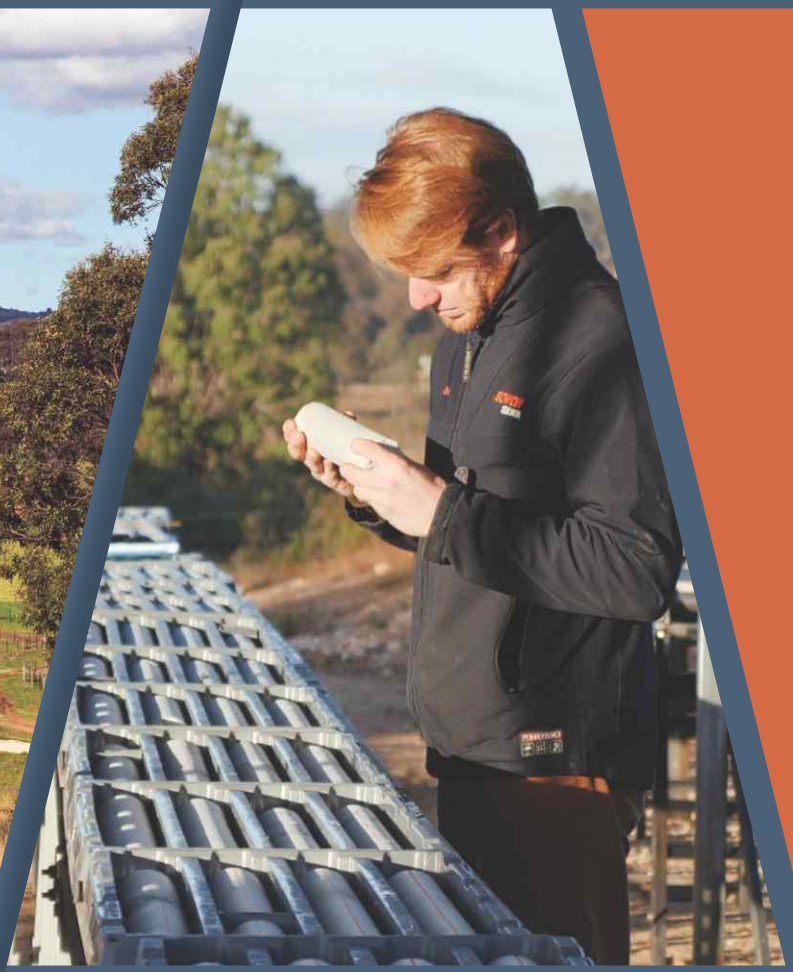
BOWDENS
SILVER



Bowdens Silver Project

Environmental Impact Statement

SUMMARY BOOKLET

JUNE 2020

R.W. CORKERY & CO. PTY. LIMITED
GEOLOGICAL AND ENVIRONMENTAL CONSULTANTS

Contents

Introduction

Bowdens Silver Pty Ltd (Bowdens Silver) is proposing to develop and operate an open cut mine approximately 26 kilometres (km) east of Mudgee and 2-3 km northeast of Lue, in the Mid-Western Regional Local Government Area (LGA). Bowdens Silver is a wholly owned subsidiary of Silver Mines Limited which is publicly listed on the Australian Securities Exchange.

Preparation of the EIS was managed by R.W. Corkery & Co with Bowdens Silver and with the involvement of a team of respected and experienced consultancies. This booklet has been prepared as a community guide to the Environmental Impact Statement (EIS) for the Bowdens Silver Project (hereafter referred to as the Project). It presents an overview of the Project and a summary of the outcomes of environmental, social and economic assessment.

For a more detailed overview of the assessment please review the EIS and the technical assessments that are presented in the Specialist Consultant Studies Compendium (available from the NSW Department of Planning, Industry and Environment (DPIE) Major Projects Portal). The Project requires approval under both NSW and Commonwealth planning and environmental legislation and a thorough and comprehensive range of assessments have been commissioned to ensure that the potential impacts, as well as the benefits, of the Project are understood and presented to Government and the community.

The EIS will be publicly exhibited through the NSW DPIE from 2 June 2020 to 27 July 2020. Bowdens Silver encourages community members to make a submission whether you object to or support the Project as it is important that the NSW Government hears the views of the community directly. Please make sure your voice is heard in this process. Submissions on the Project may be made through the DPIE Major Projects Portal or via post if this is preferred.

Key benefits of the Project include:

Recovery of silver, zinc and lead which are widely used in Australia and globally for a range of applications and therefore are of high value

Employment opportunities predominantly for residents in the Mid-Western Regional Local Government Area

Opportunities for local businesses, contractors, suppliers and service providers

Significant economic benefits to the State and Commonwealth

Community investment and sponsorship opportunities

The EIS provides a summary of the assessment outcomes for the Project and presents potential and predicted environmental, social and economic impacts. Some of these would require management and mitigation and a range of measures are proposed to achieve this. Some of these measures are standard industry practice and some are specific to the Project, however all are consistent with successful practices used by approved and operating mines in NSW.

Project Overview

The proposed mine and its associated infrastructure (the "Project") would comprise the following three principal component areas.

1. The **"Mine Site"** that includes the lands and infrastructure required for open cut mining and processing of ore, and the production of silver/lead and zinc concentrates including associated management of water resources, waste rock and tailings materials.

2. The **"relocated Maloneys Road"** (a public road) which would provide access to the Mine Site from Lue Road west of Lue and would comprise a relocated section of Maloneys Road, a new railway bridge overpass and a new road crossing of Lawsons Creek.

3. A **"water supply pipeline corridor"** extending approximately 58.5 km from the Mine Site to the Ulan and Moolarben Coal Mines to supply the Project with make-up water required for processing and dust suppression.

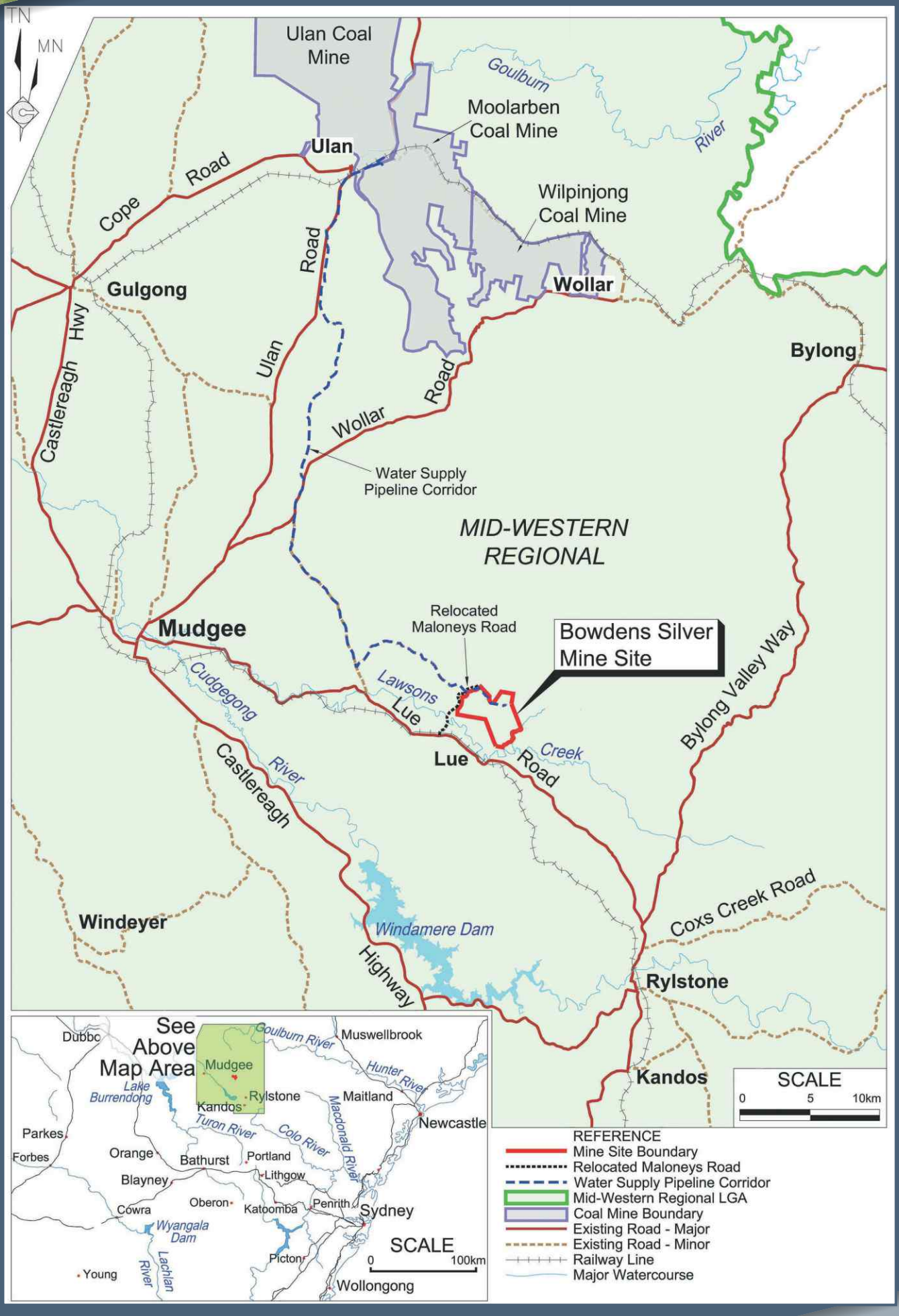
It is proposed that a total of approximately 29.9 million tonnes (Mt) of ore would be extracted from the deposit and processed on site, to produce approximately 310,000 tonnes of mineral concentrates throughout the mine life. The principal products to be produced include a silver/lead concentrate and a zinc concentrate.

The proposed Project would enable Bowdens Silver to maximise the efficient mining of silver, zinc and lead, while mitigating identified potential environmental and social impacts and maximising economic and social benefits.

The Project will also require a dedicated power supply and the realignment of the existing high voltage power line that traverses the Mine Site. These matters would be resolved in conjunction with the relevant energy provider.

In recent years, mining has contributed significantly to the growth of some towns and cities in central western NSW such as Orange, Parkes and Mudgee and, in some cases, mining has co-existed on the edges of population centres such as Blayney, Peak Hill and Tomingley. It is noted that each of these latter population centres were/are closer to the mining operations than is proposed for the Bowdens Silver Project in respect to Lue.

Project Location in Regional Setting



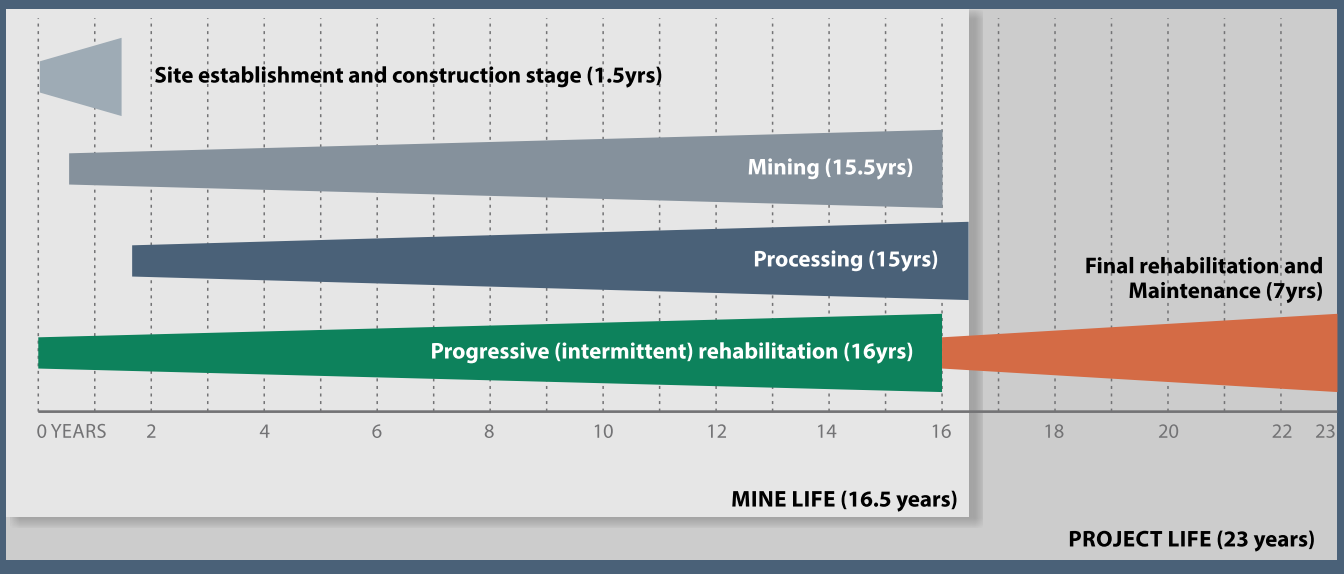
Project Objectives and Refinements

The objectives of Bowdens Silver in developing and operating the Project are to:

- Maximise the recovery of the silver, zinc and lead minerals from the defined ore reserves within the proposed open cut pits
- Undertake all activities in an environmentally and socially responsible manner to demonstrate compliance with relevant criteria and satisfy reasonable community expectations
- Ensure the health of its workforce and the surrounding community is not adversely affected
- Preserve the existing character of Lue
- Maintain a positive relationship with the surrounding agricultural industry and maximise productivity on land retained for agricultural production
- Provide a stimulus for the Mudgee, Rylstone, Kandos and district economies
- Achieve the above objectives in a cost-effective manner to ensure the Bowdens Silver Project is economically viable

The Project has been designed and refined over time in order to achieve these objectives.

