New South Wales Government
Independent Planning Commission

TRANSCRIPT OF PROCEEDINGS

RE: BOWDENS SILVER (SSD-5765)

APPLICANT MEETING

COMMISSION PANEL:	PETER DUNCAN AM (Panel Chair) CLARE SYKES PETER COCHRANE
OFFICE OF THE IPC:	PHOEBE JARVIS NIMA SALEK GEOFF KWOK
APPLICANT REPRESENTATIVES:	ANTHONY McCLURE JOEL RAY BLAKE HJORTH NICK WARREN PAUL RYALL
LOCATION:	VIA VIDEO CONFERENCE
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MR DUNCAN: Good morning and welcome. Before we begin, I'd like to acknowledge that I am speaking to you from Gadigal Land, and I acknowledge the traditional owners of the country from which we virtually meet today, and pay my respects to Elders past and present.

Welcome to the meeting today to discuss the Bowdens Silver Project, currently before the Commission for determination. The applicant, Bowdens Silver Pty Limited, is seeking approval to develop an opencut silver mine - silver, lead and zinc mine approximately 2 kilometres north of the village of Lue in the Midwestern Regional Council area. The mine would extract and process around 30 million tons of ore and up to 2 million tonnes per annum to produce a silver-lead concentrate and a zinc concentrate.

My name is Peter Duncan. I am the Chair of the Commission Panel. I am joined by my fellow Commissioners Claire Sykes and Peter Cochrane. We're also joined by Phoebe Jarvis, Geoff Kwok and Nima Salek from the office of the Independent Planning Commission. In the interests of openness and transparency and to ensure the full capture of information, today's meeting is being recorded, and a complete transcript will be produced and made available on the Commission's website.

The meeting is one part of the Commission's consideration of this matter, and will form one of several sources of information upon which the Commission will base its determination.

It is important for Commissioners to ask questions of attendees and to clarify issues whenever it is considered appropriate. If you are asked a question and are not in a position to answer, please feel free to take the question on notice and provide any additional information in writing, which we will then put on our website.

I request that all members here today introduce themselves before speaking for the first time, and for all members to ensure that we do not speak over the top of each other, to ensure accuracy of the transcript. We will now begin. Over to you, Anthony.

MR McCLURE: Thank you, Commissioner Duncan. Okay. On behalf of the company and our team at Bowdens Silver, I would like to state and acknowledge that we are speaking from Wiradjuri Land, and we'd like to pay our respects to the Traditional Owners, Elders past and present.

Introducing members of the Bowdens Silver team, myself, Anthony McClure, I'm the Director of Bowdens Silver. To my left, Joel Ray is our newly appointed General Manager, and to my right, Blake Hjorth, our Community Liaison Officer, and online

we have Nick Warren, Principal Consultant, and Paul Ryall, Senior Environmental Consultant, both from RW Corkery & Co.

If the Commission so wishes, I will provide some initial comments, along with a few introductory slides. I will then pass on to Nick Warren and Blake Hjorth for the detail as listed in the agenda. Of course, please feel free to ask questions at any time.

Firstly, Nick, if you'd like to share the first – just the screen while I talk.

MR WARREN: Just let me know when you can see that.

MR DUNCAN: Yes, thank you.

MR McCLURE: Okay. Firstly, as an introduction, Bowdens Silver has had the benefit of over 20 years of exploration and investigations of the setting of the mine site. This has included geological and geochemical analysis, engineering studies, economic studies, and environmental assessments. The previous owners prepared some detailed mine plans and other assessments that were never finalised. For us, the consideration of alternatives for the project was reasonably well informed, including biodiversity, Aboriginal heritage, health risks, amenity and social impacts. Add to this the comprehensive work commissioned by Bowdens Silver since our take over of the project in 2016. The project and local setting is well understood and risks have been thoroughly assessed.

Since 2016, Bowdens Silver has undertaken substantial drilling works, over 90,000 metres, to better under understand the geological setting and mineralisation controls. This has informed the design of the opencut pit and other site components. However, it also gives us confidence regarding the potential longer term presence of the mine, and in particular for a potential development underground within the mine site.

A community consultation program and the information available to Bowdens Silver has informed mine design and planning, including a reduction in the scale of the project by half to a site that is suitable to – sorry, is someone asking a question, or - - -

MR DUNCAN: No, it's not us. It's not coming from us.

MR McCLURE: There seems to be some background - - -

MR DUNCAN: There's some interference there.

MR McCLURE: Yes.

MR DUNCAN: We'll check that out. Keep going.

MR McCLURE: Okay. A reduction of the scale of the project by half to a size that is feasible to mine, but minimise impacts on water in the community, the placement of infrastructure, including the processing plant, to minimise environmental and amenity risks, the removal of the previous proposed mine camp, the commitment to relocate Maloneys Road for traffic and safety benefits, aware of biodiversity and heritage risks in our mine design and planning.

In our initial discussions with DPE on the project, and even before we took over in 2016, we were made aware that the community attitude towards the project was mostly negative. Since our start, we placed a strong focus on proper engagement and community research, with substantial works over the years, our random community surveys demonstrate the majority of the local and regional community support the project.

One of the project objectives has to be develop the mine in a manner that preserves the existing character of Lue. Mitigating impacts to the local amenity has been an important part of seeking to achieve this. We have successfully – we have a successful community investment program, and we maintain an open-door policy for members of the communities. Our social impact assessment by Amwealth, led by Dr Sheridan Coakes, is both thorough and comprehensive. Importantly, as a result of this approach, we have a detailed understanding of the social risks of the project.

The community concern regarding amenity has also informed our approach to technical assessments, with considerable effort put into explaining the outcomes in public and virtual meetings, and to ensure that key assessments were peer-reviewed to demonstrate the robust process taken. We're very proud to have our assessment accepted by the DPE and all other New South Wales Government agencies, and now to have a – have the project ultimately recommended for approval.

