors on the planet realise this. There's BlackRock vowing to divest from thermal coal, the world's biggest investor. Here in Australia, we have one of the world's fastest transitions to renewable energy. That's the country that we are living in. In our state of New South Wales, Reputex say it's quite possible that we could reach 100 per cent renewables by 2030. There is absolutely no need for new thermal coal mining in New South Wales.

Here's South Korean president Moon Jae-in at President Biden's recent climate leaders summit announcing that the Korean government is going to end public overseas coal financing and enhance its own targets before 2030. Here is the International Energy Agency saying that we cannot afford any new investment in any fossil fuel supply projects and remain on track to reach 1.5. We don't have time to go into the detail of what that means for steel production, and I note of course ..... I'm hearing myself in echo there. I don't know what's happening there.

So we don't have time to go into the ins and outs of the transition and the speed of the transition to coal-free steelmaking. But suffice to say that the IEA says we need to rapidly scale up our efforts in this department, and we need, by the end of this decade, to get to a point where there is significant amounts of steel being produced from hydrogen. And analysts expect there's going to be a massive increase in momentum towards that goal.

Starting to run out of time, so I will just cut to the end here just to say that commissioners, I hope you will make a finding that is consistent with the Australian Academy of Science, the United Nations secretary-general, the International Energy Agency and the Federal Court of Australia's recent finding that these emissions from Hume Coal's mine are significant, that like with the Vickery Coal project, you as commissioners have a duty of care to protect people, including children, from the impacts of climate change. I note that that Federal Court case describes emissions that are remarkably similar in mass to the emissions predicted from Hume Coal's project – almost identical, actually – about 100 million tons.

And finally, that – I would just like to finish by quoting Justice Bromberg in his Federal Court decision, who said, you know, adults who continue to approve new fossil fuel projects are committing the greatest intergenerational injustice ever inflected by one generation of humans upon the next. And commissioners, in terms of your own responsibility in this department, I do note that in the two and a half short years that the IPC has existed, you have already approved eight new projects that between them are already committing more than a billion tons of new emissions to the global climate. Please do not participate in this intergenerational injustice any

further. Please refuse consent, and when you do, please make a strong finding on climate in your determination. Thank you.

MR DUNCAN: Thank you, Nic, for your presentation. Any questions for Nic? No. Thank you, Nic.

MR CLYDE: Thank you.

MR DUNCAN: ..... speaker.

MR DEIGHTON: And our next speaker is Brigid Kennedy from the Moss Vale and Rural Chamber of Commerce. Brigid, good afternoon.

MR DUNCAN: Are you there, Brigid?

MR DEIGHTON: Can you hear us, Brigid? I think you might be on mute.

MR DUNCAN: Yes. We think you're on mute, Brigid.

MS KENNEDY: Okay. Thank you. Can you hear me now?

MR DUNCAN: We can hear you now, so please proceed. Thank you.

MS KENNEDY: Thank you. I sit here today as president of the Moss Vale and Rural Chamber of Commerce. I also hold the position of vice chair of the Food and Wine association. And I co-chair Ag and Equine for our Southern Highlands Stakeholders Group, which is an industry group. I would first of all like to speak from the Moss Vale and Rural Chamber of Commerce portion. Can you hear me all right?

MR DUNCAN: Yes, we can.

MS KENNEDY: Yes. We have – you may already have heard about our new project coming in to Moss Vale called True Green, who are proposing to put forward electric buses, cars and manufacturing of trucks. And they are proposing 2,000 jobs. I advocate for them that I think that having Hume Coal when we've got such a strong green potential for 2,000 jobs, which I think trumps by about six or seven times what Hume Coal is proposing – that it would hurt our clean and green image that we are wanting to put forward with this new project.

From the point of view of being head of Ag and Equine, I'm going to quote from you - for you from the UTS - done a project that was a study on Sydney's food bowl. It was called, if you would like to look it up, the Food Futures Report, and it proposed that the Southern Highlands had a unique opportunity to be the last line of defence to maintain fresh food production in the Greater Sydney Basin, as we are losing our productive land to housing. So they propose in their report that there is the potential

for a million tonnes per year of food to come to this area. Now - to come from this area.

Now, with the amount of water resources that we're going to lose, as well as the potential contamination, and - and the wells that are being lost and - it is going to be quite significant. Of the area that we - we see that Hume Coal is going to come through with, there's quite a number - we only have 16 wineries, and it looks like we would lose - because they need their water, and so those bores are - are very much required. We're going to be losing about six of our wineries. That's a significant number to lose. We also have 300 registered with the ATO of beef producers in this region. When we lose our bore water, that will mean that those areas become unproductive, except when we have, you know, rainwater.

So we also have - this is the study that we have done of our - our four main areas of where our food production is going to be, which is beef, honey, and there's a great new fledgling industry where we have 20 producers currently and - being truffles, and then honey also is - is a big one that we need for this area for that million tonnes. So losing so many bores will mean that our food production is certainly not going to be reaching the targets that Sydney - that UTS have designed that this area can achieve. That is, you know, where we are also, of course, the bastion for - for water in a drought. You know, we all know that both Sydney and Goulburn needed our water from this area during the - the most recent drought.

Certainly, our farmers absolutely need it. We have also from an equine point of view - and what I'm trying to do here is point out that there are far better and more productive and aspirational jobs that will be coming from our food producers, as well as Racing New South Wales has put this - this area is where they want to be positioning themselves between here and - and - Sydney and Canberra, and certainly en route to Victoria. So tremendous opportunity with Racing New South Wales and tremendous opportunity for jobs. With the clean and green, that's absolutely what needs to be our backstop, and if we don't have that, they will look at those opportunities elsewhere, and that will also impact our - our younger workforce coming through. So in summation, I think that the - the jobs growth that we can see for our area by keeping it green and certainly without Hume Coal is - is far greater by rejecting Hume Coal in this regard. Thank you.

MR DUNCAN: Thank you, Brigid. Thank you for your presentation today.

MS KENNEDY: Thank you.

MR DUNCAN: We don't have any questions for you, so thank you again for your time.

MS KENNEDY: Thank you.

MR DUNCAN: The next speaker.

MR DEIGHTON: Our next speaker is Peter Martin, who is the president of Coal Free Southern Highlands. Mr Martin, good afternoon. I think you might be on mute.

MR DUNCAN: Peter, I think you're on mute.

MR P. MARTIN: Good afternoon. Sorry about that. Look, I have had a chance to talk to the Commissioners regarding the project, but I just thought I would summarise couple of - a couple of things for you. I think this is a project that's full of risk and uncertainty, and I think that sums up any largescale project. You want to have some degree of certainty before you take it on. Sadly, this one is full of issues and full of concerns, and I'm not going to go through the laundry list, but they obviously include aquifer interference issues and they're very, very significant. Mine safety, water pollution issues, both underground and above ground, social and other environmental issues, and, of course, the impact on the heritage and tourism in - in the Southern Highlands, which I think others will have explained in more detail than I will.

I just want to touch on something though that I think is really important. This is not a not-in-my-backyard issue. I think there's a - quite a few of us who would be fighting this coal mining proposal whether it was here or somewhere else in New South Wales, or somewhere else in Australia, and I'm certainly in that category. I listened to Nic Clyde's submission from Lock the Gate and I think he summarised the climate change implications of any new coal mine, and dare I say it, the expansion of the oil and gas industry in the world on our carbon footprint across the world, and we cannot afford to continue investing or allowing major multinationals to invest in coal mining projects in Australia and feel comfortable that we're fulfilling our obligations to both our future generations and also others on the planet regarding the future liveability of this place we live on.

And I think that's absolutely critical. It's a critical concern - should be a critical concern for any decision-makers, and I must say I'm really disappointed that the Australian Government won't step up and take a stance on this like other responsible government are doing around the world, and I would - I would say that's - my main concern with this project would be - alongside the localised concerns, would be its impact on the climate change issue and its impact on our carbon footprint on the rest of the world. So I just support the Planning Department's objection to the project and emphasise that I couldn't agree more completely with Lock the Gate that the issue of the climate - of the carbon footprint should be front and centre in any consideration of any of these projects going forward, should have been in the past but should definitely be in the future. So thanks for the time, and I have no further comments to make.

MR DUNCAN: Thank you, Peter, and thanks for your presentation.

MR DEIGHTON: Our next speaker is also from Coal Free Southern Highlands, and it's Alan Lindsay. Mr Lindsay, are you there? You might be on mute, I think.

MR A. LINDSAY: How about that? Can you hear me now?

MR DEIGHTON: There we go. Good afternoon.

MR LINDSAY: Good afternoon. Look, I - Commissioners, I thank you for this brief opportunity to address the panel this afternoon. I'm the vice-president of the Coal Free Southern Highlands Community Group. As you know, Coal Free Southern Highlands had an opportunity to address the panel last Tuesday on more complex matters, so today I will restrict my comments on just a couple of issues. And - and, of course, particularly on groundwater. Now, while groundwater modelling may seem to be a - a peripheral issue to - to many, Hume's groundwater model is critical to their attempt to persuade the panel to approve the project, and, of course, once the project is approved, they have promised to sort out all the problems that people are predicting later.

This mine area has been subjected to intense volcanic stresses over the millennia, and yet we're asked to believe that a thin layer of semi-impermeable rock strata retards the flow of the water from the aquifer into the void created by the extracted coal. The picture Hume are trying to present to us is that the mine - the mine water that is extracted is modest, that their model allows highly accurate estimates to be made, and that - of the - the water that's coming out of the mine and the water table drawdown, and they have got a range of experts that they have got together, and - and we have seen several twists and turns over the years, as the model that the experts - and at one point might declare fit for purpose, find that the answer is not to their liking, and they modify it the next day, arithmetically, of course, increasing levels of precision and reducing the harm that the mine will cause.

The results produced by Hume's model fail the pub test for landowners and many professionals with extensive experience in the Southern Highlands' geology. DPIE Water also share the concern that the conceptual geological model for the mine does not fully reflect the uncertainties of the Sutton Forest area. The structure of the model may be world class, as we are repeatedly told by Hume and their experts, but the data that goes into it is not. Garbage in, garbage out. That's the way of models. Hume has certainly tried to fill some of their most serious data gaps. In 2014/'15, they forced a number of landowners through lengthy and costly arbitration and Land and Environment Court processes to justify the drilling of 90 holes, or even more, on several properties in the Golden Vale area.

Now, Hume lost in court. Only three of the holes were eventually completed, and while they were required to pay landowners' costs, many landowners were significantly out of pocket through this exercise. The company responded to this setback by stating that they didn't really need the data to progress their proposal after all, and is it any wonder in these circumstances why this company has so little credibility in the community. Hume's plan for Make Good is that their predictions of their groundwater model will be used as the basis for illegally binding agreement. They want landowners to sign before their properties are impacted by the mine.

Given the lack of trust between Hume and the community, you can guarantee that this will be very strongly resisted.

We appreciate the work of the DPIE assessors on this project and their forthright assessment of the Make Good proposals that Hume has put forward, an attempt - which amounts to an attempt to enlist the government to help curtail landowners' rights to their licensed allocation of groundwater. The DPIE has called Hume's proposal unworkable, and we could add a few more adjectives: unfair, amateurish and self-serving. In conclusion, we would like to put on record our appreciation of the strength shown by DPIE Water in standing firm on the inadequacy of Hume's groundwater model. Hume has been unable to convince the agency of the merits of their case, and they have now embarked on a petulant attack on the professional integrity of the agency's staff.

As I have indicated earlier, there are substantial reasons to justify DPIE Water's views on the inadequacy of the Hume model, and Hume's attack is unprofessional, to say the least. Commissioners, Coal Free Southern Highlands asks that you reject this proposal, and - and preferably that the government eventually will cancel the lease entirely. And I will have the opportunity, I know, to put in some additional material by June - July 20, and I will be doing that. Thank you for your time.

MR DEIGHTON: Up next is Derek White, also from Coal Free Southern Highlands. Mr White, can you hear us?

MR D. WHITE: I can. Can you hear me?

MR DEIGHTON: I can. Good afternoon.

MR WHITE: Good afternoon.

MR DUNCAN: Yes ..... .

MR WHITE: Good afternoon. My name is Derek White and I live in Mittagong. I would like to thank the Commissioners for allowing me to make a presentation today, particularly in these difficult COVID times. While I am listed as representing Coal Free Southern Highlands, I am actually wearing two hats today. The other one is - is chair of Wingecarribee Net Zero Emissions, or WinZero, whose name reflects the fact that we're an umbrella organisation for a range of environmental and sustainability groups in the Southern Highlands, with the primary objective of reducing greenhouse gas emissions in the area as much and as quickly as possible.

Therefore, it should come as no surprise to the Commissioners that WinZero strongly objects to this project. Given that we are all facing a true climate emergency, it is invidious that New South Wales is forcing us to endure a death by 1000 cuts, as new coal mines and coal mine extensions are approved in complete isolation without any reference to the cumulative impact of such proposals. We must stop digging previously untouched fossil fuels out of the ground and burning them to the

detriment of humanity. There are other options that can and should be implemented instead. Having got that off my chest, I now will don my hat as a technical advisor to Coal Free Southern Highlands.

I'm a mining engineer with over 40 years experience in the industry. However, most of this has been in the hard rock mining area, with little coal experience on my resume. I have, however, been closely involved in senior management roles in two major underground mines at the Mount Isa Mine in Queensland and the Endeavour Mine at Cobar in New South Wales. In those two operations, pumped hydraulic fill systems were an integral part of the mine design. Therefore, I feel eminently qualified to comment on what I see as a major potential fatal flaw in Hume Coal's mining proposal: the contemporaneous placement of 100 per cent of the waste materials from the processing plant back into the mine openings on a continuous basis.

In my view, this aspect of the mine plan has been grossly under-investigated by the independent experts who have been engaged to review it. I suspected that this may be because this type of fill system is rarely, if ever, used in the Australian mining industry, and to my knowledge, never used in coal mining in Australia, and I have not sighted an assessment from any recognised filling expert at any stage of this project evaluation. I have grave doubts that the proposed waste disposal system would work effectively over the life of the mine, and may not even work at all, and my reasons for saying this are: in the underground hard rock mines I mentioned, the fill material was carefully engineered to make sure it could be pumped long distances through complex mine geometry without causing excessive pipe wear and blockages that could seriously interrupt fill placement.

This involved dividing the waste material into two size fractions, one fine one that was pumped to a waste storage dam, and a coarser fraction that was used in the hydraulic fill. Never would 100 per cent of the waste material be used for this purpose. Extensive laboratory and pilot scale trials were carried out using a specialist engineering firm that had a track record in designing and constructing such fill systems. I have seen no evidence that Hume Coal has conducted such test work, and to my knowledge, has only carried out desktop studies. These Hume studies have focused on offshore operations in China and South Africa, which would undoubtedly have different material specifications and operating environments to that prevailing with this project.

I have only been able to identify two other Australian coal mines that have considered such 100 per cent placement of waste material in underground openings: Metropolitan Mine at Helensburgh, and this only after several years of extension largescale test work, and the other is an option at Centennial Coal's Lithgow mine, where it was rejected by a highly reputable engineering firm on the basis of complexity, cost and worker safety. Relevant papers on these were provided to the original IPC hearing. Following my submission that drew attention to the worker safety issues involved in the original fill system proposed, Hume Coal went to the trouble of engaging a consultant to come up with a supposedly better option. My

assessment of this option is that it depends on the successful introduction of a unique crawler-mounted remote control piece of equipment that to my knowledge has never been used elsewhere. What could possibly go wrong?

