New South Wales Government
Independent Planning Commission

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Bowdens Silver

SSD-5765

Statement of Reasons for Decision

Peter Duncan AM (Chair)
Clare Sykes
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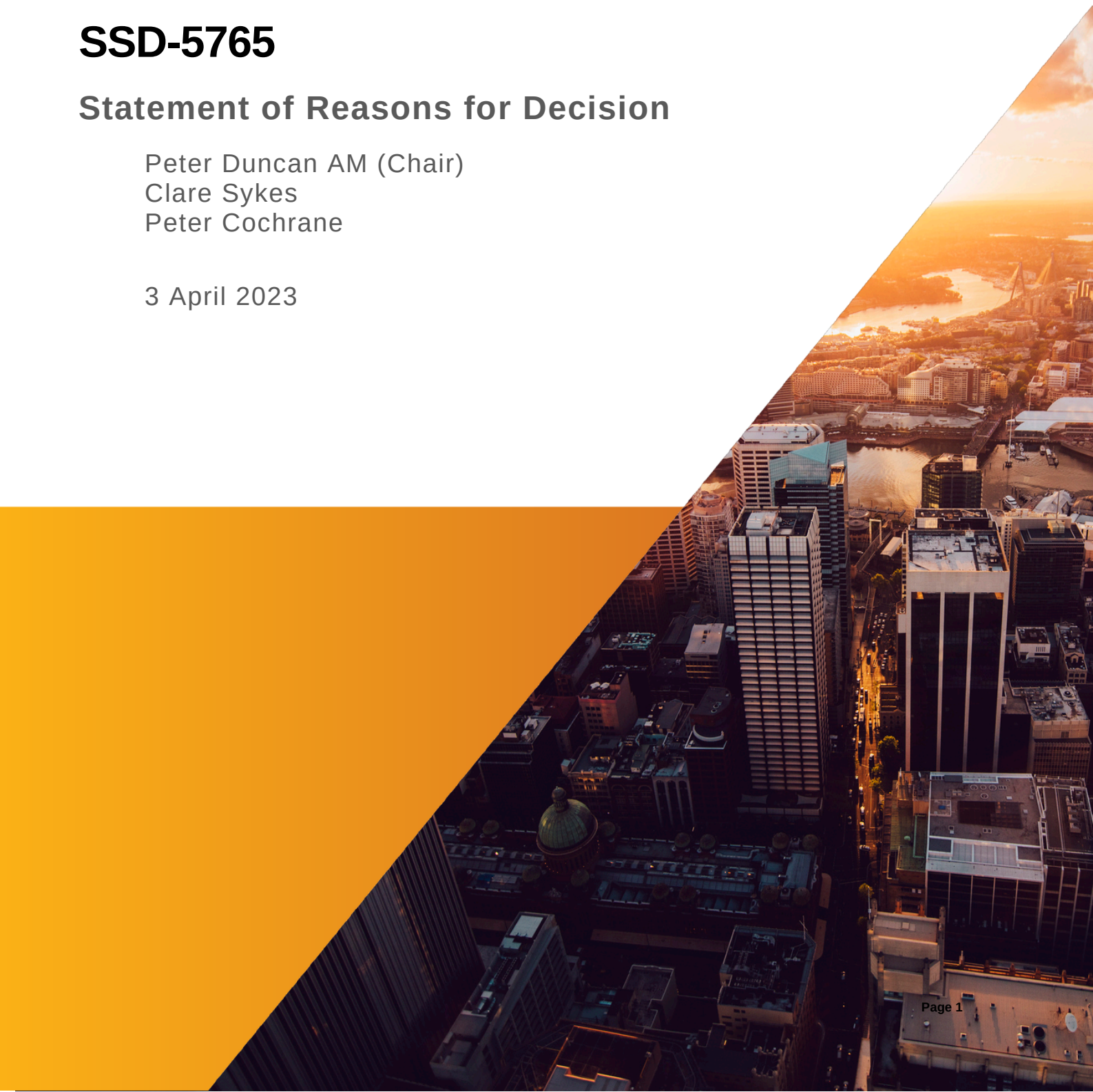
3 April 2023



Executive Summary

The NSW Independent Planning Commission has determined to approve the State significant development application for the Bowdens Silver Project (SSD-5765). The application, made by Bowdens Silver Pty Ltd (Applicant), proposes to develop the Bowdens Silver Mine, an open cut silver, lead and zinc mine located approximately 2kms north of the village of Lue within the Mid-Western Regional Council Local Government Area. The mine would extract and process around 30 million tonnes of ore (up to 2 million tonnes per annum) over a period of approximately 23 years.

Commissioners Peter Duncan AM (Chair), Clare Sykes and Peter Cochrane were appointed to constitute the Commission Panel in determining the application. As part of its determination process, the Commission undertook a site inspection and locality tour, and met with representatives of the Department of Planning and Environment, the Applicant and Mid-Western Regional Council. The Commission conducted a three-day Public Hearing on 15-17 February 2023 that was livestreamed.

Key issues which are the subject of findings in this Statement of Reasons relate to human health and amenity, water, traffic and transport, social impacts, economic impacts, Aboriginal cultural heritage, biodiversity, and rehabilitation and final landform.

The Commission received submissions on the Application and acknowledges that the community is particularly concerned with the potential impacts of the mine on human health. The Commission also received submissions in support of the application due to the employment opportunities created by the mine and the flow on economic benefits to local businesses.

After consideration of the material, the expert evidence before it, the absence of any outstanding concerns regarding health impacts from NSW Health or the NSW Environment Protection Authority that are unable to be managed, and the conditions imposed by the Commission, the Commission is satisfied that the Project can meet all relevant requirements for protecting human health and safety and that on balance, the Application is in the public interest.

The Commission has imposed conditions which seek to prevent, minimise and/or offset adverse impacts of the Project and to ensure ongoing monitoring and management. The Applicant will be required to prepare and implement comprehensive management plans and will need to report on mitigation measures, monitoring results and compliance with performance criteria on an ongoing basis.

The Commission’s reasons for approval of the application are set out in this Statement of Reasons.

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Defined Terms

ABBREVIATION	DEFINITION
AMD	Acid mine drainage
Applicant	Bowdens Silver Pty Ltd
Application	Bowdens Silver Project (SSD-5765)
Approved Methods	Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016)
AQA	Air Quality Assessment
AR para	Paragraph of the Department's Assessment Report
BAR	Biodiversity Assessment Report
BGM	Bituminous geomembrane
BC Act	Biodiversity Conservation Act 2016
Commission	NSW Independent Planning Commission
Council	Mid-Western Regional Council
Department	Department of Planning and Environment
Department's AR	Department's Assessment Report, dated December 2022
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	Environment Protection Authority
EPI	Environmental Planning Instrument
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ESD	Ecologically Sustainable Development
GCL	Geosynthetic clay liners
ICNG	Interim Construction Noise Guideline
LGA	Local Government Area
Mandatory Considerations	Relevant mandatory considerations, as provided in s 4.15(1) of the EP&A Act
Material	The material set out in section 3.1
Mid-Western Regional LEP	*Mid-Western Regional Local Environmental Plan 2012*
Mtpa	Million tonnes per annum
NAF	Non-Acid Forming
NEPM	National Environmental Protection (Ambient Air Quality) Measure
NPfI	NSW Noise Policy for Industry
NVA	Noise and Vibration Assessment
PAF	Potentially Acid Forming
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
Project	Bowdens Silver Mine Project
RAPs	Registered Aboriginal Parties
Regional Plan	Central West and Orana Regional Plan 2041
Regulations	Environmental Planning and Assessment Regulation 2000
Resources and Energy SEPP	State Environmental Planning Policy (Resources and Energy) 2021
RI	Risk Index
RNP	NSW Road Noise Policy
RtS	Response to Submissions
SIA	Social Impact Assessment
SIMP	Social Impact Management Plan
Site	Land within the area marked 'Mine Site Boundary' in Appendix A of this document
SSD	State Significant Development
TDS	Total Dissolved Solids
TSF	Tailings Storage Facility
VLAMP	Voluntary Land Acquisition and Mitigation Policy
WRE	Waste Rock Emplacement

1. Introduction

1. On 21 July 2022, the Minister for Planning made a request under section 2.9 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) for the NSW Independent Planning Commission (**Commission**) to conduct a Public Hearing and determine State significant development (**SSD**) application SSD-5765 (**Application**).
2. On 22 December 2022, the NSW Department of Planning and Environment (**Department**) referred the Application from Bowdens Silver Pty Ltd (**Applicant**) to the Commission for determination.
3. The Application seeks approval for the Bowdens Silver Project (the **Project**), located in the Mid-Western Regional Council Local Government Area (**LGA**), under section 4.38 of the EP&A Act.
4. In accordance with section 4.5(a) of the EP&A Act, the Commission is the consent authority for the Application as more than 50 public submissions have been made by way of objection during the exhibition period.
5. Professor Mary O'Kane AC, Chair of the Commission, determined that Peter Duncan AM (Chair), Clare Sykes and Peter Cochrane would constitute the Commission for the purpose of exercising its functions with respect to the Application.

2. The Application

2.1 Site and Locality

6. As stated in the Department's Assessment Report (**Department's AR** or **AR**), the Applicant proposes to develop the Bowdens Silver Mine (the **Site**), an open cut silver, lead and zinc mine located approximately 2 kilometres (**km**) north of the village of Lue in the Mid-Western Regional Council area (AR para 1).
7. The Site is comprised of varying topography that is steeply undulating. There are three north/south oriented ridges in the central part of the Site and north-east/south-west oriented ridges dominate the western side of the Site (AR para 16).
8. Primary Site access would be via the (relocated) Maloneys Road and mine access road.
9. The majority of the Site (around 910 hectares (**ha**)) is used for livestock grazing, with the surrounding area comprised of a combination of grazing, lifestyle rural residential lots and heavily vegetated areas. Cattle and sheep grazing are the predominant agricultural activities in the region, however the area also has a long history of grape production and a growing olive production industry. The region is also popular for agri-tourism (AR para 13-14).
10. There are 28 privately owned rural residences located within 3 km of the edge of the open cut pit. The village of Lue contains around 40 privately-owned residences, with another 30 dwellings on the outskirts of the village (AR paras 8, 9 & 11).

2.2 The Project

11. The Applicant is seeking consent for an open cut mining operation to extract and process a total of around 30 million tonnes of ore, and up to 2 million tonnes per annum (**Mtpa**), over a period of approximately 23 years to produce a silver/lead concentrate and a zinc concentrate. Consent is also sought for the realignment of a TransGrid owned 500 kilovolt (**kV**) transmission line that traverses the Site and the realignment of Maloneys Road, which runs through the middle of the proposed mine Site (AR para 2).

12. Table 1 of the Department's AR sets out the main components of the Project in detail. The general layout of the Project is illustrated in Appendix A – Project Layout of this report.

2.2.1 Amended Application

13. The Applicant has amended the Application twice. The first amendment, agreed to by the Department as the Commission's delegate in May 2021, included the proposed realignment of approximately 3.5 km of the existing 500 kV transmission line. The second amendment, agreed to by the Department as the Commission's delegate in March 2022, included the removal of the proposed water pipeline from the Ulan coalfields to the mine and updates to the water management strategy and Site layout. The second amendment also included an amendment to the proposed 500 kV transmission line to address visual impact concerns raised by community members (AR Table 2).

3. The Commission's Consideration

3.1 Material Considered by the Commission

14. In this determination, the Commission has considered the following material (**Material**):

- the Applicant's Environmental Impact Statement (**EIS**) and supplementary information, including amendments to the Application, the Applicant's Response to Submissions (**RtS**) and Additional Information (as per the Department's website);
- all public submissions on the EIS made to the Department during public exhibition;
- all Government Agency advice to the Department;
- the Department's AR, dated December 2022;
- the Department's recommended conditions of consent, received 22 December 2022;
- comments and presentation material at meetings with the Department, Applicant and Mid-Western Regional Council (**Council**), as referenced in Table 2 below;
- all speaker comments made to the Commission and material presented at the Public Hearing held on 15, 16 and 17 February 2023;
- the Department's responses to the Commission's Requests for Information:
  - Department's Response, dated 13 February 2023; and
  - Department's Response, including its attachments, dated 8 March 2023;
- the documents provided to the Commission by the Applicant on 9 February 2023:
  - Additional Static Geochemistry Testing; and
  - Koala Population Survey;
- the Applicant's Response to Questions from Public Hearing, dated 24 February 2023;
- Council's submission to the Commission, dated 23 February 2023;

- all written comments received by the Commission up until 5pm, 24 February 2023, and eight late written submissions received shortly after the submission deadline closed;
- the Department's comments (dated 29 March 2023) on the feasibility and workability of proposed conditions.

3.2 Strategic Context

3.2.1 Strategic Policies and Plans

15. The Department's AR states that both Federal and State Governments recognise the importance of investment in mineral mining and the exploration industry as outlined in three key strategic policies (AR para 18), including:
    - Australia's Global Resources Statement (2020);
    - NSW Critical Minerals and High-Tech Metals Strategy (2021); and
    - NSW Minerals Strategy (2019).
16. The Department also considered the Central West and Orana Regional Plan 2041 (**Regional Plan**), which sets out the NSW Government's strategic vision for land use in the region and identifies mineral resources as 'region-shaping investment'. The Regional Plan includes Objective 3 to 'Sustainably manage extractive resource land and grow the critical minerals sector' (AR para 29). The Regional Plan states that new extraction and processing opportunities from the critical minerals and energy resource sectors make a significant economic contribution to the region (AR para 30).
17. These policies and plans have been considered by the Commission which finds the Project to be consistent with the strategic direction of the policies and plans. The Commission has given consideration to the environmental, social and economic costs and benefits of the Project in exercising its functions under section 4.15 of the EP&A Act (see Section 5 below).

3.2.2 Demand for Mineral Resources

18. According to the Department, there is a growing global demand for metals, due to the emergence of high technology industries, industrialisation, and a growing world population (AR para 19).
19. The global demand for silver in particular has been approximately 1,000 million ounces per annum since 2010. The Department states that around 15% of Australia's demonstrated silver reserves and resources are located in NSW, and that Bowdens Silver is the largest undeveloped silver deposit in Australia (AR para 22).
20. The mineral resource in the deposit targeted at Bowdens Silver is estimated to be approximately 318 million ounces of silver equivalent, which includes 176 million ounces of silver plus zinc, lead and gold as by-products (AR para 26).
21. The Department notes the various uses of silver (AR paras 20 and 21), zinc (AR para 24) and lead (AR para 25), including applications in industrial products and medical technology.
22. The Commission acknowledges the demand for mineral resources in general, the specific demand for silver, and the considerable uses and applications of the metals in modern technology. The Commission considers the demand for silver could be partially met by the Project.

3.2.3 Potential Future Mineral Resources

23. The Project proposes to mine and recover around 97 million silver-equivalent ounces, which is approximately 30% of the resource (AR para 27). The Department notes that there may be opportunities for mining to continue beyond the Project life, subject to further approvals, to recover a further approximate 43 million ounces of silver equivalent resource located below the proposed open cut (AR para 27).

