

Bowdens Silver Project

IPC Briefing

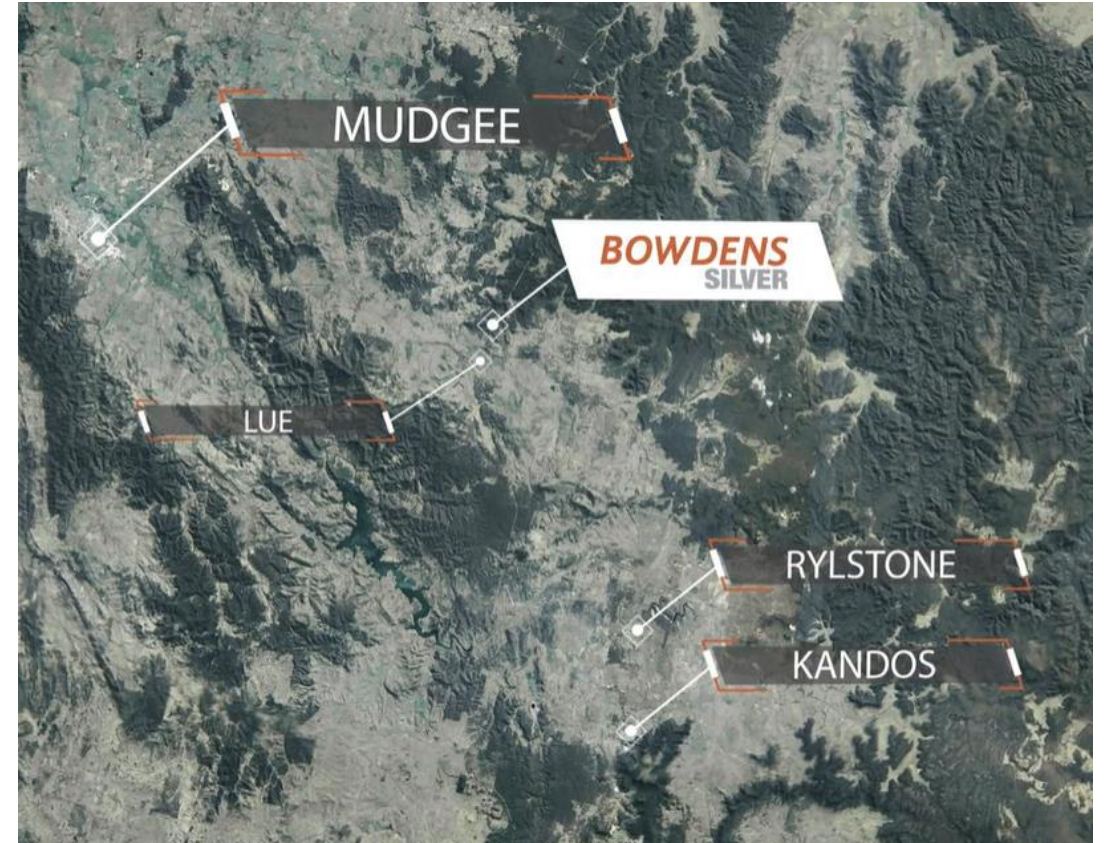
2nd February 2023



A proposal for long-term jobs and investment

Bowdens Silver is the largest undeveloped silver project in Australia, and one of the largest globally.

- Up to 320 jobs during construction and 228 ongoing jobs during operations.
- A locals-first approach – prioritising local residents for jobs and offering quality training opportunities.
- Flow-on benefits for local businesses and employees.
- Planning Agreement will see significant funding provided towards community infrastructure and road maintenance.
- Silver and zinc are included in the NSW Government's Critical Minerals and High-Tech Metals Strategy.



BOWDENS
SILVER

DPE Assessment Report

“The Department considers that the impacts to the sense of place and rural way of life would be inevitable with the introduction of a mining development in the locality and notes that the mitigation measures proposed by Bowdens Silver are consistent with industry best practice to reduce the impacts as far as practicable.”

“The Department has carefully considered the costs and economic benefits of the project and support the conclusion that it would deliver a significant net benefit to the local region and the State of NSW.”

“Overall, the Department considers that the project achieves a balance between maximising resource recovery and minimising impacts, and the benefits of the project outweigh its residual costs.”

Supportive Submissions

“I would like to ensure that our community will remain intact and flourish within from the benefits that this mine will attract.”

“Compared to the previous mining company which I unfortunately had to deal with, I find that Bowdens Silver has been more honest, friendly, and willing to take on board suggestions and recommendations that I have made, as well as I have learnt from them as well. They have my complete trust not only from myself but my family as well.”

“Being connected to the community for many years I believe the local community would benefit greatly from this mine through employment opportunities. There will be employment opportunities for those working directly with the mine and the wider community. Moving away from coal and investing in the critical minerals industry is essential for the longevity of our local community. I support this mine.”

Impact Assessment Process

A comprehensive assessment process with extensive consultation

- The EIS, amendment reports and responses to submissions and peer reviews have been comprehensive and addressed the relevant guidelines and policies.
- All Government agencies are satisfied with the Project and have reviewed and commented on the conditions of consent.

Bowdens Silver commissioned peer reviews.

- Noise
- Air Quality
- Health
- Groundwater
- Surface Water
- Economic Impacts
- Acid Mine Drainage

NSW Government Agency commissioned peer reviews.

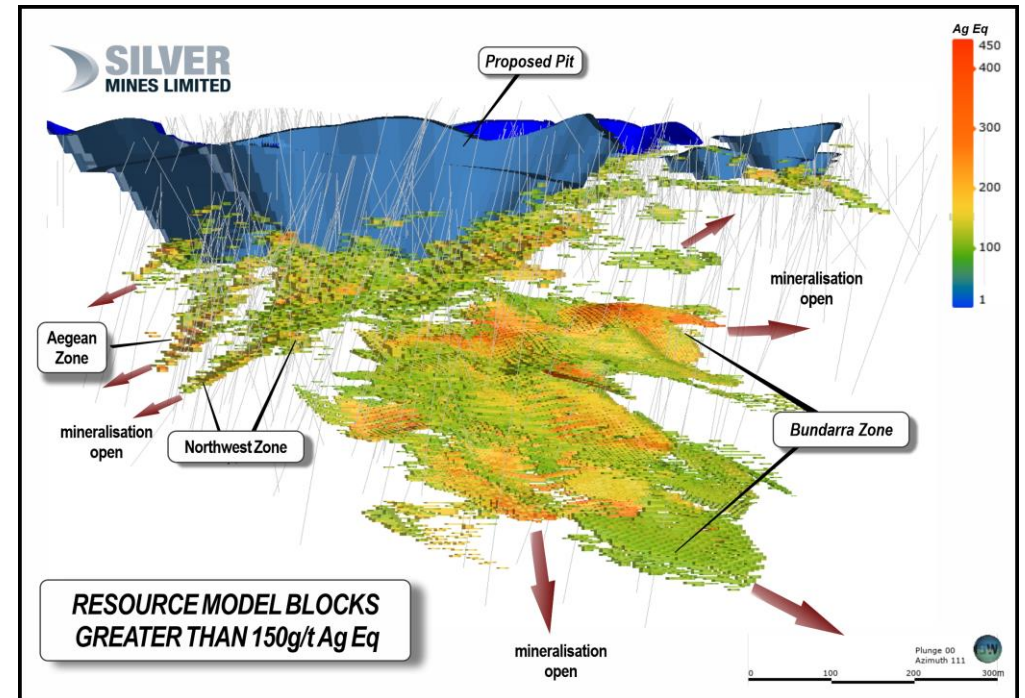
- 2 x Groundwater (DPE and DPE-Water)
- Surface Water (DPE)
- Acid Mine Drainage (DPE)
- Health (DPE)
- Economic Impacts (DPE)
- Social Impacts (DPE)

Bowdens Silver has reviewed and accepted the recommended Conditions of Consent as provided within DPE's Assessment Report.

A Major Mineralised System

A major mineralised system with long term growth opportunities.

- The Project will extract 30% of the known Mineral Resource – optimisation available.
- Drilling underneath the planned open-cut mine shows continued mineralisation at depth.
- Recent exploration to the south of the open cut pit has identified mineralisation closer to the surface.
- Currently undertaking a Scoping Study for a future underground development. Opportunity for extension of the open cut pit also being investigated.
- Regional exploration remains a focus for the company.
- Collaboration with UNSW provides for continued technical studies and educational opportunities.