Project Life-cycle



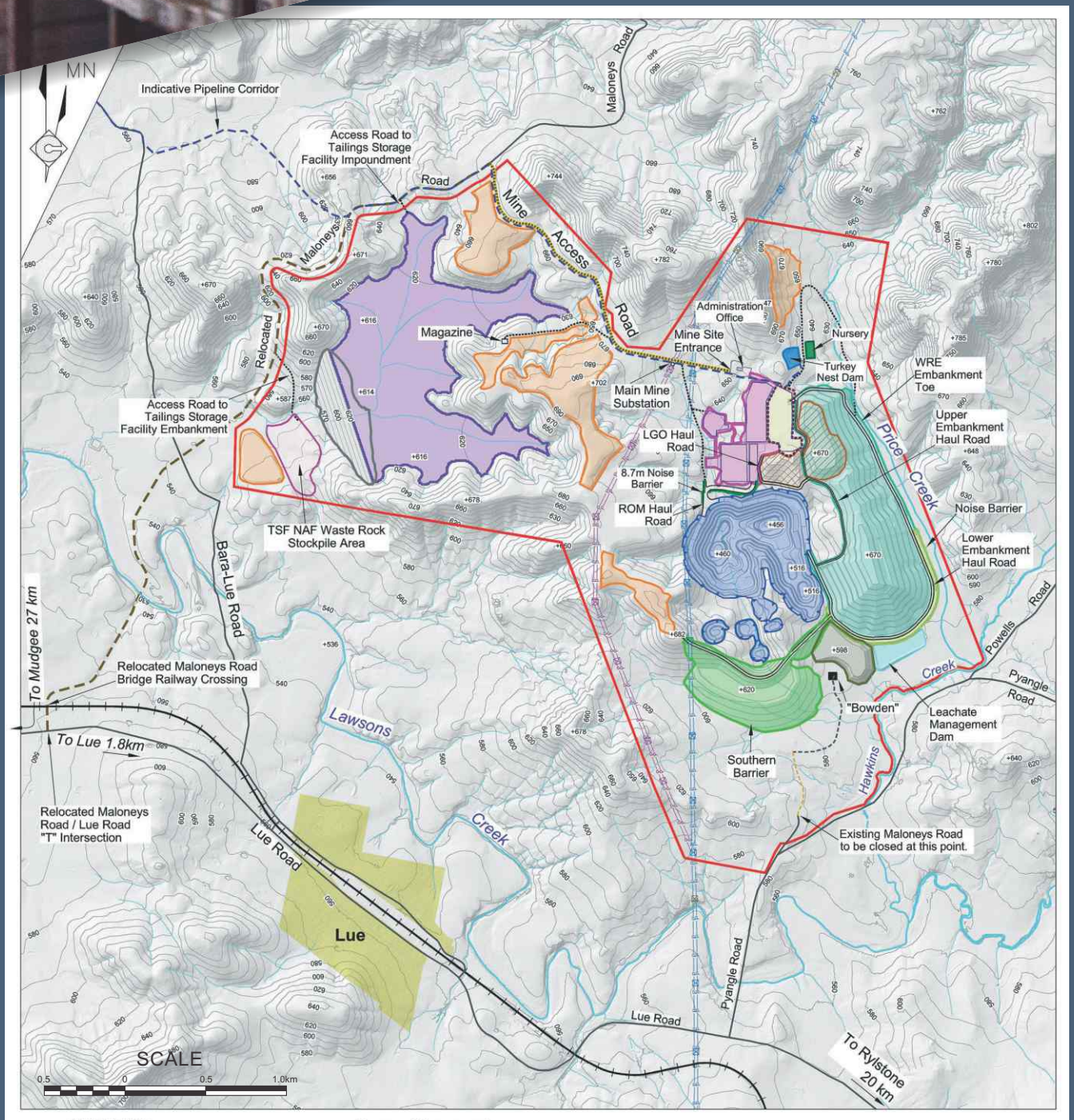
Mineral exploration within and surrounding the Mine Site has been undertaken since 1989 by Bowdens Silver and others. Since that time, considerable changes have been made to the Project design to take into account the outcomes of exploration and assessment.

A preliminary Project was planned by Kingsgate Bowdens Pty Ltd in 2012 and subsequently refined by Bowdens Silver. These changes have been welcomed by many stakeholders in addressing community concerns and to reduce potential Project impacts where possible.

Previous Owners Design	Current Design
Extraction of **53 Mt** of ore and **79 Mt** of waste rock	Mining of **29.9 Mt** of ore and **47 Mt** of waste rock
Processing of **4 Mt** per annum of ore	Processing of **2 Mt** per annum of ore
Water requirements averaging **3.5 GL** per year	Lower water requirements averaging **2.0 GL** per year
Water sourced from local groundwater, surface water capture and other sources (including Cudgegong River)	Inclusion of a new water supply pipeline from Ulan and/or Moolarben Coal mines
Large water storage dams for water capture	No major water storage required
Infrastructure located closer to Lue	Relocation of processing plant further north
Construction workers accommodation on site	No worker accommodation on site

Key Components of the Project

Mine Site Layout



REFERENCE
- Mine Site Boundary
- Contour (m AHD) (Interval = 10m)
- Spot Height (mAHD)
- Existing Watercourse / Drainage Line
- Road
- Closed Railway Line
- Existing Power Line (500kV) / Tower
- Maloneys Road (Section to be closed)
- Lue as displayed on Mid-Western Regional LEP, 2012

Proposed Component
- Indicative Pipeline Corridor
- Re-aligned Power Line (500kV) / Tower
- Relocated Maloneys Road
- Mine Access Road
- Internal Road
- Haul Road / Indicative Haul Road
- Open Cut Pit
- Mining Facility
- Tailings Storage Facility
- Processing Plant/ROM Pad Area
- Soil Stockpile Area
- Low-grade Ore Stockpile Area
- TSF NAF Waste Rock Stockpile Area
- Southern Barrier
- Waste Rock Emplacement
- Oxide Ore Stockpile
- Lower Embankment Noise Barrier
- Noise Barrier

Note:
LGO = Low-grade Ore
NAF = Non-acid Forming
ROM = Run of Mine
TSF = Tailings Storage Facility
WRE = Waste Rock Emplacement

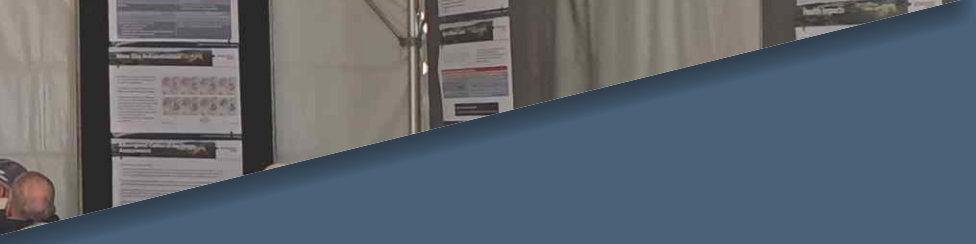
Project Component	Summary of the Project
Mining Method	Open Cut mining in a main pit and two small satellite pits collectively covering approximately **52 Hectares (ha**)
Resource	Mining of mineralised rock (ore) containing silver and small percentages of zinc and lead to depths of at least **180 metres (m)**
Disturbance Area	Disturbance of approximately **495 ha**, including approximately **382 ha** of native vegetation.
Ore Reserves	Approximately **29.9 Mt** of primary and low-grade ore.
Mining	Mining of approximately **2 million tonnes** per annum (Mtpa) of ore and between **3** and **4.5 Mtpa** of waste rock.
Mine Life	16.5 years comprising the site establishment and construction stage (approximately 18 months), mining (approximately 15.5 years commencing after the first 6 months) and processing (approximately 15 years).
Project Life	Approximately **23 years** comprising the site establishment and construction stage, mining and processing operations (to the end of concentrate production) and includes the period for final rehabilitation.
Processing	Crushing, grinding, flotation and filtration to yield two concentrates, a silver/lead concentrate and a zinc concentrate totalling between **20,000** and **30,000 tonnes** of concentrates per year for sale off site. There would be no smelting operations on site.
Production	Life of Mine production of approximately **66.3 million ounces** of silver, **130,000 tonnes** of zinc and **95,000 tonnes** of lead.
Management of Waste Rock and Process Residue	Waste rock would be used to construct the embankment of the Tailings Storage Facility (TSF) (in stages) and other site infrastructure (e.g. run-of-mine (ROM) pad). All remaining waste rock would be incorporated in either a waste rock emplacement or the southern barrier, a stockpile of rock to be used to rehabilitate the TSF and waste rock emplacement. All tailings would be contained in a single storage facility.
General Infrastructure	A new site access road would be constructed from west of Lue to the Mine Site. On-site infrastructure would include electricity supply and distribution, fuel storage, administration, workshop, stores and amenities buildings.
Product Transport	Silver/lead concentrates would be transported by road and rail in sealed containers to Port Pirie, South Australia for smelting. Zinc concentrates would be transported by road in sealed containers to the Port of Botany or Port of Newcastle for export and smelting offshore. All concentrates would be transported via the relocated Maloneys Road to Lue Road (west of Lue) and would not be transported through Lue or Rylstone.
Water Management and Use	Annual water usage would be approximately **1,857 megalitres** (ML) for processing and dust suppression. Proposed water sources include: • Approximately **806 ML** per year recycled from the TSF • Up to **637 ML** per year from groundwater inflows / open cut pit dewatering • In excess of **331 ML** per year of surplus mine water would be sourced from the Ulan Coal Mine and/or Moolarben Coal Mine via a buried water supply pipeline The dedicated water supply pipeline would be located in a corridor approximately **58.5 km** in length up to 10m wide with a wider area required for the proposed intermediate pumping station.
Workforce	During Site Establishment and Construction: Up to **320** personnel. During Operations: Between **190** and **228** personnel.
Hours of Operation	Mining initially in daytime only, increasing to evening then night-time once sufficiently deep in the open cut pit. A number of the processing steps would be undertaken 24hrs/day, seven days a week.
Key Distances (to Lue)	Closest activity (southern barrier) – **1.9 km** Open Cut Pit – **2.1 km** Primary Jaw Crusher – **2.9 km** Grinding Mill – **3.3 km** Tailings Storage Facility (TSF) – **1.9 km**
Initial Capital Investment	Approximately **$247 million (M)**

Stakeholder Engagement

Bowdens Silver recognises the importance of establishing a relationship of mutual trust with the community through accountability and transparency. As a result, stakeholder engagement has been an integral component of the Project and assessment process, involving a range of stakeholders across the Mid-Western Regional LGA, including local and regional community residents, community groups and organisations, local businesses, service providers, Aboriginal groups and state and local government agencies. Engagement and communication mechanisms used to date are shown below.

Bowdens Silver would like to take the opportunity to thank everyone who has given their valuable time in providing feedback on the Project in the development of the EIS, and those that have been involved in the Social Impact Assessment (SIA).

Bowdens Silver intends to continue engaging with the community during the exhibition period and through development of the Project. Any interested community member is invited to register for updates and information by contacting our Community Liaison Officer.



Mine Site Access

The existing Maloneys Road traverses the proposed Mine Site. Bowdens Silver proposes to permanently close that section of road and relocate it to a new location west of its current alignment, forming a new section of public road. The relocated Maloneys Road would be approximately 5.2km in length, intersect with Lue Road west of Lue and include a new railway bridge overpass and a new road crossing of Lawsons Creek.

The relocated Maloneys Road would ensure that the majority of heavy vehicle traffic for the Project would not need to pass through Lue.

A dedicated Mine Access Road would intersect with the relocated Maloneys Road and provide the principal access to the Mine Site.

Water Supply

Access to, and use of water is a key issue for the Project both in terms of ensuring supply for the operation and for the local community given recent drought conditions. Bowdens Silver recognises that water is a key resource for the whole community. Water sources for the Project would include the following sources listed preferentially in order and type of use.

1. Surface water collected by the leachate management dam for recycling and reuse in processing operations
2. Groundwater and surface water accumulating within the open cut pit for recycling and reuse in processing operations
3. TSF return decant water for recycling and reuse in processing operations
4. Surface water collected within the sediment dams (but unsuitable for release) or authorised under harvestable rights entitlements for use in dust suppression activities
5. External supply of excess water from the Ulan Coal Mine and/or Moolarben Coal Mine

By ensuring access to a variety of water sources, Bowdens Silver would reduce reliance on any single source, an approach that would assist the Project during times of drought. Once operations commence, water would be required principally for the processing of ore with lesser quantities required for dust suppression on the crushing and screening equipment and haul roads throughout the Mine Site. Average water use would require up to approximately 5.0ML of water per day (at the peak).