In conclusion, it is my firm opinion that there is a significant risk that the proposed waste-disposal system will not work properly and may not even work at all. In my extensive project management life, such high severity and high probability of risk would usually demand that the proponent clearly set out what steps will be taken to mitigate such risk. To my knowledge, Hume Coal has done no such risk assessment. In any case, the most likely mitigation step would have to be to establish a permanent waste storage tailing stand on the mine lease, which is expressly not allowed in the Secretary's environmental assessment requirements. Hence, my opening statement, that I see this system as a potential fatal flaw in the mine design. I therefore urge the Commissioners to endorse the recommendation of the Department of Planning, Industry and Environment, and not approve this project. Thank you for your time.

MR DUNCAN: Thanks, Mr White. We have no questions at this stage. Thank you for your time today.

MR WHITE: Okay. Thank you.

MR DUNCAN: Yes.

MR DEIGHTON: Okay. So our next speaker is Marylou Potts, also from Coal Free Southern Highlands. Ms Potts, good afternoon.

MS M. POTTS: Good afternoon. Good afternoon, Commissioners.

MR DUNCAN: Good afternoon.

MS POTTS: Thank you for allowing me to present today. I am a solicitor. I act for Coal Free Southern Highlands. I also act for many landholders in the Southern Highlands across this exploration licence area, and I have been acting for those landholders since 2011. This firm has an expertise in advising landholders in relation to their rights when a mineral or petroleum title holder seeks access to the land, and - and this firm has been successful in denying access to Hume Coal to large areas of the eastern portion of the current exploration licence, so that effectively, Hume Coal has not had access to undertake any drilling to a large portion of the eastern side of the ..... .

That has, we understand, consequences in relation to Hume Coal's mine design, and the implications of that is that those landholders will - will continue to deny access, and if the mine design seeks access to the surface across any of my clients' land for the purpose, for example, of the construction of vents for ventilation or for access purposes, that access will not be granted. This, we believe, will have implications for the health and safety of the workers underground, both in relation to ventilation and access to the surface. Across large portions of the eastern side of the - of the

Hume Coal - Hume Highway in the proposed mining leases. Section 81 of the Mining Act is the relevant provision. Section 81 states that the holder of a mining lease over any land may, with the consent of the landholder, carry out on the surface of the land any activities that are prescribed by the regulations.

So the consent of the landholder is essential. There are no prerequisites for this. There are no provisos for this. There's no requirement that - that anything but the consent of the landholder be required to undertake surface activities for a mining lease, and my instructions are that my clients will not will be granting consent to Hume Coal to access their land for the purpose of constructing, for example, vents for access or ventilation. That's the first point that I wanted to make. The second point that I wanted to make is actually quite a simple one. It's in relation to Make Good, and my instructions are that my clients endorse the view of the DPIE in relation to Make Good. It is not practicable.

The consent of the landholders will not be given to access the land for the purpose of water monitoring or any other purpose. There will be significant disputes across the - the highly populated area of the mining lease, and - and we envisage those disputes will continue for the life of the mine. So it won't simply be a single Make Good water dispute. It will be hundreds of Make Good water disputes which will embroil the Department, obviously the community, and - and the applicant for a very substantial period of time. These - these landholders have a great love of their land and they also have a - a vehement opposition to this project which has been demonstrated in the opposition to - to the project, which - which the Commission has seen. Anyway, that is the extent of what I was going to say today. Thank you very much for listening to my submission, ad if you have any questions, I'm happy to answer them.

MR DUNCAN: Thank you. Are there any questions? No. Ms Marylou Potts, thank you very much for your presentation today.

MS POTTS: Thank you.

MR DUNCAN: We have no further questions. Thank you.

MS POTTS: Thank you.

MR DUNCAN: I believe that concludes our speakers for this session, Troy.

MR DEIGHTON: That's correct, so we will take lunch now and we will come back at 2.30 eastern time. Don't forget it's not too late to have your say on the project. You can make a submission via email, post or the Have Your Say portal on the Commission's website, but we will see you back here at 2.30 pm.

ADJOURNED **[1.21 pm]**

RESUMED **[2.30 pm]**

MR DEIGHTON: This is the public hearing of the Hume Coal and Berrima Rail Projects. Our next speaker is Roderick Haselden from the Australian Institute of Mining and Metallurgy. Mr Haselden, good afternoon.

MR R. HASELDEN: Good afternoon and thank you for your time.

MR DUNCAN: Good afternoon, Mr Haselden.

MR HASELDEN: Today I would like to share with you – sorry, can you hear me?

MR DUNCAN: This is Peter Duncan speaking. Please proceed.

MR HASELDEN: Yes. Today I would like to share with you why I support the Illawarra – sorry, the Hume Coal Project. Full disclosure here: apart from having trained a few geologists associated with the - - -

MR DUNCAN: We've lost the .....

MR HASELDEN: - - - project more than 10 years ago, I am and the company I work for have no commercial interest in the project.

MR DUNCAN: Mr Haselden, can you – can you hear us?

MR HASELDEN: I can hear you.

MR DUNCAN: Okay. You're very – you're very faint. We can hear you.

MR HASELDEN: I will put my speaker up.

MR DUNCAN: That's much better. Thank you.

MR HASELDEN: Is that any better?

MR DUNCAN: A lot better. Thank you.

MR HASELDEN: Okay. So I will start again, sorry. Thank you for your time this afternoon. I would like to share with you why I support the Hume Coal Project. Full disclosure here: apart from having trained a few geologists associated with the project more than 10 years ago, I, and the company I work for, have no commercial interest in the project. Today I'm not here to change your views on climate change but I do highlight the need for sustainable development to meet demand during Australia's transition to a low, and later zero, carbon economy. On these matters I would like you to consider in your deliberations the AusIMM and how it sets the benchmarks for professional work and ethics in the minerals industry, my own

involvement with ..... of-mine projects and the renewal of sites post-mining and why this is a significant project.

The AusIMM is a ..... body that represents professionals in the mineral industry. Our members are subject to a code of ethics and professional conduct which is ..... each year with membership, renewal, and includes the following:

> *The safety, health and welfare of communities is a prime responsibility, anti-discrimination and equity, integrity and honesty, and to comply with laws and government regulations.*

I note that the project lead and other professionals have worked on the project are members of the AusIMM and it's their obligation to report and not be a party to any unethical behaviour. I take this even further to say that the level of consideration and detail in the assessments for the project have been huge and that the proposed design has been based on minimising and eliminating impacts to the environment and community which is both a sign of the mining industry adapting to community expectations but also the ethical drive for the project team that are also invested in the future of the planet for future generations.

Working for an engineer and consultancy, I have worked on a number of projects that provide a unique insight into the secondary opportunities and benefits that the Hume Coal Project could provide and that may not have already been presented and I would like to share to you. One of the major challenges in this project has been the impact on groundwater. The opportunity that has not been highlighted here is that, following completion of mining, or even following installation of bulkheads within sections of the working, is that an underground water reservoir will be created at the site. Even without infrastructure installed during mining, although mines ..... the shaft can be reutilised, the reservoir could be used to provide future drought relief to nearby farmers. Some of the mine sites I've worked at also use treated mine water to produce hay for nearby farmers.

The mine ..... predictions at the mine are the lowest I have ever seen on a project. As a matter of fact, the shrink soil movements of clay soils at the surface will exceed the mine substance predictions by at least two to three times, and possibly more. What used to be considered waste at a coalmine ..... granular, coal washery rejects, has been approved, including by the New South Wales EPA, for use as engineering fill for decades and is regularly used on residential, commercial and industrial developments in Wollongong as a reliable and approved source of engineering fill, including grazing flood prone areas and the demand is increasing.

Fine-grained tailings is also reused and recycled to be combined with shredded green waste to create top soil products. I honestly expect that these by-products of coalmining could be used leaving little or no waste from the operation. The footprint of the mine site will provide an opportunity for the redevelopment for industrial land with any road and rail links being particularly attracted to tenants. More than 20

coalmines have operated in the Southern Highlands over the last 150 years including Berrima Colliery, which supplied the Berrima Concrete Works and closed in 2013.

I consider the Hume Coal Project to be a significant project for a number of reasons including: providing a high quality source of hard coking coal, which is required for steel making; the creation, diversification and renewal of jobs in the region as Australia and the world recovers from COVID; and additional revenue for the State Government, which, in turn, supports my previous point and could include upgrades to infrastructure in the region. Now, more than in a long time, it is important for Australia to have a strong industrial base with the world recovering from COVID and the world tension increasing.

It is disappointing that this development has not been assessed on the basis of scientific and engineering assessment supporting the development application and it begs belief that this low intake development, with its obvious benefits, would not be approved or conditionally approved if there were any aspects of the proposal that have not met legislation or reasonable community expectations. Thank you for the opportunity to present to the Independent Planning Commission.

MR DUNCAN: Thank you. Do we have any questions?

MR HASELDEN: From me?

MR DUNCAN: Thanks, Mr Haselden. Thanks for your presentation today. No further questions.

MR HASELDEN: Okay. Thank you. Have a good afternoon.

MR DUNCAN: Thank you.

MR DEIGHTON: Next up we have Michael Verberkt from Battle for Berrima. Mr Verberkt, good afternoon.

MR M. VERBERKT: Good afternoon. Good afternoon, Commissioners. My name is Michael Verberkt and I am the president for Battle for Berrima. I don't think there would be any doubt as to our position on this. We are utterly opposed to Hume Coal's application to build a greenfield coalmine and the associated Berrima Rail extension. To be clear, B for B was founded with one purpose and that was to protect the Southern Highlands and the sitting water catchment area from unacceptable risks posed to water, air, the environment and our long-term sustainable jobs by the Hume Coal Project.

As the last IPC hearing showed, the people opposed to Hume Coal are not made up of radical activists. They're normal every day people, young working families, farmers, grandparents, mothers and fathers and businessowners, and the like, and, have no doubt, they are the majority and we have proven that time and time again. They are people who very well informed. They've asked lots of questions and

they've listened to the concerns of independent mining experts, to the department's experts, and to Hume Coal's experts, and they've reached the conclusion, with so many uncertainties and unknowns, this mine represents an unacceptable risk.

So let's cut to the chase: the former owners of exploration lease 8349 have learned over time that this area is particularly difficult and challenging for coalmining and I guess why that has been sold on them. Experts say that historic volcanic activity and intrusions have created very distorted and fractured areas of rock and fault lines that complicate the mining field area. With a core determination that Hume Coal cannot access significantly improved land, continued uncertainty is assured into the future. In fact, when you consider the area involved, this proposed mine will have the largest greatest impact of any coalmine ever considered in New South Wales history as stated by the DPIE in their final assessment.

Yet Hume says, despite all of these uncertainties, "Approve the mine and let us work out the solutions and problems as they arise", using adaptive management, which implies to us that this mine plan and technique could change massively as it goes. This brings me to the impossibly flawed and, in fact, outrageous strategy that Hume Coal is pursuing in relation to its make good arrangements. There are serious long-term implications for this community, Hume Coal, and the New South Wales Government. The make good proposal that Hume Coal has put forward is, in our view, intended to minimise its exposure to the economic consequences of restoring lost water and to clear concerned landholders out of the way. The instances where Hume and landholders can't reach agreement on how to restore or meet a landowners water needs, we understand, from IPC transcripts, that Hume proposes conditions of consent to make landholders opt in to its make good plans. And if they refuse, Hume will have no obligation to the affected landowner. It's a "take it or leave it" in other words.

The alternative for landholders will be to fight their way through a convoluted arbitration process that Hume has proposed and will ultimately end up in the court system. As the DPIE has pointed out succinctly, they will, effectively, become involved in every arbitration as this dispute rolls on over the life of the mine. Commissioners, this make good is based on a flawed groundwater model, as the DPI has described in their assessment, and it is unworkable and it is destined to fail.

Let's consider the other elephant in the room, the pumping of mining rejects into mining voids and the potential for ground and surface water contamination. The DPI has pointed out succinctly and the department and mining experts – sorry, I was getting feedback there. The department and mining experts, Emeritus Professor Galvin and Canbulat, have all raised long-term concerns about the stability of the mined out area, and those concerns have still not been resolved, with the implications for worker safety and the environment. There's also considerable uncertainty about the viability and complexity of pumping the reject slurry over the kinds of distances that will be involved, some in excess of over 10 kilometres.

If Hume finds itself in a position of not being able to pump the slurry into the mining voids for any amount of time, Water New South Wales sees the risk of toxic mining water making its way into the Sydney water catchment system. Now, this is an entirely possible scenario and one for which Hume Coal has no plan, given they've deleted their water treatment plant from the original investment schedule. Commissioners, we are talking about a steel manufacturing company who have never designed, built or run a mine by themselves. They are trying an untested method with inadequate data in a delicate aquifer environment and saying, "Trust us. We'll work it out as we go".

Surely the precautionary principle must be triggered in these circumstances. Berrima: it would be remiss of me not to speak of our concerns of the village of Berrima, which is mainland Australia's oldest and best preserved Georgian village. We recently won the top tourism award in New South Wales. The region attracts over 1.3 million visitors a year and they spend over $200 million a year on their stays on a wide range of goods and services. It's estimating that their spend alone is somewhere in the order of 2300 full-time jobs. But Hume Coal's proposal directly threatens these jobs and won't in any way, shape or form enhance the appeal to the area.

Berrima's surrounding landscapes and rural settings is a vital attraction to this tourist destination. Those tourists have a flow-on effect to the rest of the Southern Highlands. If the area becomes associated with coalmining, it will certainly lose that appeal and, despite Hume's attempt to shroud sight lines around its enormous stockpiles of coal and massive aboveground processing area, there will be places where it will be highly visible. And this brings me to social licence. There is no underestimating the degree of ill-will towards Hume Coal here. Having watched Hume's failure to engage successfully with the community for over 10 years, this company completely underestimates the will of this community to stop it dead.

Our community, thousands and thousands of people, have observed the conduct and misstatements of Hume Coal employees throughout the community consultation process, and it wouldn't be unfair to say that the degree of disdain demonstrated in their responses to legitimate questions has served to only strengthen the community's concerns about this project. And while Hume benefits from the resources of the world's third largest steelmaker, this community has had to raise many hundreds of thousands of dollars for independent scientific and legal protections and reports and, in addition to this, Sutton Forest landholders have spent millions of dollars defending their rights and resisting Hume Coal's bullying tactics.

All this has required thousands and thousands of hours of fundraising activities by volunteers, countless hours of advocacy activities across the highlands and to the highest echelons of government, and it has taken an enormous toll on people's health and wellbeing. Commissioners, in closing, Battle for Berrima submits that this mining proposal should not be approved. There are just too many factors that have not been adequately explained, and the notion that the New South Wales

Government should approve the mine and let Hume Coal work out solutions through adaptive management as they go is a recipe for disaster.

There is no current government legislation to facilitate Hume's proposal for make good, and the DPIE have made it very clear in their final assessment that it is impossible to develop an appropriate set of conditions of consent that would allow this mine to proceed. Please reject the proponent's application to construct a new coal mine in this area. Thank you for your time.

