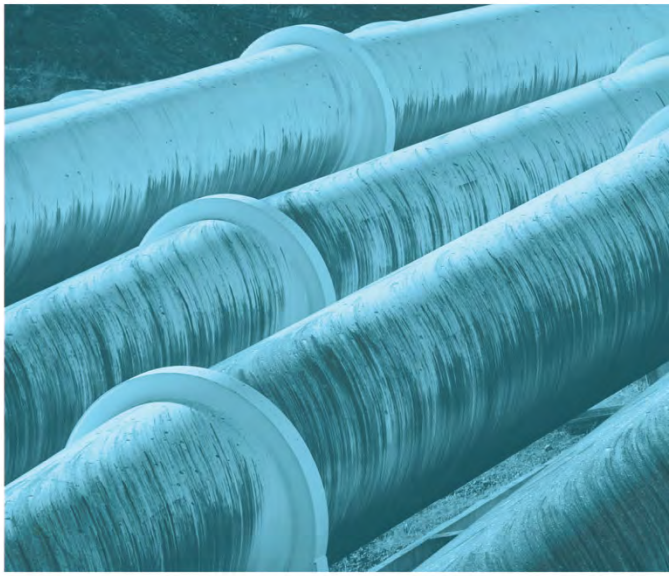
New Cobar Complex Underground Project

Department of Planning, Industry and Environment
Scoping Document

Prepared for Peak Gold Mines Pty Ltd
December 2019



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New Cobar Complex Underground Project

Department of Planning, Industry and Environment Scoping Document

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Client

Peak Gold Mines Pty Ltd Pty Ltd

Date

20 December 2019

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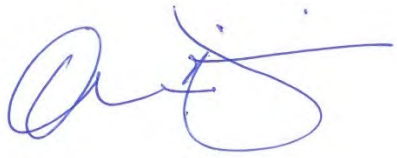

Andrew Dickinson
Project Manager
20 December 2019

Approved by

Rob Morris
Project Director
20 December 2019

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1 Introduction

1.1 Project overview

Peak Gold Mines Pty Ltd (PGM), a wholly owned and operated subsidiary of Aurelia Metals Limited (Aurelia), owns and operates the Peak Gold Mines operation south-east of Cobar, western New South Wales (NSW)(see Figure 1.1).

The PGM operation comprises the New Cobar Complex located 3 kilometres (km) to the south-east of Cobar town centre and the Peak Complex located 10 km south-east of the town centre; both complexes are located adjacent to the Kidman Way which connects Cobar to Hillston and Griffith to the south.

Geologically, the area around Cobar comprises a series of polymetallic high-grade ore bodies dominated by gold, silver, copper, lead and zinc, with a long history of stable, large-scale, low cost production that has produced more than 200,000 tonnes of copper and three million ounces of gold since mining began in the area in 1870.

1.1.1 Existing operations

PGM has been operational since mining commenced at the Peak deposit in 1991 and operates under development approvals issued by Cobar Shire Council (CSC). Mineral production commenced in 1992, producing gold, copper, lead, zinc and silver. Mining at the New Cobar Complex commenced with the open cut pit in 2000, then transitioned to underground mining in 2004.The current approvals at Peak and New Cobar allow for the operations to continue indefinitely and process up to 800,000 tonnes per annum (tpa) of ore at the Peak processing facility; tailings are placed at the Peak Tailings Storage Facility (TSF), both located at the Peak Complex. The ore deposits with approval for mining at the Peak and New Cobar complexes (see Figure 1.2) include:

- New Cobar Complex:
  - New Cobar;
  - Chesney; and
  - Jubilee.
- Peak Complex:
  - Peak;
  - Perseverance;
  - Chronos;
  - New Occidental;
  - Kairos; and
  - S400.

Access to the New Cobar and Jubilee underground workings are from a portal and decline from the base of the New Cobar open pit. Access to the Chesney workings comes from a 700 m decline off the New Cobar decline at a depth of approximately 300 m below ground level (bgl). Mining operations at PGM are undertaken under development consents issued by CSC. All current mining activities undertaken at the New Cobar Complex are approved activities.

1.1.2 Proposed development

PGM is in the process of investigating options for extending the life of the New Cobar Complex, and has identified the Gladstone and Great Cobar Deposits as targets. The Great Cobar deposit was historically exploited by surface and underground mining between 1870 and 1919, but no mining activity has been undertaken since that time.

PGM has obtained conditional approval for development of an exploration decline to target deeper resources (700–800 m bgl within the Great Cobar deposit for ore evaluation. The objectives of the exploration activities are to:

- further define the mineral resource;
- provide further samples for metallurgical, geotechnical and associated test work; and
- allow for a program of trial grade control drilling in advance of extraction of two bulk samples to permit comparison of close-spaced drilling results with the average bulk sample grade.

PGM proposes to use the decline, infrastructure and intake and exhaust ventilation elements developed for the Great Cobar exploration drive to facilitate this development. Ventilation fans will not be required during the development of exploration activities, however as they will be necessary during operation of mining, construction of a short (no more than 400 m) powerline between an existing 22 kV line servicing PGM will be required. No additional new surface infrastructure is proposed at this stage of the project.

Groundwater dewatering will be required and will be further investigated and clarified during the EIS process.

Processing would remain at the existing approved rate of up to 800,000 tpa, with production of ore from Great Cobar and Gladstone deposits making up for the future decrease in production from other workings across PGM.