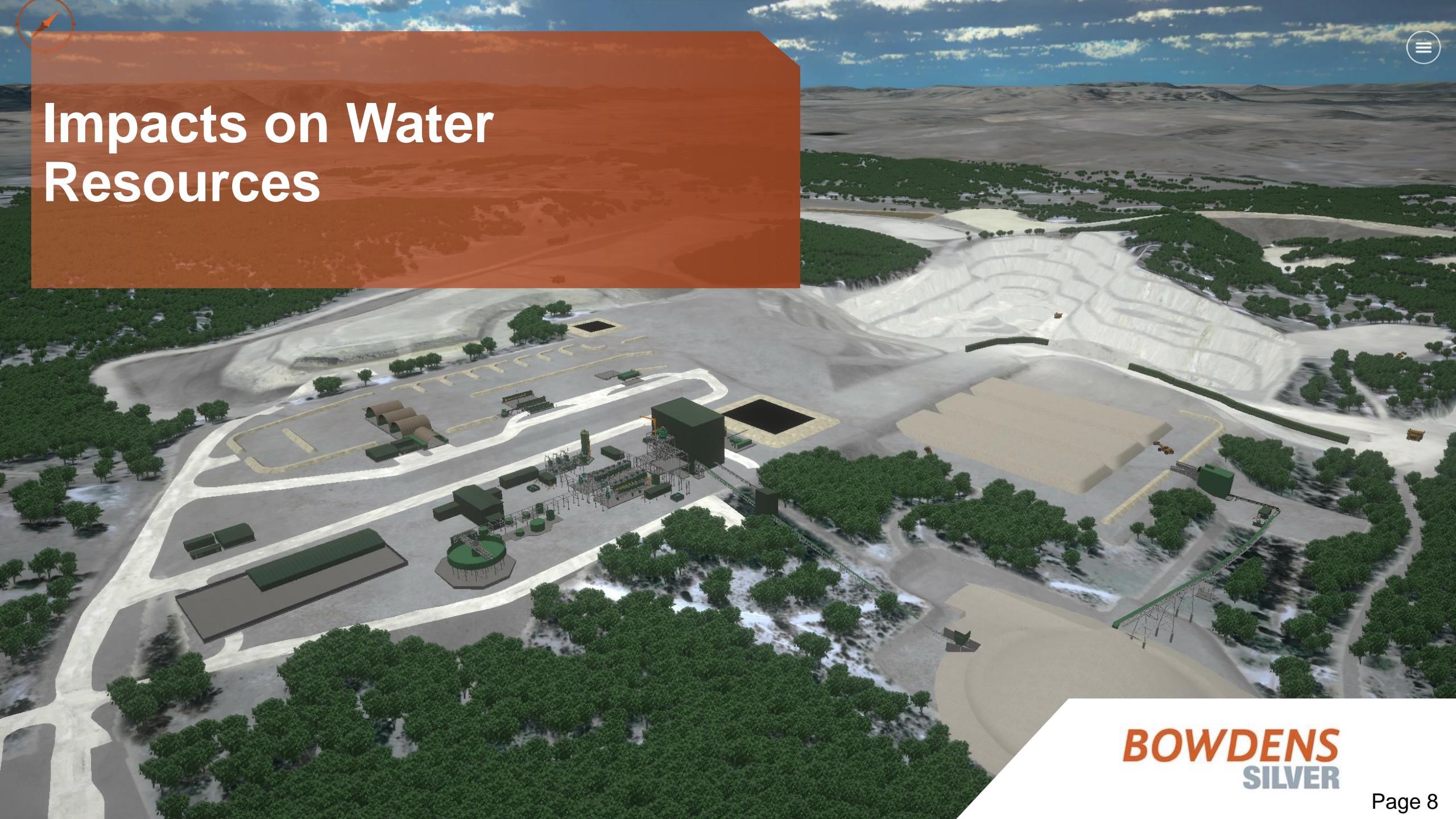
An experienced and committed local team

Our objective is to develop and operate an environmentally, socially and financially responsible mine that employs local people and which adds to the economic resilience and skills base of the Lue, Rylstone, Kandos and Mudgee region.



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Impacts on Water Resources

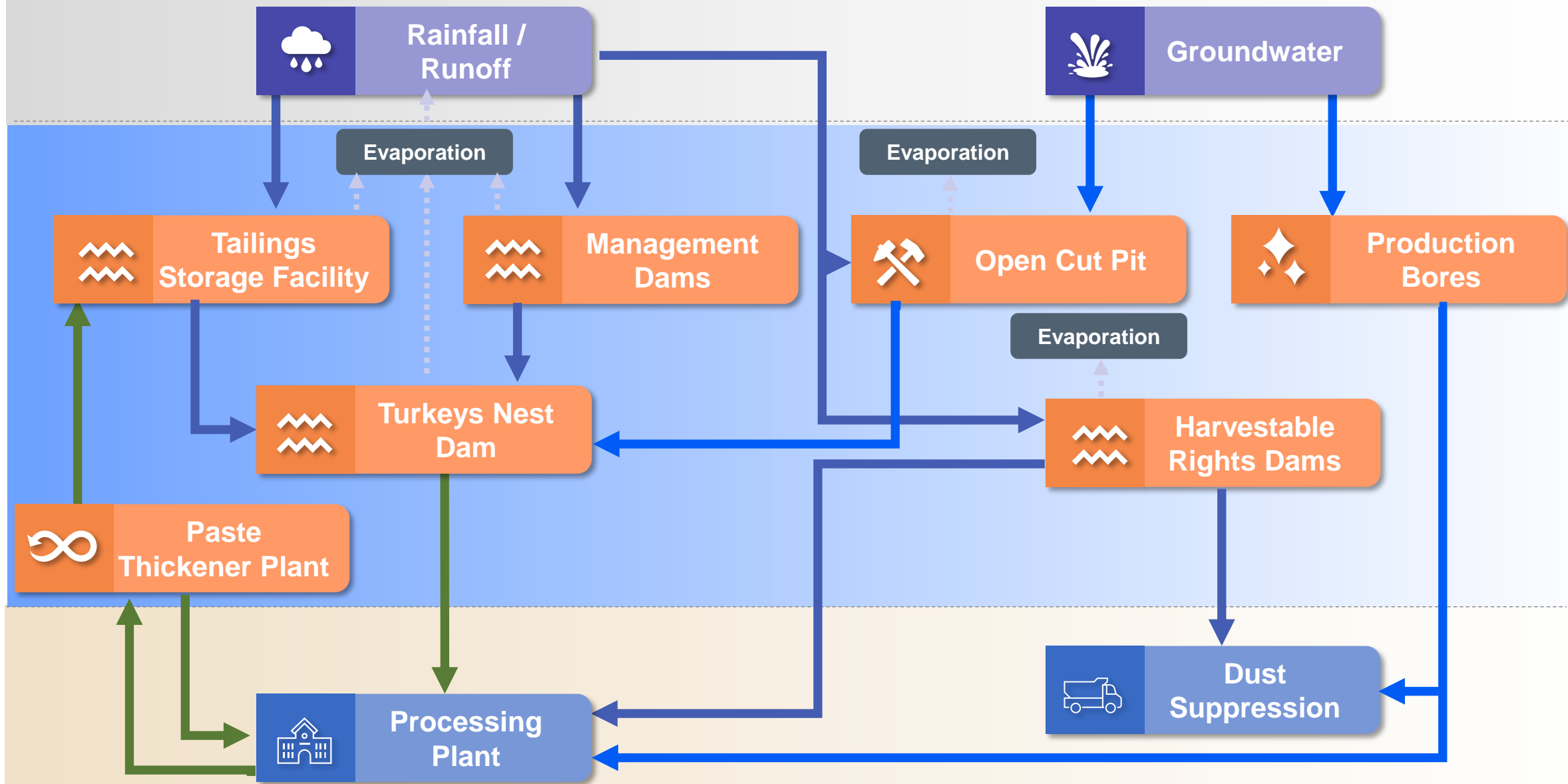


Integrated Water Supply and Management Strategy

SOURCE

MANAGEMENT

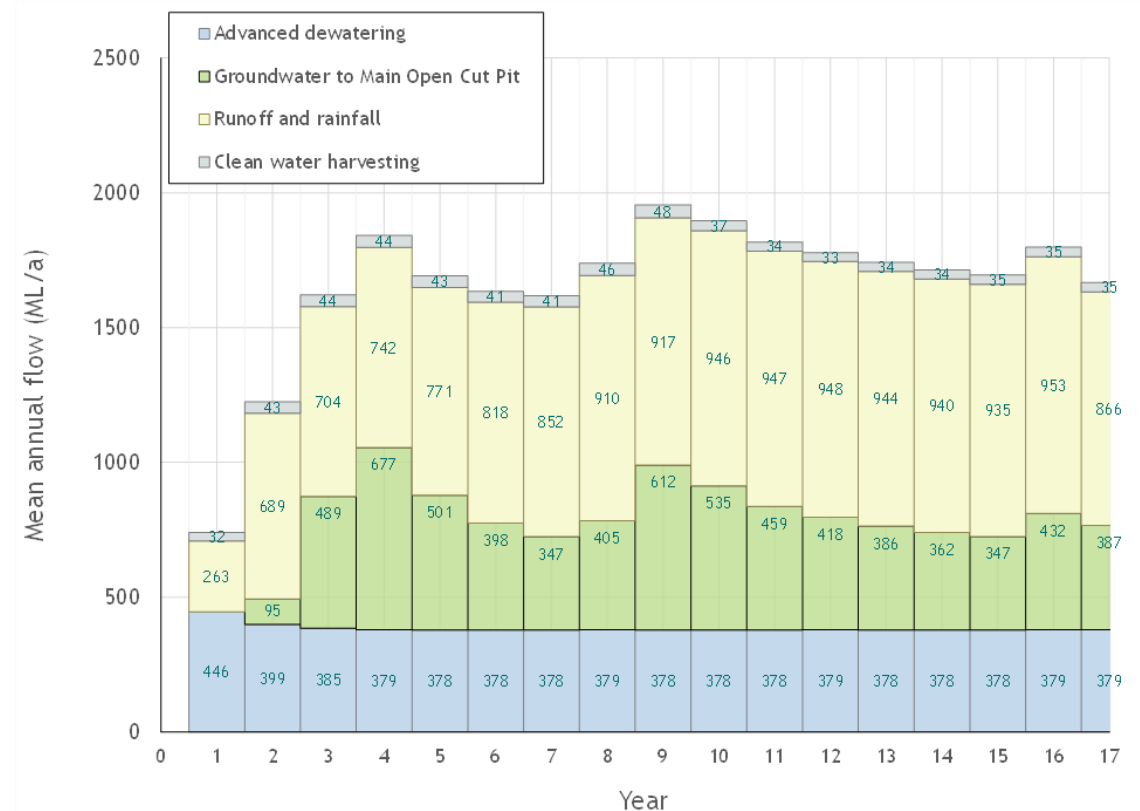
DEMAND



Water Security

Site water balance predicts high water supply reliability for the Project.