MR DUNCAN: Thank you for your presentation, Michael. Any questions at this stage? No questions. No further questions. Thank you.

MR VERBERKT: Thank you.

MR DEIGHTON: So next up also from Battle for Berrima is Mr Hugh Farrimond. Hugh, good afternoon.

MR FARRIMOND: Good afternoon. Thank you. May I first say that, whilst I am indeed a member of Battle for Berrima, this submission is a personal one and does not necessarily reflect the opinion of Battle for Berrima. I'll get on with it. As a resident of Berrima, I agree with the strong entrenched reasoning of the Department of Planning Industry and Environment that the Hume Coal and Berrima Rail Projects are not in the public interest, and thus should not be approved. Also as a resident, I wish to reinforce the preliminary assessment report of the department, in which it is stated the proposed mine and its impacts are unlikely to be compatible with other land uses in the area.

In my opinion, a coalmine just four kilometres west-southwest of Berrima would transfer this bucolic environment into one associated with heavy industry. I would also draw the attention of the IPC to the results of the public surveys conducted by Battle for Berrima in 2017 published by Perica & Associates in their report to the IPC dated 25 June 2017. Pages 34 and 35 of that report specify details of those surveys, which clearly indicate the Hume Coal Projects were not favoured by residents in the shire or visitors. That report also referenced the petition against the project carrying more than 16,000 signatures, which was tabled in the New South Wales Legislative Assembly in August 2016. I consider that this clearly indicates that the project lacks social licence.

In addition, I am very concerned about the potential effects this project will have on our groundwater. I, firstly, refer the Commission to clauses 35 to 43 of the submission to the IPC hearing from the Wingecarribee Shire Council. At that reference, the council clearly expressed that the water resources we currently enjoy will be significantly affected by the proposed mine, and, secondly, I refer the Commission to clauses 67 and 68 of the assessment by the department. Here, it is suggested that where potentially a landowner claims a disadvantage in water supply because of mining, the potential legal ramifications could be extensive and involve not only the landowner and Hume Coal, but the New South Wales Government.

These threats to the natural underground water system are so significant to my mind that the project should be rejected on these grounds alone. Before I finish, may I comment on an earlier submission by one of the Hume Coal members. It was said by Hume Coal that they clearly – closely liaised with members of Berrima and the Southern Highlands. May I point out that in their environmental impact statement the mine was positioned so many kilometres southwest of Moss Vale. Berrima did not get a mention in the EIS. I don't think Hume Coal are quite honest. But I strongly recommend that the IPC determine the applications SSD7171 and 7172 be rejected. Thank you for this hearing.

MR DUNCAN: Thank you, Mr Farrimond.

MR DEIGHTON: No questions?

MR DUNCAN: No questions, no.

MR FARRIMOND: Thank you. Right.

MR DEIGHTON: Thank you, Mr Farrimond. Our next speaker is Vincent Roche from the Berrima Horse Trials.

MR DUNCAN: Go ahead, Mr Roche.

MR ROCHE: Unmuted, hopefully. Firstly, thank you for giving this opportunity for us to address you. While I'm representing Berrima Horse Trials, I am also representing my mother, Kathy Roche, an 86-year-old lady, who was due to talk tomorrow but unfortunately she has a medical appointment and can't. My mum and dad built a house and moved to Araluen 45 years ago. Araluen is perched on either side of Wells Creek and is therefore right over the path of the proposed coal mine.

I would have to say they have had many achievements, my mum and dad, but probably the greatest one was planting about 5,000 trees. And they would be in dire straits if we lost the water table. However, I am here representing Berrima Horse Trials. Berrima Horse Trials was a not-for-profit club that commenced in 1989, and we had our first event in 1990. We have had about 45 events since then, including 13 international events. At each event, we have between 300 and 350, and our top number was 420 competitors per events, which takes two days to take place. We also have run – do run school events. We run pony club events. We run clinics as fundraisers for our clubs. And on a weekly basis, there is training by instructors for younger riders to practice and learn to be safe jumpers.

The assets of the club on the cross-country course, we estimate, at being between 860 and $900,000. They would include the cross-country course, obstacles, the jumping and the dressage arenas. That would include toilets, the clubhouse, etcetera. That's our approximate cost of replacement. Our income – it's – our income from entries each year is about $150,000. Because we're not for profit, all of that is invested back into the – sorry, I'm getting feedback – goes back into the facility.

We last did a survey in 2012 ..... for a Hume Coal environmental impact statement where we surveyed about 150 competitors at an event, and we found that – we are talking 2012 dollars here – the average spent per competitor at an event was $1107 over the duration of the weekend. And our estimation is – and again, 2012 dollars – is $681,000 a year. This goes not only, as I said, about 20 per cent goes to entries, but horse stabling in local establishments, eating out at local restaurants, accommodation at local motels, BNBs, hotels, feed, horse feed, bedding, all of those sorts of things – the income from the actual events. Then we have the income from the clinics and the training that we hold. All very significant.

Berrima is one of the major eventing venues in New South Wales and indeed in Australia. I think there is 13 international events, and we are one of those. We have a major place in the qualification system that allows people to proceed up the ladder all the way to the Olympic Games. And, in fact, three of the Australian team members who are competing in Tokyo in two weeks' time have both trained and competed extensively at Berrima. And as I mentioned before, there is quite a significant training system set up with various trainers there with smaller groups teaching on weekdays. There is also the employment that it raises. We have people who construct our courses. All was built with voluntary labour in the old days, but now we tend to need professionals to build our fences, maintain our arenas, mow, whipper snipper, et cetera, as well as the employment of local coaches.

There are lots of people who would talk for a long time today, so I won't take up all of your precious time except to say that if Hume Coal's mine goes ahead, Berrima Horse Trials, mostly because of water issues, because we're totally reliant on bores for our water for horses, et cetera – water also for toilets and just day to day running, watering our arenas, et cetera – we ae significantly concerned about subsidence, particularly with this new method of coal mining as yet unknown in Australia. And if Hume Coal was to go ahead with its mine, I am quite sure that Berrima Horse Trials would cease to exist very quickly. And this unique venue and – not only a unique venue, but it's one that helps make up that patchwork quilt of what our rural area does, where people work, where people recreate, reasons to visit the Southern Highlands. Not everybody is a golfer. It does give people reasons to visit the Southern Highlands and spend their money and return to where they came from. So I would just like to say in conclusion that the members and the customers at Berrima Horse Trials do not want this mine to go ahead. We think it would be a disaster. Thank you for your time. Happy to take questions.

MR DUNCAN: Thanks, Mr Roche. Could you just confirm where the horse trials are held?

MR ROCHE: The horse trials are held on the 150 acres of Araluen. The boundaries of Araluen are Golden Vale Road, Kardinia Lane and the Hume Highway.

MR DUNCAN: The property that you mentioned at the start, yes.

MR ROCHE: Yes, yes.

MR DUNCAN: Thank you. Are there any questions? It looks like we have no further questions. Thank you again for your presentation today, and we notice that you are also representing your mother on this occasion.

MR ROCHE: Thank you.

MR DUNCAN: Thank you. Thanks.

MR DEIGHTON: Okay. Up next, we have Judith Fisk from the RJ Mackey Real Estate. Ms Fisk, good afternoon.

MS FISK: Good afternoon. I'm a local. I've lived here all my life in the area. I am very concerned that the Calwalla railway crossing at Glenquarry and the Hoddle Street, Robertson railway crossing on the Illawarra Highway could be hindered and the health of people – because of ambulance, SES, police, et cetera – it could mean that a fatality could happen due to the crossings being held by the number of trains. And there are a number of other crossings from Berrima to Robertson and beyond, as this is the Moss Vale to Unanderra railway line. These crossings cross many places – many roads, many streets – and therefore hinder, I think, the service vehicles. There is also the issue of the world heritage swamp and the Wingecarrabee Swamp being polluted by the coal dust. The water out of the Wingecarrabee Swap and the Wingecarrabee Dam feed into and form part of the Sydney water supply ..... 5 million people use this water on a daily basis. And this leads into Warragamba Dam and then down to Sydney's water supply.

Going back to the railway line, this also goes to the centre of the Robertson Village and will add to noise and pollution from the coal dust through the village on a 24/7 basis and from what I hear that – or from what I understand, the trains are continuing – tor will be continuing on a 24/7 basis to get the coal to Port Kembla or thereabouts. But my major concern is the crossing from Berrima to Robertson or to Unanderra whereby the health and wellbeing of people could be hindered by the service vehicles – the ambulance, the SES, the police. Thank you. That's all I have to say.

MR DUNCAN: Thank you for your time today, Judith.

MS FISK: Thank you.

MR DEIGHTON: Up next, Peter Brooks from the Princess Pastoral Company. Mr Brooks, good afternoon to you.

MR BROOKS: Hi. How are you?

MR DUNCAN: Fine, thank you. Could you proceed, please.

MR BROOKS: Yes. Sure. So my wife and I have leased Hume Coal's land for the last six years, and as I spoke at the last IPC hearing, not much has changed except we've been here for another two and a half years. We've got five children under the

age of 19. We live about two kilometres from the stockpile site, and we have lived here for six years now. We intend to be part of the project for the long term, and we have been recognised in the industry as best practice pioneers in the business.

So we're the largest single producers in the Moss Vale Berrima area, so the area that the coal mine is proposed for is - is also the largest agriculture producer in the area. Over the past six years, we have taken a weed-infested property to a high-production protein production system. We grow high-production crops to produce high value protein, and in the last financial year, we produced 8300 lambs, or 230,000 kilos of lamb, and in cattle, we produced 1.3 million tonnes - million kilos, sorry, of beef. We also produced 550 tonnes of canola.

The property when we took it over was - was quite run down. One of - and this is my opinion, is that if it doesn't become a mine with a farm around it, it will actually be sold and developed into its highest and best use, which is likely to be housing or another industry. The underground mine with an operating farm surrounding it is probably the only way it's going to retain its rural existence into the future, unless it's sold to a lifestyle buyer. Sorry. We basically - we have a lot of spinoffs into the community. We use local carriers. We use local livestock agents. We are one of the major buyers out at the local livestock selling centre. So we actually - this business actually feeds back into the community. And we also use local vets and local mechanics. We are very comfortable living in a close proximity to this proposal, given that it has got the - the correct protocols in place to protect it. Yes, and that's - so I don't want to use any more of your valuable time up.

MR DUNCAN: Thank you. Thank you for your presentation.

MR BROOKS: Thank you.

MR DEIGHTON: Up next we have David Thomas on the phone from J&J Stonewall Constructions.

MR D. THOMAS: Yes, that's correct.

MR DEIGHTON: Go ahead, sir.

MR THOMAS: I'm just sort of ringing up and I appreciate the opportunity to speak, just opposing the actual development. I had a whole list of stuff I wanted to say, but after listening to the Hume Coal this morning, I thought I would address the areas that I'm very familiar with, and that is how to split sandstone. They were talking about 14 to 16 mil subsidence, and in a previous presentation I went to, they said that they could determine where the subsidence would occur. The easiest way to break sandstone is just to drill holes in it, and they have already drilled enormous amounts of holes in the district, and if you create a void under it, the pressure will end up cracking the sandstone.

They say they're going to leave 66 per cent of the coal there. That won't help. It will just crack, and once it does crack, you will have a situation up here as you have down the coast, whereas if it rains on the surface, it's an absolute deluge underground, and, you know, the mine will have a lot of water. And they say that there's a - the way they're going to mine is very, very safe, and, you know, it sort of won't create new problems. There was a mine on Black Bobs Creek, and I think it stopped mining about 1950 and it was decommissioned in 1969. They were just a very small mine, taking up minute amounts of coal. Their machinery got flooded underground and they couldn't get big enough pumps to get the water out. That's how active this aquifer is.

And, you know, I'm very worried that as soon as they start mucking around with the surface structures, it's not only going to drain the infrastructure, it will also drain all of the landscape and make, you know, sort of raising cattle and whatever other agricultural pursuits impossible. I guess everybody has spoken about climate change, but one of the things I would like to say about climate change is that I don't know what parameters they use but the Weather Bureau keeps referring to one in 100 year events. Now, we had an event here a couple of years ago where we had an absolute deluge and the Hume Highway was flooded at Cherry Tree Hill, which is just down the road from where the washer is going to be.

Now, what's going to happen if we get more of these events, which we will, and they become more severe? What's going to happen to those ponds and everything around the washer? Where is that water going to go? Straight down to Wingecarribee, probably. But, you know, that's a real danger in regards to that. Hume Coal have also said that they have bought water licences. So that's great. If we have another drought - we have just been through a massive drought and we have had big fires at the end of the drought. They will have their total water allocation. All of the 94 bores in the district will be totally drained, so they will be dry. They have already admitted that's what's going to happen, yet they will have all the water they want to be washing their coal, and I just sort of think that's a total disparity to, you know, what's sort of going on.

With the government, the government sort of often lends support to organisations like coal mines because they know that although they won't make much money out of a mine itself, they will make a lot of money out of all the other people and all the other facilities and services that rely on the mine. The most important thing the government doesn't want to do is upset the citizens. Now, they have already upset a lot of people down here. If they approve this mine, it will be a really big upset, and, you know, the government won't be very popular at all. They talk about, you know, they're a law-abiding company and, you know, they're sort of a - a good corporate citizen.

Why would they have bought land down here in the name of a shelf company which had Pastoral in it if they're so upfront and such a law-abiding company? I just don't understand why an organisation would do that, unless they had something, you know, sort of else going on, unless they wanted to play games with the law. It just

didn't make sense to me. Another point I wanted to raise was that our council are doing everything they can to protect the vista of the area and the amenity of the area. We're only allowed to have 100-acre lots. You know, we have got to keep the place looking rural, yet this will put a massive dent in the council's, you know, way of looking at things, and it will actually destroy the amenity of the area and, you know, it will throw council's planning out the window.

In relation to the railway line, there's a lot of crossings on that railway line going down the coast which people have to drive across, and if you get big, long trains going there, that's going to have a fairly big impact on just the residents, the tradespeople who work there, workers on those places and anything else, and, you know, it can lead to some interesting issues. Like, if the - you have got the Illawarra Highway, you have got Kangaloon Road, and the actual line goes straight over those two areas. If people want to try and quickly get around at Robertson, they will go over the crossing at the pub and nick around the back way. Now, that's going to create another traffic issue for the residents of that area.

And the other thing is that with these big, heavy trains, I believe the dust off the brakes on them is carcinogenic, and the things go right behind Robertson Public School. So I don't know how that's going to work. I just see too many issues with this actual proposal that it just will not be, you know, sort of worth proceeding with. I think the aquifer is the most important thing to protect. I think the amenity of the area is really important. People in this area spend a lot of money, especially on their properties and everything else. If it becomes an industrial wasteland, they won't be spending that sort of money, and that will then totally change the economy and the amenity of the whole area, and I think that would be a really big negative. I think that's the main issues I wanted to cover. I really appreciate the time that you have given me this afternoon, and I'm interested to see the outcome of the Commission.

MR DUNCAN: Thank you ..... next speaker

MR THOMAS: Hello?

MR DEIGHTON: Thanks, Peter. Our next speaker is David Richards from Port Kembla Coal Terminal. Mr Richards, good afternoon to you.