Additionally, there are remaining resources in the New Cobar and Chesney deposits that are mineral rich, but which are currently not economical to mine in isolation. Keeping the New Cobar Complex operational and gaining access to Great Cobar and Gladstone would lead to increases in economies of scale and maximise opportunities to mine these resources.

As the capital investment value of the proposed project would be greater than $30M, the development is considered a state significant development (SSD) with respect to the *Environmental Planning and Assessment Act 1979* and the *State Environmental Planning Policy (State Regional Development) 2011* and therefore requires approval from the State. As a result, PGM is seeking to consolidate all existing development consents applicable to the New Cobar Complex within a single modern consent issued by the Department of Planning, Industry and Environment (DPIE).

If approved, all existing CSC development consents for the New Cobar Complex will be surrendered. Approval will be sought for the following project elements accessed from, and undertaken within, the existing New Cobar Complex located within mining leases CML6 and MLA1483 (see Figure 1.3):

- underground mining of the:
  - New Cobar deposit (existing approval by CSC);
  - Chesney deposit (existing approval by CSC);
  - Great Cobar deposit (not approved); and
  - Gladstone deposit (not approved).

- transportation of extracted ore to the existing surface ROM Pad or Waste Rock Emplacement (current approval for 25 trucks per day under existing approval by CSC);
- crushing and screening of ore within the existing surface ROM pad (existing approval by CSC);
- transportation of ore to the Peak Complex for processing via Kidman Way using road registered heavy vehicles (existing approval by CSC);
- harvesting of waste rock and:
    - immediately deploying the material underground for use in stope backfilling operations; and
    - transportation of non-acid forming material to the surface for on-site use for construction / rehabilitation tasks (eg tailings dam lifts).
- deposition of potentially acid forming waste rock brought to the surface into the sulphide pit within the waste rock dump where at end of mine life it would be capped, or progressively returned underground for disposal;
- continuation of all other approved activities within the New Cobar Mine Complex.

Operation of minerals processing and tailings storage functions will remain at the Peak Complex which operates under CSC approvals. Increased capacity within the footprint of the existing TSF will be required to accommodate the additional 12 years of tailings generated by the New Cobar Complex. Preliminary assessments undertaken by PGM have identified a further three TSF wall lifts would be necessary to maintain storage capacity functionality to 2035. In accordance with advice received from DPIE at the briefing meeting in August 2019, PGM has committed to obtaining all necessary planning approvals for these lifts from CSC prior to lodging the EIS for the New Cobar Complex.

1.2 Document Purpose

This scoping report has been prepared for the SSD component of the New Cobar Complex Underground Project by EMM on behalf of PGM, the applicant for the project. It has been prepared in accordance with the draft state significant project guideline *Preparing a Scoping Report* (DPIE 2019a).

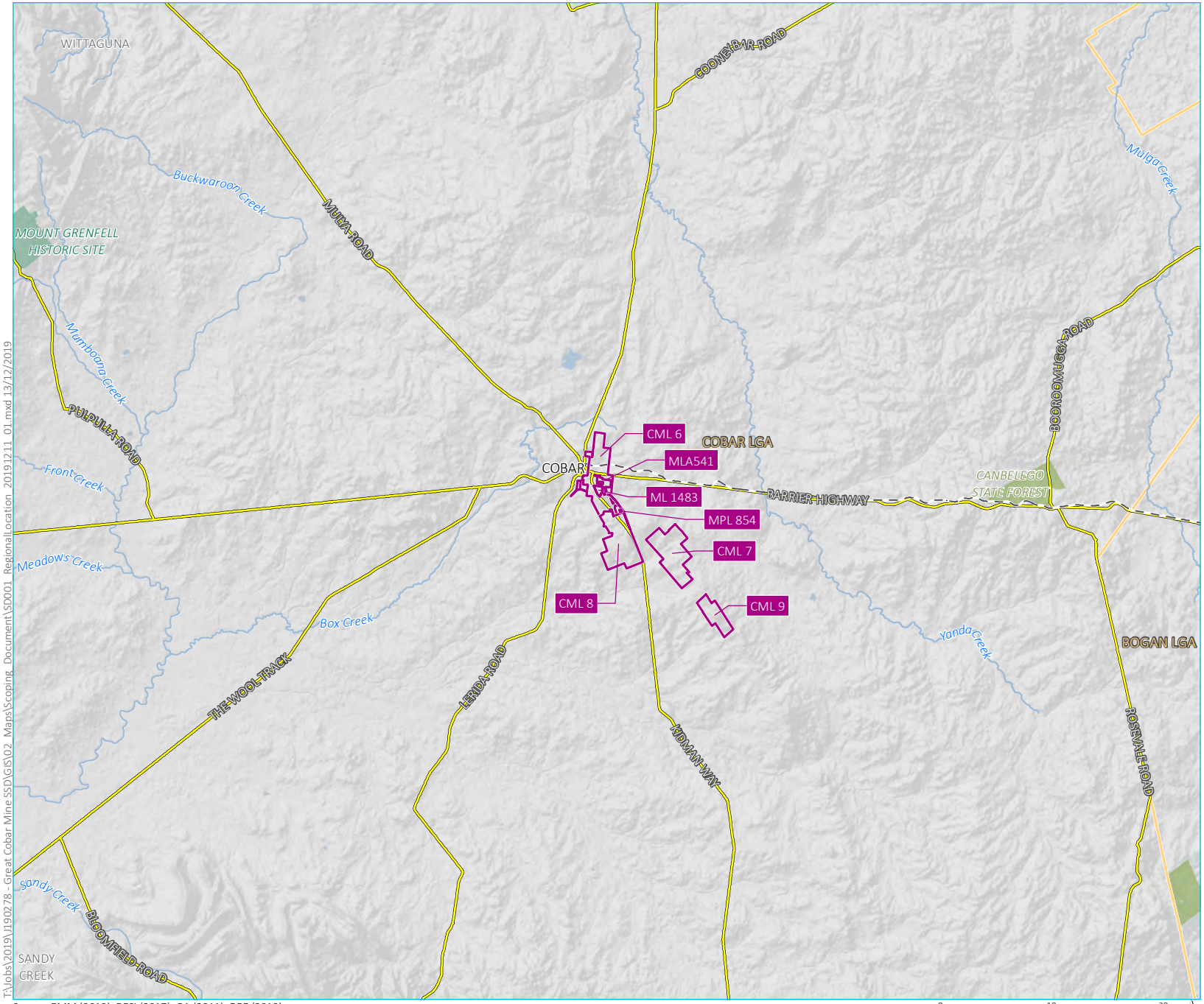
The purpose of this Scoping Report is to request and inform the content of the SEARs for the SSD EIS for the project.