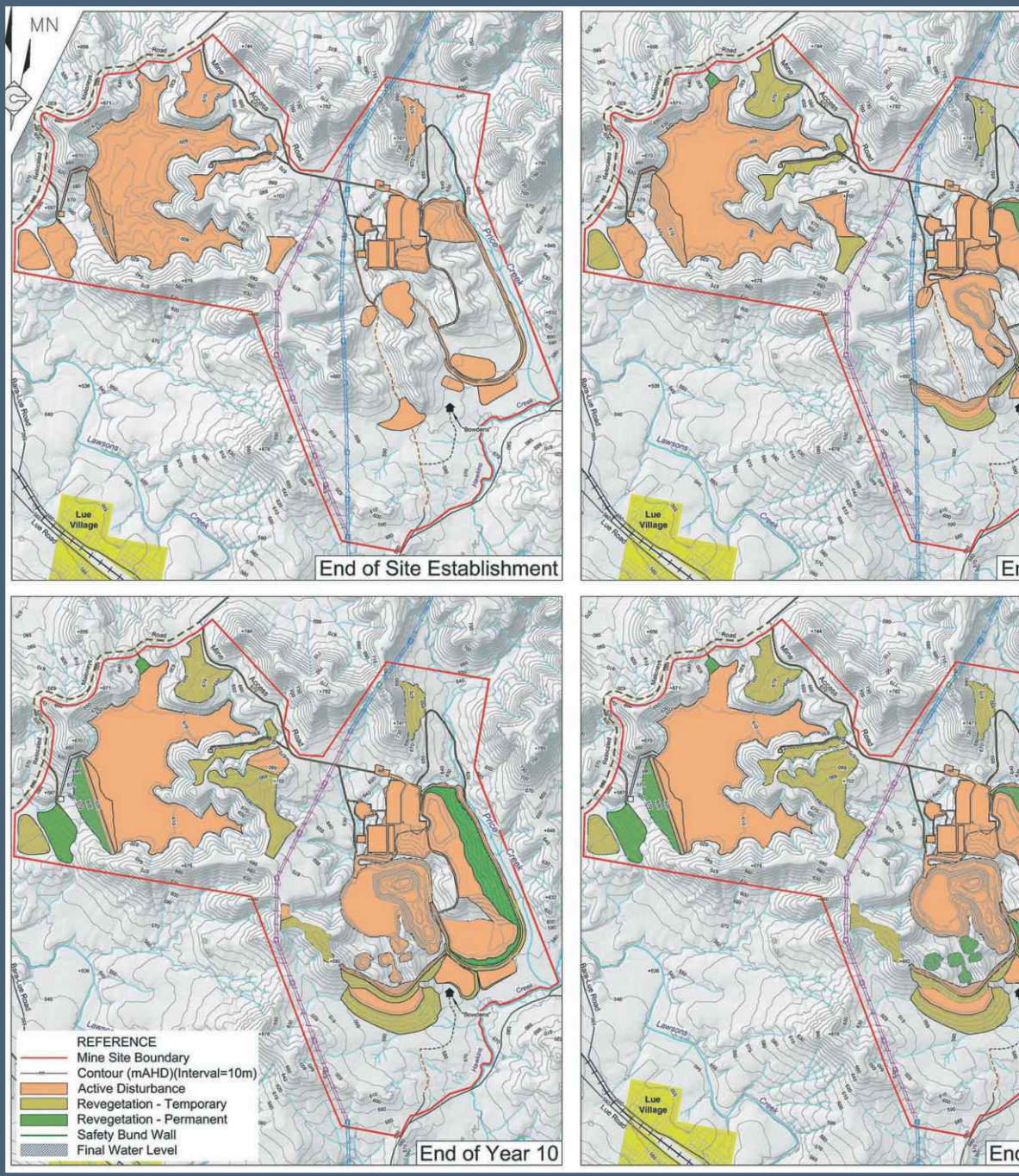
Where it is required, make-up water supply for the Project would be sourced from the Ulan Coal Mine and/or Moolarben Coal Mine, which would be conveyed to the Mine Site via a dedicated water supply pipeline. The pipeline could deliver up to 5.5 ML of water per day, thereby removing any uncertainties related to the availability of other water sources on site. As a result, the Project would place no additional demand on local and regional water resources. Water would preferentially be treated at the source before pumping to the Mine Site.

Bowdens Silver would reach agreements with landowners along the proposed water supply pipeline route for use of land for the buried pipeline. An intermediate pumping station would be required along the route. It is intended that water from the pipeline would be made available for local firefighting activities, subject to regulatory agreement.

Final Landform and Rehabilitation

Whilst many components on the Mine Site would not be able to be rehabilitated until near the end of the Project life, wherever practical, areas disturbed as part of the Project would be progressively rehabilitated following the completion of disturbance. Rehabilitation would be completed using natural landform design principles and revegetation techniques that are recognised as leading industry practice.

Progressive rehabilitation sequence

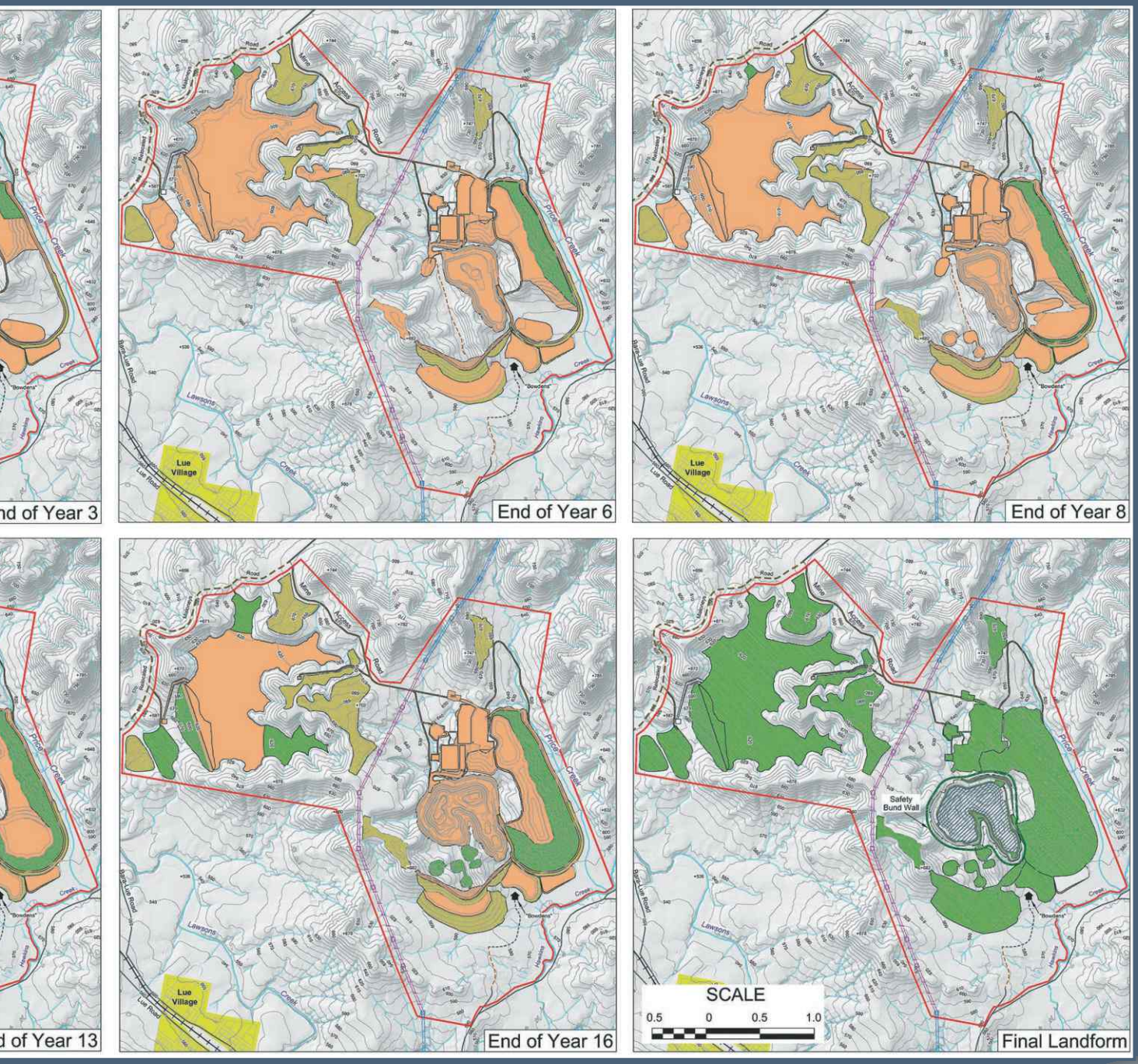


The desire to see progressive rehabilitation was identified by community stakeholders, with possible land uses post mining including regeneration of the area to its natural state, pastoral grazing, recreation and tourism development.

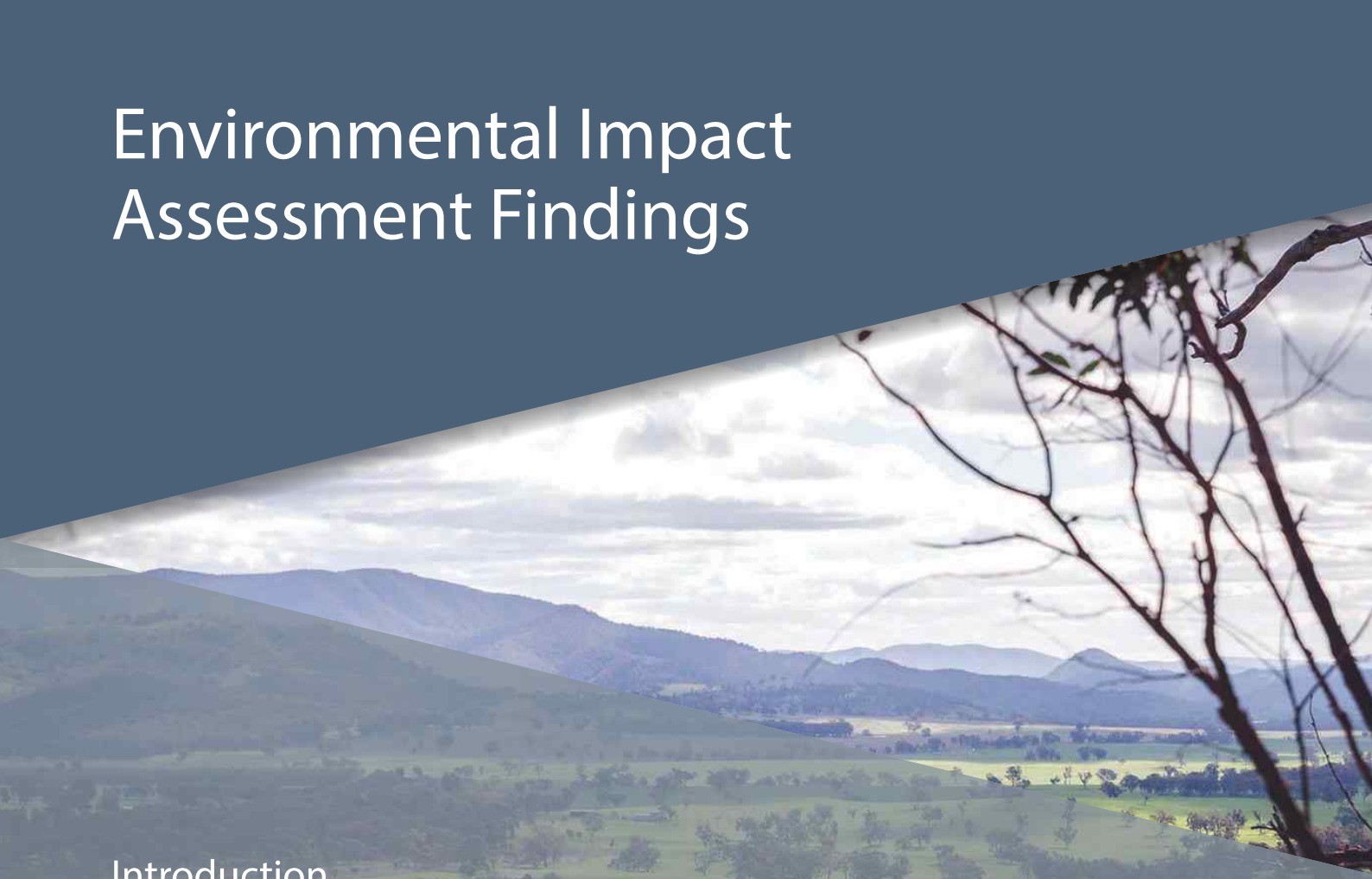
Bowdens Silver plans to continue to harvest seed from native vegetation on site to add to its substantial seed bank. A dedicated nursery to propagate the seed is planned. Revegetation would either be temporary or permanent.

Temporary revegetation would focus on the use of exotic pastures, to ensure rapid growth, whereas emphasis would be placed upon native vegetation (trees, shrubs and ground covers) on all permanently vegetated areas. Both temporary and permanent revegetation would be undertaken progressively.

Some areas of the Mine Site would also be returned to agricultural production. Rehabilitation would involve landform construction and either temporary or permanent revegetation. Final slopes would be designed to be stable with watercourses re-instated.



Environmental Impact Assessment Findings



Introduction

The Project has been subject to detailed review, refinement and assessment during design and planning, and the preparation of this EIS. The environmental, social and economic assessment undertaken to support the Bowdens Silver Project has been undertaken by a multi-disciplinary team of consultants, each of whom are considered specialists and are respected in their field.

Each assessment has considered the components and features of the existing environment and reviewed potential changes as a result of the Project.

A range of measures have been recommended during assessment, and accepted by Bowdens Silver, to minimise adverse impacts. Each assessment has concluded with an assessment of the outcomes of the Project in terms of residual risks.

The following assessments were prepared to support the EIS for the Project and are presented in the Specialist Consultants Studies Compendium:

- Noise and Vibration Assessment (SLR Consulting Australia Pty Ltd)
- Air Quality Assessment (Ramboll Australia Pty Ltd)
- Materials Characterisation Assessment - (Graeme Campbell & Associates Pty Ltd)
- Hazards Analysis of Dangerous Goods (Sherpa Consulting Pty Ltd)
- Groundwater Impact Assessment (Jacobs Pty Ltd)
- Surface Water Assessment (WRM Water and Environment Pty Ltd)
- Human Health Assessment (Environment Risk Sciences Pty Ltd [EnRisks])
- Visibility Assessment (Richard Lamb & Associates Consulting)
- Lighting and Night Glow Assessment (Lighting Art & Science Pty Limited)
- Terrestrial Ecology Assessment (EnviroKey Pty Ltd)
- Biodiversity Offset Strategy (Niche Environment and Heritage Pty Ltd)
- Aquatic Ecology Assessment (Cardno (NSW/ACT) Pty Ltd)
- Traffic and Transportation Assessment (The Transport Planning Partnership Pty Ltd)
- Soils and Land Capability Assessment (Soil Management Design Pty Ltd)
- Aboriginal and Historic Heritage Assessment (Landskape Natural and Cultural Heritage Management)
- Agricultural Impact Statement (R.W. Corkery & Co. Pty Limited)
- Economic Assessment (Gillespie Economics)
- Tailings Storage Facility Preliminary Design (ATC Williams Pty Ltd)
- Preliminary Design of PAF Waste Rock Emplacement, Oxide Ore Stockpile and the Southern Barrier (Advisian [Worley Parsons Group])
- TSF and WRE Closure Cover Design (Advisian [Worley Parsons Group])
- Social Impact Assessment (Umwelt [Australia] Pty Ltd)

Noise

It is acknowledged that due to the existing comparatively quiet noise environment, mining noise may be heard above background noise during noise enhancing conditions. However, during mining and processing operations, the day-time and evening / night-time Project Noise Trigger Levels would be satisfied at all residences and receivers in the vicinity of the Mine Site with the exception of eleven of the closest privately-owned residences.