24. At the Public Hearing, the Applicant noted that:

> *… the mineral system is much, much larger. We still do not know the extent of it. Deeper down, yes we see, gold coming into the system. Deeper down, we see copper as well. Now, what that means, we just don't know yet. But the potential is very significant. And that's not unusual for this type of deposit. (Public Hearing Day 1 p.20).*

25. The Commission recognises the future potential resource deposits on the Site are subject to further exploration and resource definition activities. The Commission notes that recovery of these future potential resource deposits is out of the scope of this Application and would be subject to future approvals.

3.3 Statutory Context

3.3.1 Permissibility

26. The Site is zoned RU1 Primary Production under the *Mid-Western Regional Local Environmental Plan 2012* (**Mid-Western Regional LEP**). Development for the purpose of open cut mining is permitted with development consent in this zone. Clause 2.9(1) of the *State Environmental Planning Policy (Resources and Energy) 2021* (**Resources and Energy SEPP**) permits mining with development consent on land where agriculture or industry is also permitted. The Commission agrees with the Department that the Project is permissible with development consent (AR paras 37, 38 and 39).

3.3.2 Site Verification Certificate

27. A Site Verification Certificate was issued on 8 November 2017 verifying that the proposed mine Site is not located on Biophysical Strategic Agricultural Land. The Department's AR states that a Gateway Certificate was not required for the proposed development (AR paras 41 and 42).

3.3.3 Dark Sky Planning Guideline

28. Section 184 of the *Environmental Planning and Assessment Regulation 2021* requires the consent authority to consider the requirements of the *Dark Sky Planning Guideline 2013* for State significant development proposals located within 200 km of the observatory. The Siding Spring Observatory is located approximately 168 km away from the Site (AR para 43). The Commission has given consideration to the visual and lighting impacts of the Application in Section 5 below.

3.3.4 Commonwealth Matters

29. The Department's AR states that on 5 April 2019, a delegate of the Commonwealth Minister for the Environment determined that the Project is a 'controlled action' under the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**) due to its potential impacts on listed threatened species and communities (AR para 52). The Commission notes that the assessment process under the EP&A Act has been accredited under a bilateral agreement with the Commonwealth Government to assess matters of national environmental significance and that the Department has undertaken an assessment on controlling provisions under the EPBC Act relating to biodiversity in the AR. The Commission has given consideration to biodiversity in Section 5 below.

3.3.5 Integrated and other NSW Approvals

30. As per section 4.6 of the Department's AR, the Commission notes that the Department has consulted on the Commission's behalf with the relevant government authorities that are responsible for providing integrated and other approvals. The Commission acknowledges that the Applicant may also require other approvals which are not integrated into the SSD process, including those listed in paragraph 46 of the Department's AR.

3.4 Mandatory Considerations

31. In determining this Application, the Commission is required by section 4.15(1) of the EP&A Act to take into consideration such of the listed matters as are of relevance to the development the subject of the Application (**Mandatory Considerations**). The mandatory considerations are not an exhaustive statement of the matters the Commission is permitted to consider in determining the Application. To the extent that any of the Material does not fall within the mandatory considerations, the Commission has considered that Material where it is permitted to do so, having regard to the subject matter, scope and purpose of the EP&A Act.

Table 1 – Mandatory Considerations

Mandatory Considerations	Commission's Comments
Relevant Environmental Planning Instruments (EPIs)	Appendix C of the Department's AR identifies relevant EPIs for consideration. The key EPIs (in their present, consolidated form) include: • Planning Systems SEPP; • Resources and Energy SEPP; • State Environmental Planning Policy (Transport and Infrastructure) 2021; • State Environmental Planning Policy (Resilience and Hazards) 2021; • State Environmental Planning Policy (Biodiversity and Conservation) 2021; and • Mid-Western Regional LEP. The Commission agrees with the Department's assessment of EPIs set out in Appendix C of the AR. The Commission therefore adopts the Department's assessment.

Relevant DCPs	Section 2.10 of the Planning Systems SEPP states that development control plans do not apply to SSD. The Commission does not consider any development control plans to be relevant to the determination of the Application.
Likely Impacts of the Development	The likely impacts of the Application have been considered in section 5 of this Statement of Reasons.
Suitability of the Site for Development	The Commission has considered the suitability of the Site and finds that the Site is suitable for the following reasons: • the Application is permissible with consent; • the proposed extraction of silver, lead and zinc is consistent with the orderly and economic use and development of land; • impacts on surrounding land uses have been minimised and are capable of being further mitigated through conditions of consent; • the topography between the mine site and the residences in Lue reduces many typical amenity impacts associated with mining operations; • impacts to biodiversity have been suitably minimised and offset; • Aboriginal heritage items have been suitably recorded and relocated where appropriate; • impacts to other heritage have been suitably minimised; • notwithstanding the final void proposed as part of the Application, the Site is capable of being rehabilitated in accordance with Government policy; and • the proposed development would provide social and economic benefits to the region and the State.
Objects of the EP&A Act	In this determination, the Commission has carefully considered the Objects of the EP&A Act and is satisfied that the Application is consistent with the Objects of the EP&A Act.
Ecologically Sustainable Development (ESD)	The Commission has considered the principles of ESD in its determination as set out below. ***a) The precautionary principle*** The Commission finds that the precautionary principle has been properly applied throughout the assessment of the Application, with environmental consequences being appropriately avoided, mitigated remediated or offset, as set out in the Application, the Department's AR and the recommended conditions of consent. The Commission has decided to impose conditions requiring additional measures to further mitigate the impacts of the Project. ***b) inter-generational equity*** 'Inter-generational equity' is the principle that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The Commission has considered inter-generational equity in its assessment of the potential environmental, social and economic impacts of the Project, and finds that, subject to the imposed conditions, the Project would appropriately balance the environmental, social and economic impacts of the present generation with those of future generations.

	c) conservation of biological diversity and ecological integrity The Project's potential impacts on biodiversity, including land clearing and loss of habitat, have been a key consideration during the assessment of the Application. The Commission finds that any potential impacts must be appropriately managed (including by being mitigated and/or offset) to enable acceptable long-term biodiversity outcomes to be achieved. The Commission finds that the conservation of biological diversity and ecological integrity can be achieved through avoiding, minimising and offsetting biodiversity impacts – including through a robust Biodiversity Management Plan that meets the requirements imposed by the Commission. ***d) improved valuation, pricing and incentive mechanisms*** The Commission finds that, when considering the current policy framework, scope of the Application and assessment of costs and benefits, the Application would provide net positive social and economic benefits to the local region and NSW.
The Public Interest	The Commission has considered whether the grant of consent to the Application is in the public interest. In doing so, the Commission has weighed the predicted benefits of the Application against its predicted negative impacts. The Commission finds that, on balance, the Application is not inconsistent with ESD principles, and that the Project would achieve an appropriate balance between relevant environmental, economic and social considerations. The likely benefits of the Project warrant the conclusion that an appropriately conditioned approval is in the public interest.

3.5 Additional Considerations

32. In determining the Application, the Commission has also considered:

- NSW Noise Policy for Industry (**NPfI**);
- Voluntary Land Acquisition and Mitigation Policy (**VLAMP**);
- Interim Construction Noise Guideline (**ICNG**);
- NSW Road Noise Policy (**RNP**);
- NSW Aquifer Interference Policy;
- NSW Biodiversity Offsets Policy for Major Projects;
- Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016) (**Approved Methods**);
- Guidelines for the economic assessment of mining and coal seam gas proposals (NSW Government, 2015);
- Technical Notes Supporting the Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals (NSW Government, 2018);
- Social Impact Assessment Guideline for State Significant Projects (NSW Government, 2021);
- Social Impact Assessment Guidelines for State Significant Mining, Petroleum Production and Extractive Industry Development 2017;
- NSW Climate Change Policy Framework; and
- Central West and Orana Regional Plan 2041 (**Regional Plan**).

3.6 The Commission's Meetings

33. As part of the determination process, the Commission met with various persons as set out in Table 2. All meeting and site inspection notes were made available on the Commission's website.

Table 2 – Commission's Meetings

Meeting	Date of meeting	Transcript/Notes published
Department	30 January 2023	3 February 2023
Applicant	2 February 2023	8 February 2023
Council	2 February 2023	8 February 2023
Site Inspection	14 February 2023	20 February 2023
Public Hearing	15, 16 & 17 February 2023	21 February 2023

3.7 Site Inspection and Locality Tour

34. On 14 February 2023, the Commission conducted an inspection of the Site, along with the Applicant and two observers representing community groups (refer Section 4.1 below). The inspection included a physical inspection as well as viewing drone footage provided by the Applicant. The Commission also conducted a tour of the locality surrounding the site, including three neighbouring sites. Inspection notes and a photographic log of the site inspection and locality tour were made publicly available via the Commission's website.

3.8 Mid-Western Regional Council Comments

35. The Commission met with representatives of Council on 2 February 2023 to hear Council's views on the Project. On 23 February 2023, Council wrote to the Commission providing supplementary notes and comments for the consideration of the Commission.

36. Council noted that it is supportive of the mine and the economic benefits it would bring to the region. Council raised concerns in relation to water impacts and acid mine drainage and noted that it would like to see appropriate management of acid mine drainage. In its submission Council put forward some amendments to the draft conditions of consent, including for the relocation of Maloneys Road to occur prior to any on site construction, and for land acquisition and mitigation rights under VLAMP be extended to cover any privately-owned land within 2 kms of the mine site.

4. Community Participation & Public Submissions

4.1 Community Group Attendance at the Site Inspection

37. On 14 February 2023, the Commission conducted an inspection of the Site. The Commission invited representatives from community groups to attend and observe at the site inspection. Representatives from the following groups were in attendance:

- Lue Action Group;
- Wellington Valley Wiradjuri Aboriginal Corporation; and

- Gallangabang Aboriginal Corporation.

4.2 Public Hearing

38. The Commission conducted a Public Hearing on 15, 16 and 17 February 2023. The Public Hearing was held in-person on all three days at the Mudgee Showground Main Pavilion, with registered speakers presenting to the Commission in-person as well as via online video conference or telephone. The Public Hearing was streamed live on the Commission's website.

39. The Commission heard from the Department, the Applicant, various community group representatives, other representative organisations and individual community members, with a total of 80 speakers presenting to the Commission during the Public Hearing.

40. Presentations made at the Public Hearing have been considered by the Commission as submissions and are referenced in section 4.3 below.

4.3 Public Submissions

41. As part of the Commission's consideration of the Project, all persons were offered the opportunity to make written submissions to the Commission until 5pm AEDT, 24 February 2023.

42. The Commission received a total of 1,916 written submissions on the Application, comprising 1,653 written submissions made to the Commission via the online portal, 248 via post and 45 via email. The submissions comprised:

- 931 in support;
- 1,005 objections; and
- 10 comments.

4.3.1 Topic Analysis

43. The Commission undertook a topic analysis of the submissions including presentations made at the Public Hearing. Figure 1 below provides an overview of the submissions received by the Commission. The analysis shows that 46% of submissions received supported the Project, 53% objected to the Project, and the remaining 1% provided comments on the Project. Overall, 87.1% of submissions were detailed submissions (longer than 10 words), with 12.9% being brief submissions (fewer than 10 words).

44. The analysis also identified the key themes raised in written and verbal submissions, as set out in Figure 2 below. The Commission observes that topics B, C, D and E were the key themes raised in objections, whereas topic A was the key theme raised in submissions in support of the Application. The percentage of submission types for each topic are:

- Topic A. Economic and employment benefits – 84% Supporting; 16% Objecting.
- Topic B. Agriculture and pollution – 98% Objecting; 2% Supporting.
- Topic C. Social costs and ecological issues – 97% Objecting; 1.5% Supporting.
- Topic D. Indigenous and heritage issues – 82% Objecting; 17% Supporting.
- Topic E. Biodiversity and agricultural impacts – 66% Objecting; 31% Supporting.

Figure 1 – Overview of submissions received by the Commission

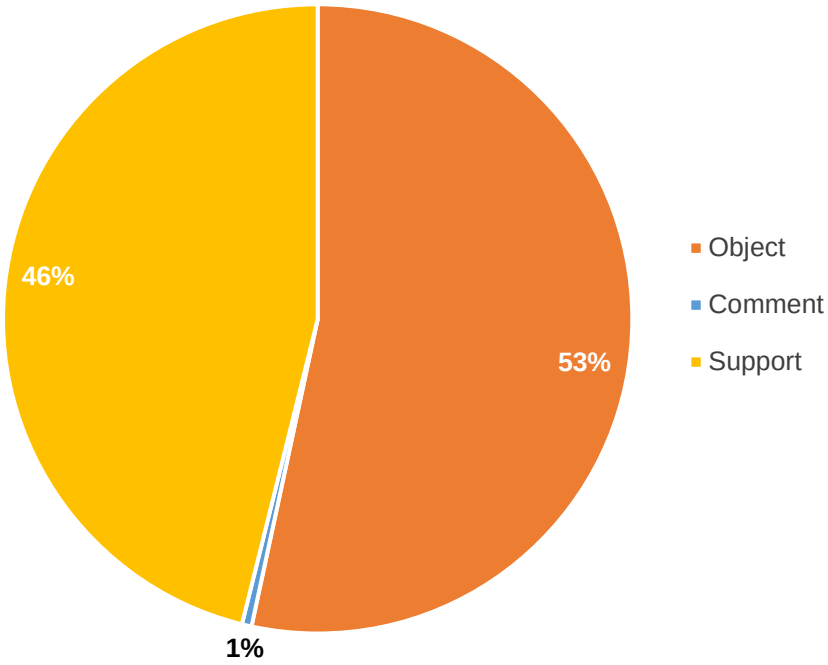
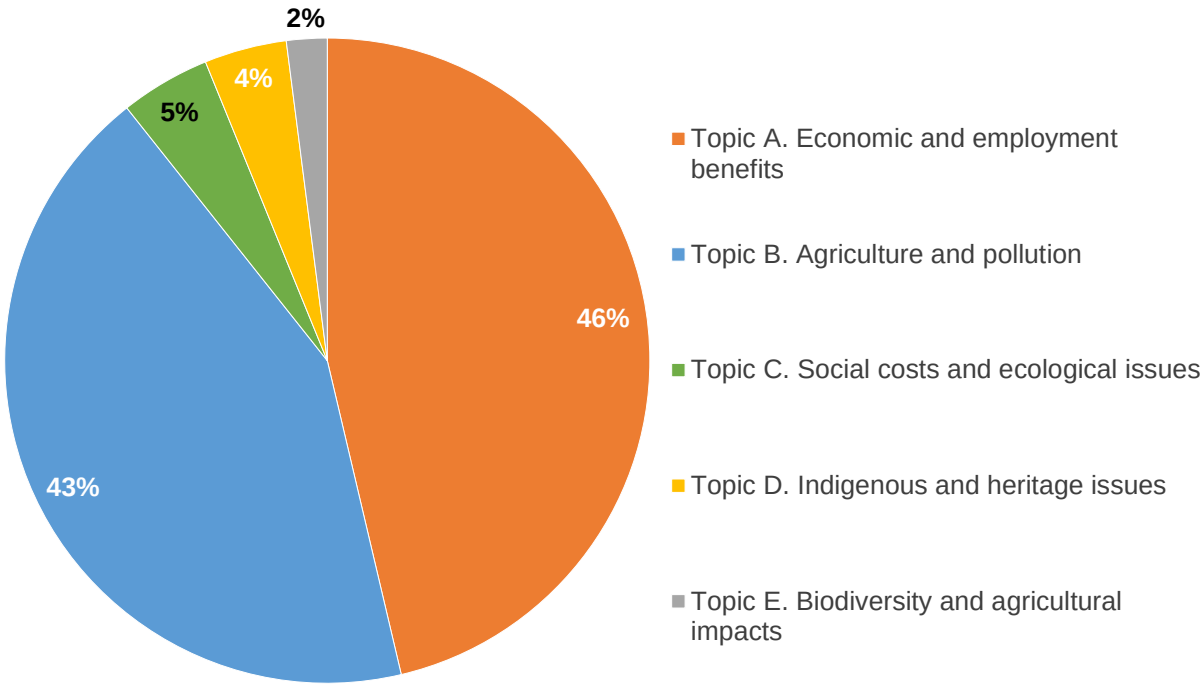


Figure 2 – Topic Modelling



4.3.2 Geographic Distribution

45. A geographic analysis was undertaken of the submissions received by the Commission. Figure 3 and Figure 4 below illustrate the submissions received on the Project throughout NSW and Australia, with the size of the circle indicating the relative number of submissions from that area.