1.3 EPBC Act referral

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for the assessment of environmental impacts on matters of national environmental significance (MNES) and Commonwealth land.

A preliminary review of the environmental risks of the project has identified negligible to low impacts on MNES.

In the interests of transparency, PGM will formally refer the project to the Commonwealth Department of Environment and Energy (DoEE) to seek confirmation that the action is not a controlled action. This is anticipated to occur in February 2020.



KEY

- Mining lease boundary
- Rail line
- Main road
- Named watercourse
- Waterbody
- Local government area
- NPWS reserve
- State forest

Source: EMM (2019); DFSI (2017); GA (2011); DPE (2019)

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Regional location of the New Cobar Complex

Peak Gold Mines
New Cobar Complex Underground Project EIS
Scoping document
Figure 1.1

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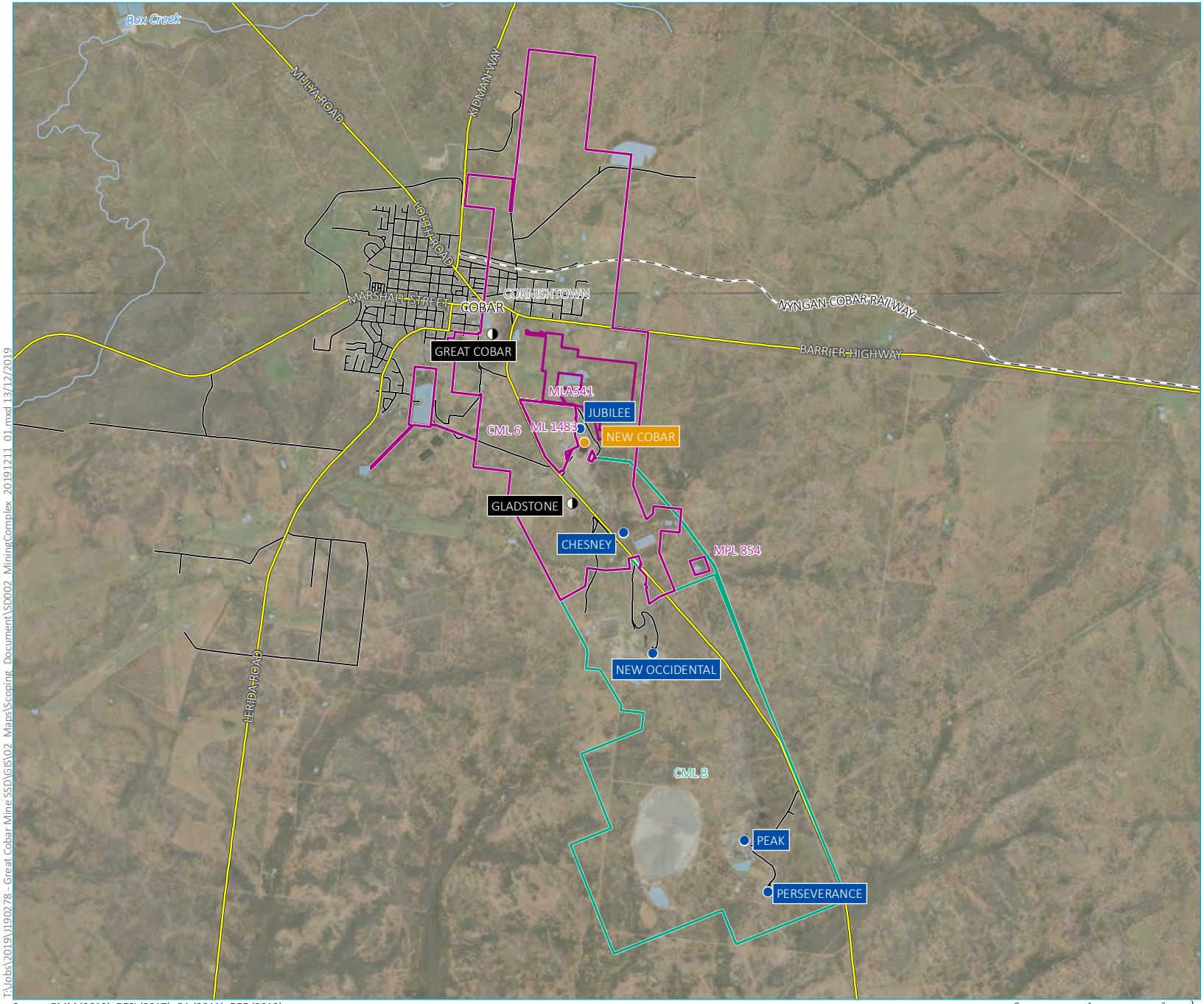