These outcomes would be managed in accordance with the NSW Government's Voluntary Land Acquisition and Mitigation Policy 2018 (VLAMP) with ongoing management designed to minimise the risk of impact.

Background noise measurements around the Mine Site and within Lue have established that the existing day-time noise levels are low and typically in the range 25 dB(A) to 30 dB(A). Background noise levels of an evening and night are also low and typically around 25 dB(A) or less.

Noise has been modelled over various stages of the Project and represents the progression of operations over the proposed Mine life. The noise modelling methodology accounts for the effects of noise enhancing meteorological conditions and existing background noise measurements around the Mine site and within Lue.

Noise from mining operations was a key concern raised by stakeholders during consultation, with a number of Project design changes proposed to minimise noise impacts. In addition, a range of management and mitigation measures would be put in place including:

- Use of noise-attenuated mobile equipment
- Restrictions on the number and location of mobile equipment items used
- Restricted operations of an evening and night-time
- The use of interim or long-term noise barriers
- Full or partial enclosure of the fixed plant
- A regime of real-time noise monitoring and use of predictive meteorological forecasting to minimise noise impacts where possible
- Regular liaison with surrounding landowners to inform and/or discuss any noise-related issues
- Adaptive site management
- Development of Noise Management Plans for all stages of the Project

Construction noise

During the site establishment and construction stage, construction noise criteria levels would be satisfied at all privately-owned residences and receivers except for:

1. Road construction activities during the construction of the new Lue Road / relocated Maloneys Road intersection – for a period of approximately 1 to 2 months at five residences

2. Water supply pipeline installation, principally when the trench for the pipeline is being excavated – for a period of 1 to 2 days at seven residences (sequentially)

Operational Noise

A summary of the outcomes of the operational noise impact assessment is presented in the following table (overleaf). A more detailed summary of the assessment for daytime, evening and night-time periods is provided in the EIS and Noise and Vibration Assessment.

Predicted moderate/significant and marginal exceedances would need to be managed in accordance with the NSW Government's Voluntary Land Acquisition and Mitigation Policy and involve negotiated agreements with the owners and/or occupiers of residences.

The existing low background noise levels would result in noise generated within the Mine Site being periodically audible external to residences located up to approximately 3 km from the Mine Site (including Lue). At times mine noise levels may also be discernible at distances greater than 3 km from the Mine Site subject to the prevailing background noise level and topography.

Traffic noise

During construction and operation, predicted road traffic noise would be compliant at all private residences except for two residences where the relevant vibration criteria would be exceeded during the first 6 months in the site establishment and construction stage. There also may be a minor traffic noise impact from the increase in traffic travelling past the Lue Public School.

Predicted noise exceedances	Predicted impact	No. of residences	Bowdens Silver's approach
No exceedance	Acceptable (but not inaudible at all times)	112	No mitigation actions required at the residence
1-2dB(A)	Negligible	6	No mitigation actions required, however, Bowdens would commission a builder and acoustic technician to visit properties to assess measures to improve properties
3-5dB(A)	Marginal	4	Mitigation to the dwelling may include air conditioning, double window glazing, other façade and roof upgrades etc.
>5dB(A)	Moderate (day/evening) Significant (Night)	1	Flexibility in mine operation, in noise enhancing weather conditions Offer acquisition or enter into an agreement with compensation

Noise Impact Assessment Outcomes (under the Voluntary Land Acquisition and Mitigation Policy)

Blasting and Vibration

In order to ensure the impacts from blasting associated with the Project are minimised, each blast would be designed to ensure compliance with the relevant blasting criteria.

A blasting and vibration impact assessment was completed to address the impact of the Project in terms of ground vibration, overpressure and fly rock on the surrounding environment, including private residential receivers, cultural heritage sites and infrastructure.

Based upon the assessment of indicative blast designs and maximum instantaneous charges for the blasts in both ore and waste rock, the blasting and vibration assessment has predicted there would only be minor exceedances of the relevant amenity blast criteria at three residences, two of which would be the subject of a Voluntary Land Acquisition and Mitigation Policy agreement.

Blasting personnel would iteratively design all blasts based upon the refined site blast laws that would be developed over time through monitoring and feedback of outcomes from blasting within the open cut pits to avoid any exceedances at all privately-owned residences.

To minimise impacts to the local community, all residents within 2 km of the open cut pits would be informed of the proposed blasting schedules. In addition, Bowdens Silver would commission structural surveys of residences within a 2 km radius of the open cut pit limits, subject to access being provided by the landowner/ occupier, prior to the commencement of blasting. Monitoring of the impacts associated with blasting and vibration would also be undertaken in accordance with a Blast Management Plan.

Air Quality

The air quality modelling predicts that there would be no exceedance of annual average TSP, PM_{10} and $PM_{2.5}$, maximum 24-hour average PM_{10} and $PM_{2.5}$, or dust deposition criteria at any privately-owned residences or receivers, either from the Project alone or cumulatively.

Furthermore, no exceedances of the impact assessment criteria are predicted at any Project-related or private residences for metal dust concentrations, respirable crystalline silica or hydrogen cyanide.

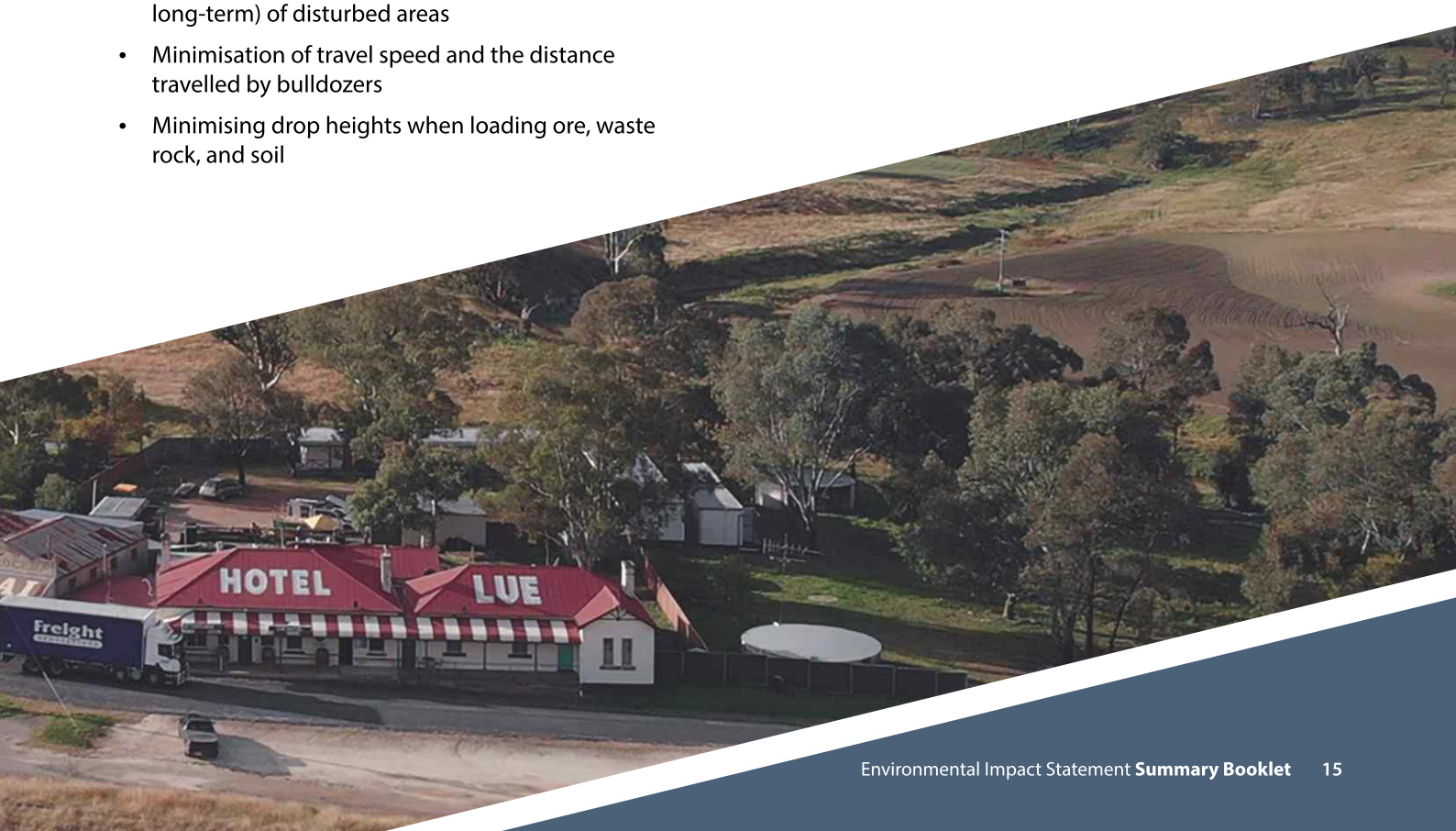
Potential air quality impacts resulting from construction and operational activities at the Mine Site have been quantitatively assessed in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW 2016, which has included collation of meteorological data and data relating to the existing ambient air quality.

The Air Quality Assessment has incorporated data recorded using an extensive monitoring network which has been set up for the Project.

The management of air quality impacts would be outlined in an Air Quality Management Plan and would include the following:

- Site-wide vehicle speed limit and confinement of vehicle travel to designated routes
- Haul roads would be actively maintained and watered
- Progressive rehabilitation (both temporary and long-term) of disturbed areas
- Minimisation of travel speed and the distance travelled by bulldozers
- Minimising drop heights when loading ore, waste rock, and soil
- Enclosure of the run-of-mine feed hopper on three sides and water application during crushing
- Use of water sprays and/or dust aprons/collectors for drill rigs
- A proactive air quality management system to be adopted, with a combination of the following:
    - Meteorological forecasts – to predict when the risk of dust emissions may be high (due to adverse weather)
    - Visual monitoring – to provide an effective mechanism for proactive control of dust at source
    - Real-time meteorological and air quality monitoring – to provide alerts for appropriate personnel when short-term dust levels increase, to enable management of the location and intensity of activities and/or increased controls

The qualitative assessment for the water supply pipeline concludes that, given the limited footprint of disturbance and fact that construction activities would only be occurring at any one location for a limited period of time, with the implementation of the proposed management measures, the potential for dust impacts from the water supply pipeline are very low.



Greenhouse Gas

The predicted annual average Scope 1 Greenhouse Gas emissions generated by the Project would represent approximately 0.02% of total Greenhouse Gas emissions for NSW and 0.004% of total Greenhouse Gas emissions for Australia.

Given Australia's contribution to global greenhouse gas emissions is approximately 1.3%, the contribution of the Project to global emissions is approximately 0.000052%.

The predicted Scope 1 emissions are conservative as they do not account for the offset of emissions through the increase in vegetative biomass from biodiversity offset areas or progressive rehabilitation on site.

Notwithstanding, the Project's Scope 1 emissions are less than half of the average of other metal ore mining projects. They are also significantly lower than emissions from coal mining operations and would produce a product that is an important component of 'green' power generation in the form of photovoltaic cells and which can be recycled for ongoing use and benefit.

Based on world silver supply/demand data, approximately 7% to 8% of total silver demand is for use in photovoltaic production and 21% to 23% for other electrical fabrication purposes.

Groundwater

Based on the outcomes of the groundwater modelling and assessment, it is considered that potential impacts to the groundwater setting are well understood and would be acceptably managed through the implementation of the Water Management Plan that includes a program for ongoing groundwater monitoring and management.