Figure 3 - Geographic Analysis (National)

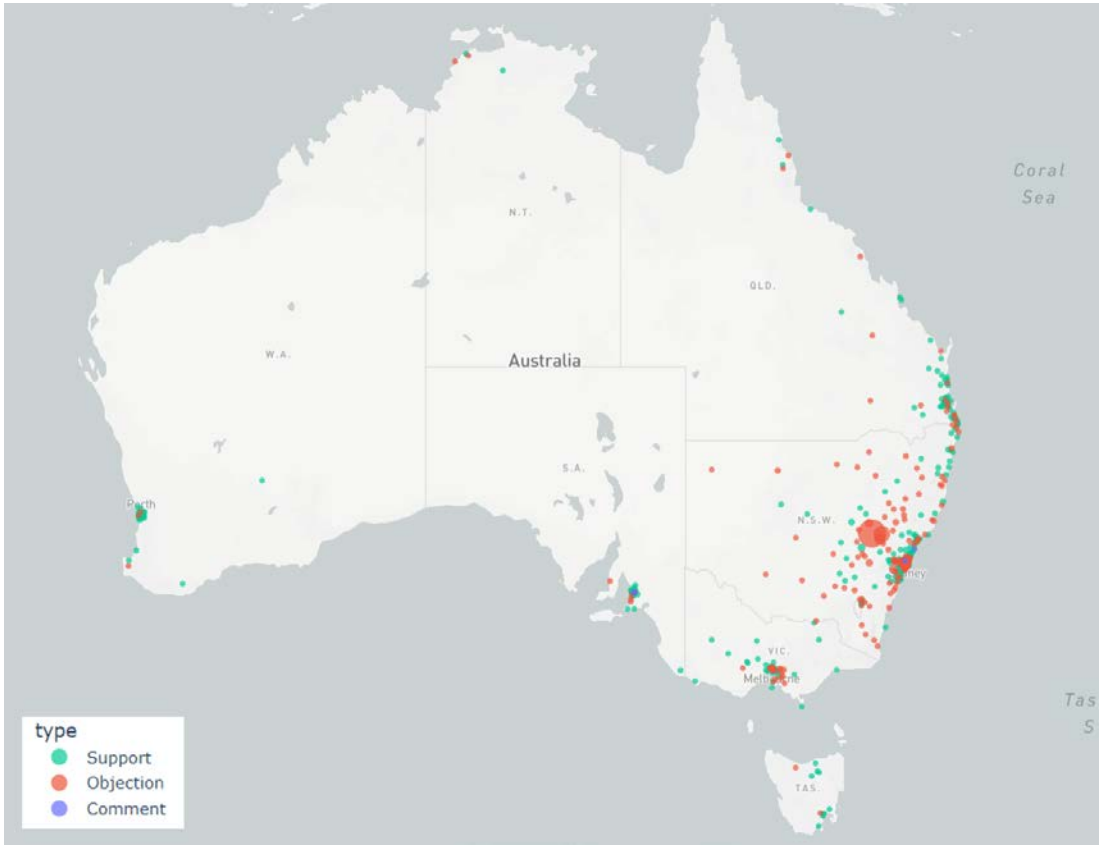
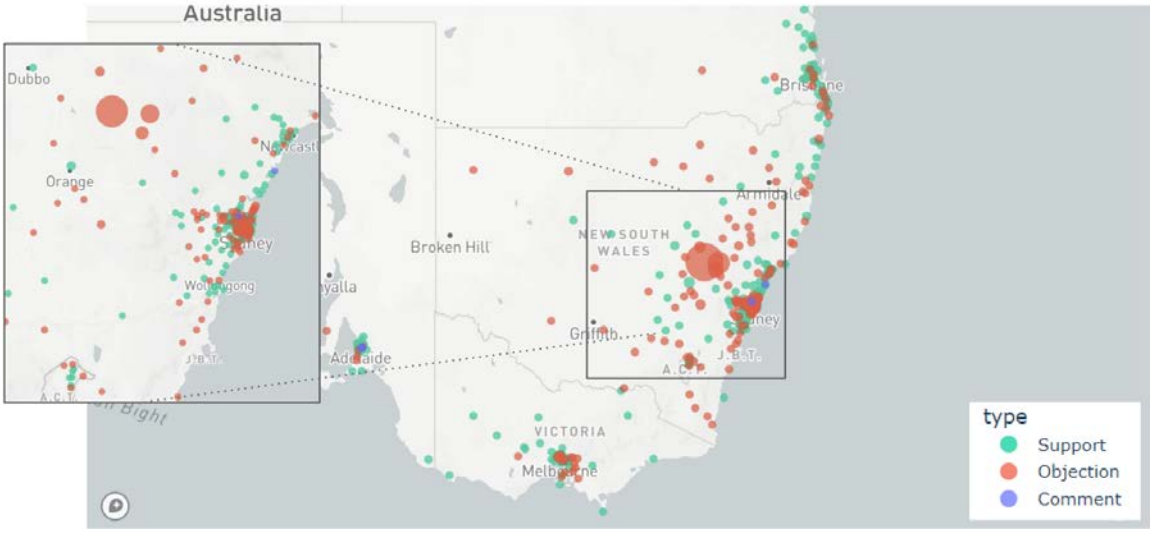


Figure 4 - Geographic Analysis for NSW



46. The Commission observes that the majority of submissions were received from the Central West and Greater Sydney region. Submissions were also received from regions across NSW as well as from interstate areas including Perth, Adelaide, Melbourne, Brisbane, the Sunshine Coast and the Gold Coast. The Commission observes that the majority of the submissions from the area surrounding the Site objected to the Project. The Commission observes that there was also considerable objection from the Sydney region.

4.3.3 Key Issues Raised

47. Submissions to the Commission raised a number of key issues, which are outlined below. The Commission notes that the issues referred to below are not an exhaustive report of the submissions considered by the Commission, they are reflective and illustrative of what the Commission regards as the key issues that emerge from the submissions.

Health and Amenity Impacts

48. The Commission received written submissions and heard verbal submissions at the Public Hearing that raised concerns about the likely amenity impacts of the Project:

- **Air quality and dust** – Concerns were raised regarding the impacts and composition of dust generated by the Project. Specific concerns were raised regarding the health effects on the local community as a result of exposure to dust containing lead from the Project. Submissions stated that dust particles would collect on nearby roofs and contaminate drinking water and soil in the area.
- **Noise and vibration** – Submissions noted that the current environment is very quiet and noise free, and that noise as a result of operations including blasting and heavy vehicle movements will have an unacceptable impact.
- **Visual and lighting impacts** - Specific concerns were raised regarding the loss of visual amenity and the resulting impact on property values and tourism. Lighting impacts were also raised as a concern.

Water

49. The Commission received submissions that raised concerns regarding the impacts of the Project on water resources. Concerns were raised regarding potential groundwater and surface water contamination due to leachate from the waste rock emplacement and tailings storage facility.

50. Submissions also raised concern that the amount of water being taken from the catchment for operation of the mine would reduce surface water availability to landholders downstream and that the resulting groundwater drawdown from the Project would reduce the capacity of private bores. Concern was raised that there would not be enough water downstream for crops and stock and that these users were at risk of pollution from the Site. Overflow or collapse of the TSF dam during heavy rainfall and flood events was also raised in submissions.

Final Void

51. Concerns were raised in submissions regarding the potential long-term impacts of the final void to wildlife and people, including the impacts of the final void flow through and potential contamination of surface water, groundwater and downstream users. Some submissions recommended filling the final void and returning the Site to its original state.

Traffic and Transport

52. Concerns were raised in submissions regarding the amenity impacts resulting from heavy vehicles and the potential damage to local roads from increased traffic flow.

Social Impacts

53. Concerns were raised in submissions regarding the potential social impacts of the Project. Submissions stated that the threats to farming and water resources would affect the way of life of farming families and destroy the community. Concerns were also raised regarding the health impacts associated with lead exposure as well as stress and anxiety resulting from the Project. A submission highlighted the need for a Social Impact Management Plan to manage and mitigate social impacts associated with the Project.

Economics and Employment

54. Submissions in support stated that the Project would result in positive socio-economic outcomes by creating more job opportunities and supporting small local businesses, particularly in the nearby towns of Rylstone and Kandos. Submissions noted that the Project would have long-term benefits and would create opportunities for younger people looking to stay in the area. Submissions also noted that silver and other key minerals that will be produced are essential to the development of renewable energy technologies and electronic goods.

55. Submissions also raised concern that jobs would come at a cost to the local environment. Concerns were also raised regarding the impact of the Project on agriculture and tourism industries. Specific concerns were raised regarding the potential contamination of land and resultant impacts to food production and food-based tourism. Submissions also objected on the basis that the Project would have a negative impact on local property values.

Biodiversity

56. Concerns were raised in submissions regarding the biodiversity impacts of the Project resulting from the clearing of land, loss of critical habitat and loss of wildlife. Specific concerns were raised regarding the potential impacts to koala habitat, groundwater dependent ecosystems and clearing of the critically endangered ecological community Box Gum Woodland.

Aboriginal Cultural Heritage

57. Submissions raised concern regarding the impacts of the Project on Aboriginal cultural heritage, including the relocation and destruction of items of Aboriginal cultural significance. Concerns were also raised regarding the impact of the Project on the integrity of the land and the Traditional Owners connection to country, as well as the potential impact on local aboriginal tourism businesses.

5. Key Issues

5.1 Health

58. The Commission recognises that health and amenity related impacts have been a key concern for the community and were raised in submissions to both the Department and the Commission. The Commission acknowledges that these impacts are of particular concern to the residents of Lue and the area neighbouring the proposed mine.

59. A number of key issues of this Project relate to health and amenity impacts, including air quality, noise and vibration and social impacts. Each key issue and its relation to health and amenity impacts is discussed within the relevant key issue section within this Statement of Reasons for Decision.

60. Based on the expert evidence before it, the absence of any outstanding concerns regarding health impacts from NSW Health or the EPA that are unable to be appropriately managed, and the conditions imposed by the Commission, the Commission is satisfied that the Project can meet all relevant requirements for protecting human health and safety.

The Commission's Findings

61. Specific findings in relation to each key issue are stated within the relevant key issues section below.

5.2 Amenity – Air Quality

5.2.1 Particulates

62. The Applicant submitted an Air Quality Assessment dated May 2020 (**AQA**) and an updated Air Quality Assessment dated June 2021 (**Updated AQA**) with its RtS, both prepared by Ramboll Australia. The air quality criteria adopted in the Approved Methods is based on the National Environmental Protection (Ambient Air Quality) Measure (**NEPM**) and the AQA was prepared in accordance with the Approved Methods (AR para 208).

63. The Applicant's air emissions modelling indicated that there would be no exceedances of any of the impact assessment criteria for PM_{10}, $PM_{2.5}$, total suspended particulate matter (**TSP**) or deposited dust at any private residences (AR para 210). "The annual average concentration and 24-hour average concentration of PM_{10} and $PM_{2.5}$ would be below the limits established in the Approved Methods, and the cumulative and incremental TSP and deposited dust would be less than 50% of the impact assessment criteria established in the Approved Methods at all privately owned residences" (AR para 211).

64. In regard to potential impacts to human health, the Department notes that it is satisfied that $PM_{2.5}$ is the more relevant indicator of health-related air quality impacts (AR para 215). Both the maximum predicted cumulative $PM_{2.5}$ annual concentration and the maximum predicted $PM_{2.5}$ 24-hour concentration are below the NEPM criteria (AR para 214).

65. The Applicant has proposed a number of mitigation and management measures, which include dust suppression, visual monitoring and the use of real-time meteorological and air quality monitoring systems (AR para 216).

66. The Department has recommended conditions that require the Applicant to prepare a comprehensive air quality management plan detailing these measures, which must be approved before it can proceed.

5.2.2 Exposure to heavy metals

67. The following expert reports have been considered by the Commission as part of its consideration of human health impacts:

- Applicant's Human Health Risk Assessment, dated May 2020;
- Department's Independent Peer Review of the Human Health Risk Assessment, dated 11 September 2020;
- Applicant's Response to the Peer Review of the Human Health Risk Assessment, dated 12 April 2021;
- Department's Peer Review comments on the Applicants Response to the Peer Review, dated 23 August 2021[1];
- Applicant's Final Response regarding Human Health Risk, dated 16 November 2021;
- Department's Independent Review of the WSP report on lead at Lue school, dated 24 August 2021; and
- Applicant's Response to request for information on lead sampling at Lue Public School, dated 11 November 2021.

68. The Commission has also reviewed relevant technical expertise provided to both the Department and the Commission by the community throughout the assessment process. In particular, the Commission has considered the submissions that have been provided by the technical experts on behalf of the Lue Action Group.

69. The Applicant identified that the key exposure pathways for the population in the project area are "acute and chronic inhalation exposure to metals in air, and exposure to metals deposited onto soil and surfaces that could result in intake via ingestion and dermal contact with soils and/or water in rainwater tanks and ingestion through homegrown produce" (AR para 220).

70. In order to determine the potential human health risk of the Project, the Applicant calculated the intake of each metal from existing exposure pathways and the incremental increase in intake as a result of exposure due to the Project (AR para 222). This was then compared to threshold levels established from various NSW and national guidelines (with additional guidance from some international guidelines) to determine a tolerable intake level (AR para 223). The total health risk from each metal is expressed as a Risk Index (**RI**), which is the estimated total intake of the metal expressed as a proportion of the threshold intake. Where an RI is ≤1, the calculated intake of metal is below the threshold value for human health impact (AR para 224).