KEY

- Completed working
- Current working
- Future working
- Rail line
- Main road
- Local road
- Named watercourse
- Waterbody

Mining lease boundaries

- New Cobar Complex
- Peak Complex

Source: EMM (2019); DFSI (2017); GA (2011); DPE (2019)

0 1 2 km

GDA 1994 MGA Zone 55

N

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Mining leases and mining complexes

Peak Gold Mines
New Cobar Complex Underground Project EIS
Scoping document
Figure 1.2

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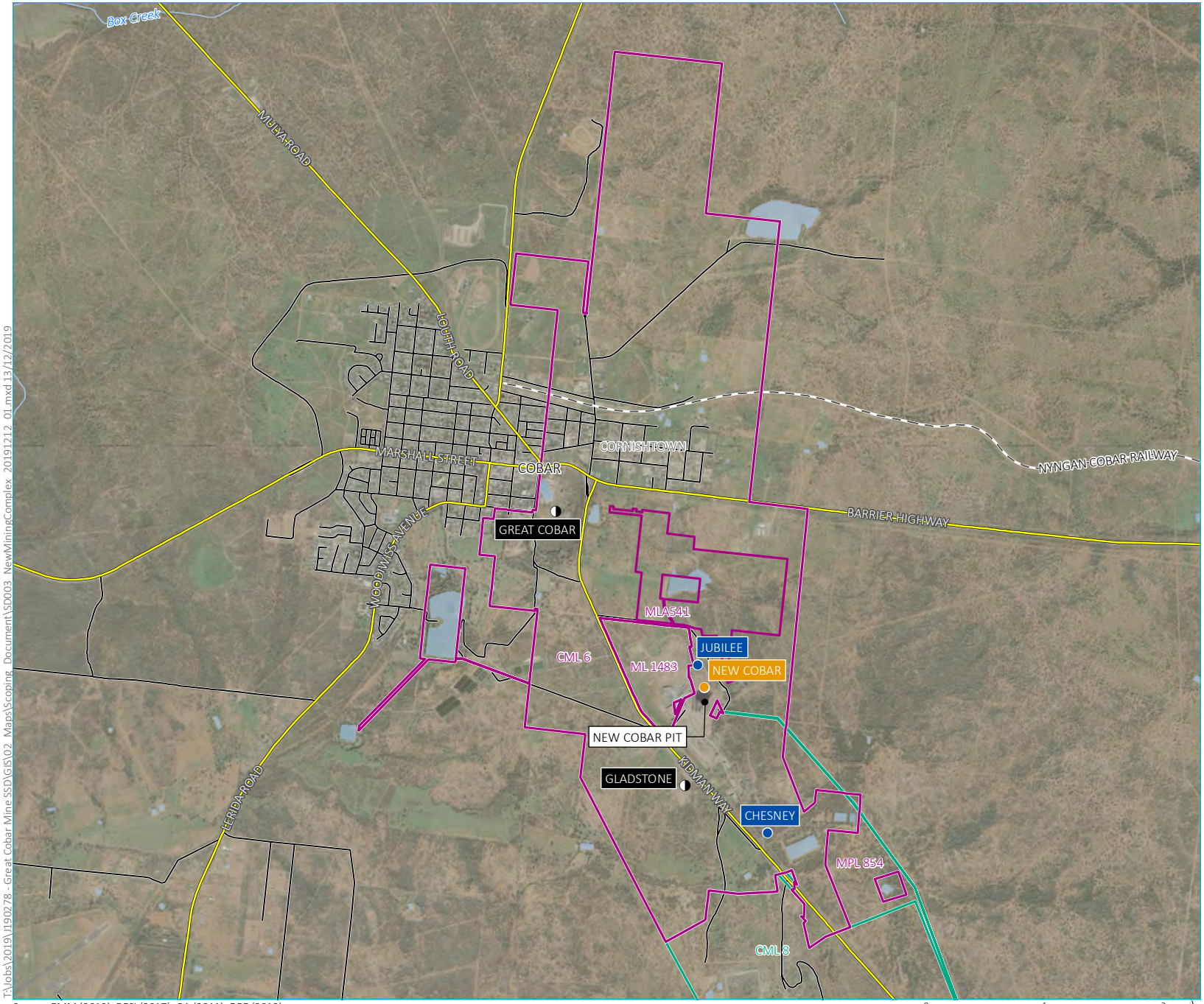

KEY

- Completed working
- Current working
- Future working
- Rail line
- Main road
- Local road
- Named watercourse
- Waterbody

Mining lease boundaries

- New Cobar Complex
- Peak Complex

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Source: EMM (2019); DFSI (2017); GA (2011); DPE (2019)

0 1 2 km

GDA 1994 MGA Zone 55

N

New Cobar Complex

Peak Gold Mines
New Cobar Complex Underground Project EIS
Scoping document
Figure 1.3

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1.4 Proponent details

Details of the proponent for New Cobar Complex Underground Project, as well as details on the persons who prepared this scoping report, and the site owner are as follows.