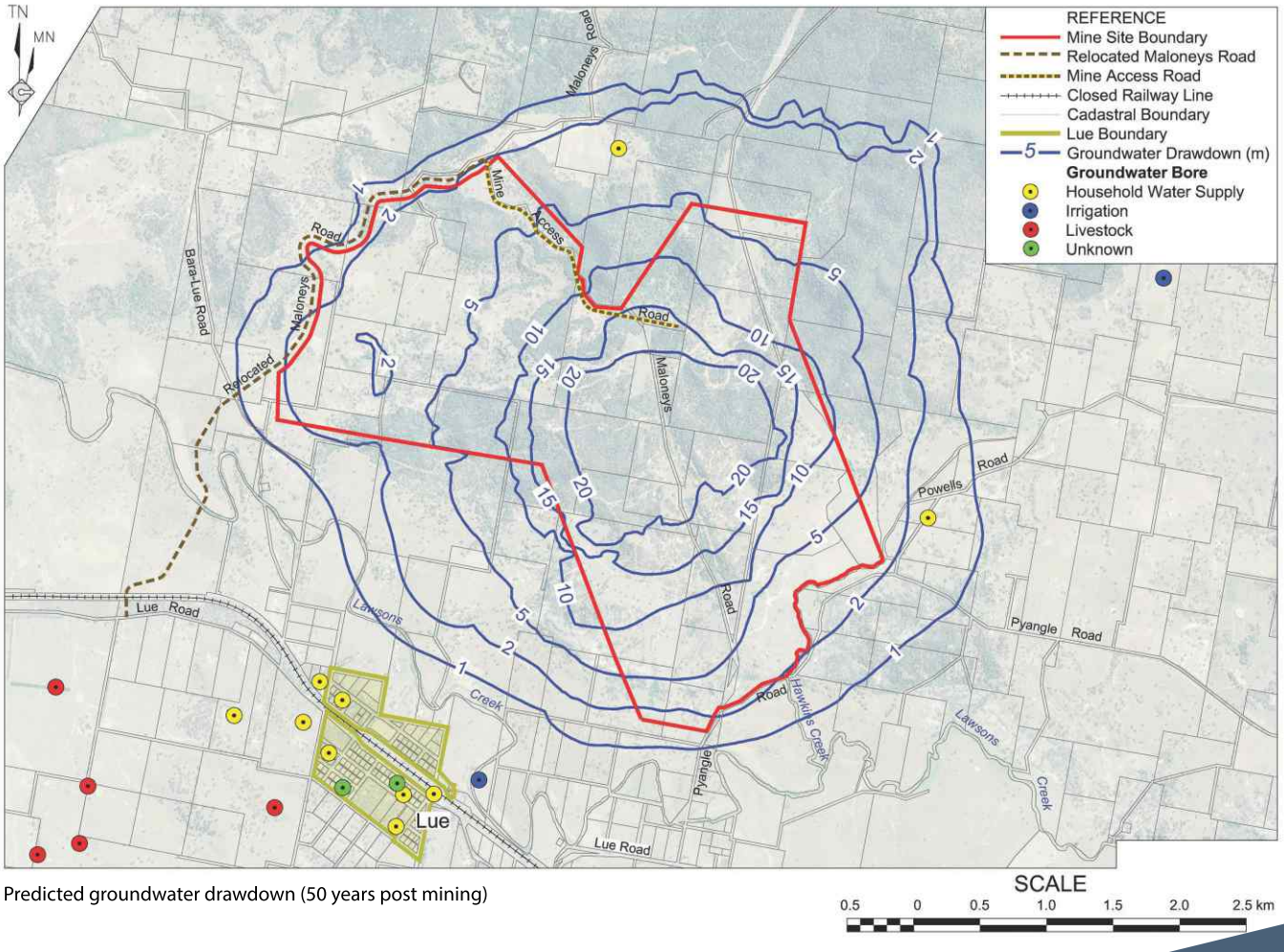
A Groundwater Assessment has been prepared to assess the possible risks to groundwater resources associated with the Project, including impacts to water supply bores, streamflow and natural ecosystems that are dependent on groundwater. The assessment involved:

- Local groundwater investigations (since 1998) and a groundwater monitoring program (since 2012) which was used to develop an understanding of the groundwater setting, including geological and hydrogeological factors, groundwater levels and groundwater quality
- A numerical groundwater model that was developed to simulate the regional groundwater system and known influences on the existing hydraulic behaviour of the system
- Independent peer review to ensure that the study meets the criteria of the Australian Groundwater Modelling Guidelines

The principal changes to the groundwater setting would be caused by groundwater inflows to the open cut pit as it is developed and subsequent drawdown to the regional water table. The key residual impacts include the following:

- During the mine life, groundwater inflow rates are predicted at an average of 2.4 ML/day, with a peak of 3.5 ML/day and peak annual inflow of 1,066 ML/year (Year 4 of mining)
- Post-mining, the extent of drawdown would expand to a maximum extent over 16 years and then would progressively stabilise over time as an equilibrium is reached in the open cut pit lake. The extent of drawdown 50 years post-mining is shown below
- In the final landform, the main open cut pit lake would act as a groundwater sink that would draw groundwater to the lake. Salinisation would occur, however salts would remain within the lake
- A potential decrease in water level of greater than 2 m at two registered groundwater bores may occur. However, closer examination of these locations indicates that this level of impact is unlikely
- No impacts are predicted to high priority Groundwater Dependent Ecosystems, and it is considered unlikely that terrestrial vegetation would be impacted by predicted drawdown within the regional groundwater table
- Baseflow reductions at Hawkins Creek and Lawsons Creek would occur along relatively short sections of these creeks and would be most noticeable to water users in periods of drought. Any baseflow reductions to Hawkins and Lawsons Creeks would be accounted for in water licensing for the Project
- It is predicted that there would be no water quality impacts beyond 40 m from the Mine Site boundary to the extent that the beneficial use of that water would be compromised. This includes the vicinity of the TSF

These impacts would be managed through the implementation of the Water Management Plan, that includes a program for ongoing groundwater monitoring and management including on and off-site bore monitoring to assess actual changes to the groundwater setting.



Predicted groundwater drawdown (50 years post mining)

Surface Water

The potential impacts relating to surface water including erosion and sediment control, water availability and water quality, and flooding have been addressed through the design of the Project. The assessment concludes that with water diversion around the Mine Site, effects to downstream flows in both Hawkins and Lawson Creeks are predicted to be minimal.

The surface water assessment included:

- Development of a water balance model that has been calibrated to local conditions
- Development of hydrologic and hydraulic models that have been calibrated to local conditions, to identify the magnitude and extent of potential impacts
- A peer review of the study by an independent expert

The Project has been designed to maximise downstream environmental flows through diverting water around disturbance areas (where possible) and treatment of on-site sediment laden water so that it can preferentially be released offsite. Only water contaminated with dissolved metals through contact with the mineralised ore and processing chemicals would be retained and recycled on site, thereby not affecting the downstream water quality.

The Project is predicted to reduce downstream flows in both Hawkins and Lawsons Creeks through the interception and retention of runoff within the Mine Site and a reduction in base flow in both creeks. The estimated percentage reductions to flow are presented in the following table.

Overall, the reductions in flow and changes in availability of water to downstream users would be negligible. Bowdens Silver would acquire the necessary Water Access Licences prior to Project commencement.

The potential for impacts for surface water quality would be managed over the life of the Project and monitored in accordance with an approved Water Management Plan.

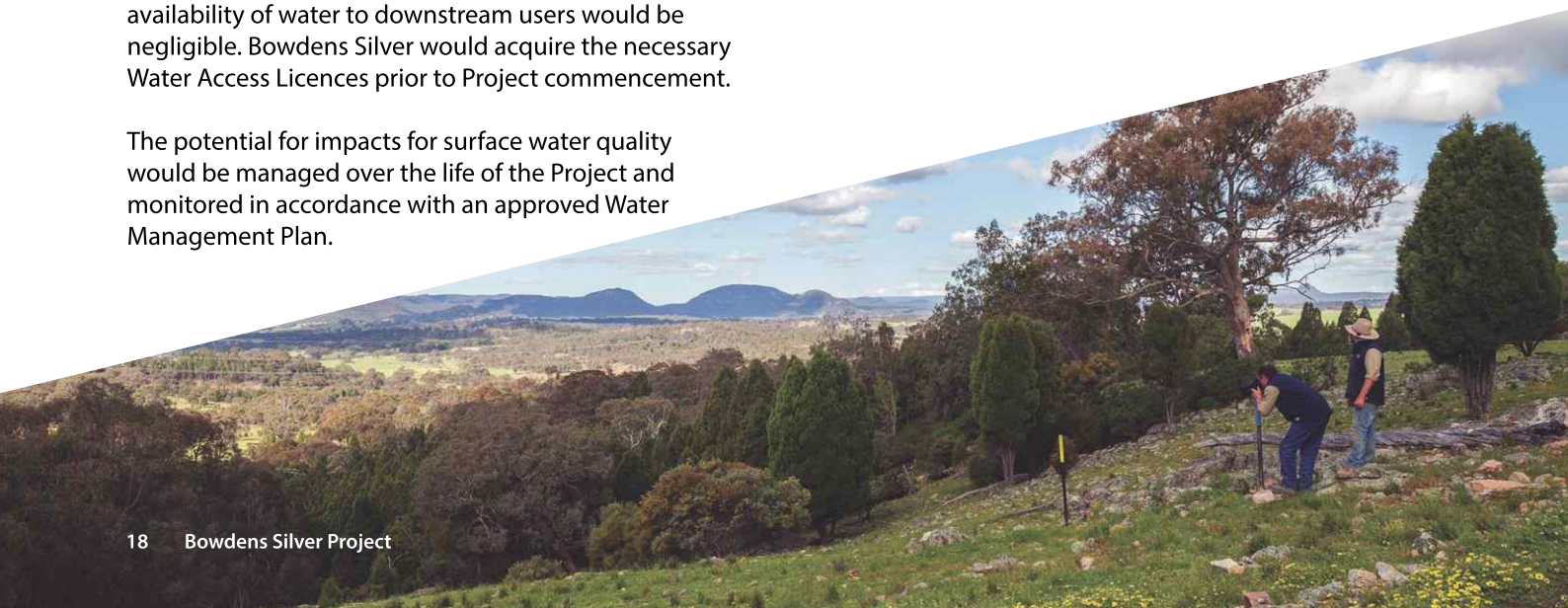
	During Operation	Post-Mine Closure
Hawkins Creek for a distance of 3.5km from its confluence with Lawsons Creek	4.4%	1.4%
Lawsons Creek between the confluence of Hawkins and Walkers Creeks	1.2%	0.4%
Lawsons Creek downstream from its confluence with Walkers Creek	2.2%	0.4%

Combined runoff interception and baseflow reduction

A detailed flood study concluded the following:

- The more significant flood level impacts would be confined to within the Mine Site and land owned by Bowdens Silver
- Any expected increases in flood velocities in Hawkins and Lawsons Creeks would be negligible with no adverse impacts for off-site property or infrastructure
- The proposed Lawson Creek crossing on the relocated Maloneys Road is likely to flood in a 1 in 10-year flood event, closing the road for up to 6 hours

Rehabilitation post Mine closure would be done in a manner that would allow runoff to flow into both the Hawkins and Lawsons Creeks, with the exception of the final void (approximately 0.5 km^2) which would retain water. The assessment has concluded that the final void would not overflow to the surface and remain a groundwater sink post-mining.



Health Risks

The human health risk assessment has considered human health risks associated with local changes to air quality, noise, surface water and groundwater. No physical health risk issues have been identified that would be associated with the Project.

Air Quality Health Risk

The assessment of air quality focused on dust emissions from the Project, being of key concern to some members of the Lue and district community. The presence of lead and other metals in these dust emissions was also evaluated in detail. The assessment addressed multiple exposure pathways including: the inhalation of dust; the deposition of dust onto roofs and the washing of these dusts into rainwater tanks where water may be used for drinking/household use; the deposition of dust to soil and other surfaces where people may come into direct contact; and/or the accumulation of these metals into home-grown produce that may be consumed.

The assessment concluded that impacts derived from the Project make a negligible contribution to overall exposures to particulates and the assessed metals with no health risks of concern during any stage of the Project operation. These conclusions apply to all members of the community, adults and children as well as sensitive individuals.

The assessment of potential exposure to silica and hydrogen cyanide also concluded that there were no health risk issues.

Water Quality Health Risk

Consideration was given to potential water quality impacts arising from Project-related activities, including leaching of metals from waste rock and seepage from the tailings dam.

Based on the assessments undertaken, the potential for adverse health impacts within the off-site community, due to Project-related surface water and groundwater impacts, were considered to be negligible.

Noise and Vibration

Assessment was made of predicted noise levels during site establishment and construction activities, on-site operational activities, road noise, and blasting.

Based upon the predicted levels and duration, there are no health impacts of concern in relation to noise from the Project.

It is noted that, given the existing comparatively quiet noise environment of the area, it is likely that, at times, noise from the Project would be audible and distinguishable above background noise levels. While these noises may be distinguishable, they would remain too low to impact upon community health.

Mental Health

In addition to physical health, mental health matters, principally stress and anxiety, have been raised by the community as a concern.

Should the Project be approved, members of the community concerned about negative impacts may continue to experience stress and anxiety. It is likely that a lack of information and uncertainty about the extent of impacts that are occurring would be a significant contributor. Therefore, a range of management measures, including a 'Good Neighbour' Program and Social Impact Management Plan, have been proposed to keep the community informed about the activities and results of monitoring.

As the Project progresses, and with demonstrated compliance with relevant air and water quality criteria, the level of stress and anxiety regarding these matters would be expected to reduce. Residual mental health effects would be further mitigated through proposed support for health services as part of Bowden Silver's Community Investment Program.

For other members of the community, the approval of the Project may result in positive mental health effects. As part of the community survey, unemployment was a significant perceived challenge facing the community, particularly given the loss of several local businesses in the LGA. With the proposed range of measures to maximise the local benefit of employment and use of local businesses, the potential positive mental health benefits of the Project would be maximised.

Visibility

Day-time Impacts

The development of the Project would result in changes in the visual landscape in the vicinity of the Mine Site. However, the limited visibility of the mining activities within the Mine Site and the range of visual controls would achieve an acceptable level of impact. Importantly, no components of the Mine Site would be visible from Lue.

Beyond the end of the Project life, the visual impacts of the Project would progressively diminish as the areas of revegetation established progressively over the Project life matures and revegetation of the final landform progresses.

A Visual Impact Assessment was conducted as part of the EIS, to assess the potential visibility and visual impacts of the Project over its life and to recommend strategies to manage and minimise any significant visual impacts.

The assessment involved: observations of the Mine Site from 53 private and public viewing locations; development of cross-sections to analyse views from key viewing locations towards the Mine Site; development of a 3-Dimensional interactive model; detailed review of all Project components; and the development of photomontages to show the sequence of visual changes throughout the mine life.

Visual impact on character and quality of the views of the Project would largely be caused by landform construction rather than removal of topography. The most visible features would be the light-coloured rock exposed on the southern barrier, oxide ore stockpile and waste rock emplacement, before these are revegetated.