If it pleases the Commission, we will not touch on every point in every slide. There's a lot of information provided, and we'll try to stick to the main points. There's a lot of information, but obviously limited time. If we can move - - -

MR DUNCAN: We're happy with that, and thank you for providing it early so that we can have a look at it.

MR McCLURE: Okay. Thank you. Okay. The Bowdens Silver mineral system is vast. The project is by far the largest undeveloped silver project in Australia, and one

of the largest globally. A major benefit of the project is that we fall under the New South Wales Government's critical minerals and high-tech metals strategy. The primary reason for this is due to silver's applications in electronics, given silver is the best electrical conductor of all the metals, and is used in major development industries, such as in renewable energy and electric vehicle industries. Not from a volume point of view, but silver is the most widely used metal with the most applications of all the metals. Next slide, thanks, Nick.

As I'm sure we'll read the DPE assessment report, it's pleasing to see the DPE stating, amongst other comments, that the project achieves a balance between maximising resource recovery and minimising impacts. Slide 4, thanks, Nick.

In submissions, we see a lot of commentary from proud, tightly knit communities, and it's pleasing that, on the most part, we are very well accepted locally. We are part of the local fabric. The general positive themes relate to environmentally and socially responsible development, with real, well-paid employment opportunities. Next slide, thanks, Nick.

The Bowdens Silver Environmental Impact Statement, along with its amendments, is one of the most comprehensive EISes done for a metalliferous mine proposal in New South Wales. In addition, for our commission peer reviews, our requirements were that we complete peer reviews over health, groundwater and economics. However, we also took additional peer reviews on noise, air quality, surface water and acid mine drainage. As part of the DPE process, as we all are aware, Bowdens Silver has received and has reviewed and accepted the recommended conditions of consent as provided with the DPE assessment report. Next slide, thank you, Nick.

We have a very strong geological team at Bowdens. We continue to be fascinated by the project, as we learn from our work. The mineralised system is still growing. We have very specific and real growth opportunities for the project. The project is certainly not confined to our current open-pit mine development.

Have a look at the diagram on the right – the blue outline there is the outline of the open-pit development, as per the proposal, and the further drilling that's been done over the last few years is showing mineralised envelope below the open pit and adjoining, and that's shown in the colours of green, yellow and orange. So that's demonstrating that the system is much larger than what the proposal is initially extracting. And you see the arrows there - that's indicating that the mineralised system is very much open. We'll have a little more detail on this point later in the presentation. Next slide, thank you, Nick.

I am particularly proud of our staff and consultants, who have done an extraordinary job in reaching our current determination mark, and our local onsite skillset crosses geology and field services, environmental services, community, finance, administration and mine and processing plant development, and management. We mostly live and work locally.

Okay. That's it from me. I'll come back in a bit later, but I'll – we'll now move to the specific items in the agenda, and I'll hand over to Nick Warren to run through this next section, and that will be followed by Blake Hjorth. Thank you.

MR WARREN: Thanks, Tony. At this stage, are there any questions from the Commission on what Tony has run through there, before we start?

MR DUNCAN: I think we're comfortable. I think we're keen to get into this part of the presentation.

MR WARREN: Great. Well, we've put a bit of detail into this presentation, just to address the agenda, but we won't run through every item in great detail, just because of limited time and to allow some time for questions, but the first item on the agenda was the impacts to water resources, and I think a key element on this and a key feedback we've had from the community is around this water supply and management strategy. So when we made the decision to remove the external water source, that pipeline, which was 58 kilometres of pipeline planned for the project in its original stages, we developed this strategy to really ensure we had the – you know, all our water was available and could be sourced onsite.

So this, I guess, flow chart here is what we have been presenting to the local community to explain that process, but it really is explaining our sources. So you've got groundwater and rainfall and runoff running through the – how that water will be managed, which is basically how it gets moved around the site, and those demands.

The key aspects of this process were that we were able to increase the recycling and reuse of water within the mine site. We looked at reducing evaporation. We improved our management efficiency, so there was a plastic and a plant that was added to the processing train to pull a lot of water back before it was – sort of – would go to the TSF, essentially, and be – and sort of guess more would be lost from evaporation. But we managed to reduce water demand in that process by 390 megalitres, with only marginal changes to predicted impacts to water users and water courses. So that was a key focus of us in addressing this strategy, was to minimise the impact, but ensure that we had comfort with the water supply for the site. Obviously

water for dust suppression would be a priority, which is a key operational requirement within the processing plant, using and reusing as much as we can from there.

So the next – one of the comments, then, obviously was water security. We – I guess the EIS submission in 2020 came off the back of a prolonged drought, so the community at that time were experiencing the effects of that. We've now gone through to where we are now, which is a lot more rainfall. We've had three years of higher than average or expected rainfall. So we've been, I guess, looking at this project at both extremes as we've gone through the process, but importantly, we've covered the silo data set that we've used to – for the water modelling, it covers 130 years of historical climate conditions. So that's included the drought, included the high rainfall, and there are extremes that are higher, or more extreme, I guess you might say, than what we've experienced in the recent times.

Importantly, we were able to demonstrate water supply reliability for 94.5 per cent for production, and liability of 99.5 per cent for dust suppression requirements. So, you know, there are risks there, in terms of that's not a hundred per cent, we don't have an external water supply that we can turn on as needed, but we accept that the reliability is enough to support the project, and would manage, I guess, production to suit the water available to the site. Those sort of conditions are common – I mean, I know we work with mine sites across New South Wales in our company, and they were – during that drought, there were quite a few mines that were looking at where they were getting water and how they were going to maintain their production. So it's not an unusual outcome, let's say.

