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TRANSCRIPT OF PROCEEDINGS

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INDEPENDENT PLANNING COMMISSION

PUBLIC HEARING

RE: MANGOOLA COAL CONTINUED OPERATIONS

REFERENCE NO. SSD 8642

PANEL: **PROF SNOW BARLOW, Chair**
MR PETER COCHRANE

COUNSEL ASSISTING: **MS JOANNA DAVIDSON**

DATE: **9.59 AM, THURSDAY, 4 MARCH 2021**

PROF BARLOW: Good morning and welcome to day 2 of the Independent Planning Commission's electronic public hearing in to the State significant development application for Mangoola Coal Continued Operations Project. I am Professor Snow Barlow and I chair this Independent Planning Commission panel.
5 Joining me on the panel is my fellow Commissioner, Peter Cochrane. We have Joanna Davidson 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 variously meet today and pay our respects to their elders, past, present and emerging, and to the elders from other communities who may be participating today.

10 The applicant, I would acknowledge that – sorry, the applicant, Mangoola Coal Operations, is a subsidiary of Glencore Proprietary Limited and owns and operates the Mangoola Coal Mine, an existing open-cut coal mine located 20 kilometres west of Muswellbrook in the upper Hunter Valley. The applicant seeks planning approval
15 for the extraction of an additional 52 million tonnes of coal by establishing a new open-cut mining area known as the northern extension area. I note the DPIE, in its assessment report, has concluded the applicant's application is approvable, subject to conditions.

20 The Minister for Planning and Public Spaces has directed the Commission to hold a public hearing in to this application. He asked the Commission to make a determination on this application within 12 weeks of receiving the whole of government assessment report from DPIE. In line with the regulations introduced in response to the ongoing COVID-19 pandemic, we have moved the public hearing
25 online with registered speakers provided the opportunity to present to the panel via telephone or video conference. In the interests of openness and transparency, we are live-streaming the proceedings of this hearing on the Commission's website.

30 A full manuscript of the two-day hearing will be published on the Commission's website in the next few days. 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 additional information is needed to make our determination. Written submissions on this matter will be accepted by the Commission up to 5 pm on Thursday, March 11 2021. You can make a submission using the Have Your Say
35 portal on our website, or by email, or by post. I would ask everyone presenting today to please try and keep to your allocated speaking time. As chair, I will enforce timekeeping rules to ensure everyone receives their fair share of the allotted time.

40 However, I do reserve the right to allow extra time for the panel and the counsel assisting to ask questions or to hear new information. I would encourage presenters to avoid repeating or restating submissions previously made to the application, noting that particularly assisted by hearing your views on the Department of Planning and Industry and Environment's assessment and recorded recommended conditions of this project. Thank you. It's now time to begin the second day's
45 hearing. Counsel, could you please invite the first speaker.

MS DAVIDSON: Certainly. Our first speaker is Sue Abbott.

MS ABBOTT: Thank you. Good morning, Commissioners. My name is Sue Abbott and I live in Scone, New South Wales. I object to the Mangoola Coal Mine
5 expansions. The risks and threats that we face today as a result of global climate
emergency are incompatible with modern society as we know it and yet, here we are
again, being asked to comment on a destructive company's plan, seeking permission
from the New South Wales State Government to be permitted to continue the chaos
and destruction of our planet on a massive scale. We know that fossil fuels are
10 destroying the planet and we know that there are no safe levels.

The New South Wales Department of Planning, Industry and Environment's
intransigence on facing this fact means that it has failed to stop coal development
madness. What DPIE should be doing, instead of encouraging this toxic behaviour,
15 is to actively be putting a stop to this coal mine outright, along with cancelling all
operating licences for all coal mines across New South Wales straight away.
Australia's climate emergency policy has been a catastrophic failure of risk
management, revealing for all to see that scientific facts matter little in Australia
when addressing the climate emergency. We know that last year was the hottest year
20 on record.

We know that 1.5 degrees Celsius increase will be reached before 2030 and we also
know that reducing emissions alone will have no significant impact on warming
trends over the next two decades because it is similar to turning a tanker on the ocean
25 when it is heading in the wrong direction. It does not happen quickly. Yet we must
still make the commitment to do this because here in Australia, we have no carbon
budget left. It pretty much runs out in 2025. It is already too hot on planet Earth. It
is already unsafe. We have reached tipping points which are essentially thresholds
beyond which large change is initiated. Evidence from tipping points alone suggest
30 that we are in a state of planetary emergency.

Clearly we never wanted to be in this position, but here we are. Just take a look at
Arctic Sea ice, already tipped. The west Antarctic ice sheet, already tipped.
Australia's coral reef, already tipped. The Greenland ice sheet, on the point of
35 tipping. Boreal forests, alpine glaciers, Atlantic circulation, the Amazon rainforest,
all on their way to tipping. Losing the reflective power of Arctic Sea ice will lead to
warming equivalent to one trillion tonnes of CO₂ and advance the two degree
Celsius threshold by 25 years. And as Professor has said, any rational policy
would make preventing this a top climate priority for world leaders.
40

I cannot stress enough that the world is, right now, on a catastrophic trajectory of
three to five degrees of warming by the year 2100 which, to put it bluntly, is curtains
for modern human society. If this coal mine is permitted to operate in any capacity
whatsoever, the existential threat to civilisation is even more guaranteed. I would
45 like to point out to the Commission that those who sanction coal mining
aggrandisement, so evident here in the Hunter Valley, need to know that they are

condemning people to die. Any authority which approves any fossil fuel projects is essentially killing people and nature by its very act of sanction.

5 Given that climate change has already made everything too hot, lurching us
dangerously close to the hot house Earth scenario, our primary task must be build
capacity for emergency speed emissions elimination. Dealing in coal mines just will
not cut it. Mobilising to zero emissions by 2030 is critical because a 2050 timeframe
will not prevent catastrophic outcomes, nor will approving this coal mine for
sanction. Both are just signing our death warrants. Terrifyingly we are at the brink
10 of large-scale climate disruption and as global warming intensifies, physical, social
and economic system failure will inevitably occur. This situation is unprecedented in
human history.

15 We need emergency action to prevent climate disruption, not another reckless coal
mine development. Yet profound ignorance amongst our bureaucrats and politicians
has meant that not one of them has acknowledged the full realities of the climate
crisis and so the groundhog day that is coal mining approvals continues. To
conclude, I would like to state again that I object to the Mangoola Coal Mine
expansion. Thank you, Commissioners.

20 PROF BARLOW: Thank you, Sue. I hope that you will put your submission in
writing by the March 11 deadline. We will look forward to receiving it. Thank you.

MS ABBOTT: Thank you very much. Thank you.

25 MS DAVIDSON: Our next speaker is Georgina Woods.

PROF BARLOW: Sorry. It's Cameron Collins.

30 MS DAVIDSON: Apologies. It's Cameron Collins.

MR COLLINS: Good morning, Commissioners.

35 MS DAVIDSON: Cameron Collins of the Hunter Thoroughbred Breeders
Association. Thank you, Cameron.

PROF BARLOW: Thank you, Cameron.

40 MR COLLINS: Good morning, Commissioners, Professor Barlow, Mr Cochrane
and counsel assisting. I also would like to acknowledge the traditional custodians of
the land on which we meet and pay my respects to their elders, past, present and
emerging. Commissioners, we have met before so, as you know, my name is
Cameron Collins. I'm a veterinarian with 29 years' experience in equine
reproduction in the Hunter Valley and internationally. I am the managing director of
45 the Scone Equine Hospital and a member of the Australian and New Zealand College
of Veterinary Scientists in Equine Medicine. I am also the President of the Hunter
Thoroughbred Breeders Association, an organisation that represents over 200 equine

organisations and individuals in the Hunter who make their living from breeding horses and the associated businesses and operations.

5 The Hunter thoroughbred breeding industry is internationally recognised as one of
three centres of thoroughbred breeding excellence in the world. It has been mapped
as a critical industry cluster and is nationally, state and regionally significant. The
industry contributes \$2.6 billion to the New South Wales economy, injects over 560
million to the upper Hunter regional community, supports over 53,000 jobs across
the State and around five and a half thousand in the Hunter. I am also a member of
10 the community affected by this mine, having lived and worked in the Denman, Sandy
Hollow and Scone regions since I came to this area in 1993.

I am here today to ask you to stop the destruction imposed by this mine on the
Wybong and our Upper Hunter communities. In my firsthand experience of
15 observing almost 30 years of mining in this region, this mine has precipitated a
unique milestone double; one achieved by no other mine in the Upper Hunter.
Firstly, an apology from the local mayor in 2012 for previously supporting this mine;
and secondly, a forthright objection by the Muswellbrook Council to this specific
proposal. In his apology, Mr Rush stated that the mine had cost the Wybong
20 community too much. More than half the Wybong Valley's population, more than
400 people have left because property buy-outs and the Mangoola Mine has opened
up a new front in the middle of productive agricultural land in an area identified as a
critical biodiversity link between the Wollemi National Park and the Great Eastern
Ranges.

25
"No part of the environmental impact statement disclosed that there would be such a
large dislocation of a rural community," Mr Rush stated. Now, Commissioner, this
is at the heart of this matter. Damaging decisions are being made based, at best, on
incomplete and, at worst, misleading assessments with little or no regard for the
30 environmental and social consequences and against the wishes of directly affected
communities and residents. Commissioners, in determining this matter, you have the
opportunity to correct or preside over the complete destruction of a rural community
and the diversification that its presence brings to the Upper Hunter.

35 To echo the sentiments already expressed to you by the Muswellbrook Council, we
do not want this region to become a ghost town. I'd now like to address the merits of
this proposal and the Department's assessment report. It disappoints me to say that
our community has lost faith in the Planning Department. It does not trust the
assessments put forward by the proposal proponent, nor the Department's assessment
40 of that assessment. Our experience has been that in the main, the Department
represents the proponent's position with little or no critical appraisal and it worries us
greatly that the Commission has to rely on the Department's assessment and is under
pressure to make complex decisions on these matters in short timeframes.

45 The information from the Department's assessment report indicates that at least 90
more homes and families will have to leave this area or suffer unacceptable noise
exceedances from blasting six days a week, two blasts a day in order for this mine to

operate. In addition, data taken from the national pollution inventory in 2018 revealed that the Hunter's 2333 postcode is the most polluted in Australia; air pollution primarily caused by coal-fired power stations and coal mining operations. Wybong is in this postcode. In 2020, Upper Hunter residents received more than 300
5 alerts from the Upper Hunter Air Quality Monitoring Network; almost one a day on average.