The assessment concluded that the Project:

- Would not be visible from Lue
- Would be visible from a 1.5 km section of Pyangle Road and Powells Road, and distant sections of Lue Road
- Would be directly visible from six privately-owned residences within 5km of the Mine Site

Measures to reduce visual impacts would include:

- The design of the WRE to resemble a ridge similar in orientation and elevation to other nearby ridges;
- Prioritising the construction of the southern barrier to shield views of mining activities from the south
- Progressive revegetation and rehabilitation
- Enhancing the existing tree screens adjacent to Pyangle and Powells Roads
- Buildings/structures to be constructed in dark green/grey colours

After Dusk Impacts

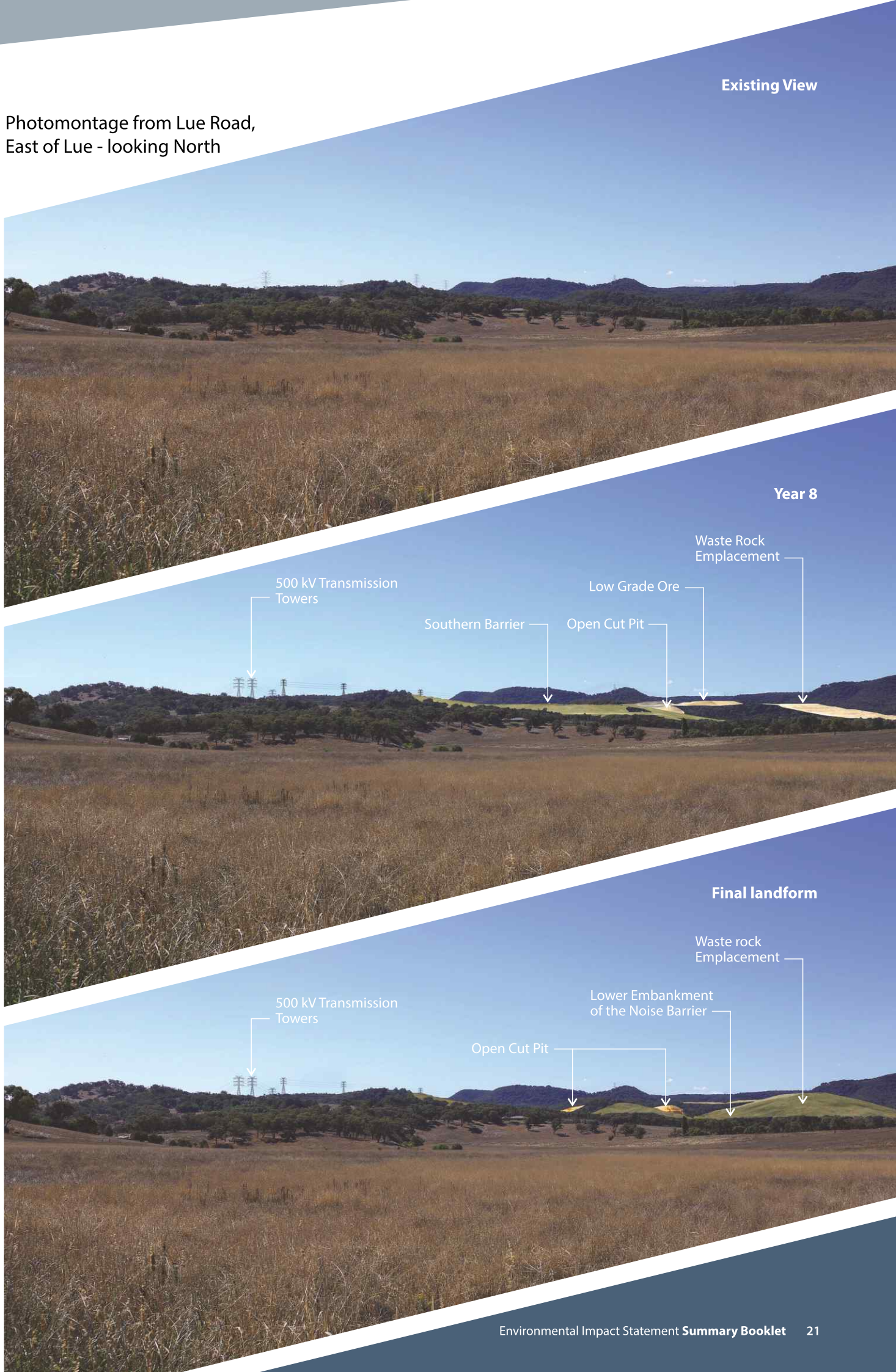
The potential for lighting impacts on the local environment has been assessed to be minimal. In addition, the impacts of sky glow on the local environment were assessed to be insignificant under both clear sky and cloudy conditions.

Sky glow was determined to be an important factor in the design of the Project due to potential impacts on the local environment after dusk and as the Mine Site is located approximately 168km from the Siding Spring Observatory, which falls within the Dark Sky Region (see Dark Sky Planning Guideline).

Some construction and operational activities are expected to be carried out 24 hours per day, with lighting required to provide safe working conditions.

However, a lighting and sky glow assessment concluded that the Project would comply with the limits for dark rural environments and impacts on the local environment would be insignificant. The Project would also have negligible impacts on operations at Siding Spring Observatory.

Photomontage from Lue Road,
East of Lue - looking North



Terrestrial Ecology

Comprehensive field surveys have concluded that the Project as proposed would result in the removal of approximately 381.7 ha of native vegetation of variable condition. This vegetation has the potential to be a habitat for a range of native fauna including threatened species. However, the Project is not expected to result in significant impacts upon migratory or threatened species. Biodiversity impacts that cannot be avoided would be offset in accordance with the NSW Biodiversity Offsetting Scheme, with 795 ha within and surrounding the Mine Site currently intended to be conserved in perpetuity. Additional 'off-site' biodiversity offset areas would also be established.

The ecological impacts of the Project have been assessed in accordance with the NSW Biodiversity Offsets Policy for Major Projects and the Framework for Biodiversity Assessment, with the Project having been referred to the Commonwealth Department of the Environment and Energy (now the Department of Agriculture, Water and the Environment).

To minimise impacts on biodiversity values, the Mine layout and pipeline route have been designed to avoid areas of high and medium biodiversity value to the greatest extent possible.

The assessment has identified the following within the Study Area:

- 11 vegetation communities
- 370 flora species including: 267 native flora species and 103 exotic
- 168 fauna species including: 123 species of bird; 21 species of mammal; 18 species of reptile; six species of frog

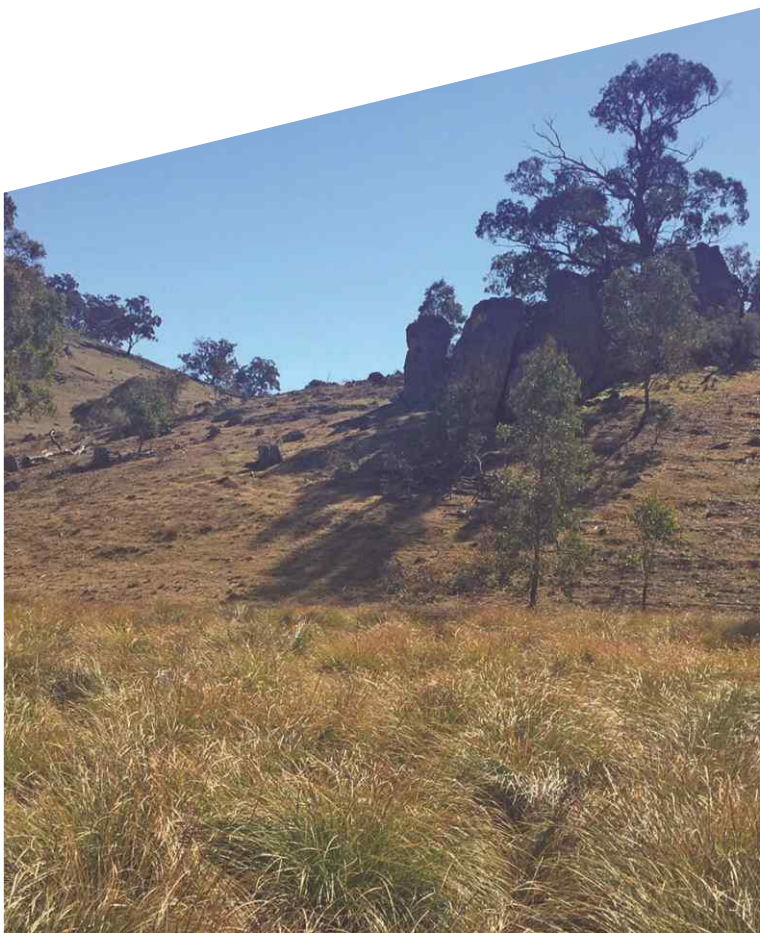
Three of the vegetation communities meet the definition of a threatened ecological community, Box-Gum Woodland, as listed by the NSW *Biodiversity Conservation Act 2016* (*BC Act*). Parts of these communities also classify as critically endangered under the Commonwealth *Environment Protection and Biodiversity Act 1999* (*EPBC Act*). Of the recorded flora and fauna species, two flora and 14 fauna species are listed under the *BC Act* and/or *EBPC Act*. Two migratory species were also recorded. Additionally, several previously recorded threatened species are located close to the proposed Mine Site, Maloneys Road, and along the water supply pipeline corridor.

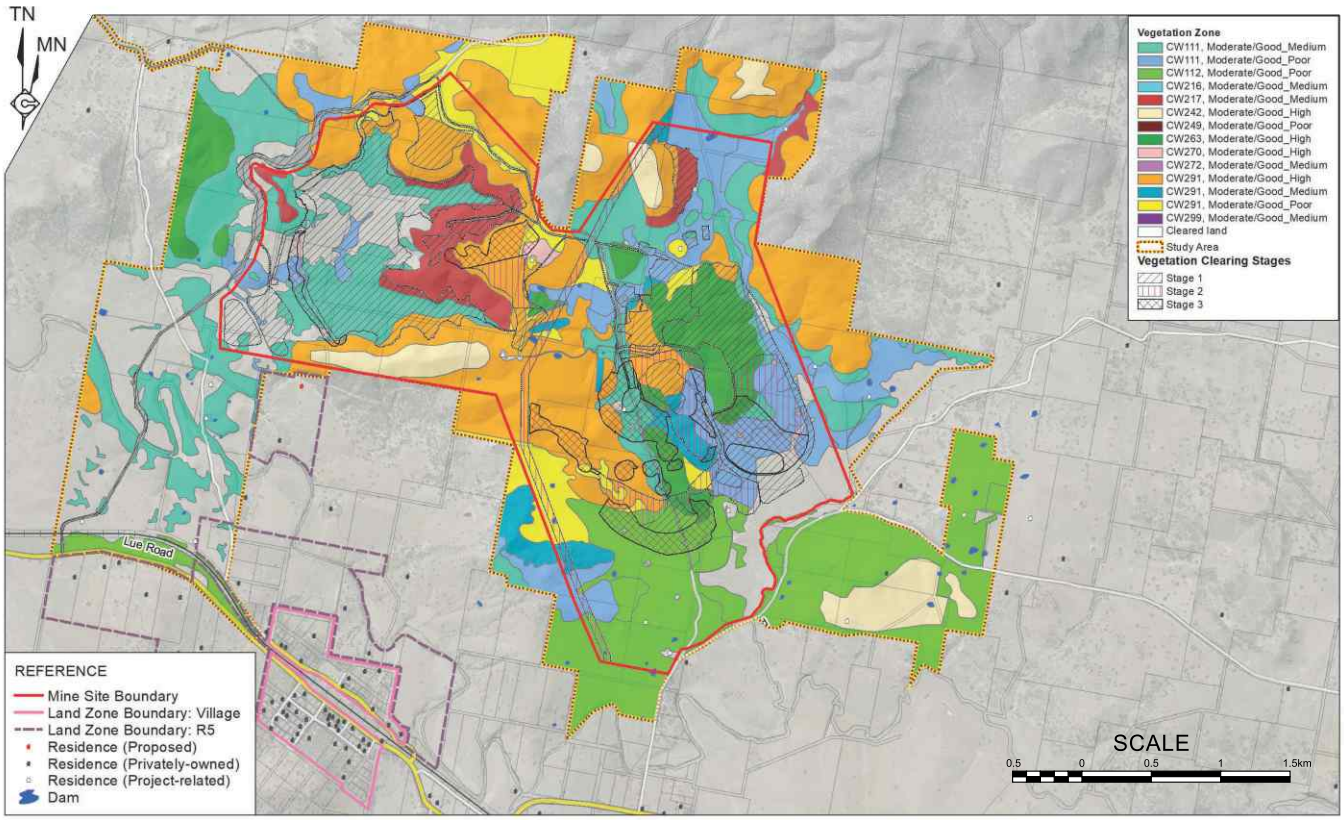
In assessing the potential for significant impacts, it has been concluded that, excluding the Regent Honeyeater, the Project would not result in significant impacts upon migratory or threatened species. For the Regent Honeyeater, whilst impacts may occur, it was considered that the Project would:

- Not lead to a long-term decline in the size of a population of the species
- Not reduce the area of occupancy to the detriment of the species
- Be unlikely to result in the introduction of species or diseases that are potentially harmful to the Regent Honeyeater

For Box-Gum Woodland, a range of mitigation measures have been proposed, including establishment of a biodiversity offset providing in perpetuity security for areas of Box-Gum Woodland and Regent Honeyeater foraging and breeding habitat that may have otherwise been subject to intense agricultural activity over time.

In addition, the assessment is considered conservative as it did not take into consideration the approximately 344 ha of the Mine Site that would be revegetated to native woodland and grasslands using species consistent with the existing vegetation communities, further reducing impacts to biodiversity.