MR D. RICHARDS: Good - good afternoon. Can you hear me okay?

MR DUNCAN: Yes, we can. Please proceed.

MR RICHARDS: Yes. Good afternoon, Commissioners, and thank you for the opportunity to speak today in support of the Hume Coal project. My name is David Richards. I am the general manager at Port Kembla Coal Terminal, or PKCT. PKCT is a key coal export facility on Australia's east coast within the port of Port Kembla. The facility services the southern and western coal fields of New South Wales, exporting coking and thermal coal to customers around the world. Coal from Hume Coal is expected to be exported through PKCT to the world's steelmakers.

This throughput volume from Hume Coal will make it a key customer for our business.

At PKCT, we employ around 100 employees and contractors, the majority of whom live in the local region. We prioritise local businesses, suppliers, and are proud of our long history. We have also recently completed a major refurbishment project on our terminal, investing around $300 million to ensure we can support our customers long into the future. It is my understanding that the Hume Coal project will create jobs and opportunities for hundreds of local employees, businesses, and ensure the ongoing supply of high-quality metallurgical coal to domestic and international customers. For that reason, and for the continued long-term economic prosperity of the region, I am pleased to speak in support of the project.

Coal mining has a long history in the region, and the mines, along with the port, the rail providers, BlueScope Steelworks and other industries, we form an extensive interlinked industrial sector. The value of this industrial sector is significant, with a recent decision by - and with the recent decision by the IPC to reject the Dendrobium Mine expansion, the industry in the area is facing a significant uncertainty. Volume is key to low-cost logistics. With the loss of Dendrobium Mine volume, PKCT would potentially become unviable for the remaining mines that use PKCT. However, with additional volume from Hume Coal project, the port's future will be better positioned to remain a viable service into the future.

PKCT does not make a profit as we pass through all our costs to users of the terminal. We're a common user facility. Without any additional volume to replace Dendrobium Mine, the high level of fixed costs required to maintain the terminal assets will need to be borne by the remaining mines, which is Appin, Metropolitan, Tahmoor and Wollongong Coal. As part of the Southern Highlands and Illawarra ecosystem, we greatly value the contribution that Hume Coal will have on the community through direct and indirect employment, community partnerships within our local region, and the significant royalty contribution to the State of New South Wales.

On a personal note, I have been fortunate to work within the Australian coal mining industry and associated supply chains for most of my working career. I'm sure all employees who have worked in the industry can vouch for the efforts organisations go for - go to for safety, environmental management, employee development, as well as supporting the local communities which we live and work in. The industry is heavily monitored and scrutinised, as evident through the IPC sessions, and the industry continues to strive to achieve high standards every day. After listening to many of the speakers, it is concerning that there continues to be confusion about the difference between thermal coal and coking coal.

Coking coal is used to make steel, the cars we drive, the tractors to plough our fields, the ships that import and export everything in our island nation, electric buses, wires for fences. 80 per cent of wind turbines are made of steel. For each megawatt of solar electricity requires 35 tonnes of steel. Therefore, steel is essential for

sustainable future, and it takes about 700 kilos of coking coal to make one tonne of steel. Australians and responsible miners and myself and family have been fortunate to have benefit from the opportunities the coal mining has provided. I'm proud to support the Hume Coal project and the real value in jobs it will bring to the region. Thanks again for the opportunity.

MR DUNCAN: Thank you. Any questions? No. Thanks, David. Thanks for your time today and your presentation.

MR THOMAS: Thank you.

MR DEIGHTON: Our next speaker will be Dr Ian Wright from Western Sydney University. Dr Wright, good afternoon.

DR I. WRIGHT: Good afternoon.

MR DUNCAN: Welcome, Dr Wright. Please proceed.

DR WRIGHT: Thank you. Thank you very much. Can you see my presentation?

MR DUNCAN: Yes, we can.

DR WRIGHT: I'm speaking in support of DPIEs recommendation that the Hume Coal mine not proceed due to unacceptable risks to water, and those risks are firstly the disruption to availability of groundwater, contamination of groundwater, the risk of surface damage from subsidence, the risk to Sydney's water supply - it is part of the Warragamba catchment - the cumulative impact to water quality and ecological health of Wingecarribee River, Medway Rivulet and other tributaries, and the risk of effectiveness of repairs to unanticipated water contamination from the proposed mine. And finally, the risk of water contamination from mine operation in extreme weather events, and I will illustrate each of these risks in my following slides.

So we have heard quite a lot about modelling and predictions and risk. I have read a lot of EISes, I have read a lot of mine reports, I have read a lot of models. None of my work involved - involves models. It involves collection of data and hard evidence to back up aims and policies. I have published research over 20 years of eight Sydney Basin coal mine discharges. Each and every mine I have looked at has major environmental impacts, and in many cases, their regulation is quite poor and their environmental impacts are considerable. There's three classes of mines that I have looked at. In red, I have circled the active mines. One mistake. Angus Place is mothballed. Tahmoor Collier is active, Clarence Mine is active, West Cliff Mine is active. Berrima Collier, that's the Medway, is in the closure process, and the Canyon Coal Mine near Lithgow and the Grose River is closed.

I will talk about the risks that I believe Hume Coal - and when I look at the risks, do I believe rhetoric policy? I actually look at the mine industry and look at their demonstrated performance. I have published all of my work. I haven't hired peer-

reviewed people and then paid them to give me an opinion. My work has been published and that of my research team and collaborators in the peer-reviewed scientific literature. You get the reviewer that the - that the journal decides. It's anonymous. So I have backed up all of my concerns through peer-reviewed research on mining impacts in the Sydney Basin. I will be making a written - a written submission and I will include these as references.

Here is an example of one. This is from the Canyon Coal Mine. It operated from the 1920s not far from Bell, or Bells Line of Road, Darling Causeway and Lithgow. It shut in April 1997 and it still continues to discharge pollution today. Now, many people here might not have heard of the Canyon Coal Mine, but it is quite infamous in the literature. The level of zinc and nickel in this mine drainage cause a pollution plume that stretches down into the Grose River in one of the most protective catchments in the world. It's part of the Blue Mountains World Heritage area, Blue Mountains National Park, a declared wilderness and a declared wild river. You might not know about this, but UNESCO does.

IUCN have picked up that we are not good at protecting our waterways from coal mines. Now, this was not a longwall mine. It was a pillar and board operation, and the reason so much drainage is coming out, similar to DPIEs point earlier this morning, there's not much overburden, not many strata - many metres of strata above this, and it has cracked the strata and intercepted creeks and swamps, and at the point that the drainage from the Canyon Mine hits the Grose River, it actually makes up, based on our research, about 50 per cent of the flow of the Grose River, one of the most important rivers in the greater Blue Mountains World Heritage area. Berrima Coal Mine, that is, the Medway Mine, shut in 2013, and this is the model of our research.

We sampled upstream on eight occasions. We sampled the drainage coming out of the Berrima Mine after it had shut. This was mostly in 2016, and then we measured downstream. The bottom two photos are actually taken on the same day. The impact of that mine is a warning of what unanticipated impacts can happen. This was not predicted by the modelling conducted by Boral when they modelled the closure of the Berrima Minute and about 15 per cent of the underground workings flooded yet what came out was a very strong reaction. Boral kindly gave me years of data and the nickel level, this is one the key pollutants involved in mine drainage and water pollution associated by mines in the Sydney basin, the concentration of nickel almost tripled after the mine shut and then flooded – and this is just 15 per cent – so this gives some idea about the processes that can unravel. It’s essentially uncontrolled chain reaction.

The sulpha associated with the coal dissolves the metals out. Nickel, that’s micrograms per litre or parts per billion, it’s dangerous to aquatic ecosystems at about 10 micrograms, it was coming out, 2016/2017, at a concentration of about 400 micrograms and, at that point, flow in the Wingecarribee River is variable, based on season and rainfall, and the drainage from the mine made up, at some points, about 50 per cent of the flow. So the impacts – it created ecological impacts and we lost

about 90 per cent of the invertebrate community, that is, the base of the food chain for fish, for water birds, for platypus, etcetera.

I will note that Boral have since, under direction from the mine regulator and the EPA, have invested an enormous amount of money trying to seal the mine up. I am not sure that we can ever completely stop this but I do note that their impact from the drainage underground is less than this but, in future, this could go for decades and even centuries. This is Bargo River. Tahmoor Mine discharge their waste into Bargo River and Tahmoor waste accounts for about two-thirds of the flow in the Bargo River. It has recently been recommended for an approved extension by the IPC and here is a view of some waste coming down Teatree Creek and the Bargo River flows into the upper reaches of the Nepean River.

One of the risks are that the pollutants in the mine drainage are not regulated so the figure in the lower right, you can see a proliferation of filamentous algae, the load – concentration and load of nitrogen was not recorded, it wasn't in any EIS documents, and the EPA didn't ..... they do now after we did some research and shared it with them in the community. That's the mine drainage, the waste. This is where, for a lot of mines in Sydney, the Appin Mine – and I think this is the plan for the Tahmoor Mine – they send the brine, after it has been treated – and that is a reverse osmosis plant produces what they call brine, it's actually condensed mine waste, and this is where it's treated – it's released untreated and this is into a small tributary of Port Kembla. This is called Allans Creek. It has got high levels of a whole periodic table of elements.

So one of the risks is: you might seek to prevent environmental damage in one spot but where does that waste go? In this case, it goes and joins a lot of other contamination in Port Kembla. But, for me, one of the biggest lessons is the unanticipated damage. This is Redbank Creek which has been damaged for subsidence from the Tahmoor Mine. It's a combination of subsidence and subsidence. In this case, the stream channel of Redbank Creek will never properly hold water again, similar to quite a few waterways within the metropolitan catchments of Sydney, and this mine has been recommended for approval by the IPC but it has been noted that there is no proof that they can fix this sort of damage. And this is one of my lessons of caution about the Hume Coal: if you create damage like this, it's likely you can never properly repair that.

So the mine consultants for Tahmoor have actually drilled a whole series of holes in some of these fractured strata of Redbank Creek and they've injected a type of glue into it. Now, watching what happens since it's raining, there's no water upstream, and this is after the gluing has occurred. We're still documenting enormous water contamination as water comes out of the fractures caused by the subsidence, the metals strip the oxygen out of the water, and it kind of fizzes on the surface. As it oxidises it forms a solid metal precipitant and drops. Needless to say, the ecological impact of this contamination for mine subsidence is considerable. Our research is continuing but my point is: often there's damage from mining activity that cannot be repaired and once you've started this chain reaction it can be very difficult to stop.

So a whole lot of these ..... performance I've seen around the Sydney Basin, I support DPIEs recommendation that this mine not be approved. I'm happy to answer any questions if you have any.

MR DUNCAN: Thank you, Dr Wright. No questions at this stage, I don't think. No. Thank you again for your presentation.

DR WRIGHT: Thank you.

MR DEIGHTON: We have Meagan Thorpe from 1300apprentice up next. Ms Thorpe, good afternoon.

MS T. THORPE: Good afternoon, Commissioners. My name is Meagan Thorpe. I'm the area manager for 1300apprentice and today I'm speaking on behalf of 1300apprentice, a registered group training organisation, which proudly managed the Hume Coal Apprenticeship Program and continues to support trainees and apprentices to completion. We support the Hume Coal Project and Berrima Rail Project and we proudly employ residence of the Wingecarribee Community in a wide variety of apprenticeships and traineeships in businesses located within the Wingecarribee region.

We are a full-purpose organisation with over 35 years of experience in the vocational, education and training industry. Our reputable professional and approachable team has an in-depth knowledge of the vocational, education and training industry, ensuring a quality of service which is at the centre of our operation and ethos. Guided by a commitment to career development through on and off the job training, 1300apprentice works closely with local businesses and client partners to achieve vocational excellence and local career opportunities.

1300apprentice are an equal opportunity employer providing opportunities for women in non-traditional trades, Indigenous people, mature aged people, refugees, school-based students, and people with a disability. Our organisation, along with many others in the area, including host employers that have taken on the apprentices and trainees through the Hume Coal Apprenticeship Program, have benefited greatly from the Hume Coals Community Investment Program and their support. Opportunities have been created for many of the trainees and apprentices that would not have been possible without the financial support of Hume Coal. We see the value that this opportunity has provided to the Wingecarribee Community, which 1300apprentice worked very closely with, and we are proud to be involved with it.

Prior to being employed by 1300apprentice in 2011, I had been employed by another group training organisation, as well as a registered training organisation, an Australian apprenticeship centre, and a Job Services Australia provider. Since the beginning of my career in 1991 I have also been employed in the industries of hospitality, horticulture, plumbing, business, manufacturing, and warehousing. I'm a qualified trainer with additional training in mental health, first aid, cultural awareness, language, literacy and numeracy, mentoring in the workplace, and work,

health and safety. I've completed two traineeships in the earlier stages of my career in both hospitality and business sales.

These experiences have given me valuable skills to be able to source, employ, guide, support and mentor the apprentices and trainees we employ, as well as to partner with and support our host employer's industry and sponsors. This is what I am passionate about and I will continue to pursue in my career. The aim of the Hume Coal Apprenticeship Program is to provide entry level skilled jobs as well as upskilling opportunities for people in the Southern Highlands who are looking for full-time work opportunities with local businesses. This program has been the first of its kind where a company is paid for all employee costs, including wages, travel, and tools, with no obligation for the trainee or apprentice, or host employer, to work for or promote Hume Coal.

1300apprentice has worked closely with Hume Coal – with the Hume Coal Project for seven years. During this time, 27 local apprentices and trainees and 35 local businesses have had the opportunity to benefit from the Hume Coal Apprenticeship Program working in local businesses in the community for the community. It's not just 27 local individuals and 35 local businesses that have benefited from this program, it's also their families, their co-workers, the community they live in, and the local economy as well.

From 2015 to 2019 up to 250,000 each year was funding the Hume Coal Apprenticeship Program. That's up to $1.25 million in five years purely invested back into the local community, and this doesn't include the funding that has been provided by the Hume Coal Charitable Foundation and the sponsorship program. The types of local businesses that have hosted apprentices and trainees through the Hume Coal Apprenticeship Program are electrical, carpentry, horticulture, landscaping, parks and gardens, heavy commercial vehicle, engineering heavy fabrication, mechanical engineering, signage, accounting, hospitals for both animals and people, a registered training organisation, and early childhood education and care services. All of which are fundamental to the local business community.

Without the funding from the Hume Coal Apprenticeship Program many of our now qualified apprentices and trainees would not be where they are today. As a part of the Hume Coal Apprenticeship Program, 1300apprentice, have employed apprentices who are travelling to Sydney-based businesses for work, back to work for the local Wingecarribee-based businesses where they reside; mature-aged people to kick start their dream career; local teenagers that were unable to secure the career of their choice; a female apprentice in a non-traditional trade; an indigenous trainee with a goal to become an accountant, as well as taking on apprentices who have lost their jobs due to a shortage of work, poor working conditions, or not being the right fit in their workplace.

All of these apprentices and trainees gain a nationally recognised qualification on completion as part of their employment. All of the trainees and apprentices that have completed to date have either stayed on with the businesses that they've completed

their apprenticeship with, or have secured other employment opportunities, or have completed higher level qualifications at university or TAFE while staying employed. Some of the apprentices have started their own businesses locally or have plans to start their own business in the future, and one is now employing their own apprentices locally.