We see and live the air pollution signs every day, the physical layers of dust on our homes, our washing, our cars and in the air, community health impacts from asthma,
10 bronchitis, chronic pulmonary disease, premature deaths. This is a health crisis. But in its report, the Department acknowledges that air quality is a community concern, but waives away these human costs. We do not trust this analysis. In our experience, what is always missing in the Department's assessment is a robust cumulative assessment of the air quality impacts of any mining proposal and this one
15 is no exception. We strongly urge the Commission to satisfy both the community and itself that Mangoola's cumulative air quality impacts, by conducting its own independent assessment and sharing it with the community prior to making a decision.

20 The Department admits that the proposal will result in disturbance and diversion of additional water catchments and impact on unregulated tributaries of the Goulburn River which flow in to the Hunter. It is accepted by government agencies that these rivers and tributaries are already stressed. The IESC's findings on the broader assessment methodology found what we have regrettably experienced before: EIS
25 assessment methods did not capture all the potential impacts; limited groundwater quality monitoring data; inadequate surface water quality analysis; lack of appropriate avoidance or mitigation measures for both surface and groundwater.

We also share the concerns expressed to you by Council that there has been no
30 evaluation of the geochemical risks to the water system and abject failures to assess the impact of this proposed development on all water courses as is required by law through the SEARs. Despite these serious omissions, the Department is satisfied that the project's water impacts are manageable. We've heard this before and, with respect, our community is not satisfied. We would ask that you apply the
35 precautionary principle and not jeopardise our future water security. If I could move on to economics. It is our ongoing experience with mining projects in the Upper Hunter that the economic analysis presented by the proponents suffers from what we call an optimism bias; that is, the benefits are over-estimated and the costs are under-estimated or even totally ignored.

40 We note that in its assessment report, the Department refers to Glencore's estimates of costs and benefits. It is disappointing that the Department seems to uncritically accept the proponent's economic analysis without subjecting it to independent critical examination. The only example I am aware of where this occurred was in the
45 Rocky Hill case where the Government critically examined the fundamental economic assumptions, including the assumed coal price, company tax rates, assumed royalty streams, worker, supplier and community benefits and found them

all wanting. Based on years of experience, we do not trust the analysis presented by the proponent, nor the Department's uncritical acceptance of this assessment.

5 We would strongly urge the Commission to undertake its own independent economic analysis prior to determining this matter. The last, but not least, point on the merits of this project I would like to address is the social impact. The Hunter's thoroughbred breeding industry is the largest agricultural industry and employer in the Hunter. We have some knowledge and understanding of this. Like many other agricultural industries, our future is being impacted by mining. It affects our ability to attract investment, to plan and invest with confidence and to attract and retain employees and other businesses to the region. At a time when the world is transitioning away from coal, we have an unreconcilable paradox between the need for diversity and regional resilience and the approval of more coal mines which threaten the social and economic diversity of the region.

15 If I could move to compliance. When we, the affected community, are asked to trust that the impacts of this mine can be managed, rather than listen to what the proponents say, we prefer to look at what they do. The Mangoola operation has breached their licence conditions every year for the past 12 years. These breaches have included failures to monitor air quality, blasts over pressure exceedances, failure to collect dust data, exceeding noise limits, water-related breaches, failure to comply with the broader monitoring requirements and an inoperable telephone complaints line. This does not indicate a good corporate citizen and it does not bode well for our community.

25 Commissioners, if we move to government policy, the current land use conflict reflects broader government policy conflict. We note that the Department places significant emphasis on the government strategic statement on coal exploration and mining in New South Wales to support its findings and recommendations. We question why this policy is given such weight over other government policies, including the strategic land use – regional land use plan for the Upper Hunter, the Hunter 2036 Plan and the government's Net Zero Plan, all of which recognise the need for balance, protecting and growing sustainable industries, including agriculture, and transition and diversity. Even - - -

35 MS DAVIDSON: Mr Collins, I note that time has expired. Are you - - -

PROF BARLOW: How long - - -

40 MR COLLINS: I can wrap this up in one minute, counsel.

PROF BARLOW: I'm happy to give you that one minute.

45 MR COLLINS: Thank you very much, Professor. Even the government strategic statement on coal is premised on a responsible development taking a balanced approach, reducing community impacts and addressing community concerns. In our view, this proposal does not constitute responsible development. In conclusion,

Commissioners, in our view, this is yet another mining proposal which has, at its core, significant social, economic and environmental costs that have not been adequately assessed, cannot be mitigated by consent conditions and, in the end, will be borne by the local community, if there was one left to bear it. In our view, this
5 proposal is not in the public interest and it should be refused. Thank you, and I apologise for exceeding the timeframe.

PROF BARLOW: Thank you. Can I ask you one question though.

10 MR COLLINS: Yes.

PROF BARLOW: Can you outline how the Upper Hunter development strategy is not being adhered to in this? You mentioned that as part of the State Government development strategies that perhaps haven't been considered entirely in this.

15 MR COLLINS: Professor, I think I refer to this in terms of the cumulative impact of the mining proposal. So this mining proposal is another in, you know, a long line of proposals that we've addressed over the past 10 years and we see less and less – as mining operations continue to advance on agricultural land, we see less and less
20 opportunity for diversification and less and less interest by external parties in moving to the Hunter. They see us purely as a quarry and so many other industries and businesses associated – certainly with our industry – are looking elsewhere and not looking to diversify the industries available in this. I realise that's a relatively general point of view, but – a relatively general answer, but that's certainly
25 something that we hear on a regular basis.

PROF BARLOW: Thank you. Peter, do you have any questions?

30 MR COCHRANE: I do. Thank you, Cameron. I do recall, in previous hearings, the Thoroughbred Breeders Association made similar statements about the link between health impacts and dust levels; then the cumulative effects. If you have any data on that, we'd be keen to receive that or point us to where some of that data might be available.

35 MR COLLINS: Certainly, Mr Cochrane. We have some data that we've used in the past and is obviously relevant in this case, so we can certainly submit that information.

40 MR COCHRANE: Thank you.

PROF BARLOW: Thank you.

MR COLLINS: Thank you, Commissioner.

45 PROF BARLOW: No further questions. Thank you, Mr Cameron.

MS DAVIDSON: Our next speaker is Georgina Woods.

MS WOODS: Hello. Can you hear me okay?

PROF BARLOW: We can, Georgina.

5 MS WOODS: Thank you. Thanks very much for the opportunity to present. My
name is Georgina Woods. I'm from Lock the Gate Alliance and I'm speaking to you
from the Country. The proposition being made to the IPC about this project is
10 that you should allow permanent intergenerational harm to be inflicted on a local
community, endangered flora and the climate in order to accommodate Glencore's
aggressive mining strategy which has brought forward the closure of the mine by
four years. Yes, it is an expansion project, but the impacts of it are profound and
some of them will be of many generations' duration. Compared to the original
consent, the effective transition – extension in time of mining employment for this
project is only 13 months.

15
It's Glencore's over-hasty mining strategy that's going to bring on closure four years
early and now they're using their workforce as a bargaining chip to get consent from
you to double the frequency of blasts, double the number of voids, add a third again
as much woodland clearing and land disturbance, nearly half as much again
20 greenhouse gas emissions and 10 per cent more groundwater flux from the Wybong
Creek eluvium. On the reverse side, the air and noise and social impacts being
experienced now by people living in the Wybong Valley would begin to be alleviated
when the mine moves to closure and the re-establishment of biodiversity will
accelerate.

25
That has to be weighed in the ledger of the public interests for this project and so too
does the opportunity cost for Muswellbrook, a local government area with social and
economic conditions that don't reflect the more general mining wealth of the region.
In the absence of policies and measures that are capable of mitigating the local
30 regional and State-wide environmental social and economic damage from this
project, we believe the Commission must refuse consent. The assessment report
notes the strategic statement on coal outlines how global transition to new energy
sources will reshape regional communities that are currently reliant on the coal
export industry and the Hunter, in particular, will need time and support to diversify
35 its economy and develop new sources of employment.

But no such support has so far been offered. In the absence of that support, there is a
genuine and very serious threat that this project will do economic harm to the
Muswellbrook local government area because it continues and deepens its
40 dependence on the coal export industry to the detriment of other activities at a time
when change is already underway. That threat is reflected in Muswellbrook
Council's objection to the project. Council cited contraction of other industries,
particularly agriculture, that is already occurring. This project threatens the
resilience of this community and its capacity to adapt and respond to the changes that
45 are underway.

By enabling Glencore to continue mining here at the maximum rate for another four years, the IPC will be delaying measures to prepare Muswellbrook for that change and as Council told you last week, that runs the risk of leaving Muswellbrook a ghost town. The Wybong community is hanging on, despite 54 properties already being
5 bought out because of the noise created by this mine. With this project, an additional six residences are proposed by the Department to be granted acquisition rights. There is a question raised here about thresholds and tipping points for the community. Lock the Gate receives calls and pleas for help from people living near this mine who cannot sleep and tell us that they are being treated appallingly by
10 Glencore and the Department.

There isn't much help that we can offer because the planning process is designed to leave people with no recourse if their property is not granted acquisition rights and the statute prevents the IPC from granting those rights beyond tightly defined
15 parameters. In any case, many people want to remain in their community. Decisions by the Department and consent authorities make it impossible for neighbours of mines to quietly enjoy their properties and force them to leave or shut their house up and live inside with the intrusive impacts of pollution from the mine. More broadly, the Hunter region has higher than average incomes than many parts of New South
20 Wales, but those averages mask pockets of disadvantage.

Young people have lower high school retention rates and worse mental health than the average, for example. Muswellbrook is a notable pocket of disadvantage in the region, amid the broader regional prosperity. Aboriginal unemployment is 21 per
25 cent. The percentage of people living on welfare in that local government area is twice the Upper Hunter average and the index of social disadvantage, Muswellbrook scores poorly compared to other local government areas in the region and the State. The Department's assessment report considers that the social impacts of the project will only last as long as active mining and compares that against the economic
30 benefits but, in fact, it is the financial benefits of the project that will have only very short duration.

The social and environmental impacts will last long after Glencore has left the Valley. This project will clear 356 hectares of remnant woodland and displace
35 hundreds of endangered and threatened orchids. For a mine with such a significant biodiversity impact, the Department seems to have paid scant attention to this issue. We believe the assessment that has been conducted fails in their obligation to meet the avoid, mitigate, offset hierarchy. Offsetting is the first and only consideration and the offsets that are proposed are grossly inappropriate. Glencore's proposal to
40 offset the impacts of this project on the two threatened orchids is entirely dependent on surplus offset credits they say they've created from offset properties already committed to the United Wambo Project.