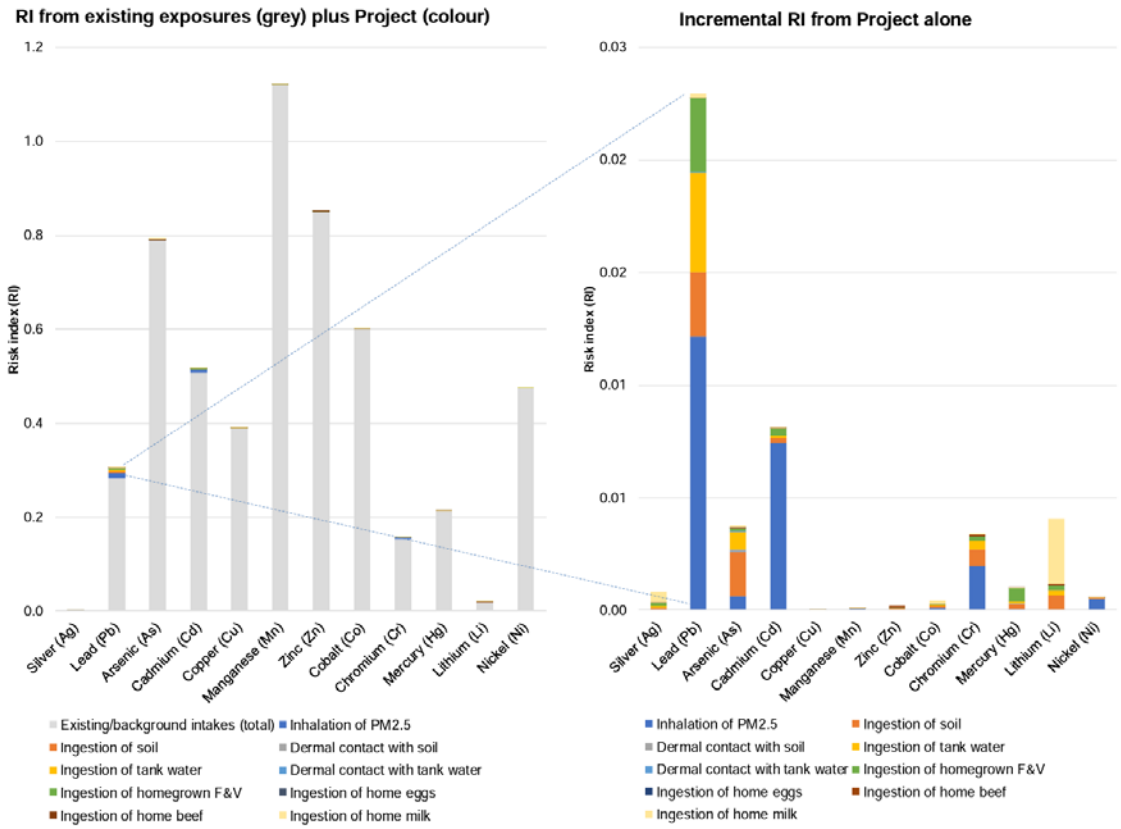
71. The Applicant calculated that the RI is <1 for all metals except manganese (which is 1.1 for young children, largely sourced from cereal products) (AR para 227). The Department states (AR para 229):

> *The RI for exposure to metals from the project alone under a range of mining scenarios at nearby sensitive receivers (including project-related residences) would be:*
>
> - *0.0049 – 0.015 (depending on the mining scenario) for acute inhalation exposure to all metals in air (0.00044 - 0.0014 from lead alone); and*
> - *0.022 – 0.029 (depending on the mining scenario) for chronic inhalation exposure to metals in air (0.012– 0.015 for lead alone).*

[1] Incorrectly dated in report as 23 August 2020 (AR Appendix A)

72. In relation to the maximum impacted privately owned residences, Figure 5 below depicts a comparison between the total RI calculated intake of each metal from existing exposure plus all Project related exposure pathways (left), and the incremental RI from the Project (right), for young children.

Figure 5 – Calculated RI for Existing and Project Exposures for young children (scenario 3 - Year 8) (source: Applicant's Human Health Risk Assessment, figure 5.4)



73. The Commission notes that the Applicant has used Year 8 to represent the data as "emissions during Year 8 are similar to those in other years and therefore Year 8 is suitable to illustrate the contribution of the Project to the total RI" (Human Health Risk Assessment p.79).

74. The Commission notes that it received submissions that expressed concern regarding exposure to heavy metals, in particular lead. At the Public Hearing Professor Mark Taylor, who appeared as an honorary professor at Macquarie University, stated that "it's been well established [lead] causes harm and that harm does not remit throughout the lifetime of somebody and no safe level can be adopted" (Public Hearing Transcript, Day 1, p.52).

75. The Department states (AR para 225 – 226):

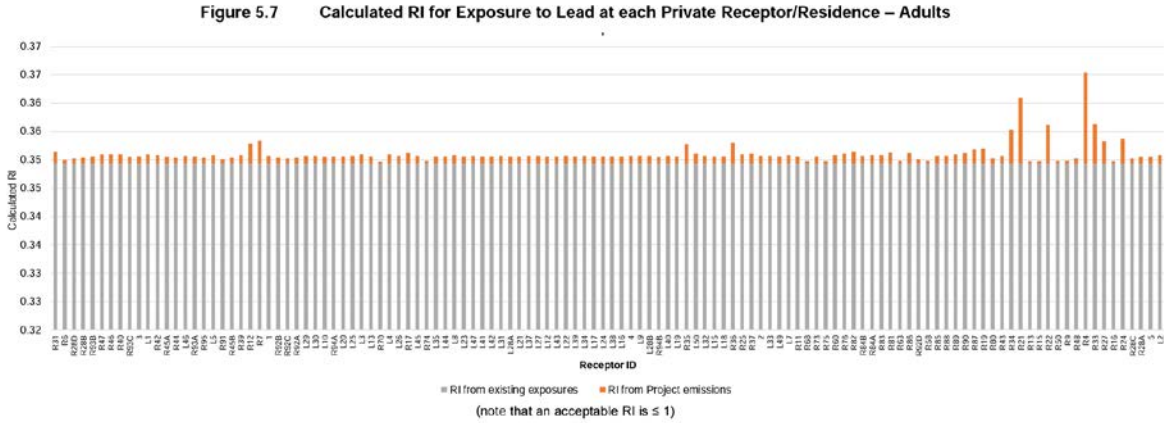
> *In relation to lead, although there is no established safe level of exposure, widespread use has resulted in contamination of natural and human environments. Blood lead levels have been found to be a good indicator of exposure to lead, and the current National Environment Protection Measures Health Investigation Level for lead in soil is based on a blood lead goal of 10 micrograms per decilitre (µg/dL).*
>
> *However, according to the Australian National Health and Medical Research Council the average Australian blood lead level is <5 µg/dL, and therefore that organisation*

recommends that blood lead levels > 5 µg/dL warrant further investigation (reflecting the fact that 5 µg/dL is representative of background levels).

76. The Applicant based the assessment of lead exposure risk on a threshold intake of lead (1.4 µg/kg/day) that is equivalent to a blood lead level of 3.5 µg/dL (AR para 227).

77. Figure 6 below depicts the calculated exposure to lead (the metal with the highest contribution from Project related emissions) for adults at privately owned residences adjoining the Site. It depicts the RI from existing exposures plus exposures from lead in dust from the Project in Year 8. "The RI from exposure to emission from the Project is the sum of all exposure pathways evaluated. This is a worst-case as it assumes residents consume home-grown fruit and vegetables, eggs, beef and milk from the same property all of the time" (Human Health Risk Assessment p.81)

Figure 6 - Calculated RI for exposure to lead at private residences for adults (source: Applicant's Human Health Risk Assessment, figure 5.7)



78. The Commission notes that the calculated RI for exposure to lead is higher for adults than young children in all cases, therefore, lead exposure in adults is considered to be the worst-case scenario. The Commission notes that the Applicant has stated "the Human Health Risk Assessment was highly conservative as it utilised the highest metal concentrations at a private residence and applied these across the entire community" (Applicant's Submission to Commission, 24 February 2023, p.6).

79. The Commission observes that the maximum impacted residence is R4 (now mine owned) and the second highest impacts are at R21. The Commission observes that the calculated RI for all locations is below 1.

80. In relation to Lue Public School, the Department notes that "exposures to lead from the project would be much lower than at residences near the mine site. The calculated RI at the school for exposures to lead from the project is 0.001. This is 1,000 times lower than the acceptable RI" (AR para 236).

81. The Commission notes that Professor Taylor has recommended that trigger values for concentrations for lead in dust and air should be included in any conditions of consent, and also recommended that blood lead level monitoring of the community should be undertaken, if the mine goes ahead (AR para 242). Professor Taylor also stated that he is of the view that "if the concern is lead, measure and analyse lead" (Public Heading Day 1, p.55), noting that there is technology that could provide "near real-time assessment… of lead in air that could be used to give comfort… to the community and to allow the operations to take very… quick interventions under… adverse conditions" (Public Hearing Day 1, p.55).

5.2.3 Silica

82. The Department notes that there "are no national or NSW limits for safe levels of crystalline silica in the ambient air. However, the EPA Victoria has adopted an annual average assessment criterion of 3 µg/m$_3$ (applied to the $PM_{2.5}$ fraction size) for mining and extractive industries" (AR para 247). The Applicant considered the potential impacts from respirable crystalline silica in its assessment and the results of the air dispersion modelling indicate that at any private residence, the maximum concentration of silica dust would be lower than 0.21 µg/m$_3$ (AR para 248).

5.2.4 Gaseous Pollutants

83. In consideration of fugitive emissions of hydrogen cyanide, which is considered a principal toxic air pollutant, the "air dispersion modelling indicates that the maximum incremental 1-hour average concentration at any private residence would not exceed 0.21 µg/m$_3$, which is two orders of magnitude below the criterion of 200 µg/m$_3$ in the Approved Methods" (AR para 249).

84. The Commission notes nitrous oxide emissions can occur during blasting operations if blasting conditions are sub-optimal (AR para 251).

5.2.5 The Commission's Findings

85. The Commission acknowledges the concerns raised by neighbouring residents regarding the impacts of dust generated by the Project. The Commission notes the concerns raised by the local community in relation to potential health effects as a result of exposure to dust containing lead, noting the specific concerns in relation to dust particles collecting on nearby roofs, contaminating drinking water and soil in the area.

86. The Commission agrees with the Department that the air quality assessment indicates that, subject to the imposition of appropriate conditions, the Project can be managed in a manner that would comply with relevant criteria for particulate matter, silica and gaseous pollutants (AR para 320).

87. In relation to exposure to heavy metals (including lead), the Commission agrees with the Department that human exposure would largely result from metals in airborne particulate matter, and that total exposure to all metals (except manganese) would remain below levels at which adverse health effects would be expected to occur (AR para 321).

88. The Commission recognises the concerns of the community regarding the potential human health and agricultural impacts of lead contamination and exposure. The Commission notes that the Applicant, as part of the EIS, offered the provision of a baseline blood lead level testing program, to assist residents in understanding their existing lead exposures. Blood lead level testing at ongoing intervals during operation was also proposed by the Applicant (see EIS, p.202). The Commission notes Professor Taylor's recommendation to the Department in his submission on behalf of Lue Action Group, that "blood lead monitoring should be required to be undertaken if the mine goes ahead" (Mark Taylor Report prepared for Lue Action Group, 15 July 2020, p.13). The Commission notes that the Applicant has agreed to provide voluntary blood lead level monitoring if requested by any members of the community and that the Department has recommended a condition that would require the Applicant to describe and implement measures that would monitor and track blood lead levels over time (AR para 245).

89. Although the Commission is satisfied that blood testing of community members is not necessary in order to ensure that the Project meets the relevant requirements for protecting human health and safety, the Commission finds that the Applicant's proposal, along with the recommendation of the Department that the Applicant develop a voluntary monitoring program to assess and report on blood levels within the local community will assist in addressing the community's concerns. Conditions imposed by the Commission require that a research and monitoring program, funded by the Applicant, be undertaken alongside the blood lead level monitoring, to determine the accuracy of the predicted modelling, and to inform and adjust mitigation measures to minimise impacts on human health. The Commission notes that the blood lead level monitoring program is voluntary.

90. The Commission notes that some submissions raised concern in relation to the baseline lead levels used for assessing cumulative impacts. The Commission notes that, in relation to lead in dust samples from Lue Public School, samples analysed by Professor Taylor on behalf of Lue Action Group in 2012 were lower than the background lead concentrations represented by the Applicant in its Application (AR para 237). The Department states that "the difference in reported lead in the school is from dust within the ceiling space and is likely due to a difference in the sampling locations (noting that lead paint was used in the school)" (AR para 238). The Commission notes that the soil lead concentrations reported by Professor Taylor are within the range reported by the Applicant, and the Applicant is of the view that the selection of high background levels is a conservative approach (AR para 239). The Commission considers that the blood lead level research and monitoring program would assist with the establishment of an accurate baseline and to inform a response in the event of elevated blood lead levels and has therefore imposed conditions which give effect to this.

91. In order to ensure that reasonable and feasible avoidance and mitigation measures are taken by the Applicant, the Commission has imposed condition B27 to provide limits regarding particulate matter and deposited dust at residences and at Lue Public School.

92. The Commission notes concerns raised in relation to compliance, should the monitoring show elevated lead levels as a result of the Project. The Commission notes the role of the EPA in issuing and enforcing compliance with environment protection licences under the *Protection of the Environment Operations Act 1997*. The Commission notes that the environment protection licence required in respect of the Project must be substantially consistent with the Commission's conditions of consent.

93. The Commission imposes condition B31, B32 and B34 requiring the Applicant to prepare and implement an Air Quality and Greenhouse Gas Management Plan, which uses real-time monitoring to evaluate the mine's performance against air quality criteria, including the monitoring of metal concentrations in deposited dust, and develop a trigger-action-response protocol and contingency measures for elevated particulate matter, dust and metal concentrations. The Commission notes Professor Taylor's suggestion described at paragraph 81 above in relation to real-time monitoring of lead dust. The Commission finds that the real-time monitoring of air quality including particulate matter and dust composition (including lead) would inform potentially affected people and help minimise adverse outcomes for human health and has incorporated this requirement into the Air Quality and Greenhouse Gas Management Plan.

94. The Commission notes the submission it received from Barry Noller, who appeared on behalf of Lue Action Group as an expert on contamination of metals and metalloids. Mr Noller submitted that air quality monitoring should include the monitoring of particle size distribution in order to "provide sufficient detail about dust properties to enable management measures to be put in place to assess lead exposure at Lue based on dust distribution patterns and actual particle size data" (Barry Noller Submission, p.5). The Commission notes that the monitoring of particulates is included within the requirements of the Air Quality and Greenhouse Gas Management Plan.

95. The Commission imposes condition B35 to require the Applicant to undertake meteorological monitoring for the life of the development.

96. In regard to gaseous pollutants, the Commission imposes condition B21(b) which requires the Applicant to undertake blasting in accordance with Australian *Standard AS 2187.2 2006 Storage and use of Explosives*. The Applicant is also required to prepare a Noise and Blast Management Plan (condition B23) that includes measurements to minimise the risk of blast fumes and nitrous oxide emissions.

