

Figure 7 | Project Water Requirements

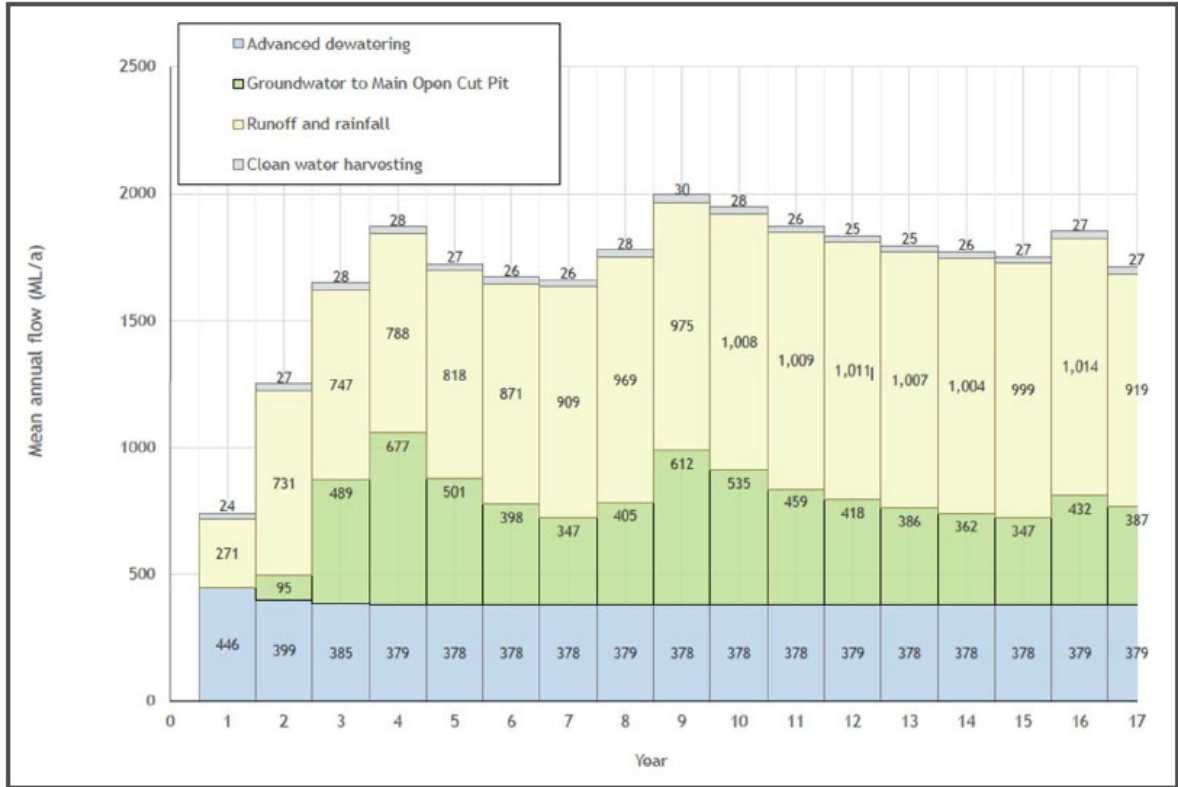


Figure 8 | Water Supply Sources