A United Wambo offset site is also proposed to satisfy nearly six per cent of the
45 offset credits required for their ironbark bull oak forest, but no information is apparent that accounts for how these United Wambo offset sites have managed to generate surplus credits. With this proposal too, Glencore continues the practice of

using the area that they are proposing to clear as its own offset with the promise of mine rehabilitation. For two ecological communities, the proposed offsetting strategy rests almost entirely on mine rehabilitation. For the forest red gum grassy open forest communities, 72 per cent of the proposed offsetting relies on this and for
5 swamp oak grassy riparian forest, it's nearly 90 per cent.

This means the offsets won't be established until after 2030 and could not be expected to be able to be ecologically functional for at least a couple of decades after that. Glencore is investing real effort in to rehabilitation that has ecological integrity and we welcome that, but that can't compensate for biodiversity loss that could lead
10 to regional extinction before those woodland areas are established. The assessment report provided by the Department again incorrectly applies the Aquifer Interference Policy. By applying the policy only to bores not owned by the mine, the Department has failed to properly apply the AIP which requires assessment against the minimal
15 impact criteria at all water supply works.

There's no map provided by the Department or list of water supply works that will experience drawdown or water quality deterioration greater than those criteria. This is an issue that the IPC clarified in its statement of reasons on the Bylong Coal
20 Project, but the Department persists in providing the Commission with incomplete and misleading assessment reports which compromise the panel's decision making. This proposal is expected to potentially result in 1.2 per cent reduction in average surface flows in the Wybong Creek. Most of it will be permanent. It would have been useful for the Department to describe the combined impact on Wybong Creek
25 of both surface and groundwater impact, since the groundwater impact also cites a one per cent reduction in brace flow to the Wybong Creek, resulting presumably in an overall impact of over two per cent reduction in average flows.

It's not possible, from the information presented in the assessment report, to
30 understand the implications of that loss in below-average years, which is pretty important given the expected decline in rainfall and increase in temperature that the Upper Hunter will experience as the world keeps warming. In preparing for this hearing, we return to the assessment report prepared in 2007 by the Department for the Anvil Hill Coal Project. In 2007, the Department acknowledged that global
35 warming and climate change poses a significant threat to society and the environment and described, in broad detail, the environmental consequences of global warming, including increased temperatures in Australia, more extreme weather, bushfires, impacts on river flows and water supplies to communities and the environment and the extinction of between 18 and 35 per cent of species by the
40 middle of this century.

In contrast, the panel will not find any consideration in this assessment report of the actual impacts of climate change on this region or any other part of New South
45 Wales. Nor will the panel be able to come to a realistic understanding of the role this project will contribute to those impacts. All we find is a series of evasions and excuses from the Department's continual failure to treat this issue with any seriousness. There will be permanent enormous and calculable environmental, social

and economic consequences of failing to achieve the temperature goals of the Paris Climate Agreement, to which New South Wales has lent its endorsement.

5 The Department of Planning steadfastly refuses to accept its statutory responsibility to assess the role of this project in that disaster. It has not even required Glencore to prevent and mitigate the direct emissions that will occur as a result of methane escaping from the coal seams exposed by this project, nor has it even considered the possibility that Glencore should be required to offset the 100 million tonnes of greenhouse pollution this project will add to the atmosphere. If this project would not be economically viable, if it was required to mitigate fugitive emissions on site, 10 for example, then that is not a reason to accept those emissions as inevitable.

It simply means that the release of those emissions must become part of the panel's determination of this project. Finally, there's a statutory responsibility on both the 15 IPC and the Department to consider intergenerational equity. The Department's treatment of this issue in an appendix to the assessment report is cursory and biased. No reasonable person can accept it. Not after hearing Muswellbrook Council describe how this project jeopardises the resilience of the local community and Muswellbrook Shire, more broadly; not when it's clear the Department considers 20 this project to be part of a global trajectory that will see global average temperature rise of three degrees or more and will dramatically transform and degrade not just the environment, world heritage and biodiversity of New South Wales, but the lives and wellbeing of our population.

25 The social, biodiversity and water impacts of this project locally and regionally are sufficient reasons in themselves to reject it. Its clear position within a strategic context and trajectory that assumes the world will warm by more than two degrees, contrary to New South Wales' commitment to the Paris Climate Agreement goals, is further reason to do so. We hope that you refuse consent. Thank you.

30 PROF BARLOW: Thank you, Georgina. Peter, do you have any questions?

MR COCHRANE: No. Thank you. Thank you very much.

35 PROF BARLOW: Thank you very much. Georgina, I have one question. You mention a potential double counting of biodiversity offsets with United Wambo, as well as Angoula. Could you elaborate on that, or how that would happen.

40 MS WOODS: Well, two of the offset sites in the proposal are already offsets for United Wambo. One of them is called Highfields. The name of the other one is escaping me right now, but they're the two that are providing the offset credits for the orchids and they also provide offset credits for a couple of the ecological communities, as I said. So they are already United Wambo offset sites and I wasn't able to find any information about the credit calculation that they've done that makes 45 them come to the conclusion they have surplus credits from that, that they can now use for this project. So I guess that's a question for Glencore and the off – you know, the Department.

PROF BARLOW: Thank you very much. Thank you for that. Next speaker, please.

MS DAVIDSON: Our next speaker is Kim Nightingale.

5

MS NIGHTINGALE: Hello.

PROF BARLOW: Good morning, Kim.

10 MS NIGHTINGALE: Good morning.

PROF BARLOW: We can hear you.

15 MS NIGHTINGALE: My – thank you. My name is Kim Nightingale and I reside at 620 Ridgeland Road, Wybong. I oppose the expansion of Mangoola Mine. I, along with my husband and two children, will be adversely affected by Mangoola Coal if this expansion is approved. Firstly, we would be 800 to 1000 metres away from the pit and being extremely close poses quite a few concerns. Amongst those concerns are the noise. The noise would be unbearable. I cannot imagine the noise
20 of the mining machinery being that close to our property, as we are presently a couple of kilometres away and can hear the machinery quite clearly.

My children catch the bus at the front gate and can hear the mining machinery very clearly when waiting for the bus. I cannot fathom why Mangoola Mine are even
25 being considered to mine this close to residents. The traffic would be increased to what is already over the desired amount on the local roads and some of them are one lane and one and a half lane roads and, in the condition of the roads, this would be very unsatisfactory. Another major concern is our water bore on our property which is our main source of water. The water bore is 85 metres deep and connected to the
30 Sydney Basin underground river which also the Wybong Creek is connected to.

Looking at the underground river map, the proposed expansion runs right through the underground river which would obviously destroy the river; therefore would destroy a valuable water source for us and many, many other people. We have had the water
35 tested and the volume of water that comes out of that bore is huge. Prior to early 2020, the majority of Australia experienced probably the worst drought in living history and the thought of Mangoola Mine digging up a major water source for many people, and with this particular underground river which has an extensive volume of water, is absolutely outrageous.

40

And if every Australian knew this was proposed, I'm sure there would be absolute outrage because without water, we have no crops. Without water, we have no animals. Without water, we have no life. Another concern is the proposed closure of Post Office Road as it provides a route for those residents on the north side of
45 Yarraman Road. It was advised that Mangoola Mine quoted to spend \$2 million to upgrade Yarraman Road which has a deep causeway, but the true cost is about 10 times that amount. This is also very concerning if Mangoola are vastly under-

estimating the cost of changes. There is a misconception that the mine provides jobs in the local area.

5 The majority employees of mines don't live in the local area; they live down near Newcastle and surrounds. This, in effect, is deceiving the local town. It's deceiving the local economy, the town's growth and the local businesses outside of mining. The massive holes left behind are unsightly. How are the huge holes in the ground going to be rehabilitated? Put simply, they cannot. I struggle with the visual impact it has for the local residents, the local community and the visitors passing through. I
10 do believe the local area has exceeded the mining threshold and should object to future mine applications, mine expansions and, indeed, object to Mangoola Mine's proposed expansion. Thank you for listening.

15 PROF BARLOW: Thank you very much, Kim. Peter, do you have any questions?

MR COCHRANE: Kim, what's your receiver number? Can you tell us what that is.

MS NIGHTINGALE: The number on the map?

20 MR COCHRANE: Yes.

MS NIGHTINGALE: 157.

MR COCHRANE: Okay. Thank you.

25 PROF BARLOW: Thank you.

MS NIGHTINGALE: Thank you.

30 PROF BARLOW: Thank you very much, Kim.

MS DAVIDSON: Our next speaker is Roderick Campbell from the Australia Institute.

35 MR CAMPBELL: Thanks very much. Thanks, Commissioners. My name is Roderick Campbell. I'm the research director of the Australia Institute, an independent think-tank in Canberra. I'm an economist by background and I've been involved in most of the major court cases around coal assessment and many of these hearings over the last 10 years. And so I'll be talking mainly about the economic
40 assessment of this project, particularly the way it's been interpreted in the Department's assessment report and the original economic assessment from the EIS conducted by a firm that was then called Cadence Economics that has since been taken over by Ernst and Young.

45 Like almost all the economic assessments of coal projects we've seen in recent times, this one is deeply flawed and overstates the benefits of the project and radically understates the costs. I've got some slides which will help us go through this. I

think there are – I think it's important to say upfront, I think there are deep methodological problems in this assessment and I think the Department's claims of economic benefits – or the Department's acceptance of the proponent's claims of economic benefits of over \$400 million are, to be frank, deceptive. The Department
5 knows that a lot of the methodologies relied on are flawed, controversial, unorthodox or, to quote the Land and Environment Court in the Rocky Hill case, plainly wrong.

The Department has, in the past, argued against a lot of what they now appear to accept. So I guess as a starting point, I would put it to you that the value of this
10 project and what is put to you by the Department is radically overstated and they know it. Let's see if I can share my screen. Share screen, PowerPoint. Can you see that?

MS DAVIDSON: Not at the moment, no.
15

PROF BARLOW: Not yet.

MR CAMPBELL: Oops. And without – how's that now?

20 MS DAVIDSON: Yes.

PROF BARLOW: It's coming. Thank you.

MR CAMPBELL: How are we going there?
25

MS DAVIDSON: Yes, we can see that now.

PROF BARLOW: Thank you.

30 MR CAMPBELL: Okay. So here's the Department – here's a snip from the Department's assessment report which, word for word, number for number, repeats the claims in the original EIS. We won't have time to go through all of them. In my written submission, I'll talk more about royalty and company tax payments. I find it
35 extraordinary that the Department would accept, at face value, the company tax claims of one of the world's most notoriously, shall we say, tax-shy companies, but we'll talk about that in written submissions. I really want to focus my time today with you on these so-called indirect benefits.