If we look again at this – the, you know, managing heavy rainfall, I think that was one of the items, we've sort of – it's important to note that the – all the water management structures in the site have been designed to meet the required standards, and to allow space for, I guess, a suitable level of rainfall that then is then managed onsite. So I guess the key one is the TSF. It's designed for one per cent, or 1 in 100 AEP 72-hour design rainfall event, 211 millimetres, plus a half-metre freeboard in accordance with the ANCOLD guidelines.

A key one for here is that's a minimum, so it's not a – that isn't the storage – the capacity. At all times, the TSF is developed up to that point. When we reach that level, we start to build the next embankment, which raises this another ten metres. So we've most certainly put the effort into designing the TSF to ensure it meets all requirements.

The key one here is that, you know, the recent heavy rainfall, so the peak we had over the past year, in July 2020, there was 140.2 millimetres recorded over 72 hours. Now,

that would have been captured and managed onsite. In one of the key, I guess, points for this is also that Bowdens will be actively managing water onsite, so there will be sort of proactive measures in place to ensure there's capacity in those dams if there's predicted rainfall, but there's also the ability to pump water through the site, so water can be moved to the TSF, water can be moved to the opencut pit, as contingencies, so they're – again, standard practices would be in place to manage these sort of events.

MR DUNCAN: Nick, can I ask a question there, just before you move off that one.

MR WARREN: Sure.

MR DUNCAN: I acknowledge it's best practice, you're in accordance with best practice, with the 1 in 100, but given recent events and some of, you know, the floods and things that have occurred, have you done any modelling on the probable maximum? You know, say you had more than 1 in 100, what the outcome is, particularly with the tailings storage facility and leachate management there?

MR WARREN: Well, the requirements – I guess if you're looking at a maximum, as in, you know, those outcomes, there are contingencies in place for that, as I mentioned. So we haven't modelled what a maximum rainfall event would be, but we have looked at the contingencies. So there is, like, overflow contingencies for the TSF, and there's dams and structures there to manage those so that you're not getting uncontrolled overtopping if that were to occur, and it would obviously - - -

MR DUNCAN: So risk mitigation processes.

MR WARREN: Yes.

MR DUNCAN: Yes.

MR WARREN: Yes, is the approach. I might open the floor to Paul Ryall, who's a hydrologist and been involved in some of these as well, if he's got anything to add to that question.

MS SYKES: Nick, before we do that - - -

MR RYALL: I – sorry.

MS SYKES: Sorry, Nick. Nick, before we do that, I just had a quick question on the – so you introduced into the design a – the thickener part, in terms of the water management and, you know, improving the reuse of water. Did you also consider any

other technologies like dry, you know, press filtration, or other sort of technologies to improve dry or to explore dry tailings?

MR WARREN: Yes, we did. We had quite lengthy discussions on dry-stack tailings, and the opportunities there. However, our concern was really community acceptance of that process, because although it's becoming a bit more of a standard practice to look at that, I think explaining to the community that there would not be the dust risks, you may be familiar with the recent concerns out at Cadia, and these things all add up to, you know, creating a lot of concerns, and so what we did was really, we basically sat in a room, a virtual room, as it was during COVID, with ATC Williams, WRM Environment, Water and Environment, our team, and we basically just said, you guys are the best at this. What's – here's our ideas of what we think we can do, what's the best approach here? And that's how we ended up with that strategy.

MS SYKES: Thank you.

MR DUNCAN: Okay. Paul?

MR RYALL: Thank you very much. Yes. Apologies for cutting off there earlier, Commissioner Sykes. The surface water assessment WRM 2022 considers modelled water inventories using historical climate conditions. There's no overflow from the mine site, no overtopping the TSF. Recognise there are extreme events that may occur over and above design events – again, as Nick alluded to, there is contingency within that site water management system to deal with them.

I suppose when you look at things like PMF and PMP events, all bets are off, you know, in any situation and any circumstances, whether it be design of water storage dams, TSFs and the like – they are extreme and infrequent events, and there's not a lot of consideration of those in the design. I would note that the design of the TSF is in accordance with ANCOLD guidelines, dam safety committee guidelines, and generally aligns with the new global standards that have come out. Thank you.

MR DUNCAN: Thanks, Paul.

MR WARREN: So just moving on to the availability of water, so obviously a key one is - for the community is what the changes to the site operational management would do to their water supplies. So I think we – like I said before, a lot of effort went into ensuring that the impacts would be as previously predicted, but also relatively minor. I think, importantly, Bowdens Silver holds all water access licences required for the project, and we've managed to, I guess, get to a final point where I think you – the department's assessment report and the peer reviews agree that there's minimal risks

for downstream water users, so whether there are - using groundwater or whether they're using – accessing surface water.

The – I mean, looking at stream flow changes there in Lawsons Creek, it is – they are – Wilsons Creek and Lawsons are both – they sort of go between ephemeral and – as it is right now, where there's quite a bit of water around, there's quite a decent amount of flow in there. So I think the important one for us is that in those very dry periods, the mine site and the water captured there would increase those low-flow days, which is flow less than one megalitre per day, to – by two days per year, so it really is a minor change to the system.

I think two of the key things that came out of the department's assessment and have been looking at acid mine drainage risk, so I think we did go through a process of review, there was a – the peer review commissioned by the department, but we – I guess Bowdens Silver has – they've undertaken testing and analysis of these potential AMD risk, and has planned for the necessary management requirements. So there was a bit of disagreement on whether the testing and analysis that had been done was broad enough to support the conclusions.

I think it's important to note that, you know, I guess, the management of AMD risk identification is standard practice in modern mining. So the controls that are being applied are commonly applied. So when it comes down to looking at these risks, I guess there's two important things for the project. The first one is having sufficient material to meet the project's construction and rehabilitation requirements. So going through this process, in responding to our systems, we actually identified more construction material, so that NAF material would be available to the site than we had previously expected, and the – you know, is the proposed management of AMD risks sufficient to avoid – to reduce risk and avoid impacts.