It's unfortunate that many communities see their young people leave the area when they finish high school because of a lack of local work and opportunity. If the Hume Coal Project were to be approved and continue programs like the one I managed could re-commence and expand to help keep youth, young adults and other eligible participants in the area by giving them real skills and a pathway to transition into long term careers via apprenticeships and traineeships. I have seen firsthand the benefits of the Hume Coal Apprenticeship Program for both the host employer and the trainees and apprentices who have secured work and have attained or are attaining beneficial skills, knowledge, experience and qualifications to enhance not only their careers, but their life.

Based on my firsthand experience in this program the value of what Hume Coal has provided to the local community has proven to have a positive domino effect, and is life changing. The program has allowed locals to work with local businesses, remaining near their friends and family, and in turn contributing significantly to the skill base and economy of the Southern Highland. Hume Coal has actively supported residents and a wide variety of businesses within the community, and it is the local community that they will continue to support if the proposed projects go ahead. Because of the proven outcomes and numerous benefits for the local community we are very proud to support the Hume Coal Project and Berrima Rail Project. Thank you.

MR DUNCAN: Thank you, Meagan. No questions at this stage? Thank you again for your presentation today, Meagan.

MS THORPE: Thank you.

MR DEIGHTON: Our last speaker for this session Robert Monteath from the Cheaper Electricity Party. Mr Monteath, good afternoon.

MR MONTEATH: Good afternoon.

MR DUNCAN: Good afternoon, Robert, please proceed.

MR MONTEATH: Thank you for the opportunity of speaking to the Commission and to those members of the public who are watching this hearing. I'm a - I own a land surveying and town planning business with offices in Newcastle, Sydney, Muswellbrook and Gunnedah. That's a bit of my background. I support the Hume Coal Mine for three reasons, which I will outline here, and go into more discussion about. The Southern Highlands Destination Strategy 2030 document supports extractive industries as well as agriculture, horticulture and tourism. 55 per cent of

Hume's coal will be used for steel making and agriculture and viticulture cannot exist without steel, and that's part of what the main industries in the Southern Highlands. And 45 per cent of Hume's coal will be used for electricity production. In New South Wales, Australia and world, and we still need coal generated electricity for decades to come.

So this is just the front cover of the Southern Highlands Destination Strategy 2020 to 2030, and I've just highlighted in yellow the parts of what their claiming are the strengths of the Wingecarribee council area or Southern Highlands where there's local agriculture, equine industry, viticulture, tourism, and extractive resources, which, coincidentally, is very similar to the Hunter Region. As you all probably know coal is a significant part of the Hunter's economy, but the Hunter also has the second largest equine stud area in the world with 150 thoroughbred businesses. The Hunter Valley has the second largest wine region in Australia with 8000 hectares of vineyards. And all these three industries have been working together for the last 100 years, and they all prosper.

And with respect to tourism, outside of Sydney, the Hunter receives more tourists than anywhere else in New South Wales. So mining, agriculture, viticulture and tourism can successfully coexist. 55 per cent of Hume's coal is for steel making, and I pose the question, "Does the Southern Highlands need steel, particularly its industries?" Agriculture definitely needs steel for tractors, ploughs, fences, water tanks and troughs, etcetera. And dairy farms, in particular, need stainless steel. A milking shed is full of stainless steel. Stainless steel is needed in the pasteurisation process. When it comes to viticulture, vineyards and wineries need stainless steel. Steel is used in the vines trellises. It's used in the making of wine, the fermentation of wine, and in the bottling and packaging. Everything is - well, most of the things you see in this workroom is stainless steel. So the Southern Highlands agriculture and viticulture need Hume's steelmaking coal.

And what are some of the other ways that we all use stainless steel? We all like our morning coffee and lunch coffee, and an expresso machine is nearly all stainless steel. We often like a beer or two, and a keg of beer - kegs of beer are all made of stainless steel. The modern kitchen is - has a lot of stainless steel in it. So if someone likes coffee, beer, wine, milk, ice-cream, living in a house, driving a car, catching a train, then they inherently support the mining of coal-making steel. Now, I know that sounds pretty basic stuff, but we need steel, and for the - the other point I would like to make is that for over 100 years or more my backyard being the Hunter Valley has provided a lot of steel-making steel, and Newcastle used to also make the steel. So it's nice to be sharing the ability to provide coal-making steel, you know, the Hunter and also possibly now the Southern Highlands.

45 per cent of Hume's coal is used for energy generation. So I would like to pose the questions, "How quickly is the world transitioning away from coal and fossil fuels? Is net zero emissions by 2050 really possible? And does New South Wales and the world need Hume's coal?" Well, to answer those questions I've got a bit of information and some graphs which show - that in this particular one shows that the

sources of the total world's energy generation, or where it comes from. This is not just generation of electricity, this is heating, transport, manufacturing. This graph is from the International Energy Agency which shows that between 1990 and 2018, which is nearly 30 years - 30 years ago fossil fuels were generating 82 per cent of the world's energy and now they're generating 80 per cent of the world's energy, where renewables it was – well, wind and solar, that is, it was zero 30 years ago and is now two per cent. So the likelihood of becoming zero emissions by another 30 years seems remote.

And looking at the graph of just electricity generation in the world, again from the International Energy Agency, there's coal in blue, oil is – sorry, I can't – I'm having trouble seeing all of my screen. Oil is then underneath, and the green is natural gas, which shows that 30 years ago 63 per cent of the world's electricity came from fossil fuels; now it's 65 per cent. And right down the bottom that small blue triangle is wind and solar and 30 years ago it was zero; now it's crept to seven per cent. But it's a long time before we will transition fully away from fossil fuels for the generation of electricity.

Close to home in Australia, the Australian Government each year produces an energy update report, and this graph is quite telling. There's a graph showing the total generation of the calendar year 2019, which is the latest figures available. And the bottom part of the graph is that the light blue is renewables generation, and for the last 40 years, so from '78 through to, say, 2000, which is more or less a flat line, that was all hydro generation through Snowy Hydro or Tasmania's hydro scheme, where 80 per cent of our fuels today or electricity comes from fossil fuels and wind and solar provide 12 per cent of our electricity. So we still need coal and we're not transitioning any time soon.

And it's not as if we haven't got – haven't had a concerted effort to build the capacity. Wind and solar Australia wide has the capacity to produce 16,000 megawatt hours, and coal and gas 32 per cent. So it's a third – two-thirds. So there is significant wind and solar capacity. But, unfortunately, renewables are extremely unreliable and what happens when the wind doesn't blow and the sun doesn't shine. Well, to answer that question, we don't have to go too far, as in we just go back to last night, 6 o'clock last night, and wind and solar were only generating two per cent of our electricity.

Just to explain this graph, this shows the six States. The black bar is coal generation in each State. The brown bar is brown coal generation Victoria. The red bar is gas generation, the green is wind, blue is hydro, water, and yellow is solar. And at 6 o'clock last night, say, two per cent of New South Wales electricity was coming from wind and solar. And wind the clock forward nearly 13 and a-half hours or so, and this morning five per cent of our electricity was coming from wind and solar. So we're still a long way off. And to – and in south – just as an example, also, South Australia claims it is going – heading towards – well, near total reliability on wind and – on renewables, particularly with their wind, which often they do have a lot of wind.

But if you look at this particular graph, which is only this Monday of last week, there was only one per cent of the electricity in South Australia was being generated by wind and solar. So it just shows how reliable – unreliable it is. And to show that it's not necessarily all bad news when it comes to renewables, and they can work for some of the time, this is midday Saturday, two days ago, and Australia wide we were getting 30 per cent of our electricity from wind and solar. 25 per cent of that was in New South Wales. But midday it looks not too bad, but by, again, 6 o'clock in the afternoon we're down to one, two, three per cent for the whole of the country. So we – and I'll skip through. I've got too many of these slides, sorry.

But the point I'm wanting to get to is that overnight New South Wales consumes up to 90,000 megawatts of electricity from, say, 5 or 6 in the evening to 6, 7 o'clock in the morning. And when the wind isn't blowing and the sun definitely isn't shining, we would need to store 90,000 megawatts of electricity to survive the night, and the cost of building that would be near $90 billion. So – and at the moment, Australia's largest battery has the capacity of 100 megawatts. So such a battery system is unaffordable and unachievable in the foreseeable future. And with – and here's just a cartoon for the Newcastle Herald which shows that, well, you might have solar and wind, but the batteries are not included. So there's a big problem.

And, unfortunately, the media and quite a few politicians aren't always telling the full story. Often we have headlines like this, "Renewable Energy Can Power Australia's Energy Reliably Without Coal". Well, that, unfortunately, is not the case at present. Coal left behind – there's solar wind prices drive – empower drive down prices. Well, coal is not being left behind. It is – we need baseload power from coal, and Hume Coal is part of that source of coal. "Renewable Power is Set to Help Replace Coalfired Power in Australia." Well, it's not going to be replacing coalfired power any time soon. And here's another headline, "Renewable Capital of the World".

Well, we might have more renewables than other countries, but this gives us an impression – this headline suggests that, you know, we're – renewables are taking over. Unfortunately, that is not the case in the next 10, 20-odd years. And so in Australia – New South Wales, sorry, we have an issue or the situation where the New South Wales Government is wanting to – after all of the – our aging power stations close over the next 10 years, we will be able to survive on our renewable – our emerging renewable generation. But it is an impossible task. We would need - say, if it was 50 per cent wind turbines and 50 per cent solar panels, we would need to build in the next 10 years 6200 wind turbines, and we've built 1100 turbines in 20 years.

We would need to build 50,000 hectares of solar panels, and we've only built 3000 hectares since 2000. So it's an impossible task. And here's another cartoon from a newspaper showing, well, when Yallourn Power Station was considering closing. "What was power, Dad? Well, an obstacle on the road to a brighter future". It's quite cynical. Unfortunately, at present, there's no such thing as reliable renewable energy and there's no such thing as totally clean, reliable energy. So our world depends on

– totally depends on electricity. So the Hume Coal Mine will help New South Wales to keep farming and keep the lights on. Thank you.

MR DUNCAN: Thank you, Robert. I think we have a question for you.

MR WILSON: Robert, just in one of your earlier slides in relation to extractive industries, I was wondering if you could return to it – in relation to the Wingecarribee.

MR MONTEATH: Well, that was going back to the - - -

MR WILSON: Extractive industries, yes.

MR MONTEATH: Yes, yes. Sorry, I'll just go back to where it was.

MR WILSON: It's just some confirmation because my understanding of the planning legislation, it separates extractive industries, which are primarily quarry materials, and mining as separate entities, as confirmed by the Mining SEPP. So I'm just wondering whether or not that is – that reference you referred to is actually referring to mining.

MR MONTEATH: Well, I – I assumed – sorry, I assumed that extractive industries did include coalmining. I'll stand corrected on that point.

MR WILSON: I'm just seeking to confirm one way or another. I understand you're using it in the widest possible term.

MR MONTEATH: Yes.

MR WILSON: So in terms of extraction. But I think the planning legislation separates them out.

MR MONTEATH: Okay.

MR WILSON: So I'm not quite sure that's something that's in that document.

MR MONTEATH: No, that's fine. Well, yes, I stand corrected on that point.

MR WILSON: Thank you.

MR MONTEATH: No problem.

MR WILSON: Cheers.

MR DUNCAN: Okay. Thank you for that, Robert. Thank you for your presentation and time today.

MR MONTEATH: Good. Thank you. Thanks – thank you.

MR DEIGHTON: All right. Thank you, Peter. And we will take afternoon tea now, but just a reminder for the latest information on this case and any others before the commission, you can check out the news page on the IPC website or follow us on social media, Facebook or Twitter. And we will see you back here at 4.30.

ADJOURNED **[3.50 pm]**

RESUMED **[4.30 pm]**

MR DEIGHTON: Welcome back to the final session on day 1 of the public hearing into the Hume Coal and Berrima Rail Projects. Our next speaker is Julian Brophy. Mr Brophy, good afternoon.

MR J. BROPHY: Good afternoon, Commissioners. Thank you for the opportunity to speak to you. This process has been going on for the most part of a decade when Hume Coal's predecessor, Cockatoo Coal, began its campaign to establish a coalmine in the Southern Highlands. Frankly, it's time this is brought to an end. The statutory planning process has been followed at every step. The community has unequivocally rejected the proposal. Another planning department, after exhaustive assessment, has, for the second time, recommended refusal.

My partner and I live in Berrima on the Wingecarribee River and we're passionate about the health of that river that runs through our background and which is a key part of the Sydney drinking water catchment. Its importance was underlined during the drought in 2019/2020 when Water New South Wales transferred countless megalitres every day down the Wingecarribee to supplement the supply of water to Sydney residents. Quite simply, what happens here in my backyard impacts the water that five million people rely on each and every day and it's into the very heart of this water ecosystem that Hume Coal wishes to develop the first greenfield coalmine in the drinking water catchment of Sydney in four decades.

Now, the community, in our thousands, look directly to you, the Independent Planning Commission, trusting you will accept the objective outcome from this process and the conclusions reached by the Planning Department. The department puts forward many cogent reasons: the impact on the 118 privately owned bores; the uncertainty of the mine design; impacts on amenity, residence, heritage and tourism; the overwhelming community opposition with 97 per cent of submissions opposed to the mine. Other speakers will address these issues more eloquently than I will but I did want to focus on one reason the department says the mine should not go ahead, and I quote:

The department warns that proceeding with the project, as proposed, would not be consistent with the precautionary principle of ecologically sustainable development given the identified uncertainties and risks.

The applicant says that they can mitigate negative impacts. The reality here in Berrima tells a very different story because this is not an abstract concept. This community is already impacted by the unintended consequences of coalmining when it goes horribly wrong. In 2017 we learned of the contaminated water flowing from the disused Medway Colliery which was identified by leading independent water expert, Dr Ian Wright, as having a profound impact on the ecology and health of the Wingecarribee River. Three million litres of highly contaminated water, containing elevated levels of various metals, including zinc at 120 times the normal baseline, and extremely high levels of nickel and manganese flowing each and every day into the drinking water catchment.

The impact of the mine workings and water drawdown is also affecting countless landowners today who are living with lost water, collapsed bores, and mine subsidence. So how do you stop this? The community has been advised that a permanent and complete seal of the Medway Mine is simply not possible because the historic mine workings were so close to the cliff walls and canyon through which the Wingecarribee River flows that if such a seal were attempted the pressure build-up within the mine could become so intense as to blow out the canyon walls resulting in an uncontrolled flow of polluted water into the Wingecarribee and, consequently, the Sydney water catchment.

So what is the answer? Every few months, as we have done now for two or more years, I, along with a group of local residents and affected landowners, meet with Boral as they grapple with how to close the Medway Colliery. First they tried an in situ limestone filtration system but this proved a temporary measure. They then installed a series of bulkheads in only some of the underground workings to contain the mine water. However, this has been ruled out as a permanent fix. And now Boral is looking at developing a permanent aboveground water treatment plant to purify the mine water on an ongoing basis ad infinitum. That's the only way they can see to manage the long-term impacts of this mine.