Table 6 | Water licenses held by Bowdens Silver

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

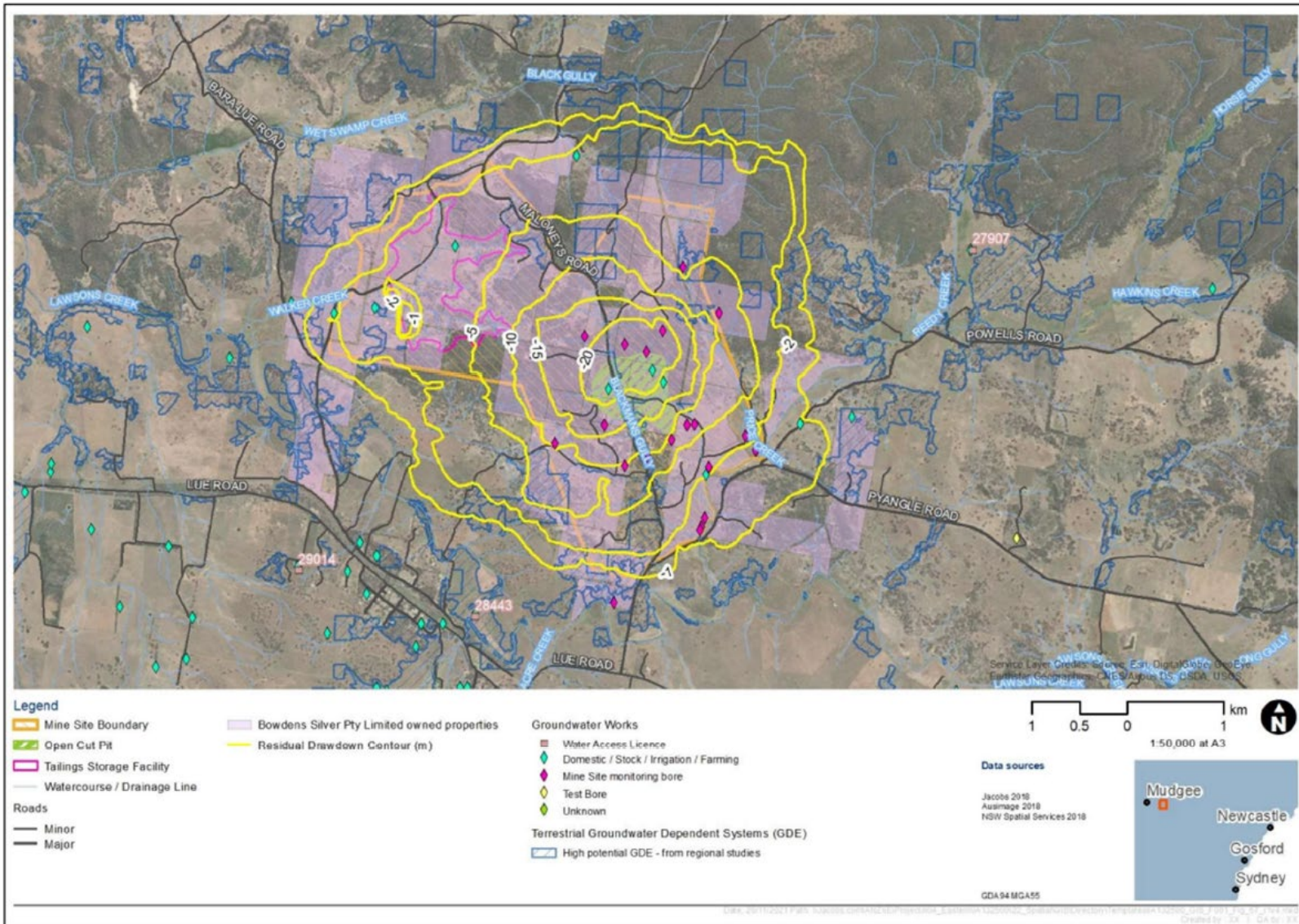