5.3 Amenity – Noise

97. The Commission received written submissions and heard from people at the Public Hearing that raised concerns regarding noise impacts during the construction and operational phases, as well as impacts related to road noise, blasting and vibration. Specific concerns included noise impacts due to 24/7 mine operations; health implications related to ongoing operational noise; and heavy vehicle traffic noise. A submission recommended restricting operational hours to between 9am and 5pm.

98. The Commission notes that noise related concerns were primarily raised by surrounding landholders located in close proximity of the mine site, and the local community of Lue. The Commission notes the location of sensitive receivers identified in Figure 16 of the Department's AR.

99. The Applicant submitted a Noise and Vibration Assessment prepared by SLR Consulting Australia Pty Ltd dated May 2020 (**NVA**).

100. For the purposes of assessing construction noise impact, the NVA (at page 49) considers the first 6 months of the Project's 18 month site establishment and construction phase as 'construction works' and such impacts were assessed in accordance with the requirements of the Interim Construction Noise Guide (**ICNG**). Works within the first 6 months include off-site road network upgrades, including the Maloneys Road relocation, and initial on-site vegetation clearance, earthworks and infrastructure (NVA page 49).

101. The Department notes that operational noise was assessed in accordance with NPfI, noting that mining pre-strip activities would commence at about month 7 of the site establishment and construction stage (AR para 254) and continue over the course of the mine's life. Operational noise assessment included the transmission line realignment which is proposed to occur in year 3 of the mine's operation (AR para 254).

5.3.1 Construction

102. The Department notes that although onsite noise within the first 6 months of construction would not exceed the recommended noise management levels (NMLs) set by the ICNG, works associated with the Maloneys Road relocation would result in noise levels above the 45 dB(A) LAeq (15 minute) criterion set for standard construction hours for five properties located near the new Maloneys Road and Lue Road intersection (AR para 258).

103. The Department notes that these impacts would last a relatively short duration of one to two months, with noise, 'not predicted to exceed the 'highly noise affected' level of 75 dB(A) at any privately owned residences near the mine site or roadworks' (AR para 259).

104. The Application proposes construction and site establishment activities within the first 6 months to be completed outside of standard construction hours, which would cause noise exceedances of the out-of-hours noise criterion at 18 residences, including exceedances of >5 dB(A) at five residences (AR para 260).

105. The EPA provided the Department advice on this matter, noting that there was insufficient justification for the out-of-hours work, and recommended that (EPA Advice on Submissions Report pages 3-4):

- Construction be limited to standard construction hours, and;
- That noise mitigation on the relocated Maloneys Road be implemented early to protect residents from construction impacts.

106. The Department agrees with the EPA's recommendation to impose a condition to limit construction to standard operating hours, except where activities would not exceed the out of hours noise criteria (AR para 260).

The Commission's Findings

107. The Commission is of the view that the construction noise exceedances would be acceptable though only within the standard construction hours consistent with the requirements of the ICNG. The Commission agrees with the Department's and EPA's recommendation and imposes condition B1 for standard construction hours to this effect, and condition B2 to prescribe the activities that may be carried out outside of the hours listed in condition B1.

5.3.2 Operational

108. As part of the NVA, the Applicant modelled noise under four operating scenarios representing different stages of the mine. The Applicant proposed a range of noise controls and management measures to reduce the project noise levels and ensure noise at sensitive receivers complies with the criteria, including (AR para 262):

- *construction of temporary and long-term noise barriers, including a southern barrier to the south of the open cut pits to attenuate noise from the open cut mining and processing areas;*
- *full or partial enclosures of noisy fixed plant;*
- *the use of noise attenuated mobile equipment;*
- *restricting the number and location of mobile equipment;*
- *scheduling intrusive mining activities to less sensitive times of the day, including limiting construction of TSF lifts and waste rock emplacement on the southern barrier to daytime only, reducing mining operations in the evening to within restricted areas of the WRE, and further reducing mining operations at night with only ore delivery to the ROM pad; and*
- *use of predictive meteorological forecasting and implementation of real-time noise monitoring and adaptive site management.*

109. The Department notes the NVA's noise modelling predicts project noise trigger level criteria (PNTLs) exceedances of between 1-2 dB(A) and 3-5 dB(A) under some operating scenarios, as identified in AR Table 7. These noise exceedances affect a total of seven privately owned residences from operational-mining noise, and fourteen privately owned residences from noise related to the relocation of the 500kV transmission line (AR paras 264 & 265).

110. These affected residences are located south and east of the Site on adjoining properties, as well as residences within Lue, as illustrated in AR Figure 16.

111. The Department notes the following regarding these predicted operational noise exceedances:

- Under the NPfI, exceedances of 1-2 dB(A) are deemed to be 'negligible' and exceedances of 3-5 dB(A) are categorised as 'marginal' (AR paras 278 & 279);
- That no privately-owned residence would experience an exceedance of > 5 dB(A) (AR para 268);
- Noise exceedances from the relocation of the transmission line would occur intermittently, only during the day, and for a brief period of 1 to 2 months (AR para 272); and
- Noise levels at other sensitive receivers in the area, including Lue School and other places of interest within Lue, are also predicted to comply with the applicable noise criteria (AR para 270).

112. Regarding the two residences identified in AR Table 7 (R35 and R87) predicted to experience noise exceedances of 3-5 dB(A) during the operation of the mine, the Department notes that the VLAMP, "requires that such receivers are offered architectural or similar treatments that reduce the expected exceedances if the project is approved" (AR para 279) and has recommended conditions requiring the Applicant to provide mitigation at R35 and R87.

113. At the Public Hearing, the Commission heard from a landholder from one of these two residences, who noted concern of their property's proximity to the proposed TSF and the associated noise impacts during operation, as well as concerns of the Department's recommended conditions relating to noise mitigation.

114. Mid-Western Regional Council, in its Letter to the Commission dated 23 February 2023, states (page 1):

> *The Voluntary Land Acquisition Management Policy has been incorporated into the Conditions of Consent, however this is only acknowledged for two residences (R35 and R87). Council requests that this should be in place for any privately-owned land within 2 km of the mine site.*

The Commission's Findings

115. The Commission finds that the operational noise is capable of being appropriately managed, subject to conditions. The Commission imposes condition B5-B6 which outline the operational noise criteria and the noise criteria during the transmission line realignment, and condition B9, which outlines the noise operating conditions the Applicant is required to operate within.

116. The Commission has imposed condition B23 to require the Applicant to prepare a Noise and Blasting Management Plan. The Commission has included the Applicant's proposed noise controls and management measures (as outlined at paragraph 108 above) within its requirements for a Noise and Blasting Management Plan.

117. The Commission notes the predicted operational noise exceedances and Council's request for VLAMP to be in place for any privately-owned land within 2 km of the mine site. The Commission notes that, as outlined above, under the NPfI, the predicted exceedances at R35 and R87 of 1-2 dB(A) are categorised as 'marginal' and predicted exceedances of 1-2 dB(A) are deemed to be 'negligible'. The Commission is of the view that the mitigation measures of VLAMP should only apply to R35 and R87 (i.e. where exceedances are deemed marginal). To this regard, the Commission has imposed condition C1 which provides for R35 and R87 to be subject to the mitigation measures of VLAMP.

5.3.3 Blasting and Vibration

118. The Department notes that blasts are proposed to be undertaken 3 to 5 days per week, Monday to Saturday (AR para 293). The Department further notes that the relevant criterion and standards related to blasting and vibration impacts are established under the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration*, and *Australian Standard AS 2187- 2006: Part 2- Use of Explosives Appendix J* (AR paras 294 & 295).

119. Based on the assessments of ground vibration, airblast overpressure, and vibration induced damage impacts on surrounding receivers prepared as part of the Applicant's NVA, the Department notes that (AR paras 296 & 297):

- No exceedances of the ground vibration and/or airblast overpressure are predicted at privately owned residences;
- Livestock disturbance is unlikely to occur beyond 630 metres from the blast;
- Roadway culverts and railway lines more than 150 m and 130 m away from the blast respectively would be unlikely damaged; and
- Archaeological or geological structures are unlikely to be damaged at distances greater than 73 m from the blast.

The Commission's Findings

120. The Commission is satisfied blasting and vibration have been appropriately addressed in the assessment of the Project. The Commission agrees with the Department's conclusions in regard to these matters and finds that, subject to conditions of consent, which include the preparation of a Noise and Blasting Management Plan, these issues can be appropriately managed.

5.3.4 Road

121. The Department notes that increase in traffic noise during the construction and operational phases are predicted to be <3 dB(A) for all residential locations, with increases well below the 12 dB(A) relative increase criterion under the RNP (AR para 286).

122. Prior to the completion of the Maloneys Road relocation, project traffic is predicted to increase day-time traffic noise outside the Lue Public School by 1-2 dB(A), which the Department considers is, 'barely perceptible and does not warrant mitigation measures in accordance with the RNP' (AR para 288). Traffic noise would increase by <1 dB(A) outside Lue Public School during the remainder of project life after the relocation of Maloneys Road (AR para 288).

123. The Department have recommended a condition requiring a Drivers' Code of Conduct as part of the preparation of a Traffic Management Plan to provide mitigation and management of traffic noise (AR para 292).

The Commission's Findings

124. The Commission is satisfied road noise has been appropriately addressed in the assessment of the Project. The Commission agrees with the Department's conclusions and finds that, subject to imposed conditions B69 – B71 relating to the Traffic Management Plan, road noise can be appropriately managed.

5.4 Amenity – Visual and Lighting

125. This section discusses amenity impacts related to visual and lighting impacts. Amenity impacts related to air quality and noise are discussed in detail in Sections 5.2 and 5.3.

Visual Impact

126. The Department's AR identifies five residences (R81, R19, R39, R40 and R47) that would experience visual impact with views towards the mine site during the site establishment and construction phase, and/or the operational phase. The Department notes that two of these properties have since been purchased by the Applicant (AR paras 302-304).

127. The Applicant's Transmission Line Amendment Report prepared by RW Corkery & Co Pty Ltd dated June 2021 states that the "500kV transmission line is a substantial item of infrastructure in the landscape east of Lue and its slight re-alignment and construction of new towers would not change the overall character of the transmission line when viewed from Lue and surrounds" (Amendment Report, June 2021, page 27).

128. The Commission notes it received a submission from the landholder at R81 who raised concern regarding views towards the TSF, noting their residence's elevated siting.

129. The Commission notes that residences on the west and south-west side of the mine would have expanded or more prominent views of the 500 kV transmission line and/or towers when the powerline is realigned in year 3 (AR para 305).

130. The Department notes that the Applicant proposes to mitigate the visual impacts by (AR para 308):

> *… progressively revegetating the outer slopes of the Southern Barrier, the WRE and the outer face of the TSF embankment (after the final raise), and by enhancing the existing planted visual screen on the northern side of Pyangle Road and planting trees and shrubs on the upper terminal benches of the open cut pit.*

Lighting Impact

131. The Site is located approximately 168 kilometres from Siding Spring Observatory within the Dark Sky Region of NSW (AR para 310). Two amateur observatories are located within 45 kms and 35 kms respectively of the mine site, with one site where astronomical observations are made using mobile telescopes located within 10 kms (AR para 310).

132. The Department notes that lighting on the Site will be installed in accordance with the requirements of AS/NSW 4282:2019 – *Control of Obtrusive Effects of Outdoor Lighting* for dark rural environments (AR para 312).

133. The Applicant's Lighting and Sky Glow Assessment prepared by Lighting, Art & Science Pty Limited, dated May 2020, included a letter from Siding Springs Observatory agreeing that the night sky brightness above the observatory would be negligible (AR para 317).

The Commission's Findings

134. The Commission agrees with the Department's assessment relating to visual and lighting impacts and considers these impacts would not be significant.

135. The Commission imposes condition B72 which requires the Applicant to minimise the visual and off-site lighting impacts of the Project, including the visual impact of any new buildings or structures. The Applicant is also required to ensure all external lighting associated with the development complies with the relevant Australian Standards.

5.5 Water Resources

5.5.1 Water Demand and Supply

136. The Applicant's Water Supply Amendment Report dated March 2022 sets out the water demand for the Project. The Water Supply Amendment Report states that when operating at the maximum capacity of 2 Mtpa of ore feed, the mine would require approximately 3.0 ML/day or approximately 1,092 ML/yr principally for the processing plant and dust suppression. Total water demand at the mine site during operations would be between 1,092 ML/yr (in year 2) and 1,303 ML/yr (in year 9). Water would also be applied to haul roads to supress dust generated during construction and operations and this is estimated to require between 99 ML/yr to a maximum of 206 ML/yr (AR para 102). The Water Supply Amendment Report states that the water balance also contains provision for up to 7.5 ML/yr that would be used for miscellaneous operational purposes.

137. The Department's AR states that the water balance model predicts that around 1,844 ML/yr of water supply would be available on average from (AR para 105):

- *rainfall and runoff from the mine's disturbance areas, which is predicted to average 924 ML/yr;*
- *advanced dewatering of the open cut pit, which is predicted to yield around 380 ML/yr;*
- *pit groundwater inflows, which are predicted to average around 431 ML/yr;*
- *clean water harvesting, which is predicted to yield around 27 ML/ yr; and*
- *ore moisture, which is predicted to average around 83 ML/yr.*

138. The Department's AR states that the water balance modelling for the mine indicates that, with the exception of extreme drought periods, there would be sufficient water available from the above sources to supply all site water demands (AR para 107). Noting that sensitivity testing of the model indicates water reliability could reduce due to lower rainfall and runoff and pit inflows, the Department has recommended a condition requiring the Applicant to match the scale of the development to the available water supply (AR para 108).

5.5.2 Groundwater

139. The Department's AR states that groundwater inflows into the pit would cause the regional groundwater system to depressurise with resultant lowering of groundwater levels (AR para 110). The predicted drawdown would continue to propagate for around 50 years post mining, with the 1 metre (m) drawdown contour extending to less than 2 km east and south, up to 3 km to the west and 2.8 km to the north. Drawdown at Lawsons Creek would be 1 m and at Hawkins Creek less than 2 m (AR para 11).

140. According to the Applicant's Groundwater Assessment dated February 2022 and Water Supply Submissions Report dated October 2022, drawdown greater than 2 m (i.e. the minimal harm threshold in the *NSW Aquifer Interference Policy*) is predicted at 11 bores. Nine of these bores are owned by the Applicant and one (GW802888) is Project-related, with the owner having signed an agreement with the Applicant. One groundwater bore (GW061475) is privately owned. The Applicant notes that this bore is inoperable, and that the limited hydraulic connectivity means that the predicted drawdown is conservative and unlikely to be realised (Water Supply Submissions Report, p.57).

141. The Department accepts that the Applicant's assessment indicates that the Project is unlikely to result in any significant impact to groundwater users in the locality. The Department has recommended conditions requiring the Applicant to undertake groundwater monitoring and to provide compensatory water supplies in the event that an affected user's water supplies are adversely affected by the Project.