- All water sourced from on-site, external supply not required.
- Site water balance modelling tested reliability over 130-years of historical climate conditions that included extended drought periods.
- Worst-case water supply reliability would meet 94.5% of production and 99.5% of dust suppression demand.
- Project remains economic, even under worst-case conditions.
- Bowdens Silver accepts there may be periods where production must be adjusted due to water supply.
- Water for environmental management (dust control) would be prioritised.



Managing Heavy Rainfall

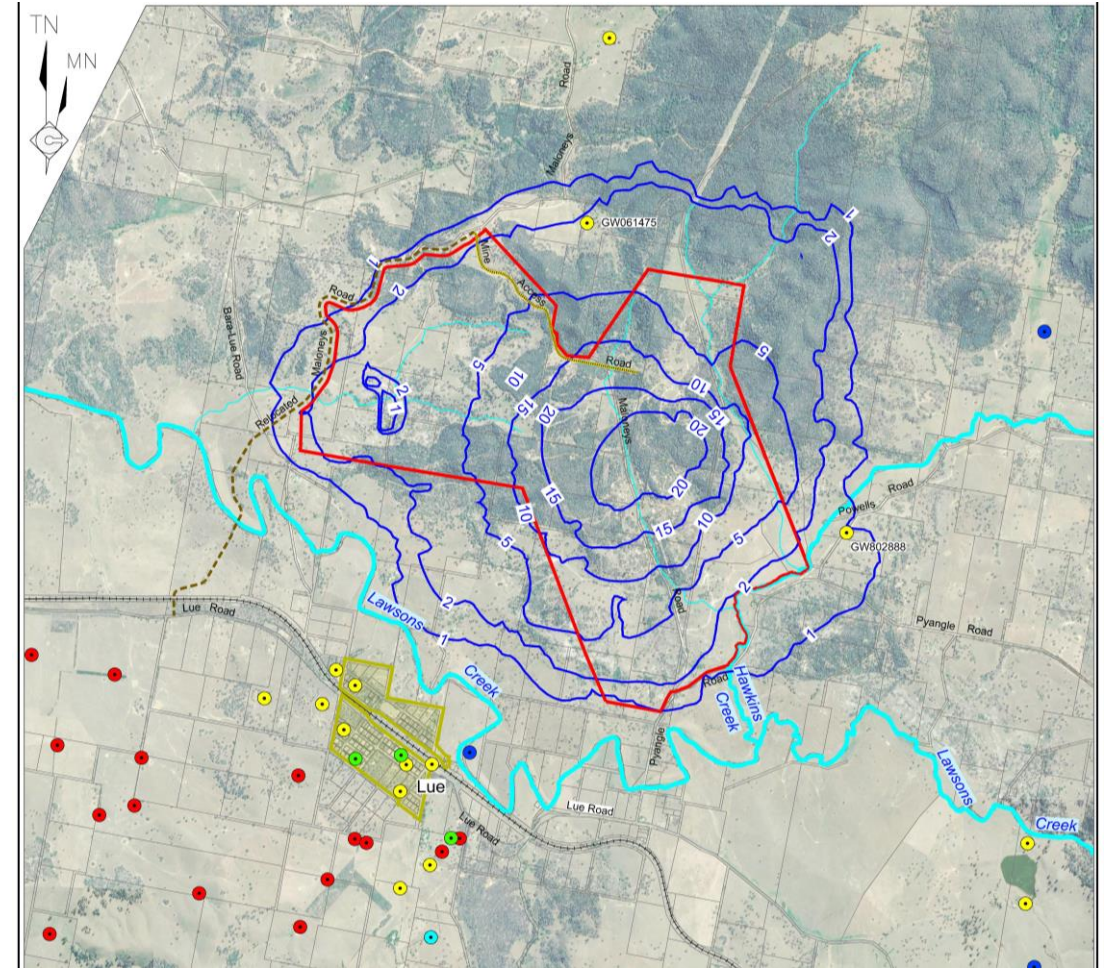
Bowdens Silver has undertaken preliminary design of water management structures in accordance with best practice guidance.

- Tailings storage facility: Minimum 1% AEP 72-hour design rainfall (211mm) event plus 0.5 metre freeboard in accordance with ANCOLD (2012) .
- Leachate management dam: 1% AEP 72-hour design rainfall event (217mm) plus 1 metre freeboard.
- Processing plant dams: <0.1% AEP 72-hour design rainfall event (345mm).
- Sediment dams: 5% AEP design rainfall event (157mm) with an additional 50% storage capacity for captured sediment.
- Clean water (harvestable) rights dams: Capacity varies, however water within these dams would be of similar quality to other farm dams in the area and allowed to freely discharge.
- Recent heavy rainfall peaked at 140.2mm over 72-hours in July 2022 and would have been captured and managed on-site.

Availability of Water

Water supply to groundwater users would not be impacted.

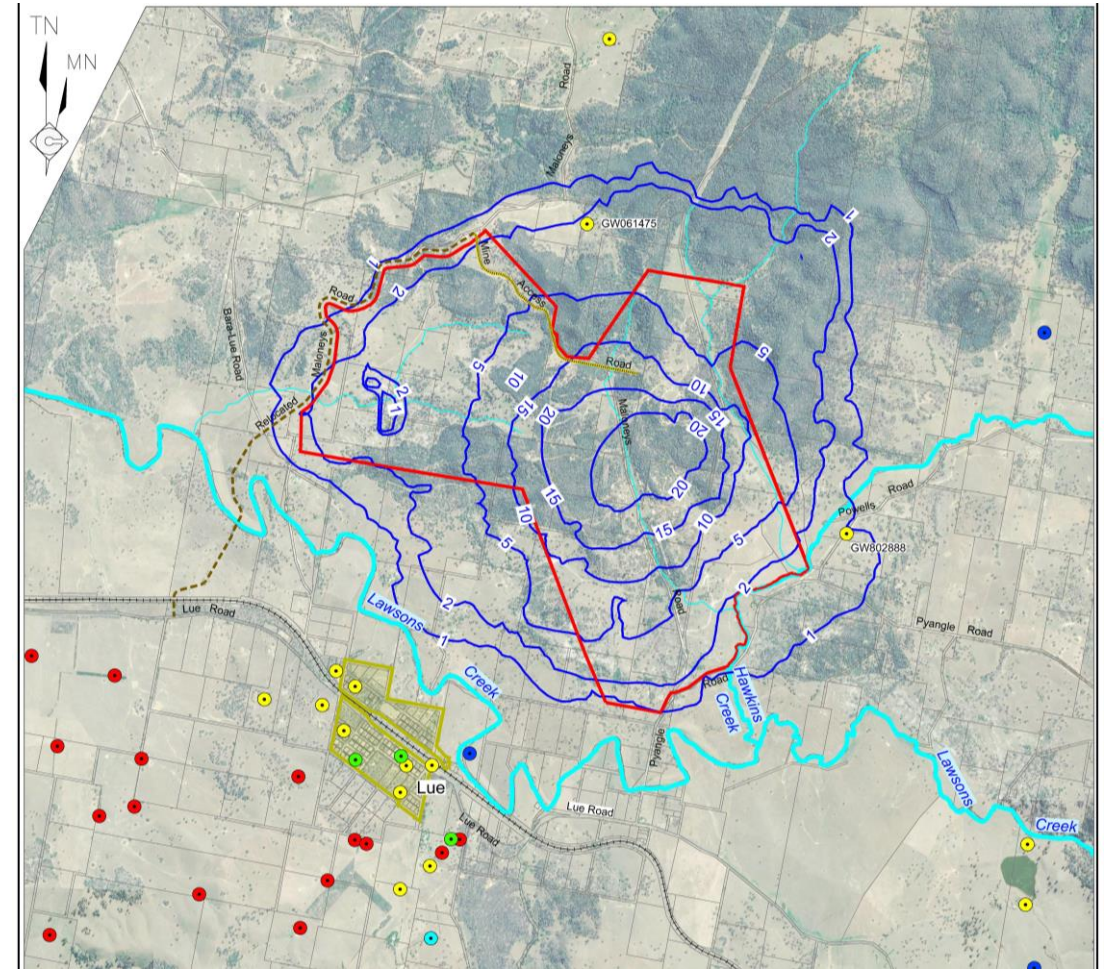
- Bowdens Silver holds Water Access Licences to account for all direct and indirect groundwater take.
- The 19.3ML/year peak baseflow reduction represents 0.2% of the average annual Lawsons Creek streamflow downstream of the Mine Site (8,735ML/year).
- Groundwater drawdown is predicted at one privately-owned bore (not currently in use).
- The Project generally meets the Level 1 Minimal Impact Considerations of the Aquifer Interference Policy.



Availability of Water

Water will remain available to downstream surface water users.