Mine Site Vegetation Communities and Clearing

Source: Modified after EnviroKey 2020 - Map 27

Aquatic Ecology

The Project would not cause any direct impacts to Hawkins and Lawsons Creeks, however several ephemeral watercourses with limited aquatic habitat located within the footprint of the Mine Site would be displaced and realigned.

An aquatic ecology assessment was undertaken for the Project with a total of five field surveys conducted on Hawkins and Lawsons Creeks and several ephemeral watercourses (watercourses that only flow after rain), springs and groundwater bores both within and surrounding the Mine Site.

Hawkins and Lawsons Creeks were found to comprise degraded aquatic habitat with reduced bank stability and associated erosion and sediment input. Surveys identified a total of four native fish species and three introduced fish species, none of which are listed as threatened.

The aquatic ecology assessment concluded that:

- The Project could cause a minor impact to aquatic habitat in Hawkins and Lawsons Creeks due to flow reduction
- The Project could cause a minor impact to stygofauna and their habitat due to direct displacement or groundwater drawdown
- Several ephemeral watercourses located within the Mine Site would be displaced and realigned, however these were assessed as having limited aquatic habitat
- The greatest potential impact to aquatic ecology would be from accidental release of poor-quality water, however this risk would be effectively managed though Project design and ongoing management and monitoring
- The water supply pipeline would be constructed using techniques to minimise impacts to watercourses (e.g. under boring). Therefore, the impacts to fish passage and aquatic habitat are expected to be minor and temporary

Traffic and Transportation

With the proposed relocation of Maloneys Road to avoid the need for much of the Project-related traffic to travel through Lue and the implementation of the proposed mitigation and management measures, the traffic travelling to and from the Mine Site would be accommodated on the surrounding road network with virtually no adverse impacts to road users, the condition of the road network and the amenity of the residents of Lue.

A traffic and transportation assessment has been undertaken to understand the impacts on traffic related to the Project and has included an assessment of:

- The existing local and regional road network and conditions: including traffic counts, historical crash analysis, road safety audit and local public transport and pedestrian use of local road networks
- Impacts to local and regional road users, including proposed transport routes and anticipated volumes and traffic types

Community members consulted expressed that roads in the area were a concern and required maintenance; that the Project had the potential to cause traffic disruptions; and that residents did not want to see trucks through Lue. In response, Bowdens Silver are proposing to relocate a section of Maloneys Road to provide access to the Mine Site from the west of Lue. Whilst it is recognised that some mine personnel would reside in areas to the east of Lue, during operations the new road would remove the need for much of the light vehicle traffic, and almost all of the truck traffic through Lue and past the Lue Primary School. The new road would also include a new intersection (with full safety measures e.g. turning lanes); a new railway bridge overpass; and a new crossing at Lawsons Creek. Additional management measures to avoid or mitigate the impacts of the increased traffic in the locality would include the following:

- Implementation of a comprehensive Traffic Management Plan
- Staggering of shift start and finish times
- Careful management of oversize and overmass vehicles movements with all relevant permits and licences obtained and suitable escorts provided
- Provision of a bus service from Rylstone/Kandos and Mudgee areas for workforce
- Sufficient car parking within the Mine Site
- Protocols for the transportation of dangerous goods in accordance with the relevant codes and legislation
- Project-related traffic during the site establishment and construction stage is expected to contribute approximately 10% of the daily traffic on Lue Road within Lue and 15% of daily traffic on Lue Road towards Mudgee.

During operations traffic travelling through Lue decreases with daily traffic expected to contribute 7% of the total traffic on Lue Road within Lue and 10% of daily traffic on Lue Road towards Mudgee.

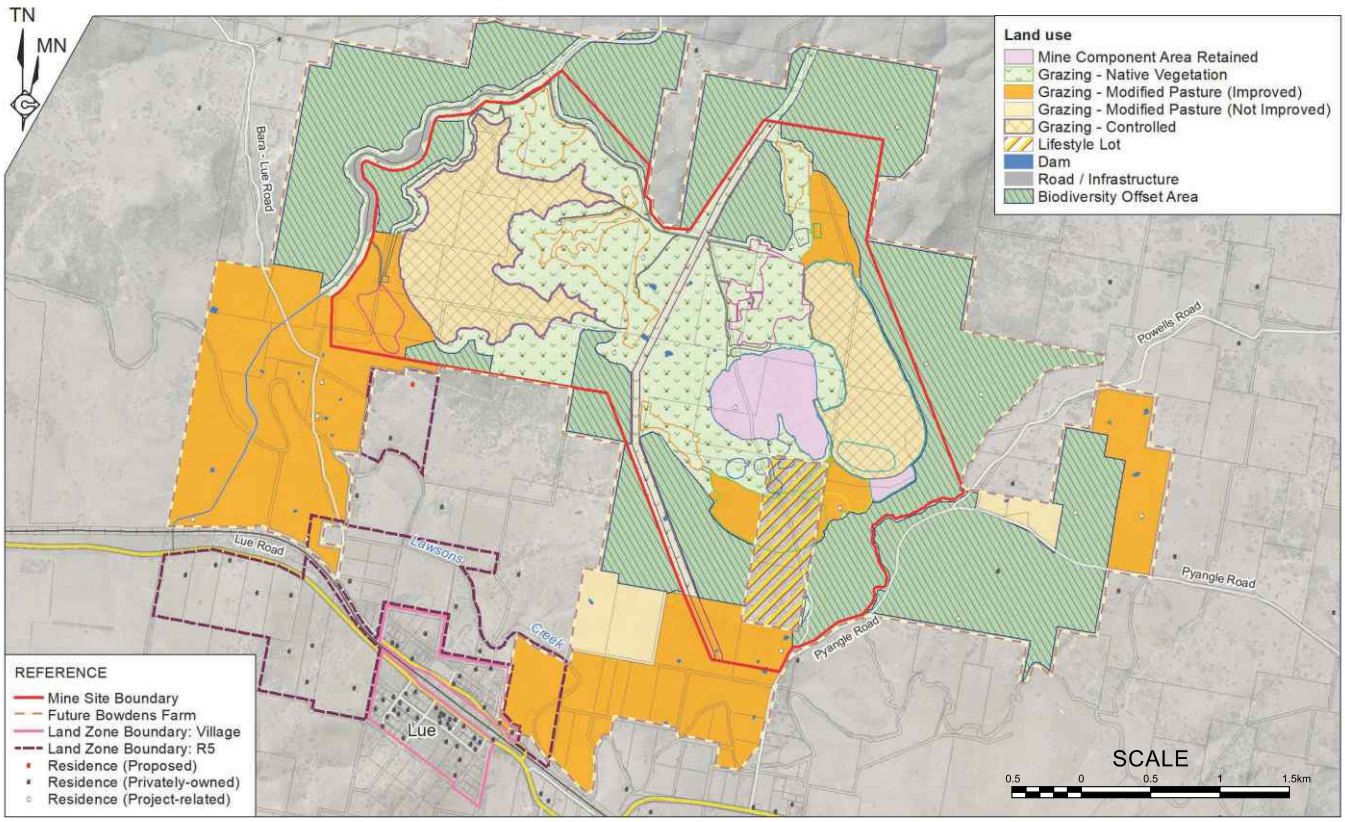
Although during the morning and afternoon peak hours the Project would contribute 22% and 19% of all traffic, respectively. The predicted hourly traffic at intersections used by Project-related traffic would remain well below the thresholds at which intersection capacity may be impacted and therefore are predicted to continue to operate with acceptable delays.

Agricultural Impacts

The Project would have a negligible to minor impact upon the agricultural resources and enterprises through the Region. The continued operation of the Bowdens Farm, and the proposed progressive rehabilitation schedule, would ensure that the Project would only have minor impacts on agricultural lands.

Agricultural activities within the Mid-Western Region Local Government Area are dominated by the grazing of cattle and sheep although the Region also has a long history of grape production and a growing olive production industry.

While the Project would remove a maximum of approximately 1,498 ha of land currently used for agriculture (principally low value grazing) out of production throughout the Project life, beyond the end of the Project life, it is anticipated that approximately 1,170 ha of land within the Bowdens Farm would be either retained or returned to agricultural production. The following figure presents the indicative land uses post Project life. Furthermore, the commitment from Bowdens Silver to provide a range of part-time jobs throughout the Project life would provide an opportunity to acquire off-farm income to local farmers which in turn may benefit a number of agricultural enterprises within the region.



Indicative Mine Site land uses post Project life

Soils and Land and Soil Capability

There is no Biophysical Strategic Agricultural Land located within the Mine Site. The proposed use of appropriate soil stripping, handling and stockpiling procedures would maximise the value of soils as a resource for rehabilitation purposes and minimise losses through erosion. There is no indication that soil conditions would constrain rehabilitation success.

Seven Soil Landscape Units have been identified within the Mine Site based upon geology, position in the landscape and slope. Most of the Mine Site is hilly and comprises 'sedimentary' and 'acid (felsic) volcanic' parent materials with poor conditions for plant growth. The minor areas in which Ordovician shale parent material is present are less acidic, however, soils within these areas are generally shallow.

Sodicity was not identified as a widespread problem within Mine Site Soil Landscape Units except for some of the alluvial soils located near watercourses. Soils generally displayed low soil organic carbon concentrations and very low electrolyte concentrations which could potentially make untreated soil prone to water erosion losses.

The Land and Soil Capability class for Mine Site Soil Landscape Units was determined in accordance with the *Land and Soil Capability Assessment Scheme – Second Approximation*. Land and Soil Capability classes within the Mine Site ranged between 3 and 6 with approximately 86% of disturbance within the Mine Site located within areas with a class of 6 (i.e. low capability land with very high limitations for high-impact land uses).

With the exception of the final void area, the soils in the rootzones of the modified landscapes would retain or improve their qualities required for the long-term rehabilitation of the Mine Site. A Site Verification Certificate, confirming the absence of Biophysical Strategic Agricultural Land within the Mine Site, was issued by the then DPE on 8 November 2017.

Aboriginal Cultural Heritage

The Project would require the salvage of items of Aboriginal cultural heritage significance from 25 identified sites within the Mine Site with 31 sites identified that would be protected over the Mine Life from inadvertent harm. All sites have been identified by the registered Aboriginal parties to be of high cultural significance. The majority of sites are considered by Landskape (2020) to be of low scientific, educational and aesthetic significance.

The Aboriginal and Historical Cultural Heritage Assessment was conducted in consultation with Aboriginal stakeholders and informed by:

- A predictive model (developed through analysis of regional and Project-specific research undertaken between 1980 and 1998; review of the Aboriginal Heritage Information Management System database and written ethno-historical records)
- Archaeological field surveys involving Aboriginal stakeholders within the Mine Site (between 2011 and 2017) and within the proposed water supply pipeline corridor and the proposed relocated Maloneys Road (2019)

The Project would require the salvage of 25 items of Aboriginal cultural heritage significance within the Mine Site including one site (a rock shelter) requiring test excavation. These artefacts would be properly curated and stored in an on-site "Keeping Place". The artefacts would be replaced within rehabilitated areas in consultation with representatives of the local Aboriginal community and NSW Biodiversity and Conservation Division.

A further 31 identified sites within the Mine Site, whilst not directly impacted, would require protection from inadvertent disturbance via the installation of protective barriers. The water supply pipeline corridor has been adjusted to avoid identified sites. No sites were identified within the proposed relocated Maloneys Road.

A Heritage Management Plan would be developed incorporating the process for salvage, recording and storage of sites and protocols for management of unexpected finds of items of potential Aboriginal heritage significance. Bowdens Silver would continue to involve Aboriginal stakeholders in matters pertaining to the Project including the recording, collection, curation, storage and re-placement of Aboriginal objects.

Historic Heritage

Three sites of potential historical heritage significance have been identified within the Mine Site. Each of the sites have been assessed to be of low significance except for the potential for identified hut ruins to be of moderate local significance for its research potential. All sites would be removed with salvage of the items identified within the hut ruins.

The Aboriginal and Historical Cultural Heritage Assessment identified the following sites of potential historical heritage significance (none of which are considered of State heritage significance):

- Hut ruins, including three sandstone blocks, fragments of cast iron stove, sheet iron, broken glass bottles, broken ceramic vessels – considered to be of moderate local significance for its research potential
- Two shallow pits (possibly beginning of abandoned mining shafts) – considered to be of low significance

Historic heritage management would be documented in a Heritage Management Plan Management, including the salvage and recording of the items identified within the hut ruins.

Economic Benefits and Impacts

The Cost Benefit Analysis and Local Effects Analysis demonstrate that there would be substantial economic and employment benefits resulting from the Project.

The results of the Cost Benefit Analysis conclude that the Project is estimated to deliver the net economic benefits presented below (i.e. following the inclusion of environmental, social and cultural costs).

	Base Benefit	Base plus Employment Beneftis
	$78M	$181M
	$89M	$192M
	$44M	$146M

The Local Effects Analysis has also considered the impacts at a local scale and concluded the following:

- There would be very small and inconsequential impacts upon agricultural economic activity
- Impacts on wages would not likely be significant. Where upward pressure on local area wages does occur, it would attract skilled labour to the local area leading to downward pressure on wages
- Based on 15% of the operational workforce migrating to the area, the potential impact on housing and rental prices would likely be positive but negligible
- Some impact to property values would be expected where a property is likely to be impacted by noise, air, visual, etc. Where these impacts are contained / mitigated, no impact to property value would be expected to occur

To mitigate potential negative economic impacts and to maximise positive economic and employment benefits, a range of measures would be implemented, including:

- Giving preference to the hire of local employees
- Provide ongoing training and certification opportunities for local community members to ensure they have the necessary skills to work in mining
- Inform local businesses of the goods and services required for the Project and encourage them to meet the requirements of the Project for supply contracts
- Implementation of a Planning Agreement with Mid-Western Regional Council to provide monetary contributions to or the physical provision of public amenity and public services, transport or other infrastructure
- Development of a Community Investment Program to expand upon current community support and sponsorships

Social Impact

A comprehensive program of community engagement and research has identified the anticipated and likely social risks of the Project. A range of feedback has been received indicating both support for and objection to the Project. Overall, the local communities strongly support the Project primarily due to its economic benefits including local job creation.