So basically our position is that the design of the waste-rock emplacements and the capping and the management of the TSF meet current industry best practice. So we had – due to the concerns of our systems, we sought the – an opinion from Okane Consulting – they're kind of a leading firm in mine rehabilitation and management for rehabilitation, so we got them to give us a detailed review of the geochemical outcomes and analysis, but also our approach to management of the – those components. They basically agreed with us. They said that there is some additional testing that would benefit here. They are in the process of managing that program for us. We do have some initial samples that have come out of that.

We can provide you some more information on that if it's – if it would be of benefit, but the – I think importantly, although there was disagreement, we've reached a point

where we accepted the condition proposed by DPE, and would address the requirements of – or I guess you'd say more conservative requirements of our systems that came out of their review. I can – I guess I can run into more detail on this, but if this is the – if you really – if you have any questions on that at this stage, or - - -

MS SYKES: I'm okay. Thank you.

MR DUNCAN: Sorry, we have got one. Sorry.

MR COCHRANE: It's Peter Cochrane, Commissioner. Just if the mineralisation increases with depth, as it looks like from the diagram you've shown, then presumably your ratio of NAF and PAF would change as well, and presumably would drop – there would be less non-acid-forming material, as you go deeper? Is that – that's been taken into account?

MR WARREN: Not in this – in the design of this project, because this project can only account for the opencut pit. So Bowdens are in the process of doing a – is it a pre-feasibility study, Tony? Is that where that is at, that looks at those – that process and that risk and what's involved in pursuing underground opportunities?

MR RYALL: Yes, that's right.

MR WARREN: So that's – yes, we do – we acknowledge that there will be more of the potentially acid-forming material as you go deeper, given the – probably the – I guess what we understand of the evolution of the deposit, and the – like, the way the sulphur sits in that system. So I think that is something we'll be looking at in detail. Obviously when you are operating underground, a whole range of other opportunities are open to you for – in terms of management and what – you know, where the water is and all those sort of things, so that's part of a bit – a bit more of a complex future discussion, I think.

MR DUNCAN: Thank you.

MR WARREN: So the second issue to discuss here is the final void construction and management. Bowdens Silver has committed to construct the final void as a groundwater sink, so we've sort of taken that approach because that is obviously an obvious preference for the companies, that that is the outcome.

So our calibrated groundwater modelling predicted the final void would be a groundwater sink. When going through the peer review process with DPE, there's a range of questions asked around sensitivities, that we sort of – we proceeded to

undertake extensive uncertainty analysis on the risk of throughflow from the void when you reach those post-mining equilibrium water levels. I think we – as you said in the – you've seen in the assessment report, there was a risk identified through this uncertainty analysis, that under certain settings, under certain parameters, because the uncertainty analysis tests that a range of parameters there, but the – that there was a risk of throughflow occurring, which we accepted.

We identified a range of mitigations that were – we consider feasible that would ensure terminal sink conditions post-mining. Importantly, we tested these conceptually, we demonstrated how they would work, and DPE's peer reviewer, HydroGeoLogic, accepted those. We have had a – also of course run them past our own peer reviewer, Dr Noel Merrick.

So the other important part of this is also that during the life of the project, there will be ongoing validation updates to the groundwater model. So this would, I guess, provide us with a lot more information on those closure risks. We'll be working with the resources regulator, with DPE, on rehabilitation strategies and a rehabilitation management plan, and that would, I guess, come to fruition as we approach closure.

So it is a – something we've identified as a risk. It's something we can – we identify it's feasible to mitigate for, and that the management of those things would be developed over the life of the project. If there are no questions, I'll move on.

MR DUNCAN: Continue.

MR WARREN: So one of the key concerns in the community has been basically air quality connected to health. This is connected with exposure to lead in the environment. Importantly, our air quality assessment shows that there is no exceedances of the relevant air quality criteria at any sensitive receivers. This includes the Lue Public School – we did a lot of focus there. Real-time particulate monitoring would be undertaken in Lue and in proximity to the mine during the operation, so we'll have that capacity to react there.

When it came down to the health risk assessment, we've had our health risk assessment completed. We had it peer-reviewed, so Bowdens commissioned a peer review to look at that. DPE commissioned a peer reviewer, and it was generally agreed there were no health risk issues to the local community. Importantly in this chart here, you can see the increment added by the project in terms of metal exposures compared to what would – is reasonably assumed to be in the existing environment. Mental health risks were of course considered, feedback from the community that was addressed in a social impact assessment, but again, Bowdens has agreed to monitor

and oversee these programs to ensure it is as predicted. It includes a blood lead level monitoring for community members who wish that – to partake. If there's no questions, I'll keep moving.

MR DUNCAN: Yes, please.

MR WARREN: So getting to general amenity. So the key one for the project has been noise. We recognised very early that local community would be hearing mining noise, where there – where previously there has been none. So the – if you look at both construction and operations separately for the project, we accepted that the – I guess you used the construction noise limits, which give you a bit more flexibility, would apply for the first – with planning the first six months, but it's basically until we start those activities on the opencut pit when you might – it might be considered mining.

From then, you – the operational noise limits apply, and so it's likely that those initial construction activities would – we've planned an 18-month site establishment and construction stage for the project, but the way it would work is it seems is that the first six months would be considered construction for the purposes of noise management, and then onwards into operations.

So you do have a range of activities that will occur over the life of the project - the 500KV powerline realignment is one when you would have some construction activity. So there were some exceedances predicted during those construction periods, so it's similar to if – you've got a gang of people doing some roadworks that might be commissioned by council, they're down the road. As they move along the road, the noise sources change, so that they're never in one place for very long. Obviously when there's construction of that intersection that's proposed for the relocated Maloneys Road and Lue Road, there will be noise and there will be activity there, that there's a few residences that are nearby, but then that activity sort of progressively moves north as the construction occurs.