- The maximum streamflow reduction in Hawkins and Lawsons Creeks would be 4.5% and 2.2% respectively.
- During dry periods, cease to flow conditions in Lawsons Creek, downstream of the Mine Site, may increase by 2 days per year (post-mining).
- Hawkins Creek downstream of the Mine Site boundary crosses land owned by Bowdens Silver or under agreement and considered Project related.



Acid Mine Drainage Risk

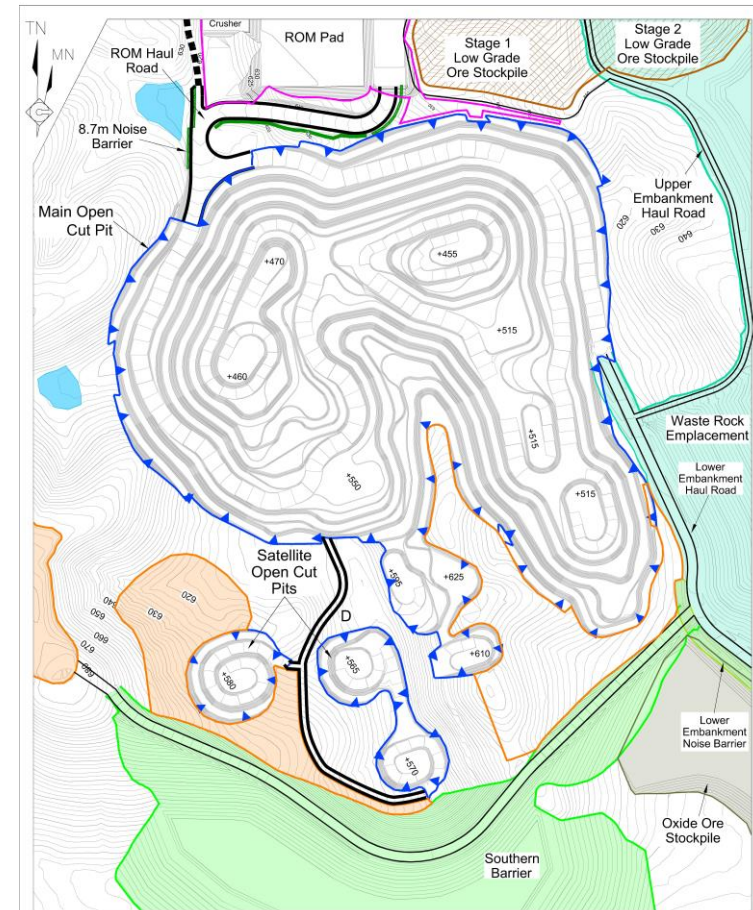
Bowdens Silver has undertaken extensive testing and analysis of potential AMD risks and has planned for the necessary management requirements.

- The identification and management of AMD risk is a standard practice in modern mining operations with the geochemical and geological controls proposed for the Bowdens Silver deposit commonly applied.
- Two important aspects to consider with regards to AMD risk.
 - Is there sufficient material to meet the Project's construction and rehabilitation requirements?
A materials balance review identified more NAF waste rock is available than previously expected that exceeds requirements.
 - Is the proposed management of AMD sufficient to reduce risk and avoid impacts?
Preliminary design of the waste rock emplacement and capping meets current industry best practice.
- There is some disagreement with the DPE peer reviewer on whether sufficient information is available to support the conclusions made. Regardless, Bowdens Silver has accepted a condition of consent requiring a sampling and validation program prior to mining commencing to further justify the proposed approach to waste rock management.
- Bowdens Silver has commissioned O'Kane Consulting to oversee the program of further testing and validation. Recent sampling results support the approach proposed.

Final Void Construction and Management

Bowdens Silver has committed to construct the final void as a groundwater sink.

- Calibrated groundwater modelling predicted that the final void would be a groundwater sink.
- Extensive uncertainty analysis indicated a risk of through flow from the final void at post-mining equilibrium water levels.
- Bowdens Silver has identified feasible mitigations to ensure terminal sink conditions post-mining.
- The mitigation measures have been tested conceptually and accepted by both the DPE peer reviewer and Bowdens Silver's peer reviewer.
- Ongoing validation and updates to the groundwater model will occur during the Project-life to identify the type and extent of mitigation required.



Human Health



Amenity – Health and Air Quality

No exceedances of relevant air quality criteria are predicted at any sensitive receivers.

- Particulate matter (TSP, PM10, PM2.5)
- Metal dust concentrations
- Respirable crystalline silica
- Hydrogen cyanide

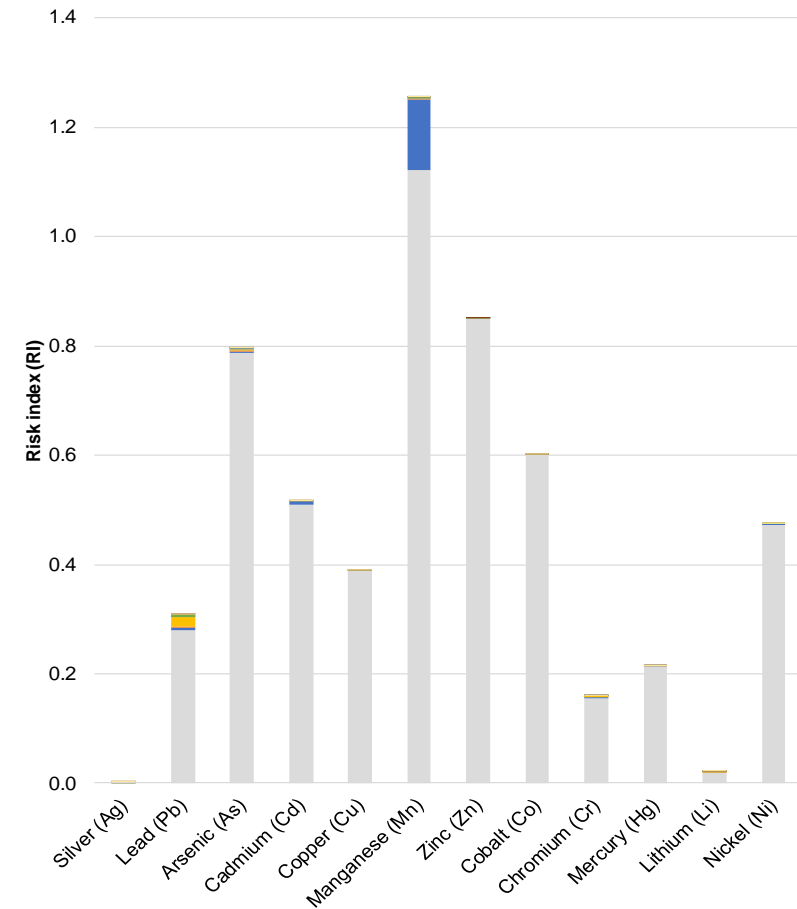
This includes at the Lue Public School.

Real-time particulate monitoring would be undertaken in Lue and in proximity to the Mine.

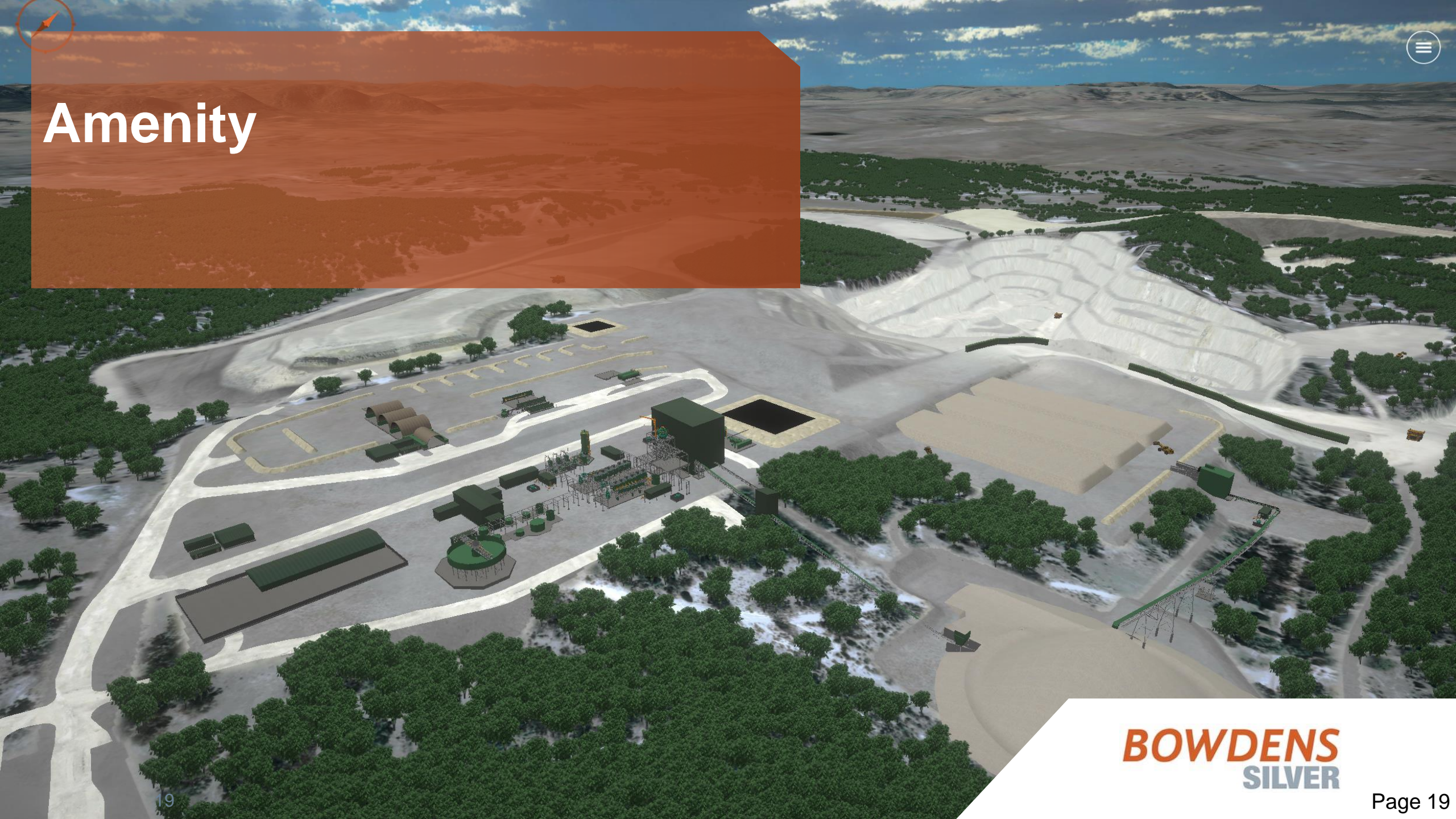
Amenity – Health and Air Quality

Comprehensive assessment has concluded that the Project presents no health risk issues to the local community.