The claims of benefits to New South Wales workers, benefits to New South Wales
40 suppliers, which you see there run in to around \$235 million, far more than half the claimed value of the project. But before we leave this slide though, I'd also draw your attention to the costs down there. Loss of – impacts on other industries, greenhouse gas emissions and transport. These costs are assessed in the tens of
45 thousands of dollars by the economists here. This approach has also been heavily criticised by the Land and Environment Court and in other evidence before you, some of which I've heard this morning, you'll hear that there are clearly impacts to

local people and local industries that I would estimate run in to at least the tens of millions of dollars that haven't been accounted for properly here.

5 And so when the benefits – the claimed benefits are hundreds of millions of dollars claimed on deceptive techniques and the costs are similarly deceptively understated, the economic case for this project, from the perspective of the New South Wales community, is questionable and likely to be negative. So let's talk a little bit about these indirect costs and benefits. The way worker benefits are worked out by this consultant – and only by this consultant – is to estimate – take a mining wage and
10 assume that any workers in the project – if the project is not approved, any workers that would work in the project would otherwise earn the average regional wage.

This overlooks the fact that most workers in mining projects – if you go to apply for a job at a mining project, you're likely to need experience in the mining industry. If
15 you're going to work in this project, you're likely to be in the mining industry and, in the absence of it, you're likely to work in the mining industry. This was argued about extensively in the Rocky Hill case. So let's see what Chief Judge Preston had to say. He said that this consultant, Steven Brown, sought to inflate the benefit to workers, that his approach was contrary to the economic assessment guidelines and
20 he incorrectly compared the average coal mining wage to the weighted average non-mining wage, as I've just tried to explain.

Under cross-examination – and this is still a quote from the judgment – Mr Brown conceded that his opinion was not based on detailed research or analysis. It was
25 based purely on what his client had said to him, or the first figures he picked and Judge Preston found:

If there will be any worker benefits of the project, they are likely to be small and in the order of magnitude of the Department's figure of 4.3 million and possibly lower still.
30

So you can see a value that, in this case as well, was estimated in to the hundreds of millions of dollars, if it exists at all, the Land and Environment Court considers that and the Department's expert – well regarded economist from Centre for International
35 Economics, Nigel Roger Rutnem – estimated it in the single digit millions figure. So there's an overstatement in the – with the exact same methodology, we're seeing an overstatement in the Mangoola project in to the hundreds of millions. Other consultants don't use this figure. Here's Deloitte Access Economics and their assessment of the Maxwell project. For the purposes of the cost benefit analysis, it is
40 conservatively assumed that, on average, workers employed by the project would not receive a wage premium.

In other words, workers receive a similar wage elsewhere and so this value they conservatively exclude it from the CBA. It is conservative. There probably is some
45 benefit there, but it's likely to be small and, as the Department's guidelines state, zero is a useful starting assumption. Another consultant employed by the Department is BIS Oxford Economics. This was from their review of the Tahmoor

project. Same consultant, same methodology. Benefits to workers, they're saying the approach is not consistent with key elements of the guidelines and they suggest that this benefit be omitted from the cost benefit analysis.

5 So here we have a situation where, depending on the consultant you employ, you're going to get a different value from your coal mine in to the hundreds of millions of dollars. And I really urge the Commission to make a strong statement about this. We can't have a system based on where you can shop for your consultant and be assured that you will receive a materially higher valuation from Ernst and Young
10 than you will from these other well-known and regularly used by the government and coal industry consultants. This undermines the credibility of the whole system even further than other existing problems. A similar problem happens with supplier benefits.

15 The approach here assumes that essentially the mine is going to pay more than it would have to and there's a lot of problems with how much of this benefit actually accrues to New South Wales and how that's worked out. Essentially we're saying that the mine pays more than it should have to for its inputs and a vast amount of them come from New South Wales. Let's see what the Land and Environment Court
20 had to say. Again, he said that this was inflated. The results were not able to be tested or verified. Mr Roger Rutnem, as the Department's expert, undertook preliminary modelling. His results were orders of magnitude different to – sorry, I've tried to simplify the names there, but failed.

25 The Department's results were orders of magnitude different to the mining company's results. Mr Brown did not form any view as to whether data from his client was an accurate or inaccurate figure, but just accepted it as it seemed like a reasonable figure. Clearly, this is a consultant that takes whatever his clients say and feeds it in to his model and recites whatever comes out to the Department and
30 unfortunately the Department seems to be accepting what it used to oppose.

PROF BARLOW: Mr Campbell, you're out of time. How much – or how much more - - -

35 MR CAMPBELL: I'm nearly through, Commissioners. I'll just need another two minutes.

PROF BARLOW: Okay. You have two minutes.

40 MR CAMPBELL: Okay. So these issues were addressed. Unusually, the Department did not commission a review of the Tahmoor economic assessment. Instead, they've relied on a review that was commissioned by the mining company from another coal industry consultant, Jeff Bennett, who himself has come off second-best in the Land and Environment Court in the Walkworth matter. But
45 interestingly, Jeff says it's his professional opinion that the guidelines are incorrect in attributing a proportion of the costs associated with worker and supplier benefits as indirect benefits. But I guess the big point I want to move on to, so here you have a

situation where the Land and Environment Court and literally every other consultant, including those employed by the Department, including one employed by the mining company, says don't include these benefits; they're overstated, they're theoretically incorrect.

5

And in Rocky Hill, it was the Department arguing this. The Department was commissioning Nigel Roger Rutnem to say this is bunk. Yet here, we have the Department saying that they accept it and they base their recommendation to you on the basis of figures that they formerly opposed. They know better and I think it's evidence that the Department is biased and has been captured by the coal industry because here is – when this was put to Mike Young, Executive Director at the Department, last week relating to Tahmoor about these fraudulent benefit figures, he said – and I quote:

10

15

Whether or not you include them or don't include them, I guess there's different arguments about whether you ought to.

No, there's not. There's no different arguments amongst economists, other than Steven Brown from Ernst and Young, commissioned by the Mangoola project. I urge the - - -

20

MS DAVIDSON: Mr Campbell, that's the end of your additional time.

MR CAMPBELL: Thanks. I urge the Commission to reject the project and make a strong statement about the state of economic assessment and how it's misleading decision and undermining the entire planning process.

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PROF BARLOW: Thank you. Do you have any questions, Peter?

30

MR COCHRANE: I do. You didn't get a chance to get to comments on the indirect costs and, in particular, I'm wondering if you have comments on the estimate of the NPV indirect cost of greenhouse gas emissions as being \$31,000.

35

MR CAMPBELL: Yes. I have looked at that. I mean, I think it's important not just to look at scope 1 and 2 emissions and then divide that – you know, place a value in terms of the cost of carbon on that and then divide it by the New South Wales share of the population. I think that's an approach that's absolutely guaranteed to give a misleading impression of the impact of this. I mean, we're talking about approving large new coal mines at a time in history that we're being told to keep more carbon in the ground. And I'm happy to talk about the details of carbon pricing and things like that, but I think the fundamental point is that it's misleading to say this is just \$30,000 worth of impact when it's looking to liberate hundreds of millions of tonnes of coal from the ground. I'll go in to some details in a written submission.

40

45

PROF BARLOW: We would appreciate if you did that. Do you have any more questions?

MR COCHRANE: Do you have any comment on the use of a seven per cent discount rate over this short period of the mine extension?

5 MR CAMPBELL: Look, I think there's a pretty reasonable argument to be made that discount rate – the seven per cent discount rate is too high for any serious purpose at the moment. Interest rates haven't been anywhere near that for a long time, so even for assessing the financial aspects of a project, yes, I think there should be some discussion about revising what discount rates are used. But yes, a discount rate that's that high is certain to understate costs in the future; costs that are far in the future and, I mean, it would leave any impacts in terms of voids or groundwater impacts, far in to the future. It guarantees that they're not given a value that I would argue is appropriate and that I suspect many people would expect.

15 MR COCHRANE: If you could address that in your submission as well, that would be helpful.

MR CAMPBELL: Yes, I'd be happy to.

20 MR COCHRANE: Thank you.

PROF BARLOW: Thank you. Thank you very much, Mr Campbell. Now, the next speaker, please.

25 MS DAVIDSON: The next speaker is Catherine Chicken.

MS CHICKEN: Hello.

PROF BARLOW: Good morning, Catherine. Can you hear us?

30 MS CHICKEN: Good morning. Hello, how are you? Thank you for your time, Commissioners. My name is Catherine Chicken and I would first like to pay my respects to the traditional owners, past, present and emerging, of the land on which we stand. Thank you for your time again and I'd like to state clearly my objection to the Mangoola Coal Project. In the interests of disclosure, I'm a consultant with Scone Equine Hospital and I sit on the Upper Hunter Air Quality Advisory Committee as a non-coal-power industry representative. I'm a local community resident of Scone with enormous concerns about the cumulative impact of yet another coal mine on the health and wellbeing of the communities of the Upper Hunter; our communities.

40 I speak today, as I have at previous IPC hearings, as a deeply concerned Upper Hunter resident who feels that we have become sacrificial communities with respect to the unacceptable negative impacts of unchecked expansion of coal mining, in many cases in alarmingly close proximity to our population centres. It's apparent from all previous recommendations by the New South Wales Planning Department to approve every coal mining proposal in this area and the stark lack of any recommendations to refuse mining projects. But the planning process is, in effect, an

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approvals process which does not take in to account the very real concerns about the cumulative impacts raised over many years by community members living here.

5 The cumulative negative impacts of each new mine has had on our region over the
past two decades have never been adequately considered through the planning
process. Given all proposals are assessed in a stand-alone manner and each new
mine is assessed from a base of the mines already operating, there's an amplification
of the cumulative impacts with each new approval. To get to the current state where
10 the township of Muswellbrook is encircled by open-cut coal mines clearly illustrates
the lack of adequate planning for the protection of the health and wellbeing of the
members of our Upper Hunter communities. Suffice to say, the cumulative impacts
are plain for all of us who live here to see, hear, breathe and, at times, even taste.

15 Those of us still living here have had enough and many others have left. The impacts
on us are very real every day. Specifically in relation to the Mangoola Coal Project,
the impacts on air quality, water resources and the long-lasting legacy of open voids
full of toxic mine waste are of grave concern. We've become adept at monitoring air
quality in this area through the Upper Hunter Air Quality Monitoring Network,
installed in 2011 in response to community concerns over air quality in this region in
20 the face of increased coal mining activity. Despite the very effective monitoring of
air pollution through the network, we are making no headway in improving the air
quality of this area.

25 In fact, it is significantly worse in places now than a decade ago and the greatest
impacts are occurring in areas of the greatest open-cut coal mining activity. This is
evidenced by data generated from nearly 10 years of air quality monitoring by the
network. Annual PM2.5 levels in Muswellbrook have never been at or under the
eight micrograms per cubic metre NEPM benchmark since monitoring began in
2012, with no prospect of that ever being achieved. There is no safe level of air
30 pollution, yet the New South Wales government is content to allow the exacerbation
of air pollution in our region by facilitating ongoing expansion of open-cut coal
mining.