5.5.3 Groundwater Dependent Ecosystems

142. The Department's AR states that there are no listed high priority groundwater dependent ecosystems (**GDEs**) within 10 km of the Site, although a number of potential GDEs have been identified, including springs, seeps, terrestrial vegetation and river baseflow systems (AR para 116). However, the Department notes that River Red Gums and two endangered ecological communities (Fuzzy Box Woodland and Swamp Oak Floodplain Forest) adjacent to or within the Site may have reduced access to water.

143. The Department states that "the project is unlikely to significantly affect any sensitive GDEs or important stygofauna, given the relatively small predicted regional groundwater impacts" (AR para 121) and has recommended conditions requiring the Applicant to monitor and protect GDEs surrounding the Project.

5.5.4 Surface Water

144. Groundwater drawdown is predicted to reduce baseflow contributions to Hawkins Creek and Lawsons Creek (AR para 122). The Project would also affect surface water flows directly by reducing the catchment size by excluding areas where mine infrastructure is located, resulting in approximately 177 ML/yr less water on average reporting to the creeks (AR para 123).

145. The Applicant's Surface Water Assessment, dated February 2022 outlines that (p.15):

- During operations, downstream flows would be reduced by a maximum of 4.5% (Hawkins Creek to the Lawsons Creek confluence), 1.2% (Lawsons Creek between Hawkins and Walkers Creeks) and 2.2% (Lawsons Creek downstream of Walkers Creek); and
- Post mining, downstream flows would be reduced by a maximum of 1.4% (Hawkins Creek to the Lawsons Creek confluence), 0.3% (Lawsons Creek between Hawkins and Walkers Creeks), and 0.4% (Lawsons Creek downstream of Walkers Creek).

146. The Applicant's Surface Water Assessment modelled the estimated impact of the Project on the frequency of flows in Lawsons Creek. The assessment states that the impact of the Project on the frequency of flows greater than 1 ML/day is expected to be minimal (up to 2 days per year on average) and the loss of water available to downstream water users would be negligible (AR para 128).

147. In relation to periods of no flow, the water balance modelling indicates that without mining, cease to flow conditions (<0.1ML/day) in Lawsons Creek occurred 9.8% of the 130 year period that was modelled. The Project is estimated to increase the frequency of cease to flow conditions occurring by a further 0.6% (AR para 130).

148. The Department noted that the Applicant's model is "conservative as it over-predicts the contribution of baseflows during periods of low or no flows and thus the actual baseflow reduction attributable to mining is likely to be less" (AR para 131). The Department stated that even if the baseflow reductions occur as predicted, the impacts on flows would be very minor and unlikely to materially affect the availability of water for downstream water users. The Department recommended conditions requiring the Applicant to include trigger levels for identifying and investigating any potentially adverse impacts (or trends) in downstream surface water flows and quality in a Water Management Plan (**WMP**).

5.5.5 Water Access Licences

149. Bowdens Silver would be permitted to capture up to 180.6 ML of water under its harvestable rights, based on its contiguous landholding of 2,589 ha (AR para 133). The peak water take, and Bowdens Silver's existing water entitlements, are summarised in Table 3. The Department notes that the Applicant has secured water access licences to account for the maximum predicted water take from each water source during and post mining.

Table 3: Water licenses held by Bowdens Silver (source: AR Table 6)

Water Source	Purpose	Maximum Volume Required (ML)	Volume Secured (ML)
NSW Murray Darling Basin Porous Rock Groundwater Sources Order 2020 - Sydney Basin Groundwater Source	Pit dewatering	232.5	194 unit shares (equivalent to 194 ML/yr)
Controlled Allocation Order (Various groundwater sources)			38.5 (equivalent to 38.5 ML/yr)
NSW Murray Darling Basin Fractured Rock Groundwater Sources Order 2020 - Lachlan Fold Belt - Groundwater Source – (Other) Management Zone	Pit dewatering	1,040	1,480 unit shares (equivalent to 1,480 ML/yr)
Macquarie Bogan Unregulated and Alluvial Water Sources 2012 – Lawsons Creek Water Source	Water captured in TSF	123	139 unit shares
	Baseflow loss	14 (19.3 post mining)	

150. The Department notes that ongoing water take would diminish post-mining with a long term take of approximately 200 ML/yr anticipated. The Department states that this is less than 0.08 % and 0.03% of the long term average annual extraction limit of the Sydney Basin and Lachlan Fold groundwater sources respectively and is not expected to significantly affect future available water determinations (AR para 140).

5.5.6 Water Quality

151. The Department's AR states that key concerns raised in public submissions were in relation to (AR para 141):

- *the risk of failure or overtopping of the TSF or spills from contaminated water storages;*
- *potential acid mine drainage (AMD) or seepage of contaminated water; and*
- *health impacts from polluted water.*

152. These concerns were also raised at the Public Hearing and in submissions to the Commission.

153. The mine has been designed to avoid any off-site discharges of runoff from mine-affected areas, except from sediment dams servicing areas that do not contain acid forming materials or other contaminants. Release of water from these sediment dams would only occur if water quality monitoring indicates that the water is suitable for discharge. If the water is unsuitable for discharge, it would be contained on site and used for mining operations (AR para 142). Based on the preliminary design, the site water balance model indicates that all mine affected water could be contained without discharging through the project life under a range of meteorological conditions (AR para 143).

154. The Department states that it considers that the main risks to water quality are from the Waste Rock Emplacement (**WRE**), Tailings Storage Facility (**TSF**) and open cut pit, noting that the risks can be managed by appropriate design and management (AR para 145).

Waste Rock Emplacement

155. The Department's AR states that the effective management of waste rock is necessary to prevent acid mine drainage (**AMD**), noting that more than half the waste rock from the Project has been identified as potentially acid forming (**PAF**) (AR para 146). The Applicant is proposing to fully encapsulate the PAF within the WRE, which includes the use of geosynthetic clay liners (**GCL**), to limit opportunities for oxidation of the PAF. The WRE would be developed progressively as a series of cells, each "lined with a 1.5 millimetre low-permeability HDPE liner to limit seepage. Any seepage that is generated would be captured and used in mining operations" (AR para 147).

156. The Department engaged independent experts Earth Systems to provide advice regarding the proposed management and potential impacts of AMD. Earth Systems in its advice to the Department dated 31 May 2022 and 23 November 2022 made a number of recommendations including the need for additional characterisation test work and assessment to be undertaken prior to the commencement of mining (AR para 151).

157. Council, in its meeting with the Commission, raised concerns regarding AMD management and "the comments in the Earth Systems Report, [that] advised that the design of the facility will need to be updated, noting that GCL liners have limited design life, store-and-release covers are not suitable for acid mining drainage" (Council Meeting Transcript p13). Council also noted that it would be looking for assurances that the proposed management of AMD is appropriate.

158. In the Applicant's response to the Department dated 1 December 2022, its technical experts stated they did not agree with aspects of the Earth Systems review. However, the Applicant has committed to undertaking the additional assessment and preparing the AMD management plan prior to the commencement of mining (AR para 152).

159. On 8 February 2023, the Commission wrote to the Department asking it to clarify the findings of the Earth System's independent review and advice. The Department, in its response dated 13 February 2023, notes that in its response to Earth Systems (dated October 2022), the Applicant advised that the GCL and store and release cover are not relied solely upon for AMD control and are part of a suite of AMD management measures. The Earth Systems advice dated 16 December 2022 concludes that "based on the acceptance of Earth Systems' suggested conditions by Bowdens Silver and including specific consideration of the residual concerns noted above, no further recommendations relating to AMD are provided at this stage" (Earth Systems Advice, 16 December 2022, p.2).

160. The Department states that it accepts that the Applicant has adequately demonstrated that the WRE and TSF has been designed "in accordance with best practice standards in the INAP[2], and that measures can be implemented to minimise long-term AMD risk" (Department's Response, 13 February 2023, p.2).

161. Noting the technical disagreement between experts, the Department is of the view that the most conservative approach is warranted and has recommended conditions to ensure effective management of AMD, based on the recommendations from Earth Systems, including a further characterisation and verification process to confirm the proportion of NAF versus PAF rocks (AR para 153).

Tailings Storage Facility (TSF)

162. The Department states (AR paras 154-155):

> *The conceptual design of the TSF presented in the EIS included a 0.45 m thick compacted clay liner below the maximum possible water level, a 40 m deep grout curtain below the embankment and a bituminous geomembrane…liner… overlying the clay on the upstream face of the TSF embankment… During mining operations drains would direct seepage to a collection pond from where it would be pumped back to the decant pond. At the end of mining the TSF would be capped with a store and-release cover designed to limit the percolation of water through the tailings.*

163. The Department of Planning and Environment - Water (**DPE Water**) and the Environment Protection Authority (**EPA**) raised initial concerns regarding the thickness of the TSF liner and the potential for leakage and requested further assessment of the potential impacts on downstream receivers (AR para 156). Seepage analysis determined that seepage rates from the TSF would meet the objectives of the EPA's tailings dam liner policy. In addition, the Applicant has committed to, if justified by further seepage analysis, provide additional seepage mitigation including the extension of the bituminous geomembrane (**BGM**) liner over the entire TSF impoundment area or to cover the decant pond area (AR para 157).

[2] International Network for Acid Prevention

164. Modelling of the transport and rate of seepage from the TSF identified that "during low or median creek flows the concentrations of some analytes would marginally exceed the value set out in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG) for 95% protection of freshwater aquatic ecosystem. Concentrations of all analytes would be below the ANZG threshold values for the protection of sheep, cattle and irrigation" (AR para 159). The Applicant noted that the modelling was conservative and that concentrations of some of these metals in downstream receiving waters already exceed the ANZG levels and that the additional contribution from the TSF would be very minor (AR para 160). The Applicant considers that seepage from the TSF would not diminish the current beneficial uses of Lawsons Creek. The Department notes that DPE Water and the EPA did not raise any significant concerns in relation to these conclusions, subject to implementation of best practice management controls (AR para 161).

165. The preliminary design of the TSF has been prepared in accordance with the relevant guidelines and policies of Dams Safety NSW and the Australian National Committee on Large Dams (AR para 162). The Commission notes the TSF would be subject to further detailed design and engineering before construction (AR para 165).

166. Dams Safety NSW noted that it is likely the TSF would be "Declared" under the *Dams Safety Act 2015* and would require ongoing safety management and reporting in accordance with the *Dams Safety Act 2015*.

167. The Department has recommended conditions requiring further detailed design and engineering of the TSF prior to construction, and requirements for the Applicant to undertake regular monitoring of water quality downgradient of the TSF that will inform and refine the TSF seepage controls, management and mitigation measures (AR 166).

Final Void

168. While the mine is operational, water accumulating in the open cut pit would be used for mining operations. Once mining ends, the main open cut pit would remain and slowly fill with water, creating a pit lake, and the two smaller pits would be backfilled and rehabilitated (AR para 167 & 168).

169. At the Public Hearing, the Commission queried whether the Applicant had given consideration to alternate remediation options, for example filling the final void with material other than water. The Applicant, in its response at the Public Hearing and in its letter to the Commission to supplement its response dated 24 February 2023, noted that it had considered alternative options, including backfilling the open cut pit. However, notwithstanding the high cost of backfilling, the main reason the Applicant chose to retain the final void was to avoid sterilising any potential resource that may be extracted in the future through expansion of, or, below the proposed open cut pit (Applicant's Response, 24 Feb 2023, p.2).

170. The water within the pit lake will become increasingly saline over time due to evaporative concentration, reaching approximately 5,695 mg/L TDS after 500 years (AR para 172). Water levels within the pit are predicted to fluctuate between around 567.3 m and 574.7 m AHD (based on historic trends) or between 564.7 m and 571.9 m AHD (under a climate change scenario) (AR para 169). The modelling indicates that the final void would act as a groundwater sink over time, preventing saline waste and potential contaminants in the pit lake from migrating off-site. However, the pit lake would no longer act as a groundwater sink once the water level reaches 579 m AHD (AR para 173).

171. The Applicant undertook an uncertainty analysis to determine the probability of the pit no longer acting as a groundwater sink, the results of which indicated that if unmitigated, there would be a more than 50% chance that the water level could increase above the level required for the pit to become a throughflow system (AR para 174). The Applicant has identified potential mitigation options, outlined at AR paragraph 176, to prevent the throughflow system developing.

172. The Department recommended conditions requiring the Applicant to regularly update and verify the groundwater model and ensure the final void is designed and managed with appropriate mitigations measures to act as a long term groundwater sink (AR paras 176-179). The Department also notes that additional resource exists below the resource proposed to be extracted and that, subject to a separate merit approval process, the ultimate final void may be different to that planned for the current mine (AR para 180).

5.5.7 Flooding

173. The surface water assessment modelled the existing and potential flood behaviour of the main creeks within and around the Site as a result of the mine (AR para 181). The Department notes that the "most significant flood level impacts associated with the development are constrained to within the mine site and land owned by Bowdens Silver. No impacts are predicted to other properties, assets or infrastructure. Increases in flood velocities would be largely confined to the vicinity of the WRE. Increases in flood velocities in Hawkins and Lawsons Creeks are predicted to be negligible and would not adversely [impact] off-site properties or infrastructure" (AR para 186).

174. In response to concerns raised by DPE Water regarding the proposed floodway crossing design for the Lawsons Creek crossing, the Applicant proposed an alternate bridge design with a road crest at least 1.3 m above the bankfull discharge water levels of the main Lawsons Creek channel. "Hydraulic modelling… identified that this generally corresponds to a 1 in 20 year AEP rainfall event" (AR para 191).

5.5.8 The Commission's Findings

175. The Commission notes the concerns raised by the community in its submissions regarding potential AMD and the management of PAF material. At the Public Hearing the Commission asked the Applicant to provide detail on the contingency measures that would be in place in relation waste rock placement should there be a change to NAF and PAF ratios from the modelling that has been conducted. The Applicant outlined proposed contingency measures at page 5 of its submission to the Commission dated 24 February 2023, however noted that it considered that the need to employ these scenarios would be unlikely.

176. The Commission finds that the potential impacts in relation to management of PAF material are capable of being managed by conditions of consent and imposes condition B36-B38 requiring the Applicant to prepare and implement a Materials Classification Verification Program to validate the AMD risk classification system. The Commission has imposed condition B50(v) which requires the Applicant to prepare an Acid Mine Drainage Management Plan, which would describe the AMD management system and include a program to monitor and evaluate compliance, and the effectiveness of the materials classification system.

177. The Commission agrees with the Department that potential impacts to water resources are capable of being managed in accordance with NSW government policy and has imposed condition B49 which includes a number of water management performance measures that the Applicant must comply with. The Commission also imposes conditions B50-B52 that require the Applicant to prepare and implement a Water Management Plan to the satisfaction of the Planning Secretary, which is to include a:

- Site Water Balance;
- Erosion and Sediment Control Plan;
- Surface Water Management Plan;
- Groundwater Management Plan;
- WRE Design and Verification Plan; and
- TSF Liner Design and Verification Plan.

178. In relation to compensatory water supply, the Commission imposes conditions B41-B47 which require the Applicant to provide a compensatory water supply to any landowner of privately-owned land whose rightful water supply (groundwater, surface water and/or tank water) is adversely and directly impacted.