Table 1.1 Proponent details

Requirement	Detail
Proponent	Peak Gold Mines Pty Ltd
Address	Hillston Road COBAR NSW 2835 PO Box 328 COBAR NSW 2835
ABN	63 001 533 777
Nominated contact	Jonathon Thompson Group Manager – Environment Aurelia Metals Limited
Contact details	0488 065 144 jonathon.thompson@aureliametals.com.au
Name and qualifications of persons who prepared Scoping Report	Andrew Dickinson Associate Environmental Scientist EMM Consulting 0419 799 885 andrew.dickinson@emmconsulting.com.au
Site owner	Aurelia Metals Limited

2 Project details

2.1 Project title

The project to which this scoping report relates is the New Cobar Complex Underground Project.

2.2 Site details

2.2.1 Project location

PGM is located between three and ten kilometres south-east of Cobar town centre, and 270 km north-west of Dubbo, 310 km north of Griffith and 550 km north-west of Sydney (see Figure 1.1).

PGM is located within the Darling catchment of the Barwon-Darling and far western catchments water management area and is part of the Murray-Darling Basin.

The area of land to which PGM's approvals extend includes consolidated mining lease (CML) CML 8 for the Peak Complex, and CML 6, ML 1483 and MLA 541 for the New Cobar Complex (see Figure 1.2).PGM also holds authorities over CML 7 and CML 9 which contain historic working of the Coronation/Beechworth and Queen Bee deposits. Mining ceased at these locations last century. These CML's are located 1 km to the east (CML 7) and 6 km to the south-west (CML 9) of the Peak Complex. MLA 854 lies between CML 6 and CML 8. Mining leases held and applied for by PGM are outlined in Table 2.1.

Table 2.1 PGM mining leases

Location	Lease	Granted	Expiry	Status
Fort Bourke Hill	CML 6	09/02/1996	27/02/2034	Current
Coronation / Beechworth	CML 7	28/06/1995	16/09/2033	Current
Peak	CML 8	16/09/1996	16/09/2033	Current
Queen Bee	CML 9	26/09/1995	26/09/2027	Current
Salty (dam)	MLA 541	-	-	Mining lease application submitted
Fort Bourke Hill	ML 1483	30/04/2001	27/01/2029	Current
Ground Tank	MPL 854	29/09/1936	29/09/2022	Current

2.2.2 Project area description

All surface works associated with mining the Great Cobar and Gladstone deposits will be located in an existing, operational mining complex (the New Cobar Complex). The existing surface infrastructure and facilities at the New Cobar Complex support underground mining of the New Cobar, Chesney and Jubilee deposits. Access to all underground workings in the complex is from a portal and decline in the base of the New Cobar Pit which operated as an open cut mine between 2000 and 2004, before mining transferred to an underground operation.

Surface facilities include:

- administration and car parking;
- workshop and laydown yard;

- magazine;
- run of mine (ROM) pad;
- waste rock emplacements (WRE);
- sulphide pit;
- topsoil stockpile;
- sediment basins (stormwater);
- settling ponds (mine dewatering); and
- water storage (Spain's and Young Australia dams) and mine dewatering lines.

Current mining operations at the New Cobar Complex are undertaken by bench and open stoping methods. Mining progresses from the base upwards in each panel. Drifts are driven along strikes in the ore, a slot is developed, and ore is blasted into the void created by the slot. Ore is then extracted. Waste rock is then used to backfill mining stopes. Waste rock from the Peak Complex is also transported to the New Cobar Complex to be used as backfill and vice versa.

Ore is transported to the surface ROM pad, where if necessary, oversized material is broken up by a rock breaker, or it may be crushed, graded and loaded onto road registered haul trucks then transported along Kidman Way to the Peak Complex for processing. Trucks returning from the processing facility are backloaded with waste rock for backfilling at New Cobar, as required. Features of the New Cobar Complex are shown in Figure 2.1.

All ore processing and tailings storage occurs at the Peak Complex.