35 The effect of the coal mining footprint that contributes to expand in our region is not
only a threat to the health and wellbeing of those of us living here, but also to the
economic diversity of our region. Ongoing investment and existing sustainable
agricultural industries and future investment by other sectors is stifled due to the
constant threat of overexpansion of local coalmining.

40 Coalmining is an industry internationally recognised as being in structural long-term
decline. Given the world is rapidly pivoting away from energy generation from
fossil fuels, it would seem prudent to encourage investment in a diverse range of
economic activities in our region and secure the prosperity of existing industries in
order to transition away from coalmining and plan for a future where jobs are created
45 for those who would not otherwise be provided for by a coalmining industry in
retreat.

We live in challenging climatic times and it's up to all of us to exercise our duty in addressing the very real threats climate change brings. Approving coalmines flies in the face of those responsibilities. Commissioners, each new approval you permit or allow the department to permit has a cumulative impact on us, the residents of this place, as well as on humanity more broadly. Enough is surely enough.
5 Commissioner, I respectfully ask you to please stop this now. Thank you for your time.

10 PROF BARLOW: Thank you, Catherine. Can I ask you do you have – are you in possession of any reports on the Hunter River – you know, the Hunter Valley air quality monitoring showing that progressive – which you spoke about, the progressive decline since the first monitoring in 2012?

15 DR CHICKEN: Yes, so that – that data is absolutely on the public record and is – the monitoring network is administered by the EPA, used to be. But basically all of the data and all of the information on that network is on the public record on the EPA website. I'm more than happy to give you the annual reports for the past however many years you would like. And it clearly shows graphically the increasing air pollution in certain parts of the valley and it very much corresponds to those areas
20 that have the most activity of open cut coalmining.

So what is actually happening is we're getting a concentration further north up the valley, and that is being shown very clearly with the air quality. We're in a – you know, we're in difficulty times. We have got a drying climate. The dust that is
25 generated from this industrial activity is significant in our area, so we have a baseline level of air un-quality that is there. Any other events that come in on top of that, there is no wriggle room at all for any other climatic events, which we are seeing more of with climate change.

30 PROF BARLOW: Thank you. If it's on the public record we can access it, so thank you for your offer.

DR CHICKEN: I can certainly get those to you and that's no problem at all.

35 PROF BARLOW: Thank you. Can I have the next speaker, please.

MR COCHRANE: Yes. The next speaker is Nicola Robertson.

40 MS ROBERTSON: Hello. Can you hear me?

MR COCHRANE: Yes, we can.

PROF BARLOW: Yes, we can, Nicola.

45 MS ROBERTSON: Great. Good morning. Thank you for the opportunity to speak today. My name is Nicola Robertson. I am here to speak to you not as a technical expert but as an advocate for family, community health and wellbeing. I vehemently

oppose the Mangoola Coal Continued Operations Project. I oppose it on an individual project level but also based on the cumulative impacts in combination with the already multiple mining operations which exist in our area.

5 I live at Scone with my husband and three children. I am an allied health professional and have been living and working in this community for over 25 years. I live on an historic property. Our children are the fifth generation to have grown up here. We are beef cattle breeders. The connection which our children have to this place is very strong. It is not a connection which can be taught or trained. It is
10 ingrained, innate in their blood. Our children have a great sense, appreciation and pride of the history and heritage of our farm and our local area. It is fair to say that our family has always considered itself as custodians of this farmland. The responsibility of taking care of and protecting it has always been of the utmost importance throughout the generations.

15 Now more than ever we feel the community responsibility to care for and protect this place. Our farms, our land, our air, our water, our environment, it is important to us to preserve this place so that our children's children can also appreciate the heritage, history and landscape of this area. Once lost these things can never be replaced or
20 restored.

Over the past 20 years, while bringing up our children, we have witnessed the ongoing expansion and creep of mining further up our valley. While willingly acknowledging the benefits which the mining industry has brought to our valley
25 during that time, it is now blatantly clear that our valley is suffering, in fact being devastated and destroyed, by the cumulative impact of multiple mine operations. There has seemed to be frightening willingness by the – on the governments' and planning department's part to approve as many proposals as possible in the Hunter Valley without complete awareness and investigation of the true impacts on our
30 landscape, environment and communities.

So often we have visitors, including politicians, who come to our area for the first time and overwhelmingly their reaction upon first sight of the confronting mining landscape is shock and dismay, and words to the effect of, "I had no idea." And so
35 now we, as a community, feel a great need to stand up and say, "Enough is enough." We feel that all the current climate science and economic indicators are signalling the decline and demise of the coalmining industry in the years to come.

So although Glencore justifies its proposal by providing 480 operational jobs, an injection of funds into our community, our concern is that as the industry declines
40 those jobs will not, in fact, be sustained for the local community. We need development of alternative long-term sustainable industries in the area to which mining employees can transition as their job opportunities decline. We need to diversify our job, income and funding sources to other sustainable industries which
45 will remain into the future and not to the detriment of our environment.

The social impacts of the mining industry in our area particularly concern me. In 2007 Glenn Albrecht, a previous professor of sustainability at Murdoch University in Perth, conducted collaborative field-based research in the Hunter Valley, and from this research coined the term “solastalgia”. Solastalgia refers to the sense of
5 desolation people feel, consciously or unconsciously, when their home or land is lost to or impacted by external causes, of which mining is an example. The research indicated that the people they spoke with were losing the very things that once made life in this part of rural New South Wales so valuable to them. Loss of ecosystem health and loss of community were negatively transforming the foundations of their
10 existence.

This research was conducted 14 years ago, but at that time the researchers expressed concern that these social issues would only intensify due to increasing numbers and size of mining developments, which is exactly what has occurred. What this
15 highlights to me is that we cannot ignore or deny these negative impacts any longer. It is time to act. I am aware that I have not presented technical or statistical evidence to you today, however I feel the voice of the people and the sentiment of the community is important for you to hear. If ever there was a time and opportunity for us all to make the difference and secure a sustainable future for our children and
20 grandchildren it is now, locally, nationally, globally. Let’s not put our heads in the sand. Let’s be brave and proactive and ensure that what remains of our Hunter Valley is here for generations to come. Thank you for listening.

PROF BARLOW: Thank you very much for your presentation. Are you going to
25 put in a submission?

MS ROBERTSON: I will, indeed.

PROF BARLOW: Thank you very much.
30

MS ROBERTSON: Thank you.

PROF BARLOW: Have you got a question? No. So thank you, Nicola. That
35 concludes the morning session. We will now have a break and we will return at – in
- - -

MS DAVIDSON:

PROF BARLOW: 11.20 is it?
40

MR COCHRANE: Yes.

PROF BARLOW: Yes. We will return at 11.20 to hear from Matt Sprott of the
45 department, as is our tradition in these public hearings. So that you all very much for this morning.

ADJOURNED

[11.07 am]

RESUMED

[11.24 am]

5

PROF BARLOW: Welcome back to the Independent Planning Commission public hearing on the Mangoola continued coal operations project. This is the last session of our open – our hearing, and in this session we invite the Department of Planning, Industry and Environment to return to us and to answer some questions that we have put on notice after beginning this open hearing yesterday, but also other questions that we may have accumulated along the way. So we can now move – can you ask
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15 MR COCHRANE: Yes. Now call on Matt Sprott from the department.

MR YOUNG: It's also Mike Young here, executive director for assessments in the department, as well as Matt Sprott, my director. So we will be answering questions today.

20

PROF BARLOW: Thank you. Welcome.

MR SPROTT: Thank you, Commissioners. Just to clarify, would you like us to start by addressing the matters that we took on notice yesterday?

25

PROF BARLOW: Yes, we would. Thank you, Mike and Matt. Yes.

MR YOUNG: So, Matt, maybe I'll kick off at the first one and then you can go into the final landform element. Is that okay?

30

MR SPROTT: Certainly, Mike.

MR YOUNG: Sure. So I think one of your questions, Commissioners, was in relation to the existing conditions, and the extent to which they would be carried over into the recommended conditions, should the project be approved. I guess, in response to that, the first thing to say is that it's not unusual for an extension to an existing mining operation and, indeed, other sorts of projects as well, where there is a continuation of the life or an extension of a project, to subsume the old conditions or the existing conditions under a contemporary set of new conditions to ensure that the entire site, given that it's really essentially the same mine and one operation, is regulated under a single instrument.

40

So from a practical and a regulatory point of view it's advantageous to do that, and I think indeed from a stakeholder and a compliance point of view as well. Yes, I guess, in response to your question, we are absolutely confident that the relevant conditions have been incorporated in the new developed consent. Either they have been rolled over in their entirety, including the same wording, or they have been

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updated to reflect maybe some minor drafting elements that have been changed in the intervening period since those conditions were first issued.

5 There are some minor exceptions. One of those is in regard to the biodiversity offset obligations under the current conditions because those offset obligations have been discharged or met, so there is no need to carry those over in their entirety. And the other thing I would say is that in relinquishing or surrendering any conditions of consent, the applicant would have to demonstrate that they have complied with those existing conditions before we would accept any surrender under the legislation. So
10 there are a number of, I guess, checks and balances to ensure that any obligations are met.

And I think in particular you are concerned potentially about the rehabilitation obligations. Certainly those rehabilitation obligations would be carried over and,
15 indeed, updated to reflect contemporary wording in the recommended conditions, and they would apply not just to the new site but to the old site as well. So really I think, in a nutshell, we have gone through, you know, a systematic exercise to ensure that nothing is left out, and that anything that is left out has been met and/or anything that remains has been updated to reflect current requirements. So, for example, one
20 update we have done is in regard to things like the amenities standards for dust and noise to reflect contemporary requirements in regard to what the relevant criteria would be for a coalmine such as this. So that's the response to the first question. Any questions on that, Commissioners, or that makes sense?

25 PROF BARLOW: Mike, those conditions that have already been met and therefore omitted in the new proposed set of conditions, are they documented anywhere in either your assessment report or elsewhere?

30 MR YOUNG: Matt, I believe we have discussed that in our assessment report but I defer to Matt in terms of the extent to which – certainly the instrument, even if it's surrendered, remains on – you know, it's a document that obviously can be looked at and checked. But in terms of specifically referring to that in our report, Matt, can you recall if we - - -

35 MR SPROTT: I might jump in here, Mike. So, Commissioner, where we have sought to address these matters is where those conditions have been updated to reflect contemporary standards, primarily. So, for instance, as Mike has already identified, we have discussed in the assessment report where the amenities standards, for instance, have been updated to reflect contemporary government policies in
40 relation to the EPAs proved methods, for instance. The other aspects that we have considered and discussed in the report is where the existing rehabilitation objectives are carried over and how that would apply to the new site.