When we come down to these operational noise assessments, there was marginal to moderate exceedances at two residences. So we've been – had discussions with those residences about those exceedances, and the application of the voluntary land acquisition and mitigation policy, so that – the VLAMP policy. But as well there were three other residences where a negligible exceedance would occur, so that's less than 2 decibels, and we would offer those residences or those landowners, I guess, the mitigation post an approval. This is over and above the requirements for the policy.

Importantly there are no predicted exceedances within the village of Lue for operational noise, and of important places such as the primary school. And again, as we mentioned before, the real-time monitoring would be implemented during the life of the project. So we would have triggers and we would have – we would be able to respond to noisy activities as they occur.

So another important aspect of amenity for this project has been visual amenity. So you are – there's been some detailed assessment done in terms of views of the mine site, so there would be a few – I think three residences remain that would have distant views of mine site components. There's an example here of a view to the south-west of the mine, where the purple there is the embankment of the TSF. So I think the yellow there is the relocated road. So a lot of that, the road especially, would disappear into the environment, become consistent. The TSF embankment, we would be seeking to revegetate or put some sort of coverage on that to – so it's to mitigate those impacts.

Importantly, no components of the mine site would be visible from Lue village, given the substantial topography that screens and surrounds the mine site. So we're in a very fortunate location in that regard, because you do have this natural mitigation of visual impacts, and I think we will be able to see that when you have the opportunity to have a site visit.

Part of visual impacts is impact at night, so we looked at lighting. So in that sense, you look at the luminous intensity, so that's, you know, most commonly with, you know, your soccer fields and the lighting from a soccer field – does that impact on local properties, as well as sky glows, so that is sort of, I guess, light visible in clouds and those sorts of things, and then also the impacts that observatories. Importantly there would be no impact or – at the – for the Dark Sky Park for Siding Springs Observatory, and they confirmed that with us, and the impact of sky glow on the local environment was assessed to be not significant, in terms of, you know, when there's a clear sky – there'd be virtually no impact. You'd need very low-lying cloud to get a faint sky glow.

So there were more local observatories that we considered, and some residences raised concerns about their abilities to – for star-watching, stargazing, you might say, which I think we've addressed and – in our submissions report, but the – you know, the key one when it comes to lighting is that a lot of – there would be very minimal opportunities for light to escape from the site, and that's got to do with the way it would be designed. There are some areas that have views towards the mine site, but I think they would be – there's going to be limited opportunities to actually see lights from the site.

One of the key components of the project has been the realignment of the 500KV transmission powerline, so what you can see there is the existing alignment is on the right. To the far left was what was initially proposed in the EIS, and assessed with the EIS. Once we completed that first amendment, there's a lot of feedback and discussions with the community. We commissioned GHD to model an opportunity to move that. They've given us the alignment in the centre there, which is basically – the idea of that is to make those – take those towers as far away as we can from residences to the west, and to limit views of them. I mean, obviously, they will still see there will be a change, but that's our intention there.

So I think I'll hand over to Blake now to run through some of the social impact assessment outcomes. Blake is the Bowdens Silver Community Engagement Manager.

MR DUNCAN: Thanks, Nick, and over to you, Blake.

MR WARREN: Blake, you're on mute.

MR HJORTH: Sorry. Yes. So, thank you. Yes. So from a social impact point of view, obviously from – as Tony mentioned, social impacts and community aspects of our project have been at the forefront of what we've been doing, and we think differentiate us from a lot of other projects in similar positions. But we do acknowledge that our project will have both positive and negative social outcomes expected, and obviously they're going to be experienced by different people at different times of the project in different ways.

But we've been – we've had a number of key mitigation and hazard strategies. Some are in place already and some are going to be refined over the life of the project. Importantly, we've got a community investment program which has been running for a number of years now. That will only strengthen and involve more community input throughout the life of the project, but we've seen a number of benefits for local groups and local events throughout our area, by inclusion in that program. Obviously we place a large importance on local employment and procurement strategies, again, developing over time, but ones that are already existing. We have a huge, huge focus on employing locals where we can and using local suppliers and businesses.

Other programs, which you can see there, will obviously happen. We've got a planning agreement already in place with the Midwestern Regional Council, and a social impact management plan will be developed over time as well. Next slide, please, Nick.

As I said, understanding what the community is saying and importantly listening to what they have to say and trying to implement any changes that we can in our project has been at the forefront, and that has really required us to understand what they're saying and us to be able to communicate honestly and transparently with them.

So in November 2022, we commissioned an independent survey through SEC Newgate Research. That was an independent survey that was run throughout the entire Midwestern Regional Council Local Government Area. There were over five – sorry, over 400 participants in that. And importantly, and what validates some of the success of our consultation, is that we had 83 per cent of people in the LGA aware of this, and importantly 68 per cent of those people across the entire LGA supportive of our project, and you can see some of the breakdown there within different areas, so 66 per cent in support, Lue, Ralston and Kandos, 70 in Mudgee, and I think importantly too is the last point, which says that only 17 per cent, less than 2 out of every 10 people within our LGA, are not supportive of our project moving forward. And that really confirms what we have been hearing day-in, day-out, pretty much from day dot. Thank you, Nick.

Obviously the population and workforce management is an important aspect of our project moving forward into development, and liaison with the council, of course. We've had a continued focus and we will continue and extend some of the rental of our purchase properties that we own. We identified early on that we had a number of properties that were part of the project from previous proponents, and some that we have also picked up over time, and it was important for us, as Tony stated earlier, is, the viability of Lue is one of our main aims. So to be able to keep community members in homes has been important, and one of those aspects has us been working very, very closely with the Lue Public School, where we find as many families as we can to move into the properties that we have, which helps their school numbers, and to be honest, the principal down at Lue Public School has been rapt with the relationship that we have, to be able to help her in that regard.