If ever there was a textbook case study for the precautionary principle, Medway Colliery is living proof that once the damage is done it's impossible to repair it unless you're prepared to put in place remediation that must stay in place, not years but decades and possibly even centuries after the last coal has been mined. Thank you.

MR DUNCAN: Thank you, Mr Brophy. We have no questions. Thank you.

MR DEIGHTON: I think Ian Scandrett is standing by. Mr Scandrett, are you there?

MR I. SCANDRETT: Yes. Good afternoon to the Commission.

MR DUNCAN: Good afternoon. Please proceed.

MR SCANDRETT: Thank you. I'm a councillor currently suspended of Wingecarribee Shire Council. I was elected first in 2012 having spent four years sitting up the back, as we call it, and getting to know this community. I have lived here since 2006. I was an escapee from the inner west of Sydney. I came down here for what's known as a treechange and particularly for the quality of the environment in which we live here. I had not planned to be on council down here though I was active in local council matters in ..... which was very much a community that talked to its council and very interactive.

But when I got down here I found that this council was quite, my words, out of control, having just put a huge amount of money into Lehman Brothers at a very high risk. We managed to get out of that somewhat but it firmed my decision to break my promise to my wife that I wasn't going to be involved in council decisions and running for council down here. I ran for council, I was elected in 2012, and I became very interested in this issue before then, as a resident, also because of the environmental side of things and the business side of things, and also because I, and my wife, have a rural property here, we are farmers, we farm black Angus cattle, we are slightly outside the affectation area of this, we're just in Werai, which is just south of Moss Vale on the way to Exeter, but we look straight over from where our property is on a mountain straight over at the catchment area of this mine.

Council was suspended by the Minister for various reasons, one of which was the way it was being handled and the way the community and – bullying was taking place in this community here. So one of the problems with being on this council was if you were working with the community, or outspoken, or working in the community, immediately this was sat on. So I've attended every single meeting, gathering, blockade, hearing in the community on the matter of Hume Coal. I have opposed it from day 1. From the original meeting on that rainy night in Sutton Forest, which where people were flowing out the doors, it was overflowed with people who were very concerned about this project.

I haven't changed my opinion in any form whatsoever and I've, in fact, just said that to a newspaper down here who are very interested in what is being said today. The point to make here is that this is not just a Wingecarribee issue, as Julian Brophy just made the point, this is a Sydney issue. I coined the phrase many years ago: the water shire. I also coined the phrase: the garden shire. And then I coined another one, which is now part of ..... which is: the green between. And, of course, it's talking about keeping our green spaces between our towns and villages. Why? Because we are the major water supply for Greater Sydney. We're also a supplier of, obviously, green space and we can talk about the environment for a long time on this.

I chaired the Economic Development and Tourism Committee on council for three and a half years. In that we were identifying our major ways to make this shire work better and, of course, COVID has delivered that in spades because we are the first stop out of Sydney. Our tourism business has grown. It's one of our major streams

down here. Coal is going to be totally at odds with that whole strategy because it was going to be affecting our inbound tourism and, of course, the economics are only short term.

This is one of the things that was very strong with our committee, which was staffed by a range of business people from across the shire and had universal agreement on rejecting this proposal in every way, not only from the environment, not only from the greater Sydney side of things, but simply from our employment and quality of life here. Short-term gain, long-term pain, you might say. And I say to you as the Commission that it's not worth that. Others will have talked about the economics of coal, coking coal, expert markets and the like. But I'm talking to you about why we as a shire sit here as a ring around Sydney. We are the remaining part of that ring and it's slowly being eroding, as you see through the southern part – southwestern part of Sydney coming through.

But the Wingecarribee sits here as a buffer. Lots of international experience now is about green-ringing your towns and your cities. That's what this does. Our economic committee, who made various recommendations to council which were supported – council did take a position of no coal and coal-free shire signage to that effect, and various attendances at various hearings and so on. But it was all about at the end of the day reserving the quality of this environment. Jobs – there's more jobs to be lost in tourism than to be gained in the short term for a coalmine.

I had the pleasure of seeing a robotic demonstration some years ago for coal, a firm that has developed various synergies in that space. The jobs are not there long term. They've got robots that do belt changes, roller changes, and, of course, all of the down the mine activities are increasingly done by single operators or remote operators. There's no long-term jobs in this business for this shire. But in the tourism industry, and which is probably now becoming our prime industry - it was one of the top 3. But with recent world events and local, we are now experiencing outside of COVID events massive delivery in this area of visitations from Sydney, and the village of Berrima and Medway, Sutton Forest, Exeter, are all prime beneficiaries of that.

And it's not just the tourism operators and the accommodation and the weddings and the cafés and the consumption in that space. It's also our rural. And, as I said, I'm a farmer. I reinvented as a small-scale cattle farmer and one of the things we take pride here in doing is making sure that we follow sustainable farming practices wherever we can on this farm.

MR DUNCAN: I think we've run out of time. I think we need to - - -

MR SCANDRETT: I can wind up now, thank you. Yes, that's fine. So I just wanted to approach this from the non-technical side of things and present to you, as I have been now a councillor for nine years and involved in council for 13, I have never heard any loud voices that supported this proposal, and I remain firmly

opposed to it mainly because I'm representing the community who make their work views very well know. Thank you.

MR DUNCAN: Thank you for your presentation.

MR SCANDRETT: I'm happy to take questions.

MR DUNCAN: No questions at this stage. Thank you.

MR DEIGHTON: Okay. Up next is Ken Silburn. Mr Silburn, good afternoon.

MR SILBURN: Good afternoon. I thank the Commissioner and panel for listening to my views. And I first say my views, they're my personal views, and my family actually grew up in Mittagong and work in the immediate area. I've got four children and four grandchildren. I'm employed as a high school science teacher and I've had over 30 years experience, and part of that teaching has actually been in the Southern Highlands. I received the Prime Minister's Award for Excellence in Science Teaching and I've also been appointed as a STEM ambassador for Science and Technology Australia.

The reason I'm just saying that is I'm just – I need to disclose my interest with you in coal because I'm also the program coordinator for a program called iSTEM, and that's for delivering extracurricular activities and programs for high school students that enjoy science. And the Hume community project, or their charity foundation, has supported this program. So my views - and I'll just reiterate, you know, these are my personal views. But I suppose I'm really talking more as a father and a grandfather and my concern for jobs for our youth. I'm concerned that the employment of students, especially in the Southern Highlands. We need coal to make steel.

And I do have a strong belief as a country that we should be moving away from the fossil fuel as far as our energy production, but in order to actually make steel I think that's extremely important. When I've spoken to Hume Coal and just in reading their publications, the creation of 300 extra jobs in their coal facility, and the benefit to the wider community, I see that they're going to be using state of the art technology and I've read the environmental concerns and the impact statements. But in weighing that up, I sort of hope that what is in the impact statement I assume is true, and what I believe is the jobs are there for our youth and if it brings more families to the area and more commitment, then that's a positive. So I'm supporting Hume Coal and that's all. It's very short and I must thank you for the time there.

MR DUNCAN: Okay. Ken, thanks very much for your presentation. No questions at this stage?

MR SILBURN: Any questions?

MR DUNCAN: Thank you. Thanks very much.

MR SILBURN: Okay. Thank you.

MR DEIGHTON: All right. So up next is Ben Fitzsimmons.

MR FITZSIMMONS: Good afternoon. Good afternoon, Commissioners, and thanks for providing me with the opportunity to express my support for the Hume Coal Project. First, I'd like to acknowledge the traditional owners of the land on which we're all meeting today, or where we're all situated. I'm speaking to you today as both a landholder in the local area, but also as an employee of the mining industry. I've grown up in regional New South Wales and I've seen firsthand mining, tourism, and agriculture coexist. I've worked in the region for the past 10 years on a number of projects, starting my career out as a geologist. This, I believe, makes me suitably qualified to speak to the attributes of the Hume Coal Project which make it suitable and, in my opinion, necessary for the Commission to approve.

The Southern Highlands has a long history of mining, with the first iron ore mined and smelted in Australia right there in Mittagong, a short 10 minute drive from the proposed location of the Hume Coal Project. The iron ore mined in Mittagong was used to produce steel with the remnants of the Fitzroy Ironworks preserved beneath the local shopping centre in Mittagong. Iron ore is now one of our biggest and one of the nation's primary exports and generates billions of dollars of economic activity in Australia, albeit thousands of kilometres away from the industry's humble beginnings right there in the Southern Highlands.

Since then, mining has continued in the local region with numerous quarrying operations for the supply of sandstone, shale, and construction aggregates, as well as underground coalmining in nearby Belanglo and Berrima. The availability of these local resources has enabled the growth of the local manufacturing industry in the Southern Highlands such as the cement plant in Berrima, which employs hundreds of local people, and brick manufacturing in nearby Bowral. Support industries have also established themselves to supply and service these businesses. These including mining equipment manufacturing, logistics, maintenance, professional services, and many, many more.

Another unique attribute of the Highlands is its access to existing infrastructure, such as the Hume Highway and the Main Southern Railway, connecting it with some of Australia's largest metropolitan areas and enabling the ready transport of materials up and down the east coast. The area is also connected by Port Kembla – to Port Kembla by rail, used frequently by agriculture and mining businesses, to access the broader domestic and export markets. Of importance for Hume Coal is this vital connection to Port Kembla and the local steel-making industry where metallurgical coal, the type of coal proposed to be mined by Hume, is turned into steel product.

On the basis of proximity to this infrastructure, it is no surprise that the Hume Coal Project is one of several large developments proposed for the local region. A key difference, though, for the Hume Coal Project is that it is not a new industry for this region. Mining has coexisted in the Southern Highlands for over a century,

sustaining local employment and economic development, and has the potential to create hundreds of new local jobs for the region, supporting the local economy grow and prosper for many years to come and I would consider this is more important now than ever.

Hume is proposing to mine metallurgical coal. A critical ingredient in the steel-making process through the blast furnace, the process currently used to manufacture the majority of Australian made steel, including that at the Port Kembla Steel Works. A healthy economy needs a healthy steel-making industry and, to ensure the economic viability of our nation's steel-making industry, a local supply of high quality coal is critical. Hume is well positioned to supply this coal to domestic steel manufacturers to ensure the longevity and sustainability of this important industry.

With regard to the design of the Hume Coal Project, the company has included a number of considerations to maximise the extraction of the resources while reducing the impact of the operation on the environment. Much has been said about the mining method. However, it is simply driving roadways underground, a method undertaken by all underground coalmines in New South Wales. Rod Doyle discussed this morning that the mine has been designed in such a way to ensure no caving of the overlying rock mass which limits subsidence and impacts to the overlying groundwater system.

Hume has recognised that other mining methods are unsuitable for the region and has chosen a method which would leave the majority of the coal resource unmined to preserve the long-term integrity of the overlying strata. Like other underground mines, water will flow into the extracted mine workings and, over time, the groundwater will recharge. It is important to note that, as a result of the mine design, the underground area will be able to be sealed preventing perpetual free-draining from the underground mining areas. These are just a number of considerations which have been incorporated into the Hume Coal Mine design to limit its impacts on the local environment and ensure that the mine can coexist with the residents and other industries of the Southern Highlands.

I'm confident in the skill and expertise of the people who work on the project and believe the Hume Coal Project can deliver on its commitment to mitigating its impacts for maximising employment and economic benefits for the Southern Highlands and surrounds. Thanks.

MR DUNCAN: Thank you, Ben. No questions at this stage.

MR DEIGHTON: Next we have a telephone call, I believe, and Joshua Reid.

MR J. REID: Good evening, Commissioners. I'm speaking to you today to put forward my opinion on the Hume Coal Project and the Berrima Rail Project for approval. I am a qualified geoscientist and a former employee of the Hume Coal Project for five years. I have an extensive career spanning over 15 years in the mining industry working on various coal projects and operations around Australia.

Over the years of working on the Hume Coal Project I found that – found that this project was like no other I've worked on before. It was an extensively environmental orientated project in all aspects.

Working on this project I witnessed the ..... of a coal project firsthand within the community. I've never experienced this level of anti-coal sentiment before within the community. As the project progressed through the approval process it was bashed from pillar to post by a select few that had no sense of the practicalities of mining in every day life. Since moving on from Hume Coal I noticed that the campaign against Hume Coal continues. It was less vocal but more prevalent online. I observed the divide online – in the online community between members – members – when you take a deeper look into the campaign there was a definite ideology being portrayed, "not in my backyard."

This ideology was being generated by a number of influential individuals that has infiltrated the general community by utilising misinformation about the project. This group's opinion was being portrayed everywhere and the spread of misinformation was rife. With this notion, if you see it, or hear enough, people come to a conclusion it is true without even questioning it. As a quote from – by Albert Einstein: if you can't explain it simply, you don't understand it well enough. This is exactly what I have seen in regards to the Hume Coal Project. What has been presented across the different forums to the general public it is often left up to interpretation of the audience. That leads to a hysteria.

Often when I was involved in Hume Coal community information sessions, I had to spend a significant amount of time providing the community members with the appropriate response regarding data that was presented. This ..... obtained support against the project was done in an abhorrent and unscrupulous manner engaging people from outside the community and having them allegedly sign petitions both interstate and internationally for the community. It is noticeable that this movement has driven a wedge into the Southern Highlands community to the extent where the pro-Hume Coal individuals don't want to speak up out of fear of retribution because noticeable and responsive submissions ..... at the first IPC hearing.

It is clear to see that there are two sorts of individuals that are against Hume Coal – are against the Hume Coal Project: those who don't know any better and those who should know better. The majority involved in this movement should know better. They're making accusations against Hume Coal Project throughout the whole approvals process. This burden to the community of the Southern Highlands has a much greater effect on the blue collar workers, like myself, as it brings a shadow of doubt where the future jobs will be generated from. The lack of job creation without Hume Coal is a sacrifice that these select few are willing to take as the majority of them have finished their illustrious careers in their white collar roles at the peril of the generations to come and these individuals are enabled to keep their slice of the .....

This movement, on numerous occasions, even now, have found it was easier to lie with stats. One example is the survey in the local community. When you look at the finer details, you note that it is not as one sided as you would think. No one likes change, I gather that, but the potential change in lifestyle is miniscule, especially when you can't see it. The perceived effects of the mining project on the community has been vastly exaggerated which aligns with the "not in my backyard" mentality.

These potential changes to the quality of life are not derived from actual facts but utilise this mentality of misinformation as follows: dust from trains. Well, this has been addressed in the Hume Coal's reports and they're going to use covered wagons to mitigate this issue. Delays on the Illawarra Highway, not the Hume Motorway, to traffic will be minimal but, notably, the amount of traffic in this area is low. Property value will decrease. Well, I have not seen any evidence regarding property prices reducing in mining areas, only the opposite.

This "not in my backyard" movement against the Hume Coal has seen individuals trying to act as environmental advocates and in the best interests of the community suggesting that they are going to protect all who have signed up. We are providing a voice for the little guys against the large corporation. These comprehensive – this comprehensive contain is jeopardising the local government of substantial revenue as this project is classified as a significant investment with the potential of creating hundreds of millions of dollars in revenue. Hume Coal has already spent hundreds of millions of dollars throughout the project through rates, licences, sponsorships, wages, foundations and the rest.

MR DUNCAN: Joshua, you need to wrap up now, we're out of time.

MR REID: Okay.

MR DUNCAN: .....