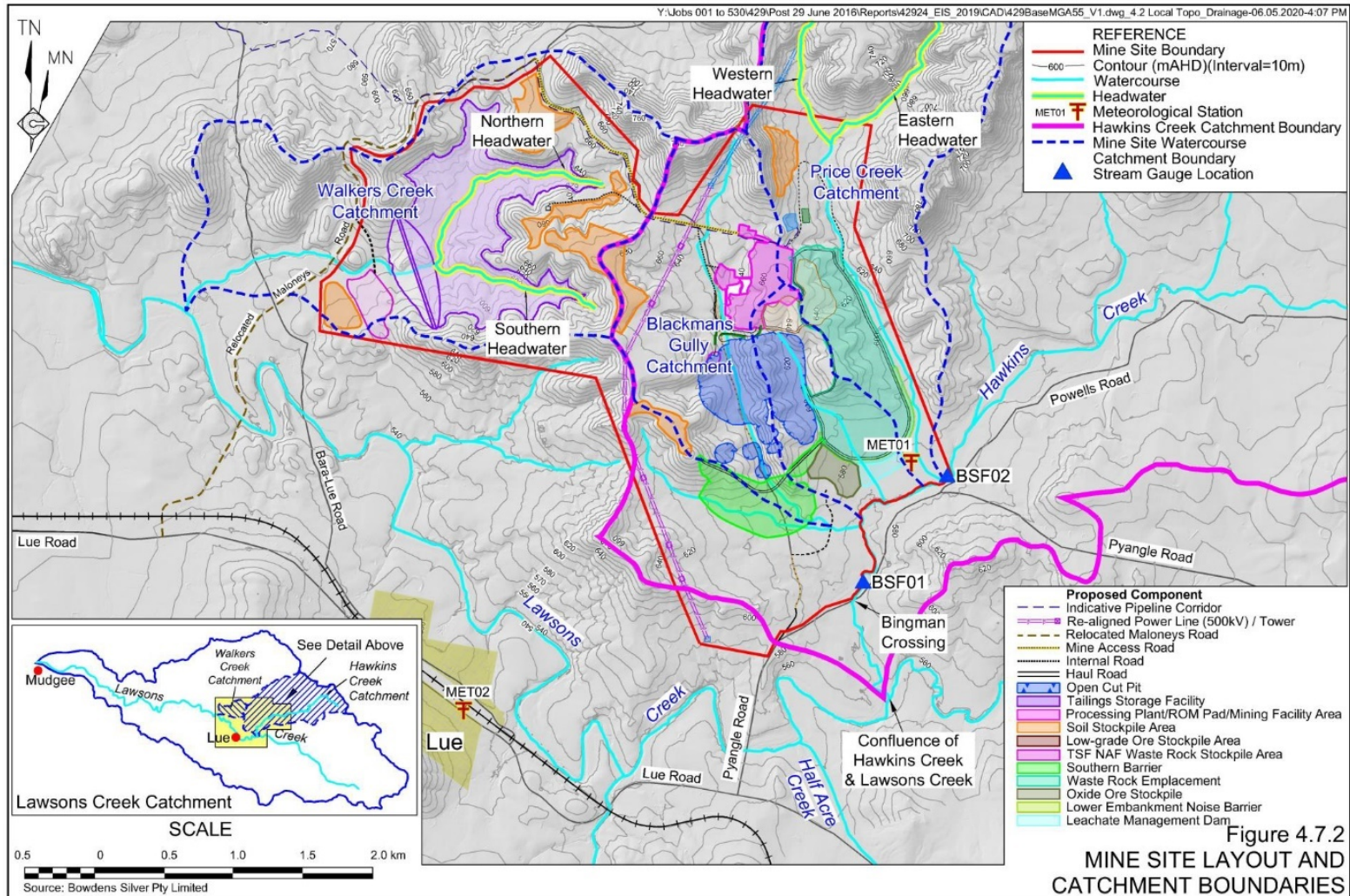
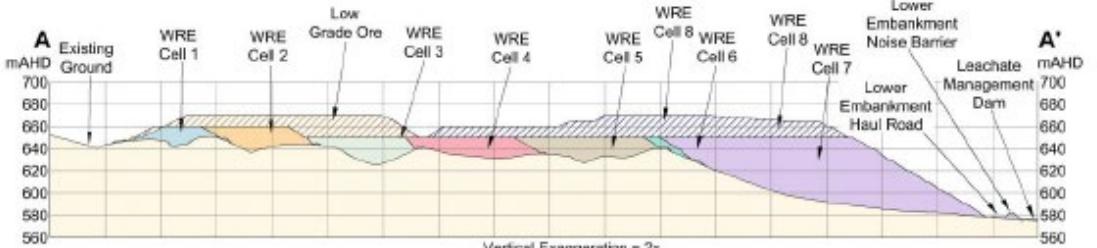
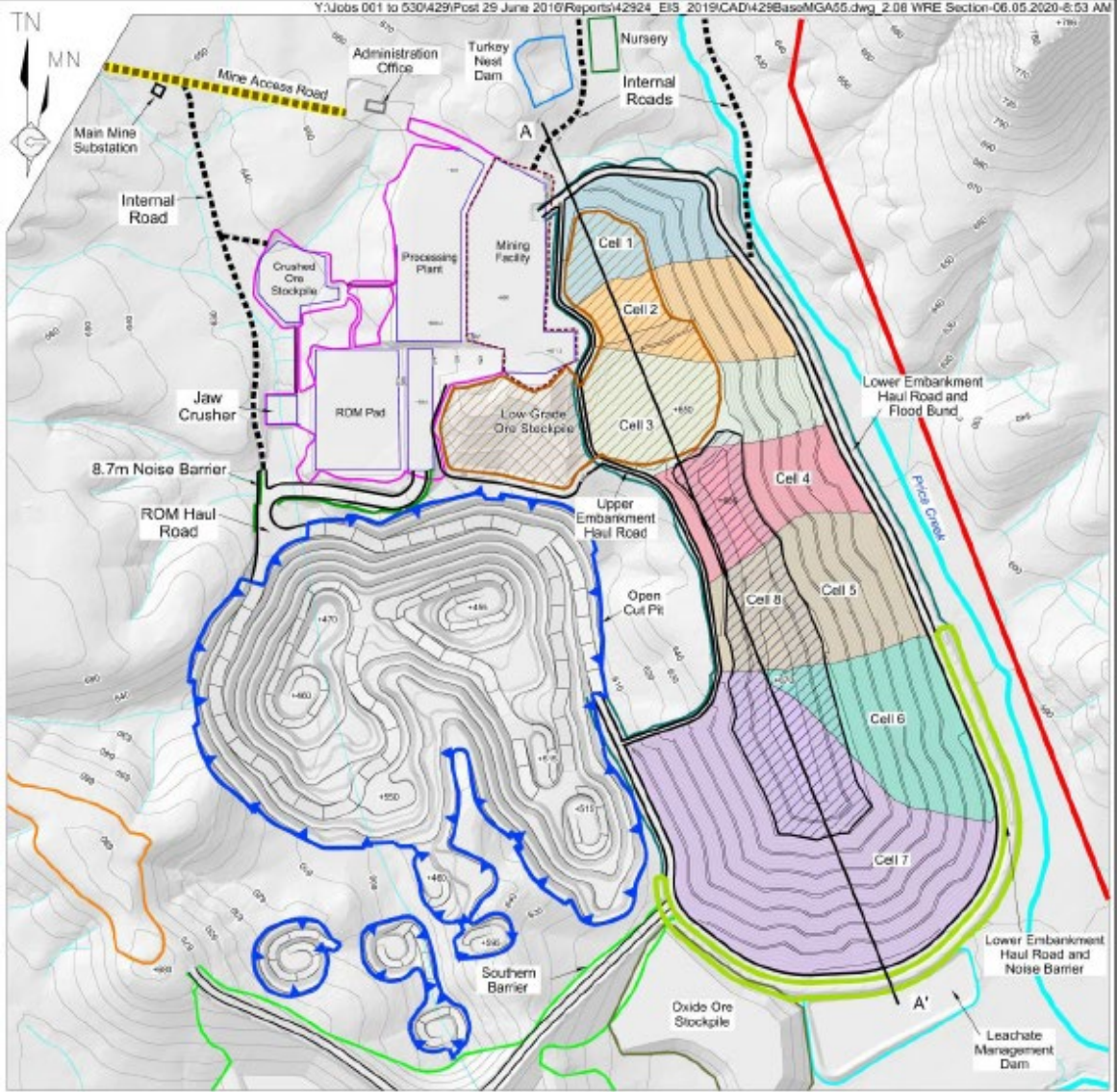