45 The only areas where those conditions haven't been carried forward in either a direct manner or a contemporised format, as Mike said, relates to biodiversity offsets that have already been secured, historic studies that have been completed and have been audited as part of independent annual audits, or the last one being road upgrades

associated with the existing project that have already been completed. So those matters, as Mike said, are matters that, if they have been satisfactorily discharged, need to be demonstrated prior to the relinquishment of the existing project approval and, as such, given that these matters have been discharged we did not see that there
5 would be an appropriate need to continue to audit against matters that have been addressed in an ongoing consent.

PROF BARLOW: Thank you. Peter, have you got any more questions on this
10 issue?

MR COCHRANE: No. Thank you for the response.

PROF BARLOW: Yes.

15 MR COCHRANE: Can I ask, Mike, is there a – in your process of going through – or maybe this may be a question for Matt – going through and conducting that exercise, is there a markup or document that you have prepared in relation to the carryover of the conditions?

20 MR YOUNG: No, there – I don't think there is a formal document in that regard nor is there required to be. I guess what we're saying is that there is a number of documents in the public domain that indicate where those things have been addressed. And in regard to things like biodiversity offset there is conservation agreements already been in place, etcetera. So – and as I say, we would from a
25 compliance perspective, come relinquishment time, if the project is approved and so forth, then we would go through an exercise to ensure that any and all of those conditions that are required under the current arrangements have been met, particularly those that may be being excluded from the new conditions. So it's not an exercise that, you know, we have done through a marked-up document that we
30 have submitted to the IPC, so it is more of being a systematic process that we have done internally.

PROF BARLOW: Thank you. Perhaps we could move to the next item that we mentioned – brought to your attention yesterday.

35 MR SPROTT: Certainly. So I understand that the second item related to consideration of water management in the final landform - - -

PROF BARLOW: Yes.

40 MR SPROTT: - - - and particularly the adequacy of freeboards of the final voids under extreme weather events. So I have – I've gone back to confirm this for you, Commissioners. The EIS surface water assessment did include a water balance model that was developed using almost 130 years of climate data. And that model
45 indicated that the water levels in those final voids would reach equilibrium around 200 years post-mining. The water model itself was run to 300 years post-mining to provide additional certainty around that equilibrium level. And both final water –

well, the final water levels in both voids are predicted to remain at least 30 metres below the respective spill levels for those landforms in the long term.

5 Post-mining water balance models don't typically consider extreme short-term
rainfall events but usually in this regard consider more of the long-term climate
scenarios and the capacity of the voids to accommodate any short-term spills. And
given the substantial 30 metre freeboard that these currently proposed voids have, the
department considers that the risk of over-topping of those voids, even in an
extremely – it is extremely unlikely, even in a short-term event, that would capture
10 water from the surrounding surface environment. In addition to that level of
freeboard we have also recommended conditions around the operational management
of diversions during the operations to ensure that those diversions can capture up and
convey a one in 100 year ARI event.

15 And we have recommended performance measure for rehabilitation which include
requirements to minimise, to the greatest extent practicable, the risk of flood
interactions in that final landform. So that's by way of final landform treatments that
would seek to divert additional surface water flows away from the final void
catchment as part of that rehabilitation management plan and final closure process.
20 Do you have any questions in that regard, Commissioners?

PROF BARLOW: I guess what you're saying is there is a considerable freeboard on
both the voids and therefore you felt that it wasn't necessary to look at, you know,
what an intense one in 1000 year event might do to that freeboard?
25

MR SPROTT: Given the volume of capacity that that freeboard would have,
considering the hectare size of the void and the 30 metre freeboard, considering that
volume capacity we're comfortable that those events would be unlikely to result in
any over-topping of those voids. And so, yes, you are correct, Commissioner, we're
30 comfortable that the assessment that has been undertaken, based on the long-run
climate data, is satisfactory in this regard, given the nature of the proposed landform,
so, yes.

PROF BARLOW: Thank you. Peter, do you have any more questions on that?
35 Joanna?

MS DAVIDSON: Not on that.

MR COCHRANE: No.
40

PROF BARLOW: Thank you, Matt. Can we move to the final – the third issue that
we raised?

MR SPROTT: Yes. So one of the things I thought I might do is just quickly clarify
45 some commentary around the road upgrades and the associated creek crossings for
Yarraman Road. So I understand that the commissioners have sought further
information of how the creek crossings would withstand extreme flood events. Just

for clarity, and to be clear on the transcript, the project is not actually predicting – is not actually proposing to upgrade Yarraman Road. The project – the EIS for the project originally proposed the realignment of Wybong Post Office Road to the east, and provided a proposed series of works which Glencore would physically undertake themselves to realign the affected section of Wybong Post Office Road.

Muswellbrook council actually requested the consideration of an alternative option in accordance with their mine affected roads network plan, and that alternative option comes at a substantially higher cost. I believe that someone has already mentioned to you that it's a factor of – it's a multiplier cost relative to the proposed realignment that has been put forward by the project. And that also includes the upgrade of any creek crossings for Yarraman Road. So currently there is a level crossing on that road which would need to be upgraded if that road to be able to withstand flood events. Any such upgrade – so Glencore has offered to provide a financial contribution to council equivalent to the realign – the cost that it would cost to realign Wybong Post Office Road to an acceptable road network standard. But it is not proposing to undertake the full works of the Yarraman Road alternative. That would be council's prerogative as the roads authority should it choose to undertake that as more of a strategic road network planning initiative.

And so the way that we have sought to address this we have made sure that the road network performance has been considered. But any assessment of the relevant road standards that would need to be met to ensure that Yarraman Road is able to withstand floods would need to be undertaken as a separate part 5 assessment should council seek to proceed with that option for the road. To accommodate this our recommended conditions require that before any mining comes within 200 metres of Wybong Post Office Road that Glencore consults with council and closes the affected section of road, and either realigns the affected section of road to the east, as described in the EIS, or provides an equivalent financial contribution to council, such that council can undertake its preferred approach of upgrading Yarraman Road.

PROF BARLOW: Thank you. Just so we understand completely, the realignment to the east, is that the east of Yarraman Road or is it – because the map that we have seen has a realignment to the east of Yarraman Road that avoids the – that avoids the mining pit. Is that what you're talking about?

MR SPROTT: The realignment to the east, Commissioner, is shown in yellow in the – I believe you're being passed a map here. It is shown in yellow.

PROF BARLOW: Yes.

MR SPROTT: So the realignment proposed by Glencore would seek to divert the eastern end of Wybong Post Office Road to the south, so it would move it further south along Wybong Road, and it would circle around the proposed Northern Extension pit, and it would be aligned there – you will probably see on the map, aligned very close to the 500 kV transmission lines that circle the site.

PROF BARLOW: Yes, that's my understanding of it as well. Peter, do you have any more questions?

MR COCHRANE: No, I don't. Thank you.

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PROF BARLOW: Yes. Well, thank you for that, Matt. That makes it clear. We don't know whether - - -

MR YOUNG: The final question we were going to answer, Commissioners, is in regard to fugitive greenhouse gas emissions.

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PROF BARLOW: That's correct. We were just about to move to that, Mike.

MR YOUNG: So, Matt, did you want to kick off on that one?

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MR SPROTT: Certainly. So I have reviewed our assessment of the greenhouse gas emissions, Commissioners, particularly paying attention to the questions you had regarding fugitive gas emissions. I can confirm that the greenhouse gas assessment prepared for the EIS has been undertaken in accordance with the Australian Government's National Greenhouse Accounts Factors which was required as part of the Secretary's environmental assessment requirements for this project. Specifically section 2.4.1.2 – I will give you a moment to write that – of these factors provides the methodology that should be used for calculating the emissions for open cut mining operations, and stipulates that fugitive emissions factors for New South Wales open cut mines are 0.054 tonnes of CO₂ equivalent per run of mine tonne – per tonne run of mine coal.

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These guidelines further stipulate that fugitive emissions are required to be considered for post-mining activities in relation to particularly gassy underground mines but does not provide any requirement to assess these post-mining activities for open cut operations. As such, in applying the guideline for the project, those potential fugitive gas emissions post-closure have not been provided a quantified value as part of the EIS or considered in our assessment report specifically, as they're not a matter that is required to be considered under those factors.

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I also note Glencore, I understand, has undertaken further work as part of its national greenhouse and energy reporting requirements, and I understand from the transcript with their meeting with the Commission that they have provided you some more refined emissions factors that relate to the site-specific gas content for the coal seams at the Mangoola site. And I understand that the coal seams at that site are actually relatively low in gas content compared to other coal measures elsewhere in the state.

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And so these additional factors are something that the Commission may wish to consider in its consideration, not just of the standard fugitive emissions factor but also the site-specific elements. Notwithstanding that, following completion of the mining at Mangoola, the Northern Extension area would need to be rehabilitated and closed in accordance with management plan requirements and the overall

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rehabilitation strategy for the site. This would involve the majority of the coal seams being buried under substantial volumes of overburden and eventually the primary coal seams being disposed in the final void being submerged beneath the final void lake, for the most part. While this doesn't prevent some emission of fugitive gas to
5 continue from these seams post-closure, it would substantially reduce the potential for emissions associated with the potential exposure of coal seams in the long term by ensuring that these seams are appropriately buried or capped or covered with water, such that they are under additional pressure.

10 PROF BARLOW: Thank you, Matt. Do you have some questions on that, Peter?

MR COCHRANE: Just to note, Matt, that we did ask the company on the question of methane content of the coal seams. And whilst they believe the upper seam was low methane content, they undertook to provide us with methane data on the other
15 coal measures as well, because I think it's well-established that methane content of coal increases with depth and they're targeting for measures down to about 120 metres.

MR SPROTT: Yes.
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PROF BARLOW: Just to clarify, Matt, the – we – it's clear in the rehabilitation, except in the voids. Is there any requirement in the mind closure plan to actually try to, with overburden or something, seal off the sort of lower seams that will be ultimately under water in those seams before they are inundated as part of the final
25 void, or are you just relying on water pressure to do that?

MR SPROTT: So there is no specific requirement, Commissioner, to seal the coal seams in the final landform. The coal seams, and particularly the coal seams on the highwall, the final highwall would be treated to a degree in closing any open cut
30 project and from other projects that I am aware of around the Hunter Valley this has been done to manage other issues, including potential issues, not that the particular coal here is especially susceptible but it has been done, for instance, in relation to spontaneous combustion risks. That said, the level of capping that can be done on a highwall is relative to the final highwall gradient, and those matters would be
35 considered by the resources regulator and the department in seeking to ensure that mine closure standards are met. There is no particular capping requirement but the coal seams would have some overburden and material placed above them to provide for a final landform outcome that that highwall.