MR REID: Just a summary. We can't afford to throw this billion dollar investment away and not now. Please consider this state significant project for approval as the mining is part of everything we do as individuals. Thank you, Commissioners, for your time.

MR DUNCAN: Thank you, Joshua. And I will remind you too that if you want to make a further submission that the submissions are open until the 23rd of July. Okay?

MR REID: No worries. Thank you.

MR DUNCAN: Thank you. Next speaker, please.

MR DEIGHTON: Okay. Up next we have Holly Campbell. Ms Campbell, are you there?

MS CAMPBELL: Can you hear me?

MR DEIGHTON: We can indeed. Good afternoon.

MR DUNCAN: Please proceed, Holly.

MS CAMPBELL: Thank you. Thank you for the opportunity to speak. As a resident and former councillor, 2012-2016, I'm now a local consultant, I wish to add support for the case that Hume Coal does not have social licence, and is not in the public interest. Why has this community fought so hard, so passionately, so long and for some, at great personal cost, against the Hume Coal Project. The answer is quite simple: because we value what we have here in the highland. Microburbs rates the highlands as follows: family, safety, lifestyle and tranquillity get nine out of 10, and community gets 10 out of 10. All of which I'm sure the IPC recognise as highly important considerations for anyone choosing where they want to live and why.

In the last 18 months Australia has been impacted by COVID-19. One of the most dramatic outcomes has been the recognition of the value of regional and rural Australia by the migration of populations from capital cities. In 2019 the Department of Planning projected the highlands would gain 2500 new residents by 2041. By the end of 2020, last year, our population had surpassed that number, reaching 51,760. Why is the highlands so popular? Let's be clear we're not seeing an influx of visitors or new residents to the highlands because we had a reputation as a mining region with mining jobs. If we did become a shire with a new mine what do we gain?

Crime. One of the least ..... impacts of the mining sector on communities is that of crime. It is a critical research gap. In Lockie et al, 2009, the authors concluded that the rapid development phase of a new mining site in Queensland had created increases in criminal and anti-social behaviour representing an acute social impact. In their report the resources boom underbelly, criminological impacts of mining development, Carrington, Hogg and McIntosh, could locate only three EIS in crime. They confirmed that resource developments are likely to adversely impact on alcohol abuse, domestic violence, and other crimes, such as assault and illegal drug use, organised prostitution, motor vehicle accidents and other accidental injury. In 2018 it was reported that there had been a reduction in most major crime categories in the Wingecarribee shire. While the highlands is not crime free, it could not be said that the community endorses an increase in crime as an acceptable impact if Hume Coal ..... to operate.

Misleading values, royalties of jobs. The Hume Coal Assessment states:

> *In weighing the merits of the project the department acknowledges that it would have a number of benefits including generating some 415 jobs during construction, and up to 300 during operations.*

Modern coal mining rates well behind industries like health care, retail, education, manufacturing and construction, all of which are well established, if not booming sectors in our shire. Our retiring population continues to generate high quality health care jobs. Our schools are at capacity. We have surprisingly robust retail and manufacturing sectors. New and expanding building companies are experiencing labour shortages as construction is stretched to meet demand, but shows no sign of slowing. In short it could be said that the shire is not dependent on Hume Coal for job creation at all.

The department further states benefit from Hume Coal include generating around 200 million in royalties and company taxes for New South Wales. Let's pick that apart. Resource companies pay far lower taxes than regular businesses, and the 200 million in royalties mentioned is over the lifetime of the mine for 19 years, or around 10 million per annum. Most coalmines are foreign owned meaning the profits go overseas, in this case Korea. Nor will those royalties come directly to our shire for much needed infrastructure works. Indeed, 10 million per annum doesn't cover half of next year's 20.5 in end cost for sewerage upgrade. By comparison, 2018 Tab Corp contributed over 1.3 billion in New South Wales, including around 460 million in New South Wales tax in 2012, while supporting around 30,000 racing industry jobs throughout the state, which brings me to the next point.

Economic resilience and protecting our existing, appropriate and developing industries. The shire is known for exceptional tourism, quality agriculture and a burgeoning equine centre - sector, and interestingly, a strong and developing manufacturing base. Nexport, the largest supplier of electric buses in Australia has recently purchased a 51 hectare site in Moss Vale, where it's e-bus and e-vehicle manufacturing hub would generate around 2000 new skilled jobs, compared to Hume Coal's 300 operational jobs. Berrima manufacturer ..... will grow from 18 employees currently to more than 250, having just achieved a grant from New South Wales Government to increase productivity six fold.

Given the importance why Berrima recently won 2021 Tourism New South Wales Top Town award. Tourism is the life blood of Berrima. A coalmine at its source just a kilometre or so away will likely condemn the town to a very uncertain economic future. The shire boasts an average 1.3 million visitors per annum who spend approximately 200 million on a wide range of goods and services, purporting somewhere in the order of 2300 FTEs. Councils report in our tourism sector mention something else equally valuable. The marketing of Tourism Southern Highlands influence of people's overall image of the Southern Highlands related to establishing or relocating a business and choosing a place to live.

Our agriculture has been dated from the early 1800s, continues to develop and there are two aspects to this, one being quality food production, the other being agri-tourism. A coalmine is completely at odds with this shire. Deloittes produced by commission by the horse industry in 2013 which found coalmining threatened the viability of the wider horse breeding industry in the Hunter, including an estimated 640 jobs at risk. What has this got to do with our shire? Within close proximity to

Hume Coal are many blue ribbon thoroughbred studs and other equine businesses. The shire is rapidly becoming an equine centre of excellence. Equine sports are expensive to keep meaning their economic value to the highlands is considerable, both directly and indirectly, through tourism as people come to watch events, and job creation - horses being labour intensive. Through goods and services, including breeding, training and vet services, feed, equipment and so forth.

Hume Coal would not fit the highlands, nor do we need it to ensure economic growth. It may even reverse - damage on growth we have achieved till now. The economic and social costs of ..... top soil and BSAL particulate. The WHO states that in relation to particulate matter there is no evidence of a safe level of exposure to PM10 or PM2.5, or a threshold below which no adverse health effect occur. In my written submission I detail the numerous sources of potentially dangerous particulates including diesel engine exhaust that will emanate by Hume Coal. Coal mining is associated with serious mental health impacts, which I also detail in my written submission.

Conclusion. Cumulative impact of Hume Coal. Cumulative impacts I understood to be what is most important to communities and environments because such impacts are experience. Cumulative impact would be experienced as Hume Coal interacts with our past, current and future activities. The downsides are difficult to ignore. Impacts on air quality, health, the environment, our economy ..... our equine, agriculture, tourism and other industries, and, of course, water.

Historically, the coal sector's attempts to mitigate and rehabilitate cumulative impact are widely considered unsuccessful. Hume Coal's project manager Mr Rod Doyle noted a ..... report from the Department, but I maintain faith in the IPC that it will judge the merits of the case - I will repeat that, sorry. I asked earlier what would we gain with Hume Coal? I believe the question would more accurately be what do we lose and can we afford to lose it? ..... has not been earned by the Hume Coal project because it fails utterly to prove itself to be in the public interest. I maintain ..... that you will find, contrary to Mr Doyle's view, that any merits of such ..... are negligible, outweighed as they are by Hume Coal's many demerits. Thank you.

MR DUNCAN: Thank you. No questions at this stage. Thank you very much for your presentation today.

MS CAMPBELL: Thank you.

MR DUNCAN: Thank you. Next speaker.

MR DEIGHTON: Okay. Our next speaker is Clayton Hairs. Mr Hairs, good evening.

MR C. HAIRS: Good evening. Can you hear me all right?

MR DUNCAN: Welcome. Yes, we can, so please proceed.

MR HAIRS: Thank you. Thank you for your time, Commissioner. It has been a long day for you and I appreciate that. I would also like to thank the Department for Planning, Industry and Environment who to an extent have looked into matters I raised when I originally spoke at the IPC meeting in Moss Vale a few years back. I take the opportunity here to thank the Department for their efforts in this regard. I am, however, yet to be entirely satisfied with their conclusions drawn, especially in light of recent events that our community have experienced first-hand. At that meeting in Moss Vale, I presented to the IPC data which I had obtained from the Bureau of Meteorology covering a 50-year period assessing the wind direction and wind speeds at three weather stations surrounding the proposed site for the Hume Coal Mine.

The Commission at the time requested I furnish that data to the Commission, which I duly did, and in reading the report published by the DPIE in June 2021, it seems this information has been reviewed to some extent. I do hasten to say that the response in that report was not sufficiently comprehensive, nor did it illustrate how Hume Coal's operations may be circumscribed, particularly in the case of extreme weather events, a reality of the times we now live in, unfortunately. I am the father of two young girls aged 11 and nine. We live less than four kilometres line of sight from the proposed mine site, and more importantly, we live less than four kilometres from three coal stockpiles and a toxic reject pile, each of which would measure between 19 and 21 metres. That is to say, seven to eight storeys in height, according to Hume Coal's own information.

It is worth noting here that what lies between or property and those proposed piles is the busiest motorway in the country, that is, the Hume Motorway, which runs between Sydney, Canberra and Melbourne, as you well know. The motorway itself, in fact, lies less than 500 metres from these piles of coal and toxic rejects. It is also worth noting at this point that the data I presented to the IPC at that previous meeting unequivocally showed the prevailing winds was westerly and southwesterly. That is to say, any particulate matter would blow directly over the Hume Motorway, the town of Berrima, the township of - and the township of New Berrima. The last-mentioned township there is also important to note as the lowest socioeconomic standard in the entire southern islands.

My life runs the Steiner School Playgroup from our five-acre property in Greenhills Road, 500 metres north of Berrima town centre. The playgroup runs three days per week. This playgroup is a nature-centric model involving a very large proportion of outdoor activity. Over the course of the three days per week it is acted, she would have around 50 children on site, accompanied by one or both of their parents. It is not the drop-and-run type of playgroup but necessitates the involvement of the parents. I will now briefly refer to the BoM - the Bureau of Meteorology wind modelling data I presented to the IPC a few years back in order to illustrate a further point.

One of the stations from which I requested data was from the high-range metering station, approximately six kilometres line of sight from the proposed mine site in a

northerly direction, which at the time of my previous submission it had only been in existence for four and a half years. In total, the wind speeds at that station were measured at blowing greater than 40 kilometres an hour on 32 occasions in a four-and-a-half-year period. Even if we refer to the weather station that Hume Coal used in their EIA, but instead examine the entire data life of the station, in other words, a 50-year period, rather than simply referring to only to the single year to which Hume Coal referred in the EIS, there are 16 occasions in 18 years when the average winds have exceeded 40 kilometres per hour.

Please bear in mind that these figures take no account of wind gusts. They are measured in 10-minute intervals in order to eliminate the effect of gusts. While limiting gusts might be beneficial in order to arrive at a mean wind speed reading, from the point of view of a resident, it is the very gusts themselves that are of concern. From my personal observations over the past seven years of having lived in Berrima, I can say we at least once per year, but very often more, have wind gusts upwards of 70 kilometres per hour, and at times of 90 to 100 kilometres per hour. The Department noted in relation to their review of the BoM wind modelling, as outlined in the PAR, the department considers that air quality could be adequately managed through standard best practice conditions, including requiring Hume Coal to comply with air quality criteria in accordance with the EPAs relevant guidelines, and prepare and implement an air quality management plan in consultation with the EPA.

I would have to assume that the air quality management plan referred to here would be a precondition to any assent given to the mine to proceed. This precondition is not made specific in their report. There is an important elephant in the room here which has not and is not even in the DPIEs current report being dealt with, and that is the occurrence and the increasing prevalence of extreme weather events. These are a scientific fact which we now know to be a real, present and persistent danger. I now quote from the online website World Coal, which some of you might know is an industry-centric website. I quote from an article written on 25 April 2014 by Dr Jurgen Brune from the Colorado School of Mines in the US:

Fine, bituminous coal dust is highly explosive when suspended in air.

In the last quarter of 2019, just six kilometre line of sight to the south of where the proposed mine is to be built, the bush fires in Morton National Park raged for days. Just over four kilometres to the north in the ..... State Forest, our friends and acquaintances battled the bush fires there for nearly three weeks every single day. We are now as a result of that violent summer more acutely aware than ever of ember attack, which in themselves are responsible for 75 to 80 per cent of total property loss in Australia. We in the Southern Highlands now also have firsthand experience of the distances these embers can travel ahead of the fire-front, sometimes kilometres ahead.

We have also learned new vocabulary in 2019, the word "pyro-cumulus storms"; that is, lightning storms developed by the very fires themselves. These lightning

strikes were responsible for many fires oftentimes kilometres distant from the fire-front itself. No mention whatsoever is made in the original EIA submissions by Hume Coal of mitigating the risks posed by their operations during bush fire. No mention either is made by the DPIE of any limitations or restriction on Hume Coal's operations during said events. While the DPIE have satisfied themselves and advised some remediation, there should be no concern regarding wind-borne particulate matter.

No mention or assessment is given to circumstances where winds are gusting upwards of 40 kilometres per hour, even possibly as high as 90 kilometres an hour, while operations underground are permitted to continue. As a lay man, I hesitate to say even the best veneers in the world sprayed incessantly over coal piles and toxic spoil piles would be hard-pressed to contain the contents thereof, particularly if aboveground operations at the mine site continue. Bring into that mix the possibility of ember attack and/or a pyro-cumulo storm igniting the very coal stock piles themselves or any particulate matter which may have escaped and set this alongside the busiest motorway in the country, then quite simply you have a recipe for disaster on your hands.

I would like to take a moment here to apologise in advance for the plain speaking manner I am about to broach, but I do need to express myself, and not doing so, I feel it would be contrary to the very integrity with which my family and I choose to live our lives. I have it on good authority that the IPC will regrettably not be able to carry out an onsite inspection on account of the pandemic. It's a situation, of course, that is not of your making. I commend the Commission's attempts to ameliorate this by arranging for a virtual visit. These efforts, while laudable, cannot begin to investigate the vast range of social factors, none of which are measureable in the abstract by the usual empirical scientific metrics. The effects of this mine upon community social cohesion would not be assessable. The extent to which this mine does not have the social licence to proceed would only be dealt with by the Commissioners in the abstract, and bearing witness to the innumerable signs virtually on every domestic fence, small holdings and farm in the district, talking against this mine proceeding, would be entirely overlooked.

Even assessing the geographic viability of this mine placed where it is intended could not reasonably be ascertained by the Commission in a virtual setting. And, Commissioners, my family and I - and I think I talk on behalf of very many others in our community when I say we would feel very aggrieved and demeaned should you find in favour of this mine proceeding without offering us the dignity of an onsite inspection. I would like to conclude by pointing out to the Commission that the overwhelming majority of speakers at these hearings who speak in favour of this mine proceeding do not live in the Southern Highlands, or if they do, they are ex-employees of the mine or are financially beholden in some manner to Hume Coal or their foundation. Those who speak in favour of this mine will not have to live with the indignity of 19 or 20 years looking at spoil piles seven to eight storeys high every time they exit the Hume Motorway on their home - on their way home to what just recently was voted the top tourism town for New South Wales under 5000 residents.

I thank you for allowing me the time to address you all, and wish you the best in your task ahead. Thank you.