- Assessment considered health risks associated with noise, particulates, metals in dust and water ingestion or exposure.
- The assessment of metal content in dust identified that the existing exposure to metals was much higher than would be added by the Project.
- Independent and DPE commissioned peer reviewers agreed with the conclusions of assessment.
- Mental health risks were considered in the Social Impact Assessment.
- An extensive range of monitoring is proposed that would monitor for health risks including a program of blood lead level monitoring for community members.



Amenity



Amenity – Noise during Construction

Construction noise limits apply until commencement of works in open cut pit.

- Construction of relocated Maloneys Road
- Site earthworks and water infrastructure

Operational noise limits apply once material is being moved from the open cut pit

- Stripping material from the surface of the open cut pit.
- Transport of material for construction of the TSF embankment.
- Processing plant construction and installation.

Re-alignment of the 500kV powerline is planned to occur from Year 3

- Construction activities considered operations for noise limits (reflected in conditions of consent).

Amenity – Noise

Noise exceedances have been predicted at five private residences.

- Marginal to Moderate exceedances of 3dB(A) to 5dB(A) at two residences.
- Negligible exceedances of 1dB(A) to 2dB(A) at three residences.
- Other landowners that were predicted to experience noise impacts have reached agreements with Bowdens Silver.
- There are no predicted exceedances within the village of Lue or places of interest such as the Lue Primary School.
- It is acknowledged that the local community would hear mining or traffic noise occasionally but not at levels that are considered intrusive.
- Real-time noise monitoring would be implemented at two locations (one within Lue).

Amenity – Visual Impacts

Visual impacts were assessed in terms of views of the Mine Site and lighting effects.

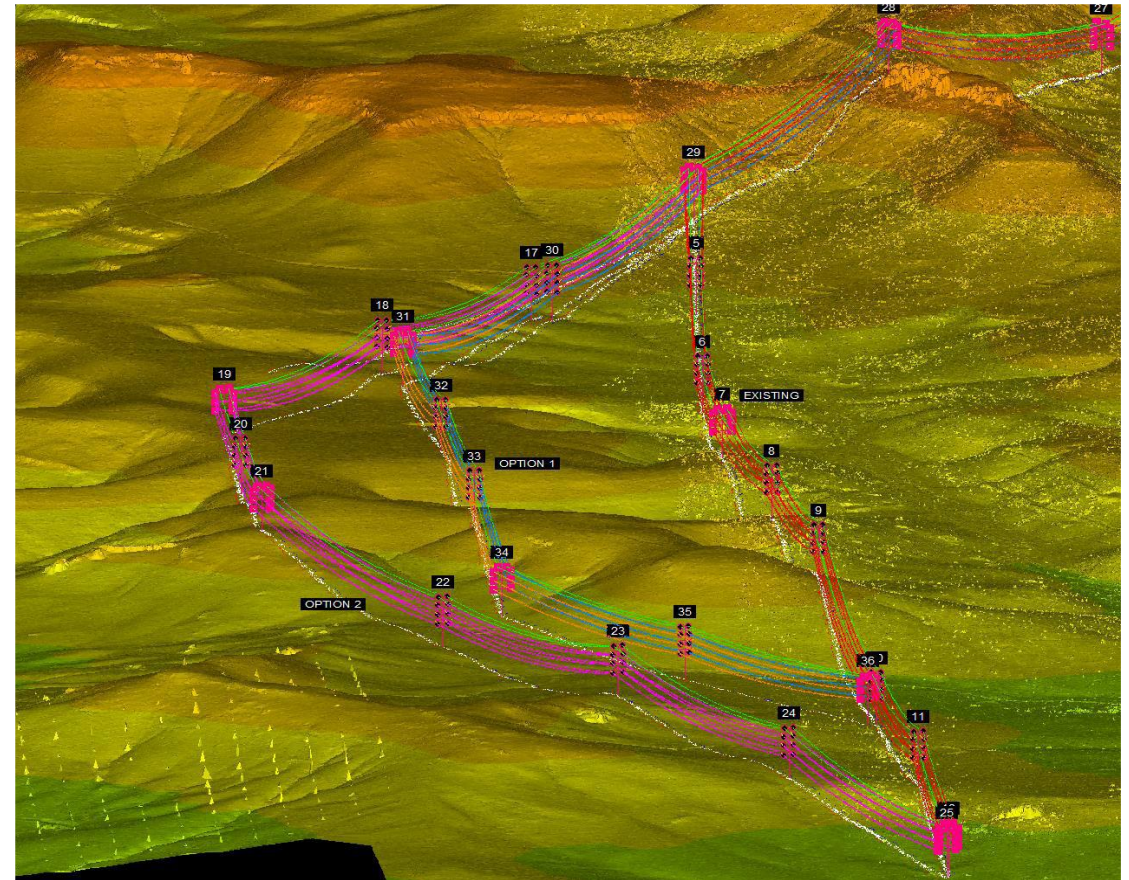
- Views from three privately-owned residences remain possible at certain stages of development.
- No components of the Mine Site would be visible from Lue village given the substantial ridges present between Lue and the Mine Site.
- The potential for lighting impacts on the local environment has been assessed to be minimal including to the Dark Sky Park surrounding Siding Spring Observatory.
- The impacts of sky glow on the local environment were assessed to be insignificant under both clear sky and cloudy conditions.



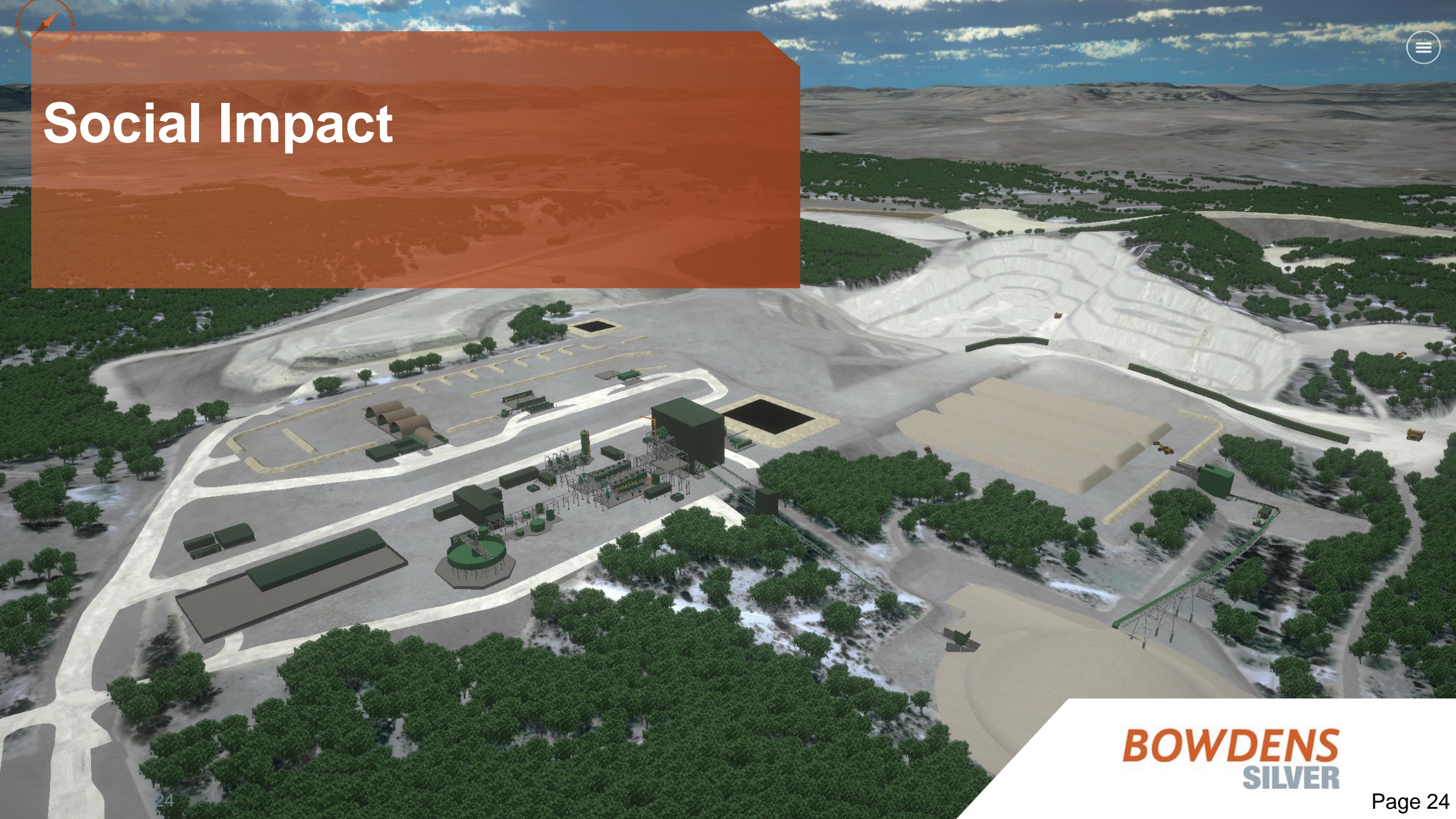
500kV Transmission Power Line

Relocation of the line would be required from Year 3 of operations.