Figure 10 | Drawdown contours 50 years post mining





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|---|--|--|
| <p>REFERENCE</p> <ul style="list-style-type: none"> Mine Site Boundary Contour (m AHD) (Interval = 10m) Watercourse / Drainage Line | <p>Proposed Component</p> <ul style="list-style-type: none"> Mine Access Road Haul Road (Varying Width) Open Cut Pit Boundary Processing Plant/ROM Pad Area Soil Stockpile Area Mining Facility Low-grade Ore Stockpile Area Southern Barrier Waste Rock Emplacement Oxide Ore Stockpile Lower Embankment Haul Road Noise Barrier | <p>Waste Rock Emplacement Stages</p> <ul style="list-style-type: none"> Cell 1 Cell 2 Cell 3 Cell 4 Cell 5 Cell 6 Cell 7 Cell 8 |
|---|--|--|

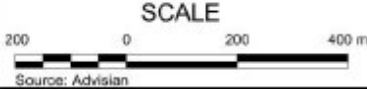


Figure 2.8
WASTE ROCK EMPLACEMENT
LAYOUT AND SECTION

Source: Advisian

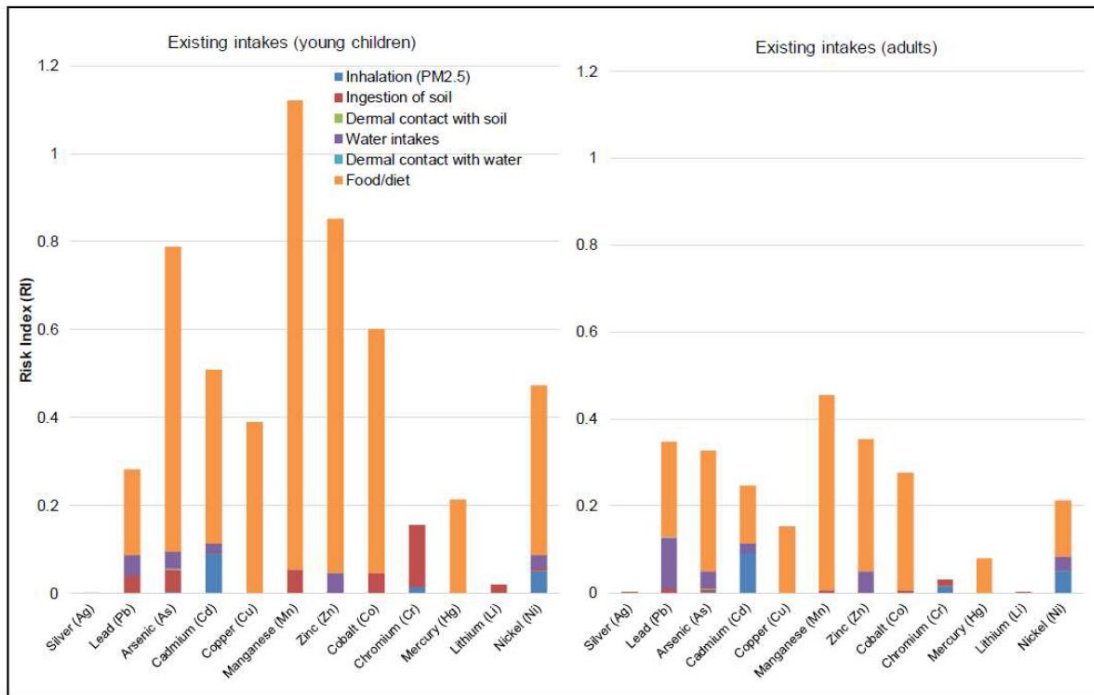


Figure 12 | Existing exposure to metals without contributions from the project

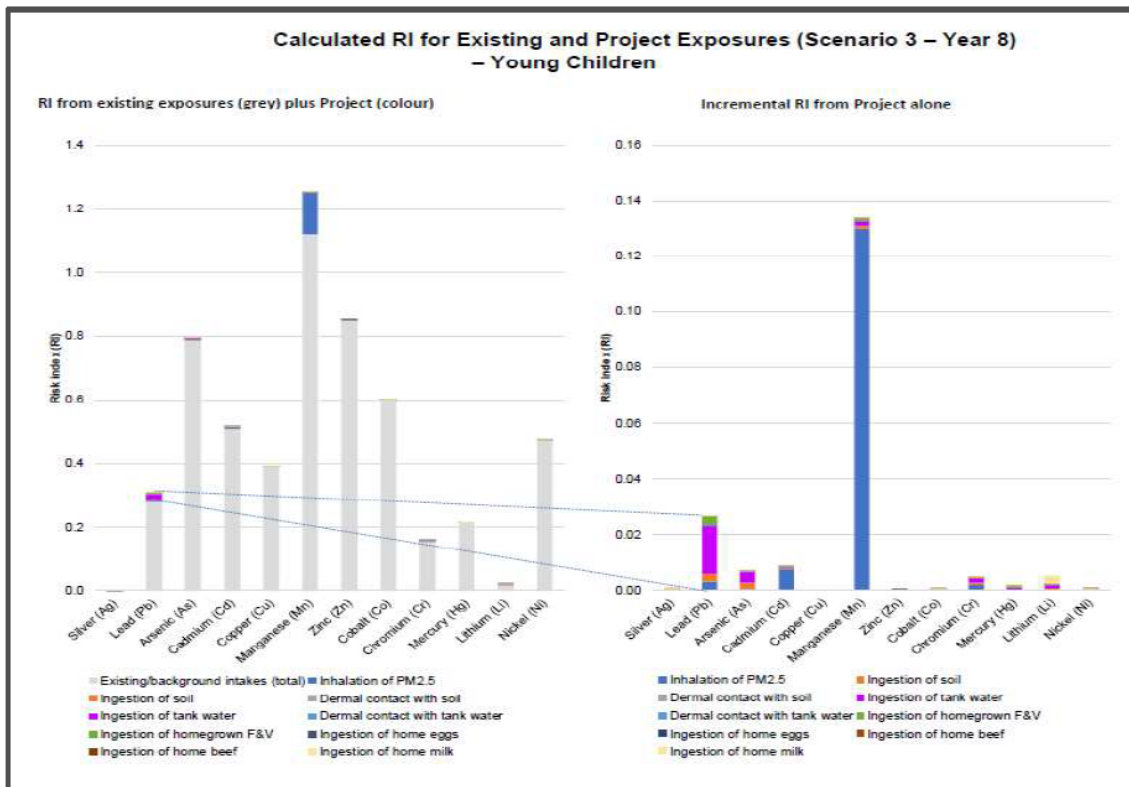
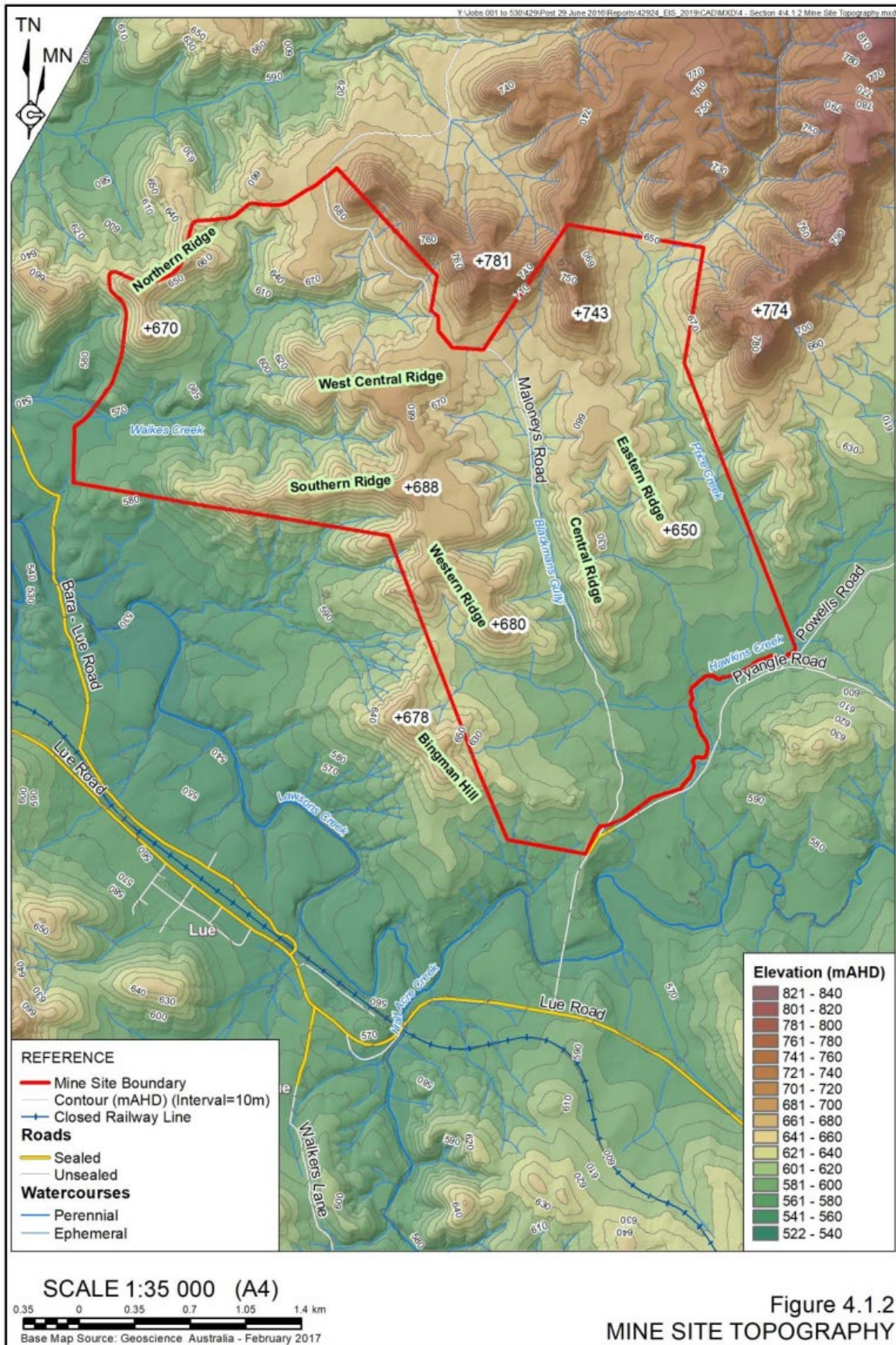
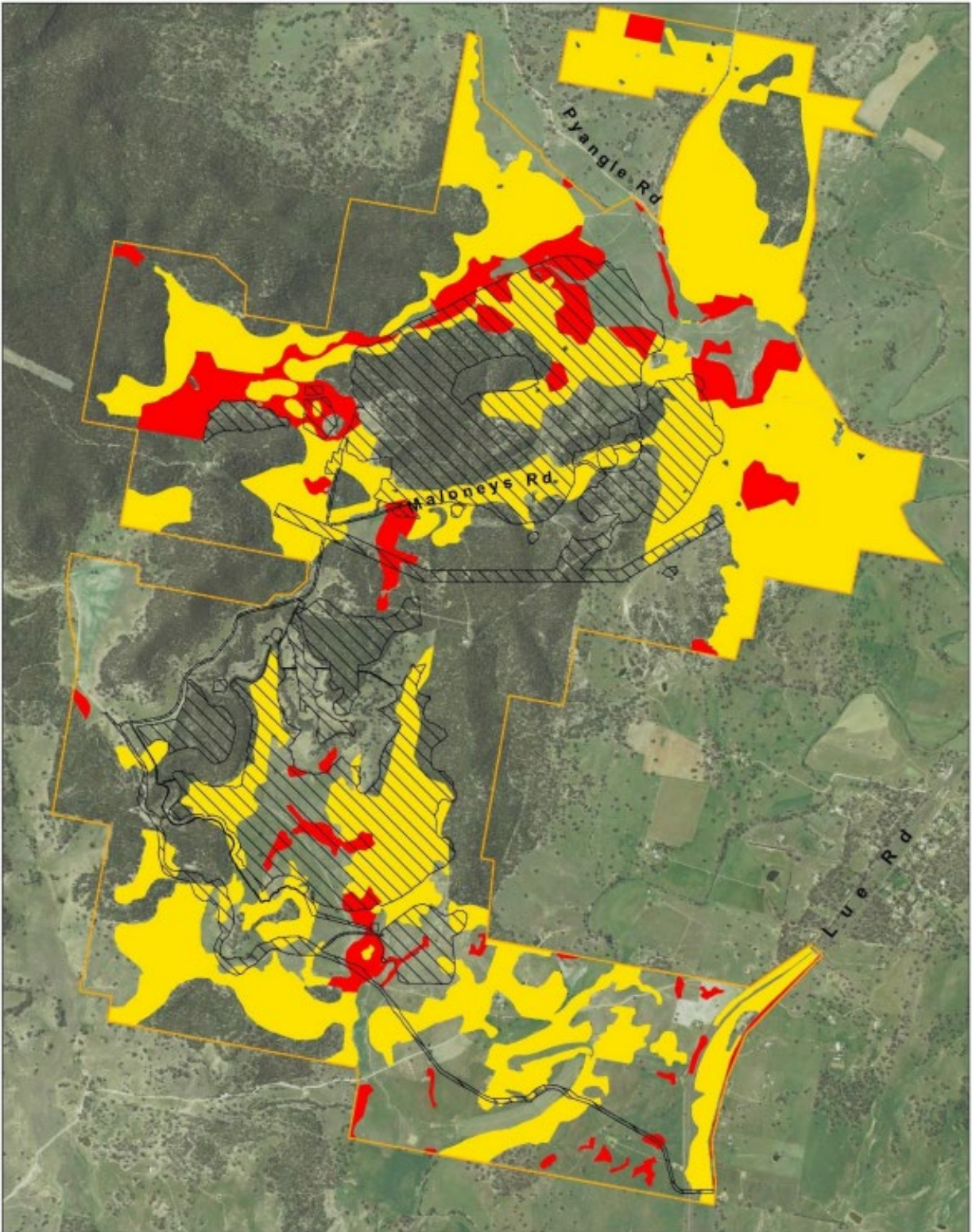