Consideration of community concerns and feedback on potential support programs has resulted in a range of social enhancement strategies being collated for further consideration and funding under measures that would be implemented by Bowdens Silver. With the implementation of these measures, the social benefit of the Project would be maximised and negative social impacts would be minimised.

It is acknowledged the outcomes of the Project would be experienced differently in the community, with ongoing meaningful engagement throughout the Project life proposed to ensure that mitigation programs are refined over time and the benefits of the Project are distributed as equitably as possible.

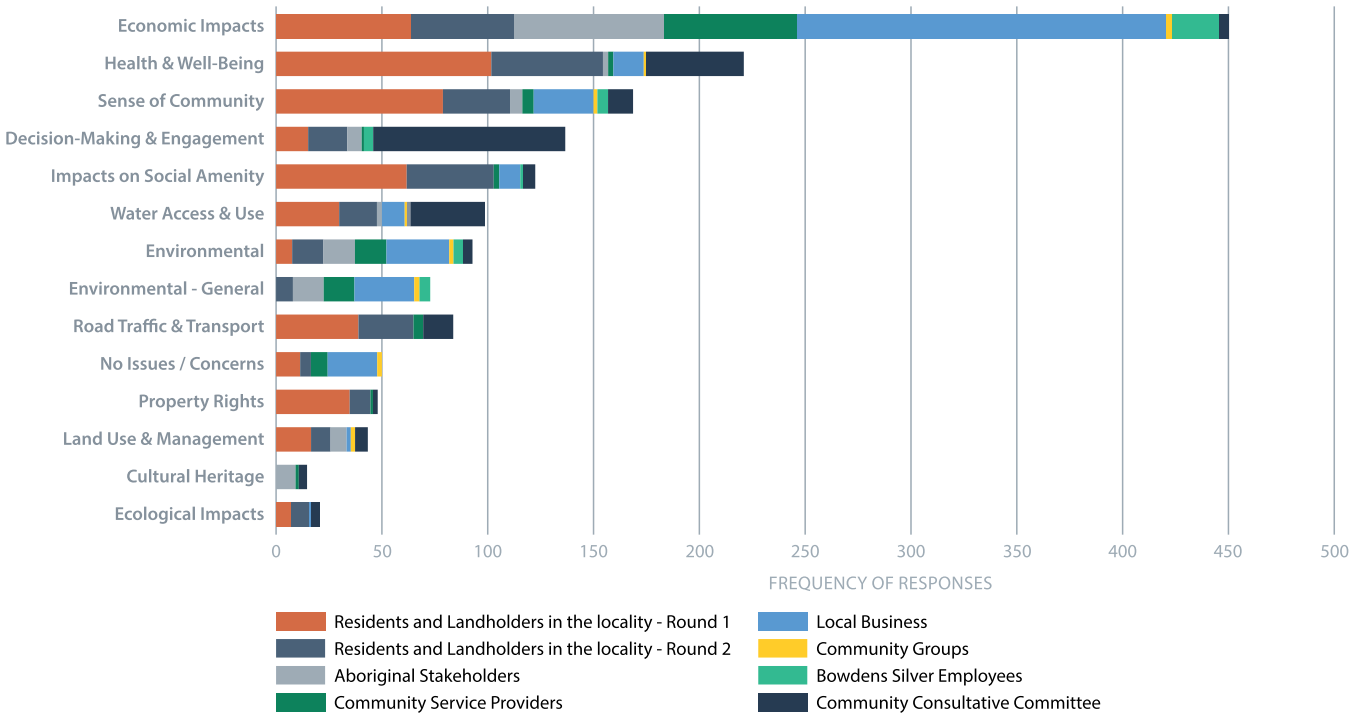
A detailed social impact assessment has been completed for the Project together with extensive consultation and engagement with key stakeholders within both the Lue district and wider Mid-Western Regional LGA.

A range of perceived social issues and impacts have been identified and have been considered in the design process for the Project. Careful consideration has also been given to the remaining matters that would need to be managed throughout both the construction and operational stages of the Project.

A summary of the issues and the frequency that they were raised in all engagement activities for the social impact assessment is presented below.

While a number of social and environmental issues have been raised by some local landholders in proximity to the Mine Site, particularly the impact of the Project on social amenity and sense of place and community in Lue; the broader LGA community has appeared more accepting of the Project due to the predicted positive economic benefits. The level of concern relating to the Project and mining generally also varies across stakeholder groups and geographic location see following page.

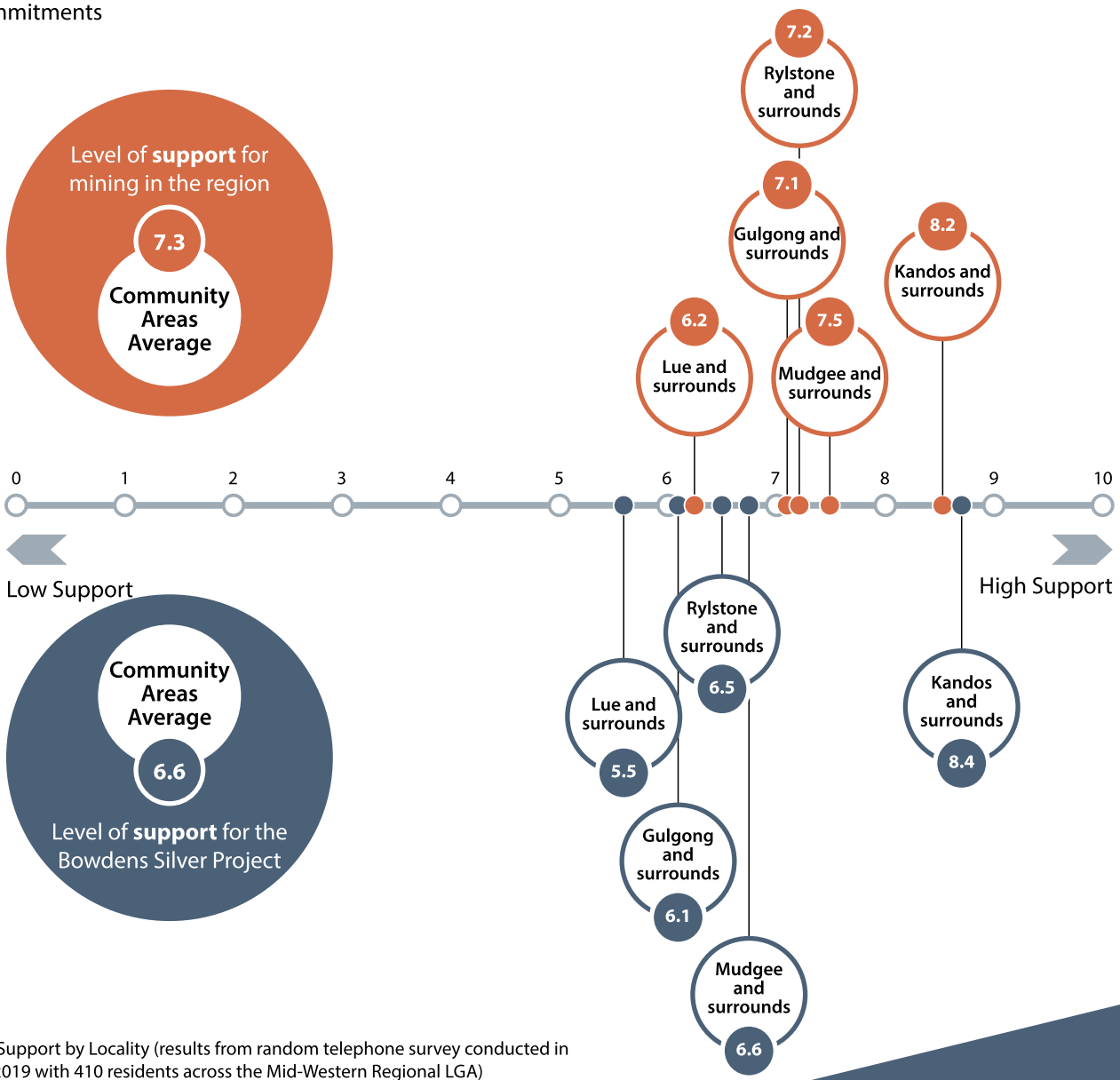
Frequency of themes raised during engagement for the social impact assessment



To minimise the potential negative social impacts relating to the Project and enhance the positive benefits, the following key mitigation and enhancement strategies are proposed:

- Development of a Community Investment Program that focuses on enhancement initiatives for Lue and other key communities in the LGA
- Development of a strategy to maximise local employment and procurement
- Development of a Good Neighbour Program and employment of a dedicated Community Liaison Officer to maintain and further develop Company-community relationships and manage social and environmental monitoring and management commitments
- Development of a Social Impact Management Plan that outlines how social and community impacts will be monitored, evaluated and managed
- Preparation of an appropriate complaint management process
- Continuation of meaningful engagement with the community and regular public reporting of relevant statistics, monitoring results and engagement outcomes to keep the community informed, maintain transparency, and to remain accountable

With the implementation of these measures, the social benefit of the Project would be maximised and negative social impacts would be minimised.



Level of Support by Locality (results from random telephone survey conducted in August 2019 with 410 residents across the Mid-Western Regional LGA)

Project Evaluation and Conclusion

In evaluating the Project, it is important to consider the following:

- Bowdens Silver's approach to the Project design and consideration of alternatives, including engagement with the community on the alternatives considered
- The commitments made by Bowdens Silver that relate to reducing the potential impacts of the Project, ongoing management in an environmentally and socially responsible manner and final rehabilitation of the Mine Site
- That the design and planning of the Project has been in accordance with the principles of ecologically sustainable development
- The Project is consistent with State, regional and local planning matters and the objects of the *EP&A Act*, the principal legislation guiding development in NSW
- That Bowdens Silver considers it would achieve the objectives of the Project

Each component of the EIS is accompanied by a description of the environmental management commitments that have been proposed in order that:

- Predicted residual environmental impacts remain acceptable
- Ongoing management, monitoring and reporting ensures that compliance is maintained
- There are measures in place to ensure the community is aware of how environmental risks are being managed
- In the case of social commitments, benefits are distributed as equitably as possible

The assessment of impacts for the Project has determined that noise would be a residual Project-related impact. Bowdens Silver would implement all reasonable and feasible noise mitigation measures and is in negotiation with those residents that would be unacceptably impacted under the VLAMP.

Remaining residents would experience mine-related noise for the first time, particularly under noise enhancing conditions, however, those noise levels are predicted to be less than the relevant criteria. All other environmental aspects have been mitigated to the maximum extent practicable and Bowdens Silver contends that these would not result in unacceptable or unreasonable impacts.

Planning and design of the Project has been an iterative process that has involved refinements in response to the outcomes of assessment and the feedback from community engagement. Bowdens Silver considers that the scale of the Project would be sufficient to provide a boost to the local economy but not cause substantial adverse environmental or social impacts. The Project, as presented, provides an acceptable balance of environmental and social outcomes in achieving the economic benefits of the Mine.

Bowdens Silver recognises the importance of establishing a relationship of mutual trust with the community that would be achieved through accountability and transparency. This would be achieved through meaningful engagement throughout the Project life and monitoring of the environmental and social outcomes, with results made available to the public.

In addition, the legacy of the Project has been considered with regards to the rehabilitation and final land use options and mechanisms to preserve the existing character of Lue while providing sufficient economic stimulus to support existing businesses and a reasonable level of growth.

Public Exhibition

The Project's EIS will be on exhibition from 2 June 2020 until 27 July 2020. After the public exhibition period is competed, DPIE will collate submissions and Bowdens Silver will have an opportunity to review and respond to all submissions. This includes submissions from Government, interest groups and the public.

Making a submission

DPIE has provided advice that the following information should be included in any submission:

- Your name and address, at the top of the letter only (and indicate if you want your name to be withheld)
- The name of the application and the application number
- A statement on whether you support or object to the proposal
- The reasons why you support or object to the proposal
- A declaration of any reportable political donations made in the previous two years

Where to make a submission?

Submissions can be made via:

DPIE's Major Project's website:

https://www.planningportal.nsw.gov.au/major-projects/project/9641

OR

Post to: Director, Resource Assessments,
Planning and Assessment, Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2124

We hope you have found this booklet useful and look forward to your continued feedback on the Bowdens Silver Project. Thanks again for your involvement in the Project to date.

Need more information?

Copies of the EIS can be found at the following locations:

- **https://www.planningportal.nsw.gov.au/major-projects/project/9641**
- Mid-Western Regional Council (Mudgee office) *Please call ahead*
- Bowdens Silver Office, Lue

For more information visit **https://bowdenssilver.com.au/** or please contact our Community Liaison Officer, Blake Hjorth.

Blake Hjorth
Community Liaison Officer
Bowdens Silver

e: **blakehjorth@bowdenssilver.com.au**
t: (02) 6373 6420
a: 68 Maloneys Road, Lue NSW 2850

BOWDENS SILVER

68 Maloneys Road, Lue NSW 2850
P.O. Box 1115, Mudgee NSW 2850

Ph. +61 (02) 6373 6420
E: information@bowdenssilver.com.au

www.bowdenssilver.com.au

R.W. CORKERY & CO. PTY. LIMITED

GEOLOGICAL AND ENVIRONMENTAL CONSULTANTS

Brooklyn
Level 1, 12 Dangar Road
PO Box 239
BROOKLYN NSW 2083

Ph. (02) 9985 8511
E. brooklyn@racorkery.com

www.rwcorkery.com.au