5.6 Traffic and Transport

179. The Site is currently accessed via Lue Road, Pyangle Road and the existing Maloneys Road, the latter of which passes through the site in a north-west direction, as illustrated in AR Figure 17.

180. The Application proposes to relocate the existing Maloneys Road to the west of the Site to enable vehicles travelling from the west access to the site without travelling through Lue village (AR para 326). The proposed Maloneys Road relocation is to include new crossings over Lawsons Creek and the railway line, as well as a new intersection with Lue Road located west of Lue village (AR Figure 17).

181. The Applicant's Traffic and Transport Assessment prepared by The Transport Planning Partnership Pty Ltd, dated May 2020 (**TTA**), assesses impacts during the Project's construction and operation, as well as impacts on intersections and levels of service for the main transport routes to and from the Site.

182. The Commission received written submissions and heard from the community at the Public Hearing, raising concerns regarding traffic impacts, including increased volume of heavy vehicle traffic, and safety concerns related to additional traffic on narrow roads. A submission also recommended widening Lue Road to assist with any increased traffic.

5.6.1 Construction

183. As previously noted, the construction and site establishment phase of the Project comprises:

- Construction of the relocated Maloneys Road (during first 6 months), and
- Site establishment phase (during the first 18 months).

184. The Department notes that the bulk of the heavy vehicle traffic on the surrounding roads would be generated during the Project's construction and site establishment phase (AR para 331). The Department notes that once the relocated Maloneys Road is completed, traffic in Lue is expected to reduce as most vehicles would access the site from the west via the new road (AR para 335).

185. An approximate increase of 10% in light vehicle traffic and 42% in heavy vehicle traffic in Lue would occur during the construction of the relocated Maloneys Road (AR para 333), while an approximate increase of 22.5% in heavy vehicle traffic in Lue would occur around month 13, during the peak of construction activities (AR paras 336 & 337).

186. Noting that the highest concentration of project related traffic would be on the relocated Maloneys Road, particularly a 1.4 kilometre section between the mine access road and the entrance to the TSF embankment area (AR para 339), the Department recommends a condition which requires:

- the relocation of Maloneys Road prior to the commencement of any mining operations; and
- for the relocated Maloneys Road be sealed and constructed in accordance with Austroads guidelines.

187. Mid-Western Regional Council, in its Letter to the Commission dated 23 February 2023, requested for Maloneys Road to be constructed and completed prior to any construction or site establishment works, noting that the "construction traffic is too large an impost on the village of Lue" (Council Letter to the Commission page 1).

188. In relation to traffic expected to be generated during the site establishment and construction stage, the Applicant advised that heavy vehicles travelling through the village of Lue at the peak of construction activity would include approximately (Department's Response Attachment C, 8 March 2023, p.1):

- *4 shuttle bus movements (2 inbound, 2 outbound) per day;*
- *32 heavy vehicle movements (16 inbound, 16 outbound) per day; and*
- *occasional oversize or overmass vehicles, which would be managed on a case-by-case basis.*

189. In relation to the construction timing of the relocated Maloneys Road, the Department stated that (Department Response, 8 March 2023, p.5):

> *Requiring the relocation of Maloneys Road prior to any other construction is not necessary or warranted, given the low traffic generation on local roads (including Lue Road) during this period, and given that the concurrent works are unlikely to result in any significant traffic or other environmental impacts.*

The Commission's Findings

190. The Commission has considered Council's request and is of the view that the relocation of Maloneys Road can reasonably occur within first 6 months of the construction and site establishment phase of the Project as:

- initial site preparation works and construction activities during the first 6 months are unlikely to involve significant volumes of traffic on Lue Road and other local roads;
- preventing the commencement of any construction or site establishment works may prolong the duration of construction activities;
- the traffic impacts to Lue will be temporary; and
- the intersection upgrade of Lue and Pyangle Roads would no longer be necessary if relocation of Maloneys Road was completed prior to any construction or site establishment works.

191. However, the Commission is of the view that traffic accessing the Site before the completion of the relocated Maloneys Road should be minimised. Therefore, the Commission has imposed condition B66 to provide limitations to the number of heavy vehicle movements through Lue, as per the Applicant's advice (outlined at paragraph 188 above).

5.6.2 Operation

192. The Department notes that most traffic accessing the mine during its operation would be via the relocated Maloneys Road, with a larger proportion travelling from the west and thus not through Lue (AR para 344). The Commission notes the vehicular movements during the mine's operational phase stated in AR paras 342 and 343.

193. The Department sought advice from NSW Education given the Site's proximity to Lue Public School. In its response to the Department, NSW Education stated (NSW Education – Advice on EIS, 28 July 2020, p.2):

> *… that the EIS identifies that all heavy vehicles (including B-double vehicles) will be restricted from using Lue Road during pick up and drop off periods for Lue Public School. SINSW[3] is supportive of this measure and requests that all heavy vehicles are also restricted during school periods (including pick up and drop off) from using Swanston Street (which forms part of Lue Road within Lue), as Lue Public School is located directly off Swanston Street.*

194. The Department does not consider NSW Education's request for all heavy vehicles to be restricted from using Swanston Street during school periods as reasonable as Swanston Street (as a section of Lue Road) is is already approved for B-Double vehicles and is the main thoroughfare through Lue (AR para 345).

The Commission's Findings

195. The Commission agrees with the Department's position and notes that B-Double vehicles are restricted from using Swanston Street/Lue Road during school zone periods, and would therefore be expected to have limited opportunity to interact with the school traffic around Lue Public School.

196. The Commission notes the concerns raised in submissions regarding the potential damage to local roads from increased traffic flow and ongoing traffic impacts to Lue. Given that access to the Site would primarily be via the relocated Maloneys Road from the west, and not through the village of Lue, the Commission is satisfied that traffic impacts to Lue, and its local roads, during the Project's operational phase have been appropriately mitigated. The Commission notes that condition B65 has been imposed to require the relocated Maloneys Road to be sealed and constructed in accordance with Austroads guidelines and to Council's satisfaction.

5.7 Social Impacts

197. The EIS included a social impact assessment (**SIA**) dated May 2020 and prepared by Umwelt. The SIA considered the social impacts of the Project on the surrounding locality (including Lue) and the broader region and was prepared in accordance with the Department's Social Impact Assessment Guidelines for State Significant Mining, Petroleum Production and Extractive Industry Development 2017 (AR para 365).

198. The Department engaged WSP to conduct an independent peer review of the SIA, which is dated 17 November 2022 (**SIA Review**). The Applicant provided a response to the SIA Review, dated 6 December 2022. The Lue Action Group provided the Department and the Commission with advice on the SIA, prepared by Dr Alison Ziller.

199. The Department provides a summary of the most important social impacts based on stakeholder perception and social impact rating as identified in the SIA (AR para 374):

[3] School Infrastructure NSW

- *economic impacts pertaining to local employment and use of local business and services – with a high risk rating (positive impact);*
- *health and well-being, including community perceptions of the risk of lead exposure and fears of contamination of air, soil and water;*
- *sense of community, including concerns about loss of community members and population change and subsequent impacts on community cohesion and sense of place; and*
- *impacts on social amenity relating to dust/air quality, visual impacts and noise.*

200. The social impacts of the Project were a key issue raised in submissions received by the Commission. Social impacts cover a broad range of impacts and concerns raised by the community and are often linked to other impacts including human health, economic, traffic and transport and other amenity related impacts. The Commission notes that it has considered impacts to human health throughout multiple key issues in this Statement of Reasons.

The Commission's Findings

201. In relation to health and well-being, the Commission notes that it received a number of submissions from the community that raised concerns in relation to increased levels of stress and anxiety and the Project's impact on the local community's quality of life.

202. The Commission acknowledges the anxieties felt by members of the community and recognises the impacts this can have on human health and well-being. The Commission notes the Applicant's proposed mitigation measures, including its commitment, "to keep the community informed of monitoring results relating to lead in air and water, to offer blood lead testing for members of the community that request it, maintain an open-door policy and implement a "Good Neighbour Program" facilitated by a dedicated community liaison officer" (AR para 379).

203. The Commission acknowledges that the increase in jobs would result in an increase in people moving to the region which would increase demand for services including accommodation, health and community (AR para 388). "The SIA identified that there is likely to be sufficient accommodation available for workers during the construction and operational phases although rental accommodation is tight and the additional demand for rental properties would put additional pressure on the market and potentially impact pricing" (AR para 389).

204. The Commission notes that Council raised concerns in relation to pressure on accommodations, particularly for the construction workforce. Council requested a condition of consent be included that would require the Applicant to prepare a workforce accommodation strategy in consultation with Council. The Department has included a condition to that affect within its recommendation to the Commission (AR para 392).

205. The Commission notes that it received submissions that commented on the potential positive impacts the mine would have for the towns of Rylstone and Kandos, particularly in relation to employment generation and stimulation of local businesses.

206. The Commission has considered distributive and intergenerational equity and the distribution of the costs and benefits of the Project. The Commission acknowledges that the negative impacts of the Project are more likely to be experienced by surrounding landowners and residents and the community of Lue. The Commission notes that the Applicant has proposed "a range of mitigation measures to address the social impacts of the project and to ensure that some of the economic benefits of the project are distributed to the Lue community and other nearby localities within the LGA" (AR para 401). One of these measures is a community investment program "that would invest in local projects and programs in education, community (e.g. social facilities, land use enhancements etc); sport and recreation, safety (e.g. rescue services, health services), and arts and culture" (AR para 402).

207. The Applicant has also proposed to prepare a Social Impact Management Plan (**SIMP**) that would monitor and evaluate the social impacts of the Project and include details of management and mitigation strategies that would be employed to address those impacts (AR para 406).

208. The Commission considers that the Applicant has assessed the social impact of the Application in sufficient detail. The Commission agrees with the Department that the Project would generally meet all relevant health and amenity criteria and result in major socio-economic benefits for the locality, region and the State (AR para 409).

209. The Commission agrees that despite this, the Project does have the potential to result in negative social impacts, particularly for the local community (AR para 410), including the concern some submissions raised regarding the Project's potential threat to the way of life of farming families. However, the Commission agrees with the Department that these residual impacts can be appropriately minimised and managed.

210. The Commission notes that a Community Consultative Committee has already been established for the Project. The Commission imposes condition A12 to require the Applicant to continue to operate the Bowdens Silver Project Community Consultative Committee.

211. The Commission has imposed conditions B89 – B91 requiring the Applicant to prepare and implement a SIMP, in consultation with Council, the Community Consultative Committee, and affected stakeholders (including residents of Lue). The SIMP would describe measures to be implemented to enhance positive social impacts including:

- the community investment program;
- broader community cohesion;
- a workforce accommodation and employment strategy; and
- a local business and services strategy.

212. The Commission notes the submissions it has received, as outlined at paragraph 205 above, and has included a requirement for the Applicant to have a focus on Rylstone and Kandos when preparing the workforce accommodation and employment strategy, and the local businesses and services strategy.

213. The SIMP would also include measures to manage and mitigate negative social impacts including to near neighbours, and during post-closure or care-and-maintenance periods.

214. The Commission notes that the research and monitoring program to assess and report on air quality, including lead impacts (as previously discussed in this Statement of Reasons) is included within the SIMP.

215. The SIMP would also identify performance indicators and incorporate a trigger-action-response-plan.

5.8 Economics

216. The following expert reports have been considered by the Commission as part of its consideration of the economic impacts of the Project:

- Applicant's Economic Assessment, prepared by Gillespie Economics and dated May 2020;
- Department's Independent Peer Review of the Economic Assessment, prepared by The CIE and dated 10 February 2021[4];
- Applicant's Response to the Economic Assessment Review, prepared by Gillespie Economics and dated 9 March 2021;
- Applicant's Independent Peer Review of the Applicant's Economic Assessment, prepared by Ernst & Young and dated 31 May 2021;
- Department's Independent Peer Review of the Applicant's response, prepared by The CIE and dated 10 January 2022.

217. The Department states (AR para 458-459):

> *The project would directly employ on average around 210 employees during operations and 131 people during construction and would contribute company and payroll taxes and royalties to the Commonwealth and NSW State. The project would also generate ongoing and initial capital investment in the order of $310 million and generate a range of flow-on economic benefits.*
>
> *The EIS includes an economics assessment undertaken by Gillespie Economics (Gillespie) that includes a cost benefit analysis (CBA) of the project. The CBA indicates that the project would have a net production benefit to the Australian economy of $89 million (net present value[22]) and to the NSW economy of around $44 million.*

218. The Department's Independent Peer Review noted uncertainties around some of the assumptions used in the CBA analysis including future commodity prices, actual tax that would be paid, and the carbon cost of greenhouse gas emissions (AR para 461). The Economic Review also noted that some of the assumptions underpinning the calculations of employment benefits may be inflated and stated that the cost of greenhouse gas emissions should be fully attributed to the Project and NSW (AR para 462). Despite this, the Economic Review concluded "that, even with a range of more conservative assumptions and all GHG emissions costs attributed to the project, it would still have a net benefit to NSW of $32.4 million to $38.3 million" (AR para 462).

219. The Department states that (AR para 464-465):

> *The economics assessment also includes a local effects analysis (LEA) which estimates that the project would lead to an increase in disposable income of $1.8 million in the region during construction and $6.8 million per annum during operations, assuming employees are already employed elsewhere.*
> *…*
>
> *If flow on effects are considered, the LEA estimates disposable income would increase to $2.5 million/yr during construction and $10.3 million/yr during operations, and additional 31 jobs would be created during construction and 147 jobs during operations.*

[4] Incorrectly dated in report as 10 Feb 2020 (AR Appendix A)

220. The Commission heard from submitters at the public hearing and in written submissions that were supportive of the Project, citing economic benefits and improved employment opportunities for the region, particularly for the nearby towns of Rylstone and Kandos.

221. The Commission also received a number of submissions that raised concern in regard to the potential economic impacts of the Project, including negative impacts to the agricultural, lifestyle, and tourism and visitor economies. Submissions emphasised that the mine would not be compatible with existing local land uses.

222. Council, in its meeting with the Commission, stated that "this is a big decision for our community. It's very important for our economy, with employing a couple of hundred or 300 employees, et cetera, et cetera. There are major concerns, though, from our community that live up that way and downstream of the mine in regard to water" (Council Meeting Transcript, p3). Council also noted the opportunity for economic diversity that the mine would bring, noting that its region is still experiencing growth (Council Meeting Transcript, p.9).

223. The Commission notes that the local community would also benefit from the $3 million of contributions towards local infrastructure that the Applicant has agreed to with Council (AR para 466).

The Commission's Findings

224. The Commission acknowledges the concerns raised by the community in relation to the mine's potential impacts to existing economies, for example, agricultural and tourism. However, the Commission is satisfied with the economic assessment that has been undertaken for the Project.

225. The Commission notes the comments it has received in relation to economic benefits and improved employment opportunities for the region, particularly for the nearby towns of Rylstone and Kandos. The Commission notes it has included a requirement for the Applicant to prepare and implement a workforce accommodation and employment strategy, and a local businesses and services strategy, with a particular focus on Rylstone and Kandos, as part of the SIMP.