MR DUNCAN: Thank you, Mr Hairs. Can I also clarify too that - and we did - we are on the record as saying that when the health conditions and the COVID conditions are lifted, we will be visiting the site, or we intend to. So virtual was the best we could do under the current legal circumstances.

MR HAIRS: I appreciate that, Commissioner. Thank you so much.

MR DUNCAN: ..... thank you for your presentation.

MR HAIRS: Thank you.

MR DUNCAN: Any further questions, Commissioners? No. Thank you, Mr Hairs. Thank you for your time today and your presentation.

MR DEIGHTON: Peter, it's coming up to 22 past 5 Sydney time. We have about five speakers to get through this evening. Unfortunately, we're running a bit ahead of time and none of those speakers are currently online. So we're going to take a short adjournment for about 10 minutes or so so we can chase those people up, and we will be back soon.

MR DUNCAN: Thank you very much. Thank you.

ADJOURNED **[5.22 pm]**

RESUMED **[5.32 pm]**

MR DUNCAN: Hello, Mr Pauza. Can you hear us?

MR PAUZA: Yes, I can. Can you hear me?

MR DUNCAN: Proceed. Thank you.

MR PAUZA: Okay. I'm just sharing my screen. I have a presentation.

MR DUNCAN: Thank you.

MR PAUZA: Okay. Can you see that?

MR DUNCAN: Yes, we can.

MR PAUZA: Okay. So a little bit about me. I spent six years working on the Hume Coal project. My role is the manager for mine planning. And I was responsible for managing all aspects of the project's design from the underground mining system through to the surface infrastructure and all the interfaces down to the port. So I know a little bit about the project. We took a design philosophy into the project which was structured around the objectives of minimising the environmental impacts, in particular air quality, noise, groundwater and subsidence, yet at the same time providing return on investment, a safe system of mining and maximising use of existing infrastructure and landforms.

In terms of the environmental impacts, what we achieved was a prediction of less than 20 millimetres of long-term subsidence, negligible air quality impacts, three properties subject to voluntary acquisition under noise criteria, and groundwater bore impacts that were demonstrated to be able to be made good. When I compare the level and degree of impacts with the recently approved Tahmoor South project, there is basically no comparison.

We took an iterative approach to the design process. So what that means is there were multiple steps involved, and we went back to the drawing board on more than one occasion. We considered feedback from multiple stakeholders, including feedback received during community consultation. The design process itself was backed by risk assessment, and that involved risk assessments in mining, environmental and public safety areas. The preliminary impact assessments form part of the basis of design. So what that means is basically we looked at how we could minimise the impacts in subsequent iterations.

In terms of the underground design, the key outcomes were a high productivity board and pillar style mining system with a compartmentalised design, so that allowed us to effectively seal off parts of the mine as we go, leading to enhanced groundwater recovery times. The panels were oriented to minimise the heads on the bulk heads. So what that means is almost every single panel in the mine was facing down dip so that the water would run towards the back of the panel and not run out. The mine was also sequenced to minimise groundwater impact. So what that means is we started the mine to mine in areas of lower groundwater heads and mine in areas where the groundwater heads were higher at the end of the mine life. And what that did is it reduced the level of groundwater inflows, and so the recovery time as well.

In terms of surface design, we came up with a design that required minimal vegetation clearing to the extent that, I think, we needed up needing to clear about 63 paddock trees for the actual surface infrastructure of the mine. Not talking about the rail project, because there was a small patch of vegetation for the rail line that was unavoidable. We ended up being able to utilise existing infrastructure and allowances. So for example, the freeway underpass, the existing Berrima Branch Line, the Moss Vale to Unanderra railway, and the existing freeway offramps and onramps. The surface design resulted in negligible air quality impacts and visual impacts reduced as low as practicable.

In terms of pillar stability, the mine itself and the pillars were designed to act as a system, not on a standalone basis. That is fundamental to the concept. The system has been designed to remain long-term stable and has high factors of safety. The design principle has been demonstrated elsewhere – for example, Clarence Colliery ..... and the design was backed by a comprehensive 3D numerical modelling by the preeminent expert in the field, which included scenario analysis. And what I mean by that is we looked at various scenarios that may or may not be realistic, including one where we removed all of the web pillars from the design. And the mine remained stable. In terms of groundwater impacts, the impacts are as low as practicable. All impacts were assessed to be able to be made good in accordance with the aquifer interference policy. And comprehensive made good assessment was conducted for each and every impacted bore.

Now, our groundwater recovery times are the lowest in the industry, in my experience. Many mines – you will see, for example, longwalls – the groundwater recovery is modelled out to often thousands of years, and sometimes has not recovered even in that time period. The remaining voids will also provide the long term groundwater resource which could be tapped into in times of drought.

In conclusion, the Hume Coal project is possibly the lowest impact coal mine ever proposed. Failure to approve the project sets a precedent for New South Wales. And the project has encountered bias and resistance from all levels of government every step of the way. I was heavily involved in a lot of the consultations with agencies and with the department of planning. And the way that the project has been handled has been unethical, to say the least. For example, we had a meeting that was suggested by us and resisted by Department of Planning following the issue of a report by Professor Jim Galvin. The Department of Planning had first refused to issue minutes of the meeting, and then when they did, I think if you have a look at the minutes, you fill find that they don't meet a basic standard for meeting minutes. They didn't capture many of the key outcomes of the meeting, key concessions that were made by the departments are own experts. And I just think it's a travesty the way that that was handled. Anyway, that's all I've got. I will take questions if you have them.

MR DUNCAN: Thanks, Mr Pauza. I just wanted to reiterate that all of our meetings are transcripted and they are on our website if you wish to see them – all the meetings of the commission. Any questions from commissioners at this stage?

PROF CLARK: No, Peter. Not from me, thanks.

MR DUNCAN: Okay. Thank you for the presentation.

MR PAUZA: No problem.

MR DEIGHTON: Up next, we have Douglas Graham. Mr Graham, good afternoon.

MR GRAHAM: Good afternoon. Can you hear me?

MR DUNCAN: Yes, Mr Graham.

MR GRAHAM: Hello. Can you hear me?

MR DUNCAN: Yes. Please proceed.

MR GRAHAM: Okay. Look, I – basically, my position is a resident and a community. And I've been a community member of the Hume Coal board which was set up ..... at the request of Hume Coal to do community consultation. Now, I have been there from the beginning through the initial approach from Cockatoo Coal. And my biggest problem is, I suppose, is the taking of the – what I would call the sustainable resource, that being water, to an unsustainable resource, being coal. Now, the problem I've got with that is at the ..... Berrima Basin – and I've lived in this Berrima Basin for approximately 30 years on the same property. Now, we have an ecosystem and an underground water system that is sustainable in the present state. Now, the problem is that this water resource sits on top of the Wongawilli Seam, which is proposed to be taken. Now, if that happens, we don't know where it's going to end up. The next seam down, which is an impervious layer, would be the Tongarra Seam, which is 185 metres down.

Now, the issue that I have with Hume – well, the first issue I had with Cockatoo was they came and they said that it was an Australian owned company. When people start telling lies, that's when I start to get a little bit upset, I suppose. And I'm going through the whole system and sitting on the board – the Hume board. There has never been a follow-up regarding the systems and the successful systems of extracting this coal without any damage to the ecosystem or to the water that we have. Now, the problem that – I just heard Alex speaking now. He's got some philosophy about the mining which he promoted at the time when I was on the board. It wasn't a proven design. It has no real merit and it hasn't been kept at that stage, anyway, in Australia. Now, he also – as an added to that, he was also going to pump down the overburden or the waste back down into the water aquifers or the ghost system ..... mine. Now, this wasn't acceptable to me, and we actually confronted the board about that at the time. And the other problem I got is they were just talking about the make good system that they had in place, and they've spoken to everybody about that. They haven't made good our water. They can't make good our water, is what they've said before, yet they said just then that they can make good everything that happens.

Now, they haven't followed up. Our bore was always offered to them from the very beginning to monitor. They started monitoring that bore, and then in the last few years they just haven't done any monitoring; haven't contacted us at all, and walked away, basically. Now, I know our bore is problematic for them because we have 30 litres a second. We're not the biggest bore but we're a fairly – in quantity. So until they can actually make good that bore, or make good that water, I don't think they

have a – you know, finalised their investigations of work, especially when they're saying that they have.

Now, the ecosystem as it stands now, too, is supported by the water where it is. Now, there hasn't been any proven effect or protection of the ecosystem if this water does go. I mean, if this water level drops, and then the water table drops, what happens to the specific species that are there now and the recharge system that's in place? They're all question marks.

I have been a little bit confused with the way that the system has been set up to do the community consultation, because once the Hume Coal Board was closed, and that was probably 18 months ago, or two years ago, there has been no contact at all. I actually contacted Rod Doyle the other day regarding some statements that were made on the radio. And to that effect that, again, there was nothing followed up regarding that.

Now, Alex has been – he came in halfway through the project. He has been involved, I suppose, for the five or six years that he said, but there has still been no solid proven mining method that can sustain the water, or even do it with the water that's produced, and then, you know, make good the water bores that are lost because of this. I suppose that's really all I've got to say. That's my main stand anyway.

MR DUNCAN: No further questions. Thank you for your time today.

MR GRAHAM: I'm sorry. I can't hear that, sorry?

MR DUNCAN: Thank you for your time today.

MR GRAHAM: Okay. Thank you.

MR DUNCAN: .....

MR GRAHAM: Thank you. Bye.

MR DUNCAN: Next speaker.

MR DEIGHTON: Okay. Our next speaker on the phone is Jillian Brophy. Ms Brophy, good evening.

MS BROPHY: Good evening.

MR DEIGHTON: Take it away.

MS BROPHY: Okay. All right. Mine's a very different tack, but, anyway, I just wish to express my objection to Hume Coal's application to build a new coalmine in Berrima and the associated Berrima Rail Project. I'm a permanent resident of Berrima. I live in the heritage conservation zone of the village on a property that

houses some of Berrima's original cottages. This property also has a guest cottage, or guesthouse. As a resident of Berrima I participate in a range of activities to maintain the viability of this village for future generations, and I think that the Commission needs to understand, you know, what this village is all about. In the past 12 months I have had over 200 guests stay in my guest cottage. The guests come to Berrima to participate in all sorts of things, but large - - -

UNIDENTIFIED FEMALE: ..... - - -

UNIDENTIFIED FEMALE: Henrik, can you hear me?.

UNIDENTIFIED FEMALE: - - - ..... - - -

MS BROPHY: - - - to experience the beautiful natural resources and to come, of course, to explore our fabulous historic sites. Apart from that, guests have come here to work. They'll write a piece of music; they may be writing a book; they may be finishing a thesis. But what they are looking for is a tranquil environment to do this.

So this leads us to however the proposed project of Hume Coal would impact greatly on the Southern Highlands experience and on the many businesses associated with tourism. Well, not only that but, you know, many businesses associated with tourism in the highlands.

So then if the IPC approve this project, how can I be assured that Hume Coal will make good to the farmers so that their waters are – you know, that with the water supply that has been depleted, or maybe they have no water – I can be assumed – be assured that Hume Coal will manage excess water from the mine without a water treatment plant and will be able to prevent toxic water entering one of our many water supplies? How can I be assured that Hume Coal will not create extra dust, noise, or other pollutants that will diminish our clean air, our quiet, and, overall, the quality of life for our flora, fauna and human beings? How can I be assured that Hume Coal will manage the visual impacts of this operation so that the current landscape is preserved?

Considering the exponential growth in tourism over the past 18 months and, of course, you most probably already know that Berrima has been awarded 2021 Best Town in New South Wales for under 5000 people. How will Hume Coal compensate the loss of jobs; the loss of business; businesses associated with our tourism industry? And that's about all I've got to say, except that I ask you to consider my concerns and those of the DPIE. This project should not be approved, as Hume Coal, I believe, have failed to address adequately the major risks that have been identified regarding this project. Thank you for your time.

MR DUNCAN: We appreciate your time tonight. Thank you. We have no questions. Thank you.

MR DEIGHTON: Thanks, Ms Brophy. The final speaker for this evening is Henrik Glud. Mr Glud, good evening to you.

MR H. GLUD: Good evening. So I'm a resident of Robertson, which is not necessarily near the coal mine, but I am also objecting to building the mine. But more importantly, I am very concerned and would like to object to the rail expansion, more from the point of view that there will be a significant impact on Robertson from the increased amount of rail traffic we will be getting through the village. So Robertson has two level crossings, and at the moment we're getting coal traffic, and these - these very long and very slow coal trains are holding up the traffic and the flow of traffic through the village for several minutes, somewhere between five and 10 minutes every time, and we're having, from what I can - only my own experience is somewhere between two and four trains a day.

Now, my understanding is that I believe I read previously that the number of trains will - will increase eightfold. I'm not sure if that's updated information, but it - it's going to be total chaos for - for Robertson to have, you know, whatever, 15/20/25 trains of coal coming through the village with two - two level crossings. So that will, you know, stop the flow of traffic through the village. All of this - that many times a day, and it will be an inconvenience for the local residents, clearly. Now, it is cutting over the Illawarra Highway, so it's a - it's a state highway that has been stopped many times, and we have school traffic. We have a lot of traffic between the coast and the highlands for a lot of tradies travelling through here, and as other speakers have talked about, the tourism in the area, we have a significant tourism in - in Robertson as well.

So it's clearly going to be a - an issue for tourisms. We have motor clubs that love driving through the Macquarie Pass and stop at the pie shop or the cheese factory or any of the other many outlets we have in - in Robertson. We have motorcycle groups of, you know, 50/60/70 motorcycles coming up the pass and - and want to pass through Robertson, and, you know, with all of those coal trains, they're going to be stopped as well, so it will have an impact on the tourism in the area simply because they're not going to want to go through Robertson when they keep having to be stopped by coal trains. And - and also, in - in addition to that, we have had - personally, we have had some severe medical issues, and there is also another level crossing between Robertson and Bowral ..... times a day at the moment, but again, if it's eight times more, that will stop the traffic between Robertson and - and Bowral.

And here, the important thing is the ambulance would normally come from Bowral to Robertson and would have to go back again, so we were concerned about the impact on any speedy delivery of ambulance to - to our local area, and - and, of course, being able to get to the hospital in Bowral, which is the closest to Robertson. So building a - a mine in Berrima may not affect Robertson, but certainly increasing the traffic of trains, very long trains as they are, through Robertson and also blocking the - the road to Bowral is - is of a great concern to the local community here. So that's my major point. Thank you.

MR DUNCAN: Thank you, Mr Glud. Thanks. Thank you for your presentation this afternoon. That - that brings us to the end of the day of this public hearing. Thank you for every to everyone who presented today for your thoughtful presentations. A transcript of today's proceedings will be made available on our website in the next few days. Just a reminder that the Commission will accept written submissions on the Hume Coal project and Berrima Rail project up until 5 pm next Friday, 23 June 2021. It's particularly helpful to us if you can comment on your submissions at this stage on the assessment report for the project prepared by DPIE. You can submit your comments using the Have Your Say portal on our website, or by email or by post. We will be back tomorrow morning at 10 am for day 2 proceedings. Thanks for your company today, and from all of us at the Commission, enjoy your evening. Good night.

MATTER ADJOURNED at 5.57 pm UNTIL TUESDAY, 13 JULY 2021