40 MR YOUNG: It's fair to say, Matt – it's Mike Young here – that you would expect, even from a public's safety and a long-term stability point of view, there would be some shaping and battering of highwall elements. And indeed, you know, there's a significant amount of overburden that would be moved to the existing southern operations to shape that final void in the southern area, and the same sorts of things
45 would happen in the northern area as well. So there are a range of things, even if it's not a specific obligation to seal, and I'm not sure the extent to which that's physically possible from a technical point of view, in terms of what material you

would use other than overburden. But certainly there would be some reshaping and some forming of those long walls to – of those highwalls, sorry, to ensure appropriate levels of stability and public safety. So that's all part and parcel of the final rehabilitation management obligations and the relinquishment of the mining lease under the mining legislation.

PROF BARLOW: Thank you, Mike.

MR COCHRANE: Snow. It - - -

PROF BARLOW: Yes.

MR COCHRANE: - - - presumably wouldn't be unreasonable to add into the rehabilitation objectives the aim of minimising any fugitive emissions from any exposed seam?

MR YOUNG: I think that's perfectly reasonable. It's not a condition that we have typically put in there but given the current context we would certainly have no objections to something along those lines.

MR COCHRANE: Okay. Thank you.

PROF BARLOW: Thank you, Mike. Thank you for answering those questions we put in notes. We do have a couple without notice and we fully expect you might have to take these on notice. Peter, do you have any? I have one that I need to ask.

MR COCHRANE: Well, I'm keen to follow up on the comments that were made earlier on the economic cost-benefit analysis. I don't know if that was one of your questions?

PROF BARLOW: Yes. No, you go ahead with that, and I have another question.

MR COCHRANE: Well, obviously we heard some comments, which I'm sure you did, from the Australia Institute on the accuracy and adequacy of the cost-benefit analysis, in particular the indirect benefit calculations. And – so wondering if you have comments on that, whether now or that's something that we would take on notice.

MR YOUNG: Look, I think we have some preliminary comments, and I guess if we feel that we need to take them on notice as well we will certainly do that. Clearly the Australia Institute has a particular view about the calculation of costs-benefits associated with coalmines and presents at all of these hearings that occur in regard to coalmines. Our obligations are to ensure that economic assessments are undertaken in accordance with the relevant guidelines, and we're satisfied that the assessment undertaken in the EIS and presented to the Commission is consistent with those guidelines.

I guess, at the end of the day, you know, different experts can have different views about the technical aspects of how things are assessed in a cost-benefit analysis and the sensitivities around the assumptions to be included in there, around coal price and other things, or local effects and the benefits associated with spending of wages in the local area and all those sorts of things. I guess our role here is to present to you something that's consistent with government guidelines. We are satisfied that the assessment is consistent with those guidelines. And at the end of the day, you know, we're looking at a planning decision here, Commissioners, that is about, you know, the suitability of the site, the public interest and environmental impacts, and those matters under 415 of the Act.

And, you know, I think what we're – what we're – what Glencore is proposing here is a continuation of existing operation that would employ, you know, a considerable number of people for a period of time in construction, and then would maintain employment for, you know, the existing workforce, plus up to 80 additional staff, so up to 480 people.

Whether or not there are particular sensitivities around the final results around cost-benefit, etcetera, or the final MPV of the project, etcetera, really that's a matter for Glencore to make a commercial decision in regard to. From a broader planning perspective, I guess we're satisfied that there is reasonable information presented to the Commission to show that it would have a positive benefit from a cost-benefit analysis to the State of New South Wales. There would be a range of other social and economic benefits if the project is approved. That's not to say that there wouldn't be negative social impacts and other externalities that need to be considered, such as climate change and so forth. But on its face, you know, we're generally happy with the information that has been provided. Matt, I don't know if you wanted to go into any specific comments around the Australia Institute's presentation?

MR SPROTT: One thing I would just add to Mike's comments there is that the actual sensitivity analysis conducted by Cadence on this project included consideration of several different scenarios associated with the proposal. So this included a range of factors including, you know, price of coal, opex costs, central case assumptions, supplier benefits, reserve wages, costs associated with the actual operation itself, as well as worst case predictions of what could potentially occur should several of those matters concurrently reduce relative to the base case assumed in the project. And what this actually showed was that, even under an actual worst case proposal, the direct and indirect benefits of the project would still result in substantial value to the New South Wales economy.

So this is detailed in section 6.9 of our assessment report, Commissioners. And those additional matters demonstrated that a worst case assumption would result in \$350 million NPV. So while I understand that different economists may have different views, and I know that Mr Campbell has put forward his comments relating particularly to the consideration about wages and associated benefits – supply

benefits, but those sensitivity cases have been considered as part of the broader sensitivity analysis that was undertaken for the project.

PROF BARLOW: Thank you. Peter?

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MR COCHRANE: But your analysis of that really – hearing Mike’s comments, your assessment of that is really whether or not that approach was consistent with the relevant guidelines, not on the actual data that was used. Is that correct?

10 MR SPROTT: Yes, whether the – sorry, Mike, you go.

MR YOUNG: Go, Matt. You go. You go. That’s fine.

15 MR SPROTT: No. I was just going to clarify that, yes, our consideration has been whether the approach undertaken has been appropriately consistent with guidelines. And the sensitivity analysis is the – that has been prepared by Cadence is the way that the data itself is then subject to a further sensitivity analysis, again in accordance with the guidelines but assuming more conservative measures.

20 MR COCHRANE: Okay.

PROF BARLOW: Thank you.

MR SPROTT: Mike, did you have anything further to add?

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MR YOUNG: I guess at the end of the day, Commissioners, you know, we get these criticisms of the guidelines and the data used and the assumptions on every mining project, and indeed other projects as well. I guess, you know, as I have indicated, you know, there is always going to be some differences of opinions about certain assumptions, etcetera. But from a broad view I guess we feel that the information that we have presented shows that, even under a range of sensitivity scenarios, you’re still looking at a contribution as a whole to the State of New South Wales. And on that basis, you know, the department has considered that those are one of the positive benefits of the project and the associated employment, etcetera, that warrant, you know, approval of the project or why we have recommended that it is approvable. And – like, we can certainly take things on notice and answer things but I’m not sure that it’s really going to assist the Commission in making a decision about the overall merits of the project.

40 PROF BARLOW: Thank you, Mike. Another sort of question again. You would have heard, if you were looking at the presentations over the last couple of days, is the cumulative impact of coalmining in the northern Hunter. And we were interested to know whether you could provide us information on the total coal output of the Hunter over the last decade, and also the total coal output from individual mines in that time, just as a way of making comparisons of what proportion are we increasing the total coal output of the Hunter Valley in this particular case.

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MR YOUNG: So happy to do that. That information is clearly publicly available and the Regional New South Wales – Department of Regional New South Wales reports on those outcomes regularly. Are you interested in the total? Because obviously the – my understanding is the rate associated with the Mangoola coalmine is not changing. We're just talking about the extraction of additional resource. So are you particularly interested in the rate or are you interested in the total tonnes over a particular period of time, because they're quite different questions?

PROF BARLOW: We're interested in both, really, Mike. We are interested in the rate of – clearly the annual rate of extraction. But we're also interested in the total extraction, you know, over, say, the last decade but on a yearly basis, if you get what I mean. So as a growth in that particular area and Mangoola's contribution to that growth or not contribution to that growth.

MR YOUNG: Sure. We can certainly provide you a straightforward table, I think, that provides that information.

PROF BARLOW: Thank you. Peter, do you have any more questions?

MR COCHRANE: Just the same question I put to Cameron, which was the appropriateness in the department's view, this time, of a discount rate of seven per cent for estimating – or calculating net present values.

MR YOUNG: Matt, did you want to answer that from a Treasury point of view?

MR SPROTT: Yes. So on the seven per cent discount factor, Commissioner, is the endorsed discount factor by New South Wales Treasury that is applied to the consideration of calculating net present values for these types of projects. In undertaking an assessment of the project companies also need to consider sensitivity analysis of the discount factors. So there is also consideration of a four and a 10 per cent discount factor that provides a more upper and lower bound assessment of those matters. But the discount rate itself is consistent with New South Wales Treasury guidelines, and so our consideration is that Glencore has applied the appropriate discount factor to this project.

MR COCHRANE: Okay. Thank you.

PROF BARLOW: Thank you for that. Is that it, Peter?

MR COCHRANE: Yes.

PROF BARLOW: And, Joanna?

MS DAVIDSON: I have a couple of things. We have heard a number of comments, particularly yesterday, Mike and Matt, in relation to the community enhancement program and the fact that the goals that have been articulated for that are fairly general in the report that you have prepared at 6.10.28, that they're identified but that

that would only be something that would be required to be developed, effectively, post-approval, and thus it's almost devoid of content at this point. Did you have any comments in relation to giving content to that proposal?

5 MR YOUNG: So, clearly, voluntary planning agreements are voluntary, and my understanding – if that's what you're talking about, Joanna?

MS DAVIDSON: It's proposed that it will be part of – or developed as part of the VPA, yes.

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MR YOUNG: Yes. So VPA is a voluntary offer from the mining company to council and, as you would be aware, under the legislation the – it's not – the consent authority is not able to withhold development consent on the grounds of the absence of a voluntary planning agreement being in place. That being said, it has been
15 traditional throughout New South Wales, and certainly in Muswellbrook, for mining companies to make substantial offers to relevant local councils in regard to community enhancement. There is an existing VPA that has been in place now for the Mangoola operations since it commenced operations. And my understanding is that they're looking to continue that, broadly in the same terms as the current VPA
20 with council, but that there was a failure at this stage to reach agreement between the mining company and the council as to the quantum and the specifics of that VPA.

And so, really, that's a matter ultimately for council and the company to work out the details. But we would certainly be willing and certainly would – there would be
25 precedent that in developing a VPA that some guidance in a development consent is given to the terms of that VPA, both in terms of quantum but in terms of – also in terms of how it might be used in terms of what types of projects it could be used and/or the geographic location where those funds or part of those funds may be spent. Matt, did you want to talk about the specifics of that and the negotiations or
30 discussions with council and Glencore?

MR SPROTT: Certainly. So just to touch on Mike's last point, there is precedence related to proposals to ensure that, as many people have said in their submissions to the Commission, that the community enhancement program and planning – voluntary
35 planning agreement funding is used to primarily target and address issues to the community in and around the site. So this community enhancement program that has been proposed by Glencore is their way of articulating and demonstrating that, in reaching a planning agreement with Muswellbrook council, they're seeking to make sure that that planning agreement targets those people who are affected by the proposal, particularly those residents within the management zones and some of the
40 community aspects around the Wybong Hall district. So this is, effectively, providing their commitment to drive that as a key initiative of their planning agreement with council, to ensure that any funding provided to council is actually spent in the local community affected by the project and not in other areas of the
45 LGA.