Obviously the residents locally are a priority for our workforce moving forward. We've had discussions over time, and even recently, with council to identify a range of accommodation opportunities, both within Ralston and Kandos and Mudgee, and Bowdens Silver, obviously, we've indicated that contributions to the community health could be an aspect of our ongoing investment program, identified with our future involvement with those community members. Cheers, Nick.

As I said before, it has been acknowledged that social impacts are going to be felt by different people over a different time in different ways, and obviously within the local

community. We've implemented the investment program, as I said, to ensure some of those benefits are experienced locally and regionally. We hear it all the time that the involvement and our implementation of that program has been a positive one, and it's not just about sponsoring events, it's actually about forming relationships with some of our education providers as well, mentoring young kids in schools, looking for ways where we can actually implement training opportunities as we move forward. And, again, that's been keenly encouraged by some of our dialogue with local schools.

Obviously the intergenerational benefits that we think will flow from our project include jobs and training, which I've just touched on. We do hear a lot within the community about limited opportunities for young people, and sometimes the necessary fact is that they need to move away to find meaningful opportunities. There's obviously going to be some infrastructure in our project, such as roads and the provision of the raw materials that are more and more part of society's needs these days.

The diversification of the industry in the region is one that is important, to provide stable provision to counter – job provision, I should say, to counter some of those changing coalmining opportunities, which have been part of the fabric of our towns, and it's consistent, we think, and we know, with the New South Wales Government identifying the central west as a critical minerals hub as part of its critical minerals and high-tech metal strategy.

So the long-term prospects for the project are excellent and obviously flow on. Some of those environmental outcomes have intergenerational effects as well. Groundwater drawdown stabilises at 16 years, equilibrium at 50. Our current successful onsite farm will continue. Nick has talked about the fact that our – we're committed to constructing that final void as a groundwater sink, and one of the important ones as well, which has been received well within some of our registered Aboriginal groups attached to the project, is a heritage mentorship program, whereby young Aboriginal stakeholders will work with Aboriginal Elders with our project archaeologist to actually learn and curate – or, I suppose, learn the process of curation of artefact collection, as well as the storing and upkeep of those moving forward. So that's another skill that we feel that can be passed down throughout that Aboriginal local community as well. Thanks, Nick. I think it's back to you now.

MR WARREN: Yes. So just to run through the final points in the agenda, we come down to traffic impacts. Obviously the key aspect here of transport management for the site has been the relocation of Maloneys Road, so that was intended to remove as much as traffic as was reasonable from having to pass through Lue, as it's heading towards Mudgee.

So when it comes to the traffic generation for the project, it is really very low. The key sort of, I guess, project-related traffic would comprise slight vehicles and buses used for transporting personnel. When it comes to that, there's limited heavy vehicle movements for deliveries. You're getting – and the concentrate transportation activities are rather small.

The - I think, you know, a key aspect is that once the relocated Maloneys Road is constructed, it will be used to – for transporting this construction material, so that that non-acid-forming waste rock for construction of the TSF and embankments and those uses, so there is – you know, that is, in terms of the public road network, as the relocated Maloneys Road would be a public road, that would be a key change, in that – for that 1.4-kilometre section of – I think it's a 5.2-kilometre road, there would be heavy vehicles moving backwards and forwards between the site.

So there is very limited usage of Maloneys Road at the moment. In our traffic surveys, most of the – what it picked up were the mine site – the exploration personnel. There's maybe a handful of residences to the north that would sort of, I guess, be passing through on that road. We would connect with Bara-Lue Road, so there's an existing quarry up in that location that would most likely make us of the relocated road as well, but that's to the south of the – of where the truck movements for the TSF would occur.

So, you know, I guess a key outcome has been that Bowdens Silver has agreed to a planning agreement with Midwestern Regional Council, and would contribute for road maintenance through that, and as, you know, we stated, the approach to transportation would result in minimal changes to the safety and performance of any of the intersection local roads – that's including through Mudgee. So I think we're very comfortable with the outcomes in terms of traffic.

There would be a change in Lue. There would be the occasional vehicles, that would be light vehicles, or maybe buses, but they're not going to be at levels that would increase or, you know, present risks for traffic safety. Importantly, Bowdens recognises the need to limit vehicles during school hours, passing through Lue.

MR DUNCAN: Could you just expand a little bit on the quantum of the traffic, you know, that would use the road both in sort of worker access, but also product? I'm interested in where – what the products transported in, you know, on a daily basis, or whatever it goes out, I mean, and where does it go?

MR WARREN: So are you talking the concentrate transport?

MR DUNCAN: Yes.

MR WARREN: The – Tony, that may be a question for you, because I think the concentrate – in terms of traffic numbers, you're talking one to two loads expected on average - - -

MR DUNCAN: Per day?

MR WARREN: - - - per day.

MR DUNCAN: Yes.

MR WARREN: So that would be from the relocated Maloneys Road, they turn right towards Mudgee, and I think it's – is it Wellington and Parkes, Tony, is one destination?

MR DUNCAN: This would go to rail from there, would it?

MR WARREN: Yes.

MR DUNCAN: Go to intermodals. Okay.

MR RYALL: Yes. So the proposal is - at this stage, is the main product, which is the silver-lead concentrate, would be taken to Parkes, and from Parkes, will be railed to South Australia to the Port Pirie smelter complex.

MR DUNCAN: Okay.