2.2.3 Existing approvals

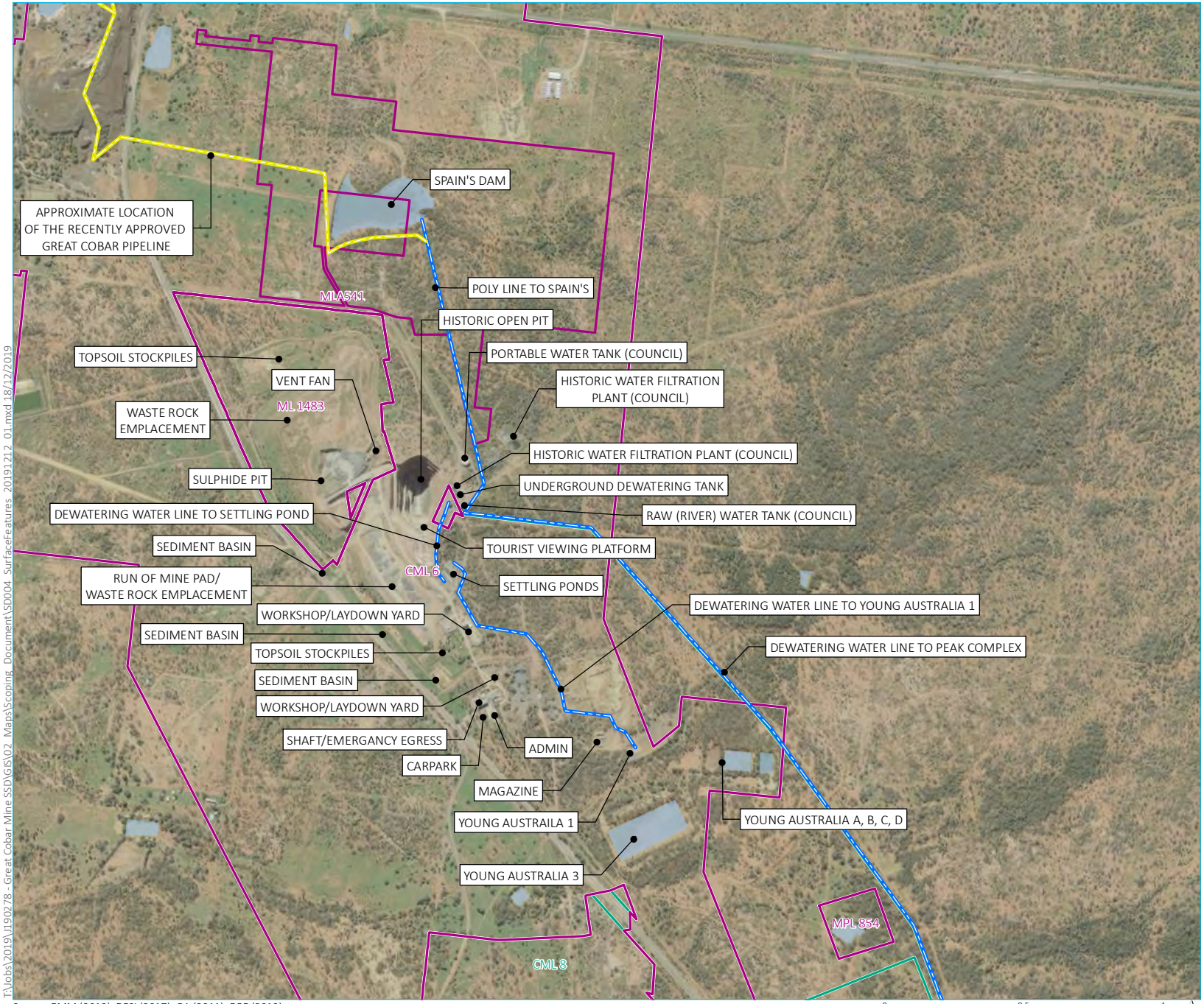
PGM operates under several local government approvals as identified in Table 2.2.

Table 2.2 Consents, authorisations and licences

Licence	Licence Number	Expiry	Relevance	
			Peak Complex	New Cobar Complex
Cobar Shire Council				
Ranger Exploration	DA 1986:6	N/A	X	
Cobar South Pty Ltd	DA 1986:7	N/A	X	
Acquisition of Mining Lease	DA 1986:15	N/A	X	
Erection of Ancillary Structures	DA 1987:18	N/A	X	
Peak Mine and Process Plant	DA 1989:27	N/A	X	
Modification to DA 1989:27	DA 1991:1	N/A	X	
Pipeline	DA 1990:24	N/A	X	
Electricity Substation	DA 1990:33	N/A	X	
Replacement of Radio Antennae	DA 97/98:14	N/A	X	

Table 2.2 Consents, authorisations and licences

Licence	Licence Number	Expiry	Relevance	
			Peak Complex	New Cobar Complex
New Cobar South Open Cut	LDA 98/99:08	N/A		X
Subdivision	LDA 99/00:27	N/A	X	
New Occidental Underground	DA 00/01:2	N/A	X	
New Cobar Underground	2004/LDA-3	N/A		X
Mt Boppy haulage ore to Peak Mill	2006/LDA-15	N/A	X	
Peak Decline, Box cut and Haulage Road	2007/LDA-80	N/A	X	
Ablution Block	2007/LDA-90	N/A	X	
Additional Silo - Batch Plant	2009/LD-37	N/A	X	
Floatation Plant upgrade in existing Mill	2010/LD-51	N/A	X	
Earthworks TSF Wall lift	2011/LD-6	N/A	X	
Raise Bore and Ventilation Fan Jubilee	2014/LD-31	N/A	X	
Subdivision	2014/LD-36	N/A	X	
Installation Blast Monitor	2014/LD-48	N/A	X	
Installation O2 Tank in existing Mill	2016/LD-15	N/A	X	
Relocation of dewatering system	2016/LD-00028 REV01	N/A	X	
TSF Modification	2018/LD-3	N/A	X	
Other authorisations and authorities				
Environmental Protection Licence (EPL) (EPA)	3596	15/12/2023	X	X
Licence to Manufacture Explosives (Safework NSW)	XMNKF200002	16/08/2022		X
Licence to Manufacture Explosives Safework NSW)	XMNF-100037	04/05/2021	X	
Dangerous Goods Notification (Safework NSW)	35/026523	N/A	X	X
High Security Water Access Licence	WAL 36334	N/A	X	X
Water Access Licence	WAL 31045	N/A	X	X
Refrigerant Trading Authorisation	AU29183	11/07/2021	X	X