226. The Commission has imposed condition A11 requiring the Applicant to make the monetary contributions under the executed Planning Agreement with Council, the terms of which are outlined at Appendix 6 of the conditions of consent and include contributions related to community infrastructure and services, and road maintenance.

227. Overall, the Commission finds that on balance, and when weighed against the impacts, the Project is likely to generate net positive economic benefits for the local area, region and more broadly, NSW.

5.9 Biodiversity

228. The Application's Biodiversity Assessment Report – Updated prepared by EnviroKey Pty Ltd dated June 2021 (**BAR**) identifies that approximately 381.17 ha of native vegetation comprising seven plant community types (**PCTs**) would be disturbed (AR para 416). The locations of the PCTs in context of the Site are illustrated in the vegetation mapping at AR Figure 19.

229. Of the 381.17 ha of native vegetation, 180.7 ha meet the definition of the critically endangered ecological community *White Box, Yellow Box, Blakely's Red Gum Woodland* (**Box Gum Woodland**) under the EPBC Act (AR para 417). Approximately 48% of the 180.7 hectares of Box Gum Woodland that would be cleared is derived grassland, having had the trees and shrubs cleared by previous agricultural activities (AR para 424).

230. The Department notes that vegetation within and around the site provides habitats for a variety of fauna species, with 14 species identified in the BAR's field surveys listed as threatened under the NSW Biodiversity Conservation Act 2016 and/or the EPBC Act (AR paras 432 to 434).

231. The Applicant's Koala Population Survey prepared by AREA Environmental and Heritage Consultants dated September 2022 (**KPS**), received by the Commission as additional information, describes the outcomes of field surveys for Koala populations within the Site and adjacent proposed offset areas undertaken in March and April 2022. The KPS concludes the area survey is a low-use area for Koalas.

232. The Department considers that the Applicant has designed the Project to avoid or minimise the clearing of native vegetation where possible, and that, 'the required ecosystem credits can be obtained, and that the retirement of these credits would sufficiently compensate for residual biodiversity impacts' (AR para 455). The Department concludes that biodiversity impacts could be effectively managed under a Biodiversity Management Plan (AR para 456).

233. The Applicant proposes to 'satisfy the majority of the offset requirements through the establishment of offset sites secured by Biodiversity Stewardship Agreements and has identified some candidate offset sites already owned or secured by the company within or adjacent to the mine site' (AR para 427).

The Commission's Findings

234. The Commission agrees with the Department that, subject to conditions, the project could be undertaken in a manner that would result in acceptable short-term impacts on biodiversity values and the proposed offsets would result in acceptable biodiversity outcomes in the long term (AR para 457).

235. The Commission has imposed conditions B54-B56 which require the Applicant to prepare and implement a Biodiversity Management Plan. The Commission imposes condition B53 which sets out the biodiversity offset requirements applicable to the Project.

5.10 Rehabilitation and Final Landform

236. At the end of the mine's life, as proposed in this Application, the Site will be recontoured to create an undulating landform, including the final void left by the main open cut pit, the TSF and the WRE. Both the TSF and WRE would be covered and vegetated, with the two satellite pits backfilled. The area occupied by the southern barrier would also be recontoured to a landform similar to the pre-project landform (AR page 78).

237. The Commission notes the key issues raised in submissions previously outlined at section 4.3.3 relating to rehabilitation and final landform.

238. As noted in paragraph 169 above, the Applicant has considered alternative remediation options regarding the final void, which is proposed to be filled with water.

The Commission's Findings

239. The Commission finds that the Project is capable of being rehabilitated to achieve a sustainable landform which could be used for purposes, and with values, comparable to those that currently exist at the Site.

240. The Commission considers the proposed approach to rehabilitation and final landform to be suitable and imposes condition B83 which provides objectives for the final landform of which rehabilitation must be generally consistent with, including (but not limited to):

- stable and sustainable for the intended post-mining land use/s;

- integrated with surrounding natural landforms and other mine rehabilitated landforms, to the greatest extent practicable;
- incorporate macro-relief and drainage features that mimic natural topography and mitigate erosion to the greatest extent practicable; and
- maximise surface water drainage to the natural environment, excluding final void catchment (i.e. free draining).

241. The Commission recognises the importance of progressive rehabilitation for the Site and imposes condition B84 to require the Applicant to rehabilitate the Site progressively, as soon as reasonably practicable following disturbance.

242. The Commission imposes condition B86-B88 which requires the Applicant to prepare and implement a Rehabilitation Strategy in consultation with the Resources Regulator, DPE Water, EPA, DPI Agriculture, Council and the Community Consultative Committee. The condition outlines strategies, measures and actions necessary to address progressive final rehabilitation.

5.11 Aboriginal Cultural Heritage

243. The Applicant's Aboriginal and Historical Cultural Heritage Assessment prepared by Landskape Natural and Cultural Heritage Management dated May 2020 (**AHCHA**) identified 58 Aboriginal objects/sites within the Site, comprising, "a combination of stone artefact scatters, isolated finds of stone artefacts, two scarred trees and a rock shelter with potential archaeological deposits and stone artefacts" (AR Section 6.7).

244. The AHCHA considers the majority of the identified objects/sites to be of low scientific, educational and aesthetic archaeological significance, though considers six objects/sites to be of low-moderate scientific significance (AR Section 6.7). The rock shelter is considered to be of moderate scientific significance, with the Application potentially having direct impacts on the object/site (AHCHA, Table 12).

245. The Department notes in its Response to the Commission's Request for Information dated 8 March 2023 (page 3) that the AHCHA recommends *(AHCHA, page 87)*:

> *Potential archaeological deposits at rock shelter site BL44 should be test excavated by a suitably qualified archaeologist and representatives of the local Aboriginal community, and if they are shown to contain Aboriginal objects, deposits should be fully excavated, recorded and salvaged. These items should be properly curated and stored in an on-site "Keeping Place"*

246. The Department note that in the draft conditions the Applicant would be required to prepare a Heritage Management Plan in consultation with the Registered Aboriginal Parties (**RAPs**) and Heritage NSW and state that this "will give stakeholders the opportunity to provide input into the proposed investigating, salvage and relocation and ongoing management measures" (Department's Response, 8 March 2023, p.3). Concerns were raised by Wellington Valley Wiradjuri Aboriginal Corporation (WVWAC), in their submission to the Commission and at the Public Hearing, that consultation with Aboriginal groups had not been completed in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010. This included concerns related to the opportunity for RAPs to review the preliminary draft survey report (WVWAC submission, page 2).

247. The Department in its AR states that (AR Section 6.7):

> *Bowdens Silver undertook consultation in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, including distributing a draft Aboriginal cultural heritage management plan to the RAPs for feedback, and Heritage NSW has indicated it is satisfied with the adequacy of the process.*

248. The Department provided further clarification in its Response to the Commission's Request for Information dated 8 March 2023 (page 5), noting that:

> *Heritage NSW reviewed the Aboriginal Cultural Heritage Assessment (ACHA), which includes a discussion about the consultation that was undertaken during the preparation of the report, and in its advice on the EIS it stated:*
>
> > *HNSW has not identified significant issues and is satisfied with the adequacy of the ACH assessment in regard to the Secretary's Environmental Assessment Requirements (SEARs). HNSW is particularly satisfied with the Aboriginal consultation and the proposed mitigation actions to be further developed post project approval for the Heritage Management Plan process.*

249. The Department considers the consultation with the RAPs for the AHCHA was undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (Department's Response, 8 March 2023, p.5)

The Commission's Findings

250. The Commission notes the potential significance of the rock shelter and considers it important for archaeological investigations to occur prior to the commencement of works on Site to identify and manage any potential archaeological deposits. The Commission has imposed condition B60-B62 requiring the Applicant to prepare and implement a Heritage Management Plan. The Heritage Management Plan must be prepared and approved by the Planning Secretary prior to commencing construction.

251. The Commission notes the consultation requirements of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* and the concerns raised by the WVWAC. Given the advice provided by Heritage NSW on this matter, the Commission is satisfied that consultation has been completed in accordance the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.* In regard to Aboriginal Cultural Heritage, the Heritage Management Plan must be prepared in consultation with Heritage NSW and the RAPs, thereby providing RAPs further opportunity to provide input.

5.12 Other Issues

252. The Commission notes the Department's assessment of the following issues at the table at section 6.7 of the AR:

- Historic heritage;
- Hazards and risks; and
- Agricultural impacts.

253. The Commission considers that these issues have been appropriately addressed in the assessment of the Project. The Commission agrees with the Department's conclusions in regard to these matters and finds that, subject to appropriate conditions of consent, including those at B60-B62, B77-B82, B84-B88, these issues can be appropriately managed.

5.12.1 Greenhouse Gas Emissions

254. The Commission accepts the Department's view the Project's greenhouse gas emissions are reasonably low and that the mine's products would assist in society's decarbonisation over the coming decades (AR Section 6.7).

255. In relation to the management of greenhouse gases, and to ensure the Applicant works to minimise greenhouse gas emissions, the Commission has imposed condition B33 requiring the Applicant to update the Air Quality and Greenhouse Gas Management Plan every three years. As part of this update, the Applicant is required to review the feasibility of implementing various greenhouse gas abatement options, report on action taken and implement reasonable and feasible measures to minimise greenhouse gas emissions.

6. The Commission's Findings and Determination

256. The views of the community were expressed through public submissions and comments received (as part of exhibition and as part of the Commission's determination process), as well as in oral presentations to the Commission at the Public Hearing. The Commission carefully considered all of these views as part of making its decision.

257. The Commission has carefully considered the Material before it as set out in section 3.1 of this report. Based on its consideration of the Material, the Commission finds that the Project should be approved subject to conditions of consent for the following reasons:

- the Project can be managed in a manner that would comply with relevant criteria for particulate matter, exposure to heavy metals, silica and gaseous pollutants;
- health and amenity related impacts are capable of being minimised or managed;
- the Project can be managed such that it would not result in a significant impact to surface water and groundwater resources;
- potential impacts in relation to management of PAF material are capable of being managed;
- noise impacts of the Project are capable of being minimised, managed or at least compensated;
- blasting is capable of being managed at the Site to meet applicable amenity and structural damage blast criteria at all sensitive receiver locations;
- visual and lighting impacts associated with the Project are capable of being minimised or managed;
- traffic impacts during the Project's construction and operational phases are capable of being minimised or managed;
- the Project is likely to generate net positive economic benefits for the local area (particularly Kandos and Rylstone), the wider region and more broadly, NSW;
- biodiversity impacts can be suitably mitigated and/or offset;
- the Project is capable of being rehabilitated to achieve a sustainable landform;
- impacts to Aboriginal cultural heritage can be acceptably managed through conditions of consent;
- the Site is suitable for the development;
- the Project is in accordance with the Objects of the EP&A Act;
- the Project is not inconsistent with the ESD principles, because it would achieve an appropriate balance between the relevant environmental, economic and social considerations; and
- the project is in the public interest.

258. For the reasons set out above, the Commission has determined that the Application should be approved subject to conditions. These conditions are designed to:

- prevent, minimise and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the development.

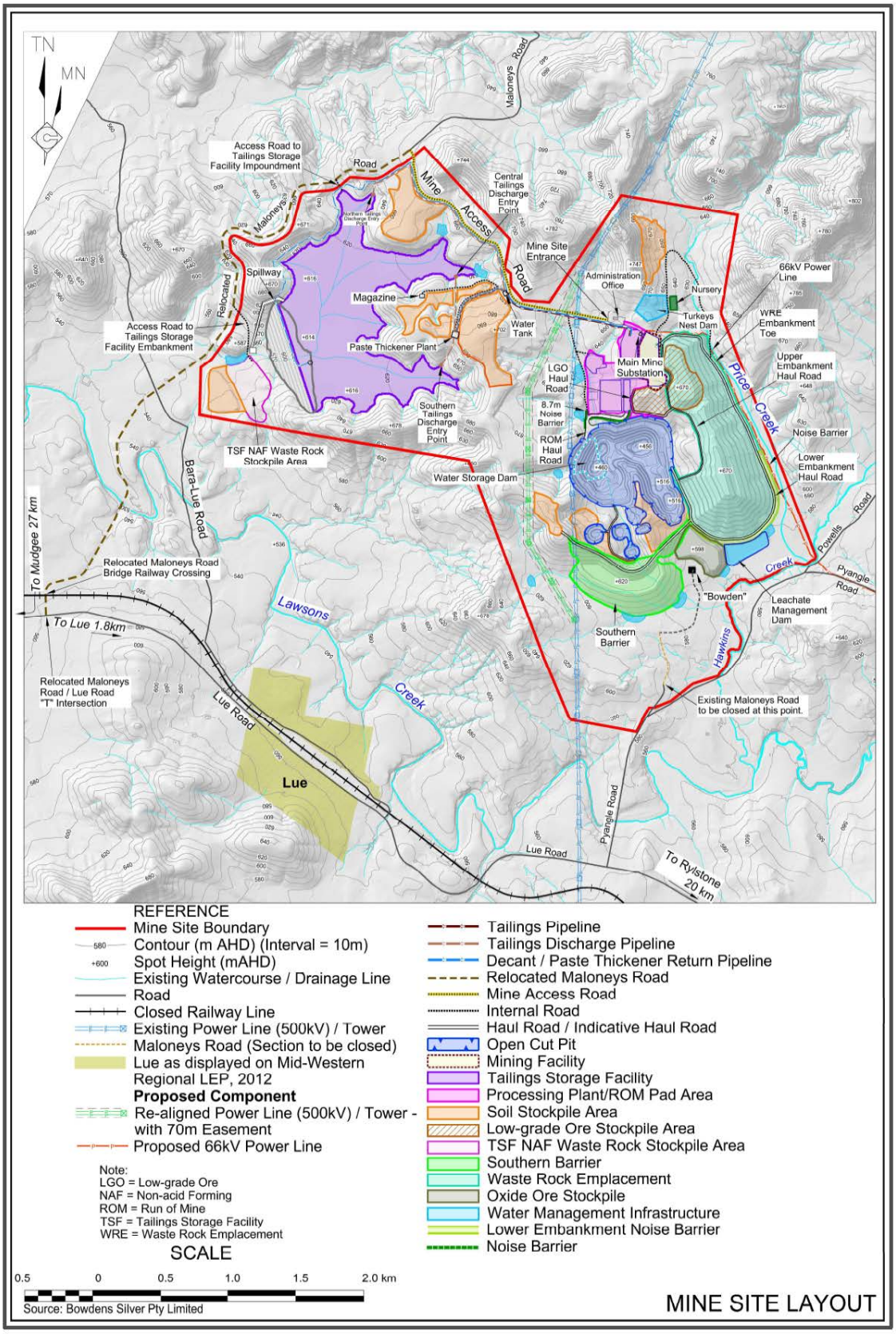
259. The reasons for the Decision are given in this Statement of Reasons for Decision dated 3 April 2023.

Peter Duncan AM (Chair)
Member of the Commission

Clare Sykes
Member of the Commission

Peter Cochrane
Member of the Commission

Appendix A – Project Layout



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Independent Planning Commission

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