MR RYALL: There is an opportunity that that - in the future, that Kelso, near Bathurst, may be looking at a larger siding there that could potentially take our product, same route to – well, the same destination through to Port Pirie. The zinc product is – depending on where the marketing heads up, but that can go out through Port Botany – this is a small fraction of our product, of course – through Port Botany and Newcastle, and that will go to potentially Tasmania or anywhere in Asia or anywhere else, but obviously the main product is the silver-lead concentrate that will head off to Port Pirie.

MR DUNCAN: And that concentrate would go in what – B-double down the track, or something similar? Heavy vehicles of that nature?

MR RYALL: B-doubles, yes.

MR DUNCAN: B-doubles, yes.

MR WARREN: Yes. I think it's containers – double-stacked containers – small double-stacked containers on a semitrailer is the intention at this stage, but you could get up to a B-double.

MR DUNCAN: Okay. And then the sort of daily traffic for people going to and from the mine, roughly? Are we talking - - -

MR WARREN: I think we might need to take that question on notice in terms of the numbers. I don't have the numbers on the tip of my tongue, I'm afraid.;

MR DUNCAN: No, that's all right. Maybe just direct us to the documents. I was just curious to get an idea, but the point being, Maloneys Road, once that's done, will – majority of traffic will go west, not through the township.

MR WARREN: That is the intention, yes.

MR DUNCAN: Yes, okay, thank you.

MR WARREN: So moving on to biodiversity . I note that we're probably approaching time. How are we going for time?

MR RYALL: You've got five minutes.

MR DUNCAN: You've got about five minutes, yes.

MR WARREN: Okay. So in terms of biodiversity, we did quite detailed surveys over an umber of years and seasons, to ensure we'd captured the - I guess had an understanding of what was at site, and as Tony mentioned, there was a lot of previous surveys that had identified threatened species' likelihoods in previous work. The main conclusions – I mean, what you can see here is a – the traffic light model that we used and developed with EnviroKey, the red obviously being the box gum woodland, which is critically endangered and is to be avoided if possible, and then the green areas are sort of, I guess, pasture and disturbed land that – in its current form, and then the orange is in-between. As we said, a portion of the mine sites supports box gum woodlands, so although much of this vegetation – so I think it's 48 per cent is – may have also be described as derived native grassland, so it is box gum woodland in its

classification; however, it's essentially a paddock that has been used for pasture and grazing, as is consistent across for that – that vegetation community.

Importantly, you know, all our residual impacts would be offset in accordance with the New South Wales Biodiversity Offset Scheme, so we went through some detailed consultation with BCD on that to look at alternatives, to ensure we were avoiding vegetation clearing as much as possible, and then to finalise an offsetting position.

There has been – the green, you can faintly see outlined in that project, has been identified as land that would be suitable for an onsite biodiversity offset, so would be conserved in perpetuity through our stewardship agreement, but there are – we've been talking to landholders in the region close by who have properties who are interested in establishing offset stewardship sites on their properties, about facilitating that and ultimately purchasing those credits that are generated.

When it comes to threatened species, the key fauna identified for species credits were the koala, regent honeyeater, squirrel glider, and large-eared pied bat. Importantly, the regent honeyeater and the squirrel glider were not identified in any of the surveys at the site, but were considered likely to occur through the assessment.

I think a key one that shows the approach taken by Bowdens Silver, there was some environmental surveys done by personnel after the EIS had been submitted – I think this was actually in 2021, when there had been some rain, and obviously some of the flowering species had recovered. Site personnel identified the small purple peas, that's the Swainsona recta. We immediately commissioned additional surveys at that time, and also found the silky Swainson pea, so both of those have been included in our assessment as impacts, but importantly both are present in much larger numbers in that – our onsite offset area.

We also commissioned an additional koala survey, so there was a lot of communication with the community, a lot of engagement on koala sightings and koala risks. I don't believe the report was provided to the Department of Planning, but they didn't rely upon it in their assessment, because it didn't really change the outcomes. We used the spot assessment techniques a bit more methodical, consistent with what's required under the biodiversity assessment methodology that's been recently updated. But the assessment in short demonstrated the mine site as a low-use area for koalas. So we've always said they were there, but they are – they're in low numbers, and there are indications that the use is transitory. So we can provide you a copy of that report, if that would assist your considerations. The regent honeyeater is a key one – sorry?

MR DUNCAN: Thanks, Nick. Thanks. We appreciate that, and, look, we're happy to run over by five or ten minutes. You're almost at the end of your presentation, so don't rush.

MR WARREN: Yes. Okay. So the regent honeyeater was an important one. I think we – there was quite extensive surveys done to – I guess to try and identify the species, if it was present. No individuals were found, but because of the location of the site between two key breeding areas, we've accepted that as an obligation for biodiversity offset. So there would be suitable offsets if that was for that species. That's kind of – that's it on biodiversity. If there are any questions? I'll hand over to Tony to run on to economics.

MR DUNCAN: Not at this stage, but a copy of the koala report you referred to would be helpful, thank you.

MR WARREN: Fantastic. We'll do that. Tony, I'll hand over to you to talk about future opportunities in a bit more detail.

MR McCLURE: Okay. Thanks, Nick. Yes. So an item on the agenda was concerning the future potential of the project, and this is something that the – although strictly speaking, this is not a part of the current proposal. It has been something that had particular interest by the DPE, and there's a wealth of information that's provided publicly from our parent company, Silver Mines Limited.

In any case, just some of the key points on it. The mineral resource that was developed back in – it was finalised back in September 2017. That led to the process of feasibility study and mineral reserve assessment and so forth. That mineral resource – well, the ore reserve that is the extractable component, that is 30 per cent of the known mineral resource from that 2017 assessment. So 30 per cent of the mineral resource, that is – clearly there's expansion opportunities that can be potentially tapped into, obviously through further assessment.