- Community feedback was received on the visual impacts of the proposed re-alignment.
- GHD were commissioned to model the towers and powerline.
- An alternative alignment was identified that is further from private properties but would still be visible in places.
- Power lines are a common feature in rural areas. Richard Lamb and Associates concluded that there would be no significant changes to the character and quality of the visual landscape from the re-alignment.



Social Impact



Social Impacts

Both positive and negative social outcomes are expected, with these experienced differently by different people

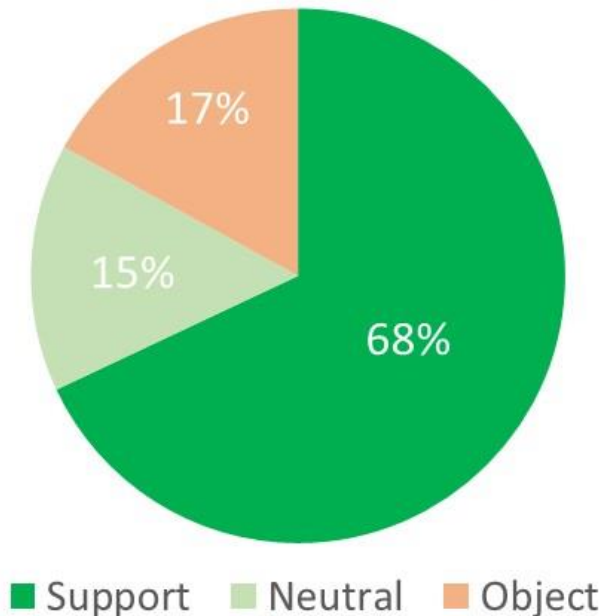
- Key mitigation and enhancement strategies would be refined over the life of the Project.
 - Community Investment Program
 - Local employment and procurement strategy
 - Good Neighbour Program
 - Planning Agreement with the Mid-Western Regional Council (which has been executed)
 - Social Impact Management Plan
 - Community Complaints Protocol
 - Ongoing regular reporting, monitoring and engagement

Community Sentiment – MWRC LGA Survey

November 2022 community survey by SEC Newgate Research.

- 83% of people in the LGA aware of the Project.
- 68% of people in the LGA supportive of the Project.
 - 66% support in Lue, Rylstone and Kandos.
 - 70% support in Mudgee.
 - 65% support in the rest of the LGA.
- Only 17% of people within the LGA were not supportive.

Bowdens Silver
Independent Community Survey



November 2022 - SEC Newgate Research (n = 407 in Mid-Western LGA)

Social Impacts

Population and workforce management would be an important aspect of Project development in liaison with Mid-Western Regional Council

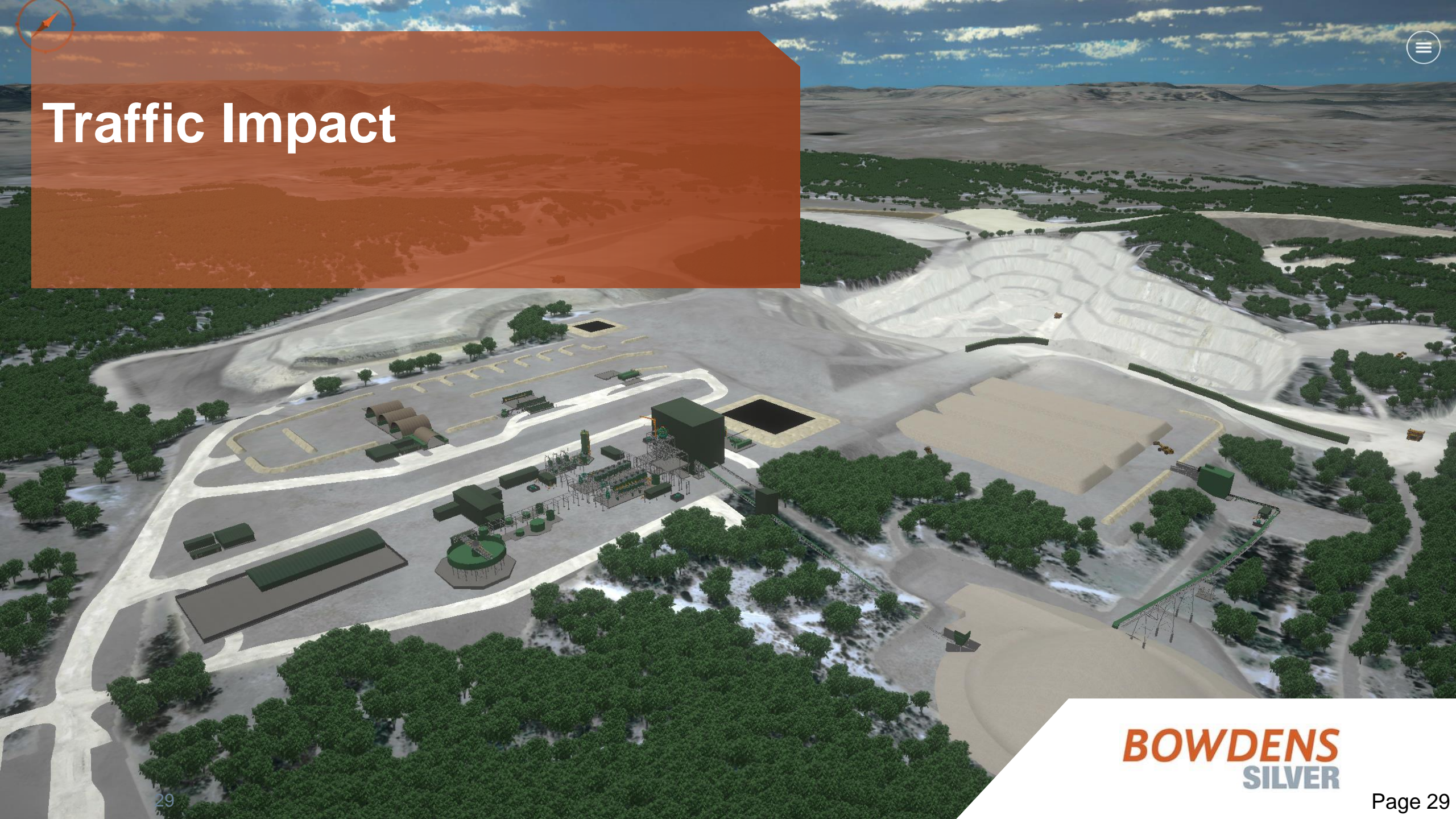
- Bowdens Silver has continued and would extend rental of purchased properties.
- Locally resident workforce is a priority.
- Discussions with Council have identified a range of accommodation opportunities within Rylstone, Kandos and Mudgee.
- Bowdens Silver has indicated that contributions to community and health services would be an aspect of the ongoing Community Investment Program if this is identified as a priority by the local community.

Social Impacts

Distributive and Intergenerational Equity

- It has been acknowledged that social impacts would be felt more keenly in the local community.
- Bowdens Silver has already implemented a Community Investment Program to ensure benefits are experienced locally and regionally.
- Intergenerational benefits include jobs, training and infrastructure as well as the provision of raw materials to meet society's needs.
- Diversification of industry in the region is considered important for stable job provision to counter changing coal mining opportunities. This is consistent with the NSW Government identifying the Central West for a Critical Minerals Hub as part of its Critical Minerals and High-Tech Metals Strategy. The long-term prospects for the Project are excellent.
- Environmental outcomes have intergenerational effects.
 - Groundwater drawdown stabilises at 16 years and is at equilibrium after 50 years.
 - Bowdens Silver has committed to constructing the final void as a groundwater sink.
 - Currently successful on-site farm will continue.
 - Aboriginal heritage mentorship program will pass skills to next generation in the Aboriginal community.