Figure 13 | Calculated RI for existing and project exposures for young children at closest private residence (Scenario 3 - Year 8)





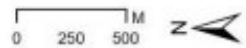
Threatened ecological community

- Box Gum Woodland - BC Act
- Box Gum Woodland - BC Act, EPBC Act
- BAR Footprint
- Study Area

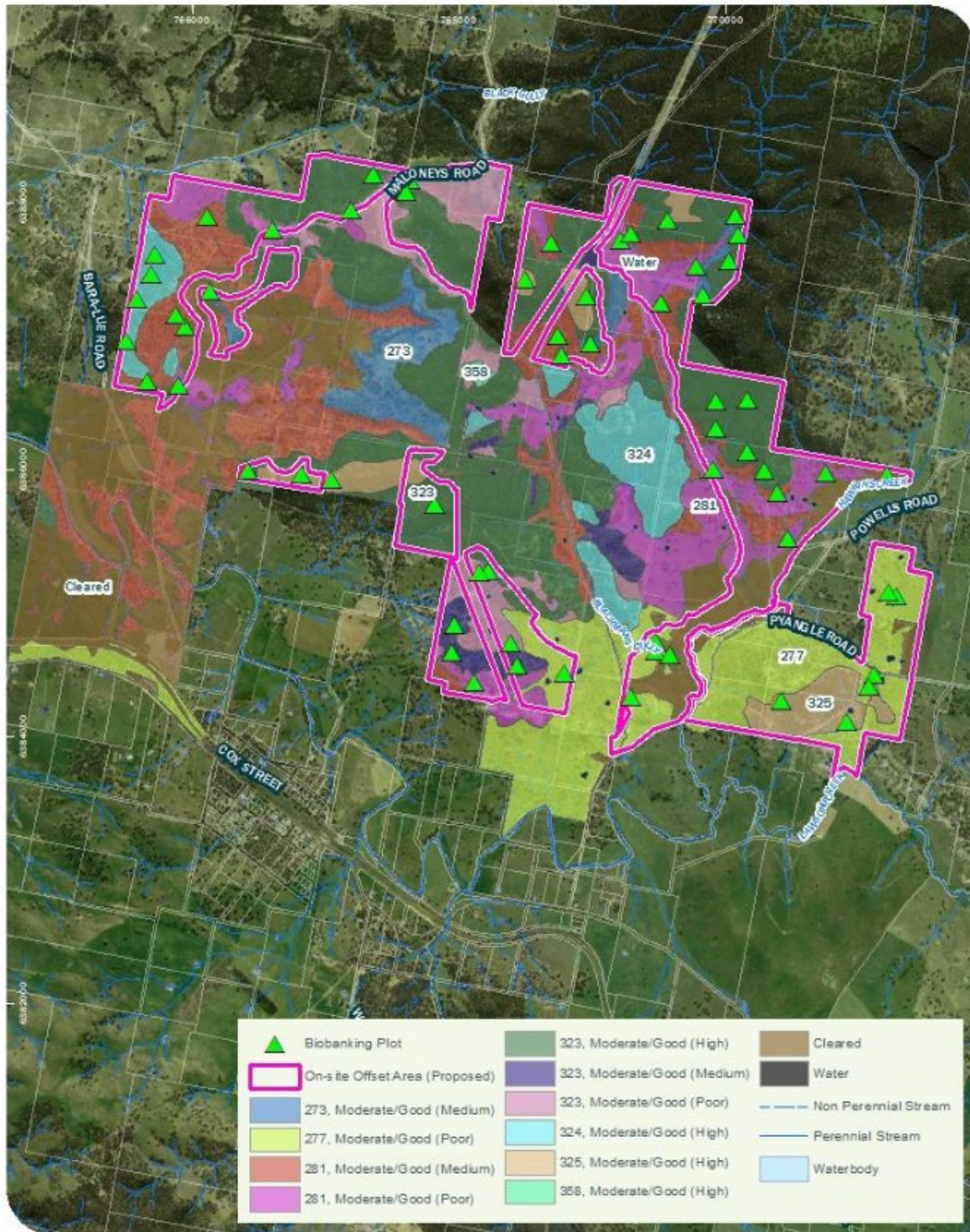
Datum, proj: GDA94, MGA z55.

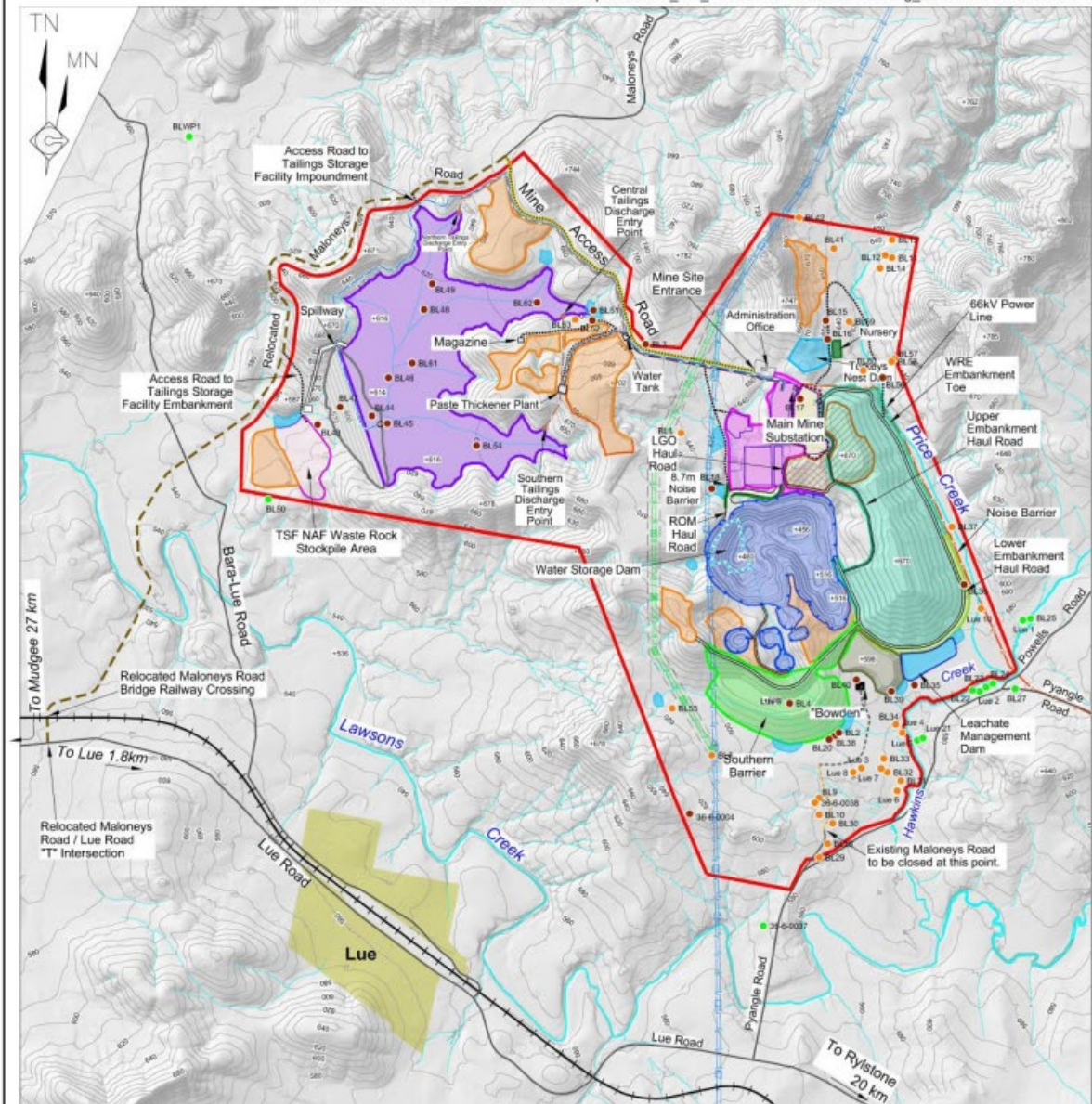
Data sources:
 Study area, TEC: Envirokey.
 BAR footprint: Bowdens.
 Aerial image: SIX (NSW Govt).