KEY

- Indicative pipeline
- Great Cobar pipeline
- Waterbody

Mining lease boundaries

- New Cobar Complex
- Peak Complex

Source: EMM (2019); DFSI (2017); GA (2011); DPE (2019)

0 0.5 1 km

GDA 1994 MGA Zone 55

N

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Existing surface features

Peak Gold Mines
New Cobar Complex Underground Project EIS
Scoping document
Figure 2.1

EMM creating opportunities

3 Project description

The New Cobar Complex Underground Project involves the development of new underground workings to mine the Great Cobar and Gladstone deposits. This will be an extension of the existing operation as the mining of the New Cobar and Chesney deposits (currently mined under an existing CSC approval) will ramp down as the mining of the Great Cobar and Gladstone deposits ramp up. Existing surface infrastructure within the complex is suitable and adequate to facilitate mining these deposits. Key aspects of the project include:

- development of underground mining operations to access and mine the Great Cobar and Gladstone deposits using underground stope mining methods;
- extension of the life of mine by 12 years from 2023 to 2035 (based on current market assumptions);
- continuing use of the underground mining fleet and associated workforce;
- increasing ore truck movements on Kidman Way from an average of 25 movements a day to 50 movements per day;
- continued use of the existing power supply;
- continued use of the existing water supply; and
- negligible additional surface disturbance outside of surface disturbance areas permitted under the current approval (subject to detailed design).

Specific details of the proposed underground project are presented in Table 3.1 Detailed overview of the underground project in the context of existing PGM approvals.

Table 3.1 Detailed overview of the underground project

Development Component	Approved New Cobar Complex Operations	New Cobar Complex Underground Project SSD
Tenement	Development approved to occur within the Development Application areas, including CML6, CML8 and MLA1483. Mining of the following deposits using underground mining methods, with each deposit accessed via the New Cobar Portal: • New Cobar deposit; • Chesney deposit; and • Jubilee deposit. Minerals processing occurs at the Peak Mine within CML8.	No change to mine lease area. Mining of the following deposits using underground mining methods, with each deposit accessed via the New Cobar Portal: • New Cobar deposit; • Chesney deposit; • Jubilee deposit; • Gladstone deposit; and • Great Cobar deposit. Processing of materials from the Great Cobar deposit will continue at the Peak Mine Complex within CML8 under existing approvals and is therefore outside the scope for the SSD underground workings.

Table 3.1 Detailed overview of the underground project

Development Component	Approved New Cobar Complex Operations	New Cobar Complex Underground Project SSD
Approvals	***Cobar Shire Council Development Consent*** • New Cobar South Open Cut - LDA 98/99:08 • New Cobar Open Cut - LDA 99/00:22 • New Cobar Underground – 2004 / LDA 00003 ***Other Authorisations and Licences*** • Environmental Protection Licence (EPL) -3596 (OEH) • Licence to Manufacture Explosives (New Cobar) - XMNKF200002 (SafeWork NSW) • Dangerous Goods Notification - New Cobar: 35/035154 (SafeWork NSW).	PGM is seeking to consolidate all existing development consents applicable to the New Cobar Complex including existing mining, proposed underground mining of the Great Cobar and Gladstone deposits and existing surface infrastructure (no change to existing proposed) within a single modern consent issued by DPIE. Mining of the following deposits using underground stope mining methods, with each deposit accessed via the New Cobar Portal: • New Cobar deposit; • Chesney deposit; • Jubilee deposit; • Gladstone deposit; and • Great Cobar deposit. Once approved all CSC development consents for the New Cobar Complex will be surrendered. Other approvals related to the Peak Complex, will be unaffected. The EPL will be updated to accommodate the new activities.
Approvals applied for and still being assessed	• Application to dewater the Great Cobar Main shaft – Approved by CSC • Application to conduct exploration drive of the Great Cobar deposit – Review of Environmental Factors: – Conditionally approved by the Resources Regulator pending obtaining relevant approvals under the *Water Management Act 2000*.	No change
Mining method	Underground stope mining operations.	Expansion of underground stope mining operations. There are no known subsidence issues associated with the current, modern mining operations. Limited subsidence is expected to the extent that there will be no anticipated surface expression (<20 mm) from underground mine activities (ie negligible subsidence impacts). Proposed backfill method will be to fill stope voids with waste rock.