Traffic Impact

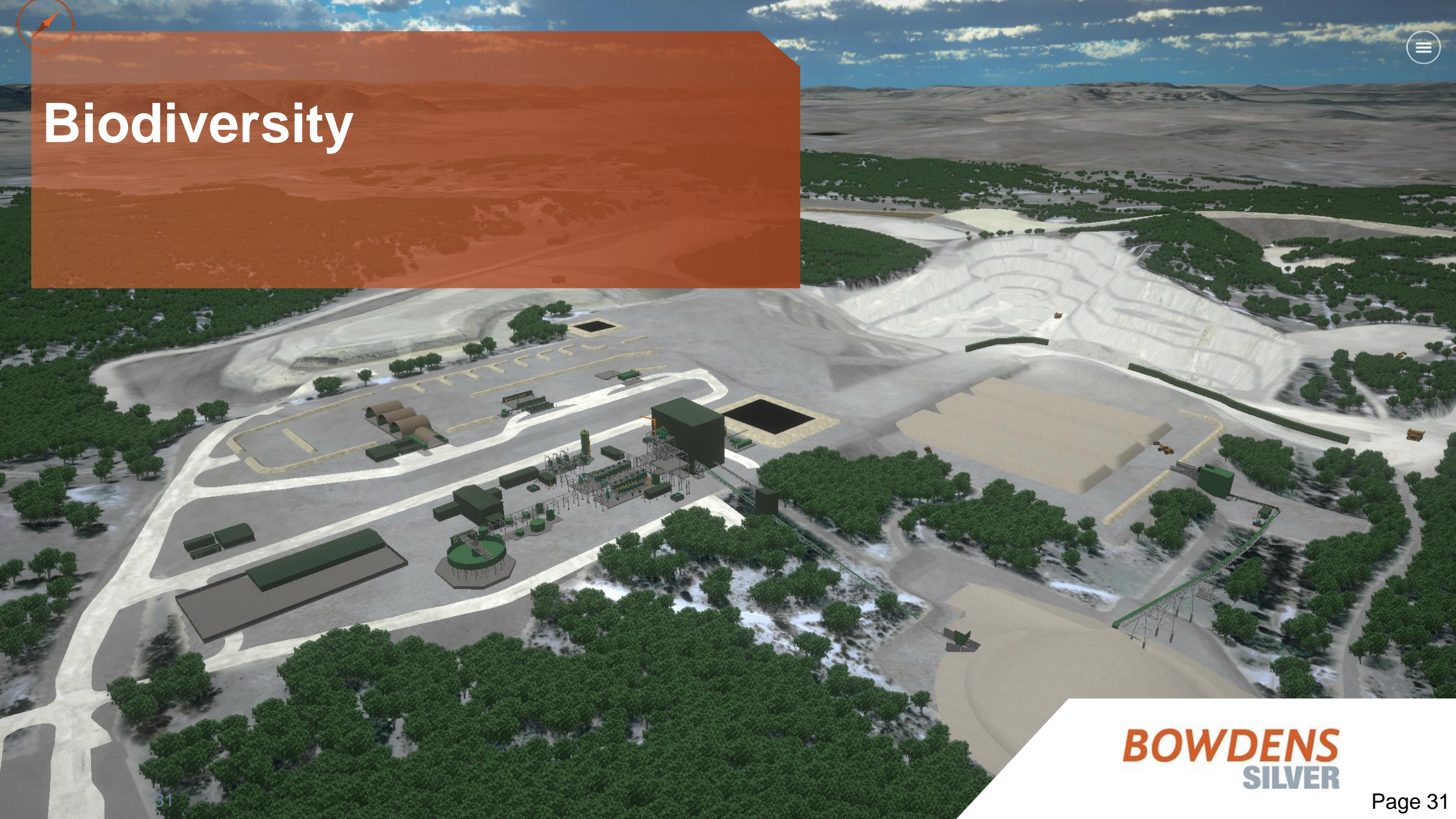


Traffic

Project-related traffic would be accommodated by the road network with virtually no adverse impacts to road users, the condition of the road network and the amenity of the residents of Lue.

- The relocation of Maloneys Road removes most Mine-related traffic from Lue.
- The Project would generate low levels of heavy vehicle traffic on the local road network. Heavy vehicles moving material from the Mine Site to the TSF would use the road over a 1.4km section only.
- Project-related traffic would principally comprise light vehicles and buses used for transporting personnel.
- Bowdens Silver has executed a Planning Agreement with Mid-Western Regional Council that includes road maintenance contributions.
- The approach to transportation would result in minimal changes to the safety and performance of intersections and local roads.

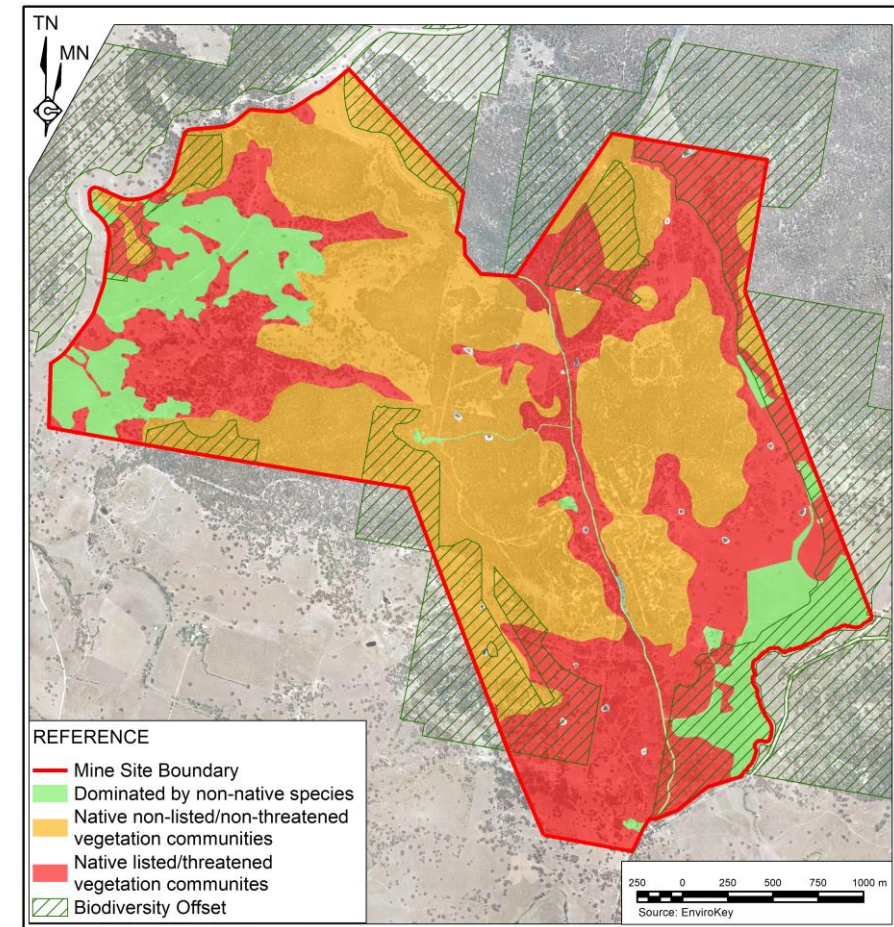
Biodiversity



Biodiversity

The Mine Site was designed with an understanding of biodiversity constraints and an objective to avoid impacts as much as possible.

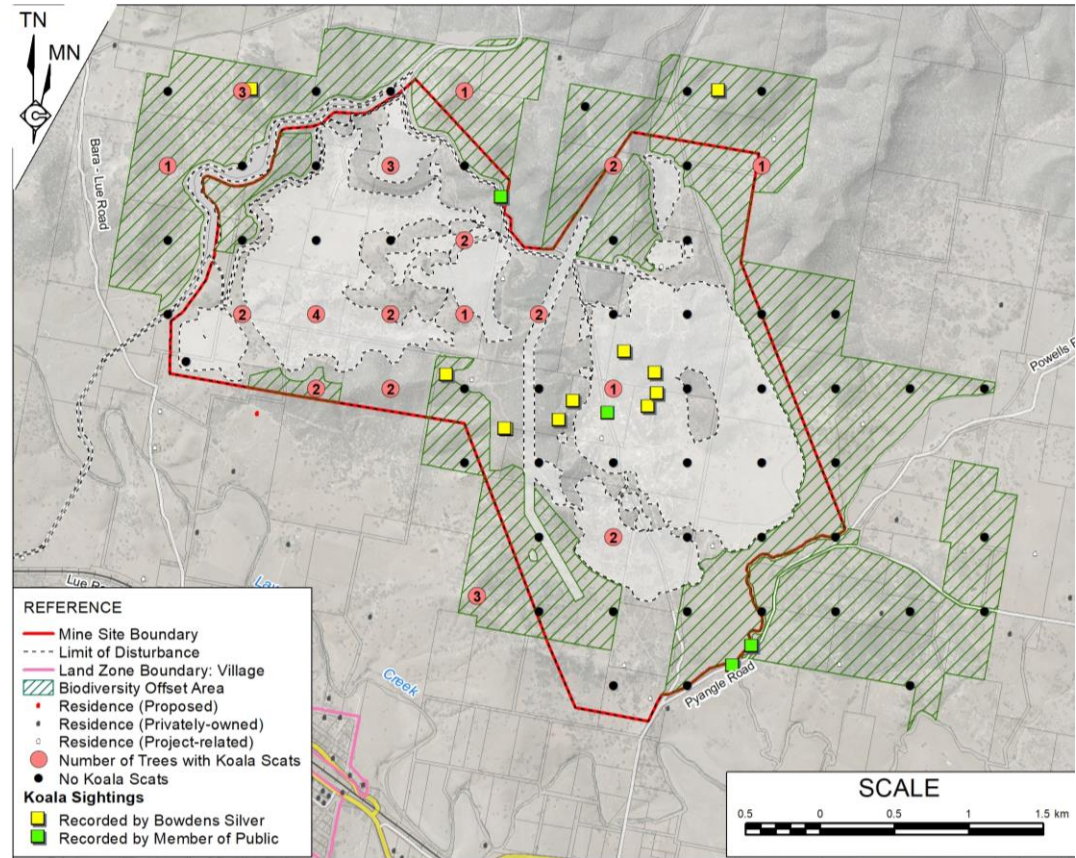
- Native vegetation clearing would be required over 381.17ha and across six native vegetation communities of variable condition.
- A portion of the Mine Site supports Box Gum Woodland although much of this vegetation (180ha) may also be described as derived native grassland.
- All residual impacts would be offset in accordance with NSW Biodiversity Offset Scheme.
- Bowdens Silver engaged with the NSW Biodiversity Conservation and Sciences Directorate to ensure that all predicted impacts were appropriately assessed and offset.
- A potential Biodiversity Stewardship Site has been identified adjacent to the Mine Site. Bowdens has also identified opportunities at other properties in the region.