Mapping date: 3/12/2021



EnviroKey
www.envirokey.com.au





REFERENCE		Proposed Component	
	Mine Site Boundary		Re-aligned Power Line (500kV) / Tower - with 70m Easement
	Contour (m AHD) (Interval = 10m)		Proposed 66kV Power Line
	Spot Height (mAHD)		Aboriginal Cultural Heritage Site Impact
	Existing Watercourse / Drainage Line		BL35 Direct Impact
	Road		BL55 Indirect Impact
	Closed Railway Line		Lue 6 No Impact
	Existing Power Line (500kV) / Tower		Tailings Pipeline
	Maloney's Road (Section to be closed)		Tailings Discharge Pipeline
	Lue as displayed on Mid-Western Regional LEP, 2012		Decant / Paste Thickener Return Pipeline
			Relocated Maloney's 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
			Water Management Infrastructure
			Lower Embankment Noise Barrier
			Noise Barrier

SCALE
0.5 0 0.5 1.0 1.5 2.0 km

Source: Bowdens Silver Pty Limited

Figure 6.13

IMPACTED ABORIGINAL CULTURAL HERITAGE SITES WITHIN THE MINE SITE

WATER

Materials Classification Verification Program

B34 The Applicant must prepare a Materials Classification Verification Program to validate the acid mine drainage risk classification system to the satisfaction of the Planning Secretary. This program must:

- (a) be prepared by a suitably qualified expert(s);
- (b) be based on a sampling and testing program that has been approved by the Planning Secretary, that includes:
 - (i) static geochemical testing to verify the proposed classification of waste rock material as non-acid forming (NAF) or potentially acid forming (PAF); and
 - (ii) kinetic geochemical testing to quantify acid generation and duration rates (including lag time and longevity) from PAF waste rock; and
- (c) include a final report on the results and analysis of the testing program that:
 - (i) identifies and verifies the suitability of the adopted sulphur cut-off value(s) for classifying waste rock materials as NAF; and
 - (ii) demonstrates that there is sufficient NAF material available for construction of the mine and to successfully rehabilitate the site, including full encapsulation of PAF materials.

The Applicant must not commence construction of the development until the Materials Classification Verification Program is approved by the Planning Secretary.

Component of Water Management Plan (Condition B47)

- (iii) **Acid Mine Drainage Management Plan** that:
 - describes the acid mine drainage management system in detail, including:
 - the classification system and cutoff values for potentially acid forming and non-acid forming materials;
 - the methods to be used to identify and separate potentially acid forming and non-acid forming materials after extraction and prior to emplacement;
 - the method to be used to treated and/or manage potentially acid forming material;
 - the methods to be used to assess and manage non-acid forming material that has potential to generate acid and metalliferous mine drainage (such as material containing alunite and jarosite)'
 - the methods to be used to assess and manage acid potential for low grade ore and oxide ore; and
 - how best practice management is being employed to minimise the potential for acid mine and metalliferous drainage;
 - includes a program to monitor and evaluate:
 - compliance with the relevant performance measures listed in Table 7 and the performance criteria in this plan;
 - potential acid and metalliferous drainage from water storages (including the TSF, WRE and open cut pit) and built landforms, including landforms constructed from material classified as non-acid forming; and
 - the effectiveness of the materials classification system, including contingency measures to be implemented if there is an excess of acid forming material;
 - includes reporting procedures for the results of the monitoring program; and
 - includes a trigger action response plan to respond any exceedances of the performance measures or performance criteria and mitigates any adverse impacts that may result from acid mine drainage or metalliferous drainage.