Table 3.1 Detailed overview of the underground project

Development Component	Approved New Cobar Complex Operations	New Cobar Complex Underground Project SSD
Blasting	Blasting will be used for the development of the underground workings and is proposed to occur under independent firing conditions (in the preliminary phases). Delays will be used to adjust sequencing and prevent any interaction or vibration enhancement from adjacent blastholes. The maximum number of blasts will be three per 24-hour period, 20 per 7-day period. Maximum Instantaneous Charge limit of 300 kg for production blasting and 50 kg for development blasting. Explosives are stored in the existing magazine at New Cobar Complex.	No change
Life of mine	Presently, there is no approved LOM. The council approvals have no end date. Current mine plans envisage mining at New Cobar Complex to continue until 2023.	The proposed new workings would extend the life of mine by 12 years to 2035.
Production	Approved for the mining and processing of 800,000 tpa of ore to produce lead, zinc, copper, gold and silver from both the Peak and New Cobar complexes. Processing occurs at the Peak Complex.	The project will produce ore which will be transported to the existing processing plant at Peak Mine. The ore will be processed at the Peak Mine Complex under the existing approvals for the Peak Complex. Preliminary indications are that lead, zinc, gold, silver and copper will be produced. The ore tonnes and metal tonnes / ounces presented here are based on resource models that PGM has for each area and are indicative only. Ore production from the New Cobar Complex for the period July 2019 to 2035 is likely to be: • Total – 6,016,134 t; – Jubilee – 638,246 t; (already approved) – Chesney – 572,811 t (already approved); – Great Cobar – 4,022,040 t and – Gladstone – 783,037 t. Mineral production from the New Cobar Complex for the period July 2019 to 2035 is estimated to be: • gold – 148,000 ounces; • silver – 3.97 million ounces; • copper – 127,350 t; • zinc – 55,800 t; and • lead – 30,064 t.

Table 3.1 Detailed overview of the underground project

Development Component	Approved New Cobar Complex Operations	New Cobar Complex Underground Project SSD
Mining extent	The site comprises a surface area of approximately 1,350 hectares and incorporates all areas and components of the New Cobar Complex. The New Cobar open cut pit extends to a depth of 100 m bgl. The development consent states the pit was approved to be 100 m deep, approximately 170 m wide by 380 m long. Development of underground working at Chesney and New Cobar deposits extends from a portal at the base of the New Cobar pit.	Development of New Cobar Complex Underground Project will be in stages. The Great Cobar and Gladstone deposits will be accessed through the proposed exploration drive infrastructure and decline from the base of the existing New Cobar open cut pit. The proposed underground working depths are approximately 700–800 m bgl for Great Cobar and 350-500 m bgl for Gladstone. Development of the Great Cobar workings will be via a decline off the existing New Cobar Decline at approximately 500 m bgl. Development of the Gladstone workings will be via a decline off the existing New Cobar Decline at approximately 350 m bgl.
Ore production and processing	Transportation of extracted ore to the existing surface ROM pad	No change
	Annual ore production rate of 800,000 tpa for PGM.	The total annual ore production rate from New Cobar Complex and the Peak Complex will be up to 800,000 tpa.
	Ore is processed within Peak's Processing Plant which comprises a range of mills, flotation columns, flotation cell banks and other associated equipment. Grinding of the ore is undertaken using a primary SAG mill and a secondary ball mill. Free gold is then collected from the grinding circuit by jigs while ground ore is treated in a three-stage flotation process to produce copper, lead and zinc concentrates.	No change – processing is not included as part of this development application
	Process plant presently being maintained; replacement of end of life flotation circuit and installation of segregated concentrates storage area and, upgraded (expansion of concentrate filter capacity) under existing approvals to allow for the more efficient extraction of lead and zinc concentrates. Expected to be completed by 2020.	No change – processing is not included as part of this development application
Tailings storage	All ore is processed at the Peak Complex, with tailings placed within the Peak Tailings Storage Facility (TSF) which is located at the Peak Complex.	Operation of minerals processing and tailings storage functions will remain at the Peak Complex within the existing TSF footprint. However as increased storage capacity is required to accommodate the additional 12 years of tailings generated by the New Cobar Complex, planning approvals for these lifts will be obtained from CSC prior to the EIS being submitted.

Table 3.1 Detailed overview of the underground project

Development Component	Approved New Cobar Complex Operations	New Cobar Complex Underground Project SSD
Site access	Access to the New Cobar and Peak complexes is by Kidman Way.	No change
Ore transportation	Ore is transported from the New Cobar Complex along 5 km of public road (Kidman Way) in road registered trucks at the rate of 25 trucks per day, seven days a week.	Will increase to a maximum rate of 50 truck movements per day, seven days a week.
Waste rock management	Use as underground back-fill, transportation of waste rock to the Waste Rock Emplacement at the New Cobar Complex or to Peak Complex for use in construction / rehabilitation activities or back-fill underground.	No change
	Crushing and screening of ore within the existing surface ROM pad at the New Cobar Complex.	No change
	Harvesting of waste rock and transportation of that material back underground for use in stope backfilling operations.	No change
Soil management	Application of soil resources management strategies/objectives in accordance with the existing Mining Operation Plan 2019-2022 (MOP 2019-2022) (PGM 2019) and Erosion and Sediment Control Plan (PGM 2016)).	No change.
Mine ventilation	Two ventilation shafts (one inlet and one outlet are proposed under the approvals for the Great Cobar Exploration Decline within the Great Cobar Deposit.	No new ventilation stacks will be required; however, fans will be required to maintain a safe volume of air flow.
Surface infrastructure	New Cobar Complex operates under existing Cobar Shire Council approvals. The Great Cobar Exploration Drive (which will establish) ventilation shafts for the exploration decline, has received approval from the Resources Regulator and the Natural Resources Access Regulator. This will be constructed prior to the submission of the EIS for the New Cobar Complex Underground Project SSD.	A single new powerline will be constructed to supply power for the fan and winder at the Great Cobar deposit. The powerline easement will be 20 m wide and up to 400 m long and will extend westward from an existing 22 kV powerline (see Figure 3.1) to a transformer and switch room located within the previously cleared and fenced area surrounding the