Biodiversity

Species credits would be required for six threatened species.

- Fauna included Koala, Regent Honeyeater, Squirrel Glider and Large-eared Pied Bat.
- After the EIS had been submitted, Bowdens Silver personnel identified a flowering Small Purple-pea. Follow up surveys confirmed this as well as individuals of the Silky Swainson-Pea. Both species are present in the proposed Biodiversity Stewardship Area.
- An additional Koala survey of the Mine Site using the Spot Assessment Technique methodology demonstrated that the Mine Site is a low-use area for Koala and there are indications that the use is transitory (report will be provided).
- No Regent Honeyeater have been found in the Mine Site despite extensive surveys.



Economic Considerations – Future Potential

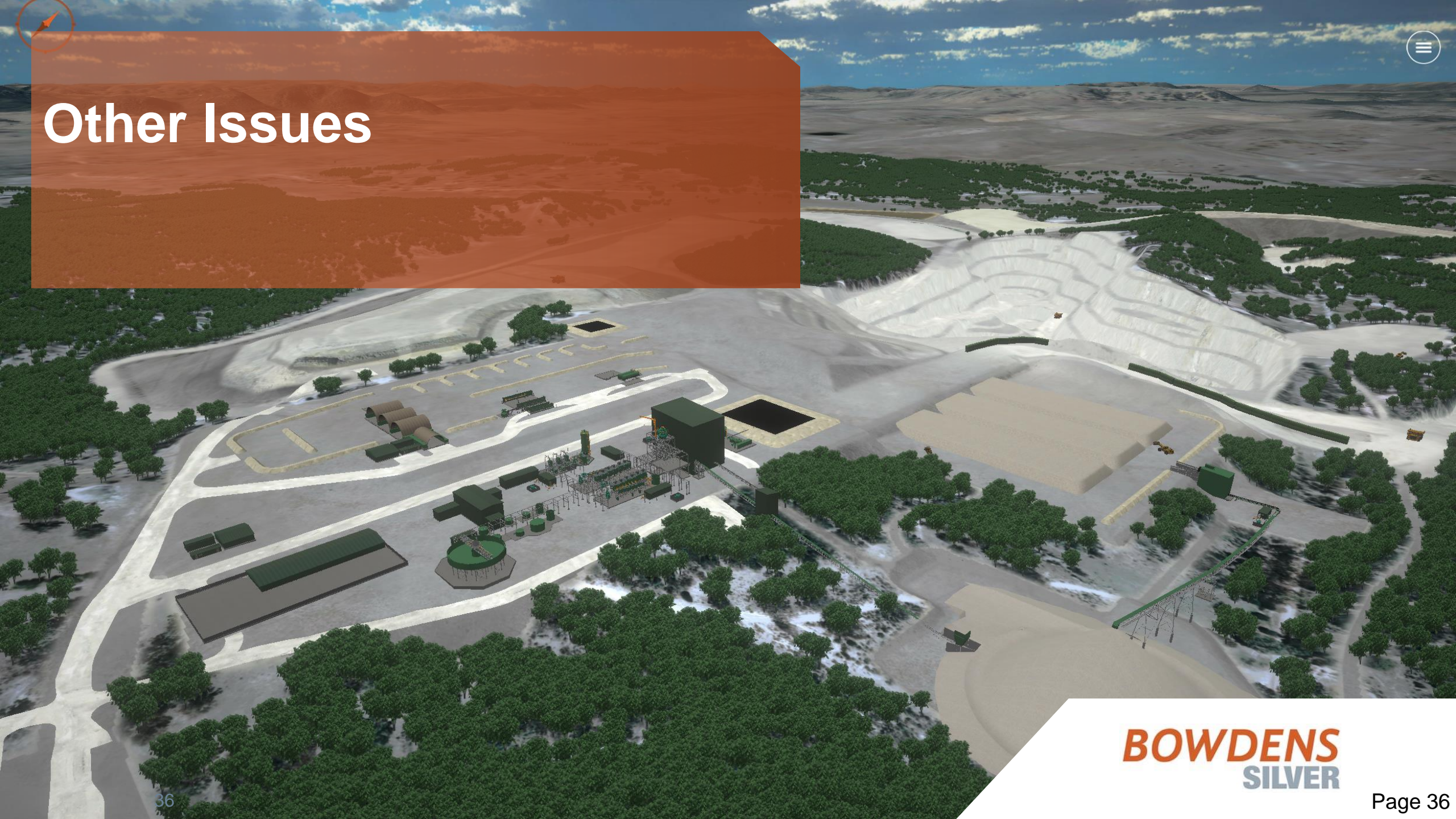


Economic Considerations - Future Potential

Considerable potential to deliver further development and expansion opportunities.

- Bowdens Silver proposal will extract 30% of the known Mineral Resource.
- An additional 50,000 metres of drilling has been completed since this calculation.
- Drilling shows clear continuity of mineralisation below the planned open-cut pit.
- Maiden Underground Mineral Resource calculations completed in September 2022.
- Open-Cut Mineral Resource update is to be complete in March 2023.
- Southern Gold Zone adjoining the Planned open cut is a potential separate product line.
- Scoping Study commenced for a potential underground development.
- Bowdens Silver Feasibility Study optimisation work in 2023 includes:
 - Mineral Resource (in process) and Ore Reserve Upgrade
 - Metallurgical work (in process) is likely to significantly increase metal recoveries
- Exploration is a priority with high order targets in the Bowdens proximity, Barabolar Project, Coomber Prospect and elsewhere in the 1950km² tenure.

Other Issues



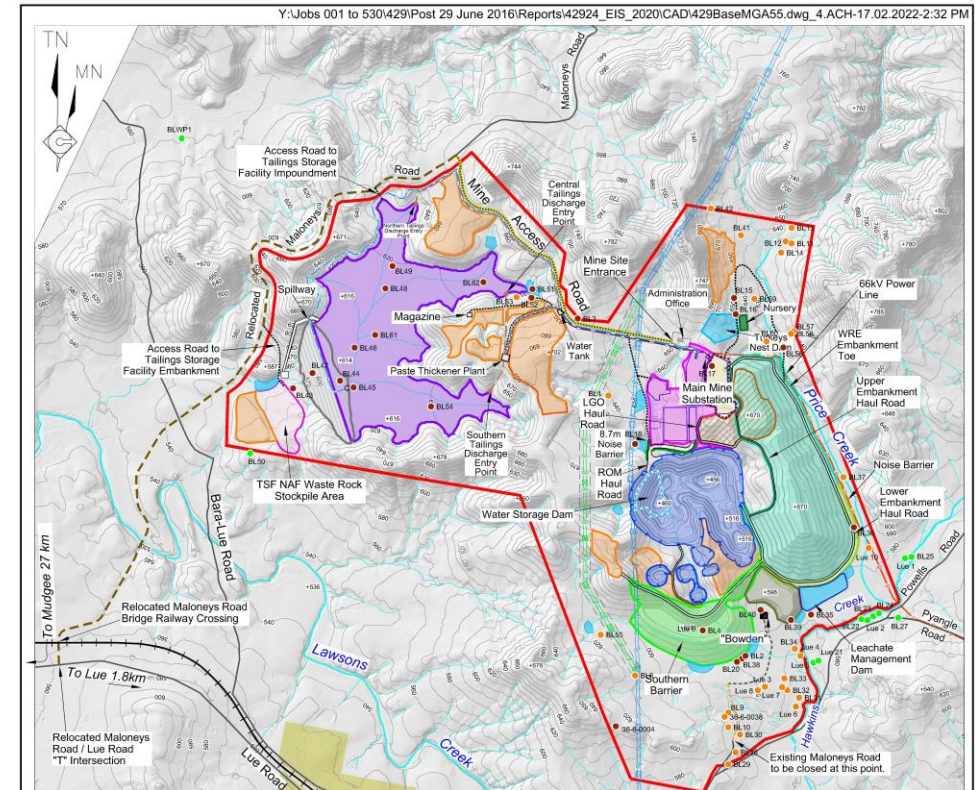
Cultural Heritage

Aboriginal Heritage

- 56 sites of Aboriginal cultural heritage significance were identified within the Mine Site during archaeological survey.
- 25 of these sites would need to be removed, with 31 staying in place and protected.
- Two young Aboriginal stakeholders would be involved with the Project archaeologist and an Aboriginal elder in a mentorship program. The mentees would learn about curation and recording as well as storing of artefacts.

Historic Heritage

- Evidence of historic mining has been identified but the remains are of limited heritage significance.



Other Matters

Agricultural Impacts

Hazardous Goods

Rehabilitation and the Final Landform

Greenhouse gas emissions



Thank You