The company's negotiations with council are ongoing. The quantum of the VPA that they have offered, as Mike has said, is commensurate with that of the existing operations. As this is a continuation of the existing operations and the company has an existing established VPA with council, they have sought to maintain that proposal
5 with council, in addition to providing some ongoing employment of people in the local community The total VPA for the proposed extension would be in the realm of \$5 million with council that has been put forward on the table so far, and this would continue. So this has been CPI adjusted from the original agreement that council has to date. This would continue going forward and a portion of that money
10 would need to be spent in achieving this proposal.

MS DAVIDSON: And do I understand from that answer that you wouldn't object to the inclusion of conditions consistent with precedent in relation to geographical or other requirements?
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MR YOUNG: We would certainly have no objection to this precedent for that. The only thing I guess would be the enforceability of those in practice, if the parties weren't to agree to those. Typically where we have included that, that has been consistent with the agreement between the relevant council and the mining company.
20 So that would be the only cautionary comment that I would make in regard to that suggestion.

PROF BARLOW: Joanna, you had another one?

MS DAVIDSON: Yes. The other – or another issue that was raised yesterday went to the contemporaneous nature of data used for the purposes of considering the PM2.5 and PM10 dust – or particulate exceedances, and particularly the absence of data which is necessarily a factor to some extent of the dates of the EIS in relation to more contemporaneous data not being included. Was that more contemporaneous
30 2019/2020 data considered by you for the purposes of preparing – or was any data of that kind considered by you for the purposes of preparing your assessment report?

MR SPROTT: Can I just clarify on that one. Are you referring to the commentary provided in relation to the data from the Muswellbrook monitoring station?
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MS DAVIDSON: I think the commentary was provided not only in relation to that but, yes, that was one of the areas in which it was pointed out.

PROF BARLOW: Yes.
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MR SPROTT: Yes. So we have considered the data provided. We have consulted with the EPA on this project throughout the assessment report. We're confident that the data provided as an assessment baseline for this project meets the requirements of the approved methods and considers an appropriate baseline for this project. The
45 other aspect there is that the project's assessment criteria that are being imposed by the conditions of consent are based on the consideration of that data. So if there is any consideration that there has been a change in recent times with any change in

that data, the company would still be held accountable to meeting the assessment outcomes that is proposed, and particularly in relation to air quality.

5 This project is not predicted to result in any exceedances of any assessment criteria at
any private residence. The air quality environment in the Hunter, while I understand
is a key concern of the community and has been a longstanding matter, this particular
project is located towards the western extent of the valley and it's not on the
dominant wind direction associated with other mining operations to the east. So for
instance the Bengala and the Mount Arthur operations are on a common predominant
10 meteorological path whereas the Mangoola project is offset, to some degree, from
those operations. So the baseline data used in assessing that site should be primarily
considerate of the site-specific monitoring that is being done, and the monitoring
around that location which reflects the dominant meteorological conditions in that
area. And we're comfortable that those meteorological conditions have not
15 demonstrably changed over that period of time.

MS DAVIDSON: So do I understand from that that you have considered the more
recent data in looking at whether there has been a change subsequent to the EIS – or
subsequent to the assessment that was done for the purpose of the EIS?
20

MR SPROTT: We are aware of the more recent data. We have not applied that data
to the assessment of the project's particular impacts, as we're comfortable that the
project has applied the approved methods appropriately, and that the project is
proceeding through the planning process in accordance with what it does need to do
25 for assessing those impacts, based on relevant baseline data that has been endorsed or
assessed and considered by the EPA.

MR YOUNG: I mean, I guess the point to make here is that data is coming in all the
time.
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MS DAVIDSON: Of course.

MR YOUNG: We're not aware of any significant changes, apart from during those
drought periods and the bushfires, etcetera. And so it's important not to necessarily
35 just pick certain periods of time and use that as the basis for a long-term average,
etcetera, and to use that for the base for assessment. So clearly the EPA has clear
guidelines around this under the approved methods. They have checked all the
information and endorsed the robustness of the assessment, including the data used
for baseline conditions. But I think the very important point to make here is that,
40 regardless of the assessment in terms of baseline conditions, etcetera, we will be
imposing the relevant NEPM or EPA criteria. If the project is approved we have
recommended that those criteria be adopted, and the company would have to have a
comprehensive dust monitoring network to demonstrate compliance with those
criteria, regardless of what the baseline may or may not be at the time.
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PROF BARLOW: Thank you.

MS DAVIDSON: Yes. You would have heard, no doubt, this morning some criticism in relation to the application or alleged incorrect application of the aquifer interference policy insofar as Lock the Gate Alliance alleged that there had been a failure of assessment against the minimal impact criteria for all works. Did you have
5 any comment on that? I realise that that may be something you need to take on notice.

MR SPROTT: Just clarifying there, this is related to the commentary around consideration of impacts on private bores versus bores owned by the mining
10 company? Is that correct?

PROF BARLOW: Yes, that's correct.

MS DAVIDSON: As I understand it, yes.
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PROF BARLOW: Yes. That was the comment made.

MR SPROTT: So we may seek to come back to you on this one, Commissioners. But I've – I can confirm that we have paid particular attention in our assessment
20 report to those private landowners in the area that could potentially be impacted by this proposal. I know that several of them have presented to you over the duration of the last two days. Having looked at those impacts on those private landowners, only one privately owned bore would be in excess of the aquifer interference policy interactions. And so we have recommended that that bore or that bore owner be
25 provided with additional compensatory measures, and we have recommended that the company undertake monitoring of nearby bores to ensure that the drawdown impacts of the project on those bores is considered and any unexpected drawdown is appropriately compensated for under the conditions of consent.

30 We have also strengthened the current conditions that apply to the Mangoola mine and recommended that the company – the onus of proof be placed on the company to demonstrate that they are not the cause of a – or that they are not the cause of a drawdown should they seek to challenge that. I would also point out, as an extension of the existing mining project, that there are already drawdown impacts on a number
35 of these features as discussed in our assessment report. While the proposed project would extend some of the groundwater drawdown towards the north-west and further up Big Flat Creek, the impacts of the project are relative to the existing groundwater drawdown in the environment which is largely affected by the existing operations as well.

40
MR YOUNG: I would add to that, look, we're aware of Lock The Gate's position on the application of the aquifer interference policy. It was a matter that was considered by the Commission and the department with the Bylong Coal Project. We don't accept the position that Lock the Gate has put forward in regard to the
45 weight put to impacts on bores that may be managed or owned by the mining company. Clearly the aquifer interference policy is a relevant policy that needs to be considered under the mining SEPP.

However, our assessment and – well, the assessment undertaken by the company clearly shows the impacts not just on privately owned bores but the aquifer as a whole, and so there is drawdown contours, etcetera, that show the impacts on the resource in accordance with the aquifer interference policy. Whether or not there is
5 drawdown on some existing bores that may be owned or located on land owned by the mining company, the fact that those drawdowns may be greater than the minimal impact considerations of two metres or more is not – is something that doesn't preclude consent being given. All that is, is a trigger to – or a threshold above which or below which, so to speak, you know, the aquifer interference policy indicates that
10 is greater than a minimal impact.

And I guess what we are saying is that there may be greater than minimal impacts associated with the existing and proposed operations, but that there is only one privately owned bore where there would be a greater an potentially minimal impact
15 as a result of that groundwater modelling, and we have put in make good provisions, as Matt has explained. So I don't – we don't accept – the department doesn't accept the position put forward by Lock the Gate on this matter, and it doesn't believe it's the correct application of the policy in this case.

20 PROF BARLOW: Thank you.

MS DAVIDSON: I didn't have anything further.

PROF BARLOW: So that concludes the questions we have to you in this final
25 session of the public hearing of this project. Do you have any questions or queries for us at this point before we finish up?

MR YOUNG: I don't have anything, Matt. And, look, obviously we're – as you deliberate and consider all the information before you, of course we're very happy to provide further information, and if further information is required from the company we're certainly willing to facilitate and indeed other agencies as well if there is any clarification. I'm happy to do that verbally or in writing as required. I take it from
30 today my sense is that we have responded to each of the questions. But if you feel that any of the questions require further response, apart from maybe that table of relative coal extraction across the Valley as we talked about over time, then I think
35 that's the only action point that I took away from this discussion.

PROF BARLOW: Yes. Well, that's correct, Mike. I think that's the only outstanding matter. Matt, you don't have any more questions – questions for us,
40 rather?

MR SPROTT: No questions for you, Commissioners. Probably just one point to make just in relation to some comments that were made this morning, which I note that you were interested in and sought some further clarification on. So we have
45 recognised in our assessment report that Glencore is seeking to rely on surplus credits from the United Wambo, or offsets the Highfields and Mangrove offset sites associated with the United Wambo coal project. Just for the record and for your

consideration, in establishing or identifying the offset areas for the United Wambo coal project, in order to get the right species mix, Glencore had to purchase additional areas of land which had a range of species and a range of credits generated in excess of the requirements of that project. So under that arrangement they are able to trade those excess credits on the open market. So that's how the offset sites –
5 because they are being used as credit generating sites, that's how those offset sites are able to be utilised to supplement the offsets being proposed additionally as part of this project.

10 PROF BARLOW: Thanks for that point of clarification, Matt. Well, if there is now further questions, and my fellow commissioner and counsel have no further questions, I want to thank you for your time and information today. And this will bring to – brings us to the end of this public hearing into Mangoola Coal Continued
15 Operations Project. We would like to thank everyone who has participated in this important process and my fellow commissioner, Peter Cochrane, and I have appreciated your input in the last two days. Just a final reminder that it's not too late to have your say in this application by simply clicking Have Your Say portal on our website, the IPC website, and send – or send us a submission either by email or by
20 post.

The deadline for these submissions will be 5 pm next Thursday, 11 March 2021. And in the interests of openness and transparency, we will be making a full transcript of this public hearing available on our website in the next few days. At the time of the determination of this project the Commission will publish its statement of reasons
25 for the decision which will outline how the panel took into account the community's views and the industries' views into consideration as part of this decision-making process.

Finally, a sincere thank you for my fellow commissioner, Peter Cochrane, and of course to our counsel assisting, Joanna Davidson. So I thank you all for participating and watching this public hearing, and from all of us here at the Commission we wish
30 you the best for the rest of the day. Good afternoon.

35 **RECORDING CONCLUDED**

[12.19 pm]