But since that mineral resource is complete, we've had a particularly active expansion exploration program, so an additional 50,000 metres of drilling has been completed since that calculation, and what is that – that has determined is there is considerable potential for economically extractable material that may come to the fore. So that is subject to further work, of course.

With the work, with that 50,000 metres of drilling, as I mentioned at the outset, is – we've shown continuity of mineralisation below the opencut pit, and we have commenced a scoping study or a pre-feasibility study for a potential underground

operation that could potentially co-exist with an opencut operation. A lot more work needs to be done. There's many years to get to a point of understanding that, but the scoping study is the first step, or pre-feasibility study, the first step in understanding whether that's going to be economically extractable.

Shortly we'll be completing an upgrade to the opencut mineral resource, and that has the potential to – as I say, to expand our ore reserve over time. We hope to have that out in the coming months, and from that point, that will lead to further studies in the potential expansion of the opencut or, you know, the big components of that that may well be more relevant to a potential underground operation.

We're also particularly encouraged by work we've done – been doing on the southern gold zone, and that's below and adjoining the southern area of the planned opencut pit. There's a considerable amount of information online on this new area, but you can see this type of ore body – yes, it's – the focus has been on silver, and its co-products, but as we get deeper, we see strong continuity of silver, and this is – without getting too technical, it's feeder zones and so forth that have brought the silver mine mineralisation up to surface, and as we get deeper, we see that continuing. We see areas where we have much higher incidences of zinc in particular, so we – in areas we get high-grade zinc, higher grade lead as well, but still very much dominant as silver then zinc then lead, and as we move to the south, and to the southeast, we see a greater component of gold coming into the system. We are not at a point that that's going to be economically extractable, but that's part of the studies going forward.

So it's not unusual for this style of deposit, as you get deeper, to see a telescoping into other elements. Indeed, some of our deeper drilling starts to see a little bit of copper come into the system, and with further understanding and further deeper drilling, we may see the mineralised system telescoping into a copper and gold component.

A lot of work ahead in that regard. We have a – our exploration is an extremely important part of our business. We'll continue to significantly invest in exploration in and around Bowdens in the immediate vicinity, and as I've demonstrated, we continue to undercover a very major mineralised system.

The system is open, so even further increases to the resource base that we have as at today is certain. Of course, any further developments would be subject to considerable further technical work, exploration work, assessment work, and then to the point of feasibility, environmental outcomes and assessments, and then of course government approvals for any expansion.

MR DUNCAN: A couple more things to cover is cultural heritage – do you want to say anything more about that at this stage?

MR McCLURE: I'll pass this back to Nick on, yes, a few of the other outstanding issues that are catalogued in - - -

MR WARREN: We'll just – obviously the other matters, not to limit their importance, but we'll run through them relatively quickly. This one on cultural heritage – both detailed archaeological surveys basically identified, I guess, intermittent use of the land by – in the past, so Aboriginal communities in the past. There's 56 sites have been identified, and 25 of those would need to be removed to have direct impacts.

The important thing for this was that the – we recognise that the high cultural values held by the Aboriginal community with regards to these artefacts and sites, but our archaeologists sort of, I guess, concluded there was limited archaeological, education or aesthetic value in the sites identified. Blake has mentioned the Aboriginal mentorship program that would occur during the collection of these artefacts that wouldn't be removed, and on historic heritage, there was some indication of previous gold mining activity, but it was very limited, and it's not by any means listed on any registers or of - considered to be of heritage significance.

In terms of the final matters, I mean, the – in terms of agricultural impacts, I think we've got quite a detailed agricultural impact assessment presented with the project. It looked at the mostly class 6 grazing land that is there at the moment, and our commitment to return the land as much as possible to grazing uses at closure. Hazardous goods would be transported and stored in accordance with the Australian standards and New South Wales Government requirements. We've got a very clear path to rehabilitation and for the final landform. Obviously, as we've noted, that would be managed in accordance with the Resources Regulator and DPE over the life of the project as we get to closure. Progressive rehab is important as well, an important part of that.

In terms of greenhouse gas emissions, I think our – the project's emission generation was relatively low, compared to other projects in the area and locally. However, Bowdens has committed to sort of, I guess, looking at that closely. Part of that – I guess if you consider the decarbonisation of the grid that's occurring, we would also – the company is also considering the feasibility of a solar farm to supply a portion of the project's power.

MR DUNCAN: Thanks, Nick. That's helpful. We need to wrap up. Peter or Clare, any questions at this stage?

MS SYKES: Yes, I didn't have any further questions. I just wanted to thank you for such a detailed presentation, actually. So thanks very much for the additional insights I think you've raised throughout the presentation.

MR DUNCAN: Yes.

MR WARREN: No problem.

MR DUNCAN: One quick question on the Aboriginal cultural heritage – 56 sites, 25 need to be removed. Does that include the rock shelter with potential archaeological significance? Does that stay or go?

MR WARREN: No, that is – that will need to be removed, but we've committed to do subsurface excavation prior to any sort of – anything occurring there. So it's not really a – it's not a rock shelter as much as it's a cave. There's no evidence of – there's no artwork in that – in the shelter. It's – the – you know, basically the – when they were doing the surveys, they identified that this is – potentially may have been somewhere where Aboriginal people may have sheltered in the past, but it's really quite small, but was recognised to have potential, so the commitment there was to do some subsurface investigation, but it was considered that there's not likely to be substantial artefacts. It wasn't like it would support a campsite or any of that.

MR DUNCAN: Thank you. Thanks, Nick. Anthony, thank you to you and your colleagues for the presentation and, as Peter has said, we appreciate the amount of information you've been able to provide in the time, so we're looking forward to the next meeting with the site inspection.

MR McCLURE: Thank you very much. No, we look forward to it as well. Thank you.

MR DUNCAN: Thank you.

MR WARREN: Fantastic. Thank you.

MEETING CONCLUDED **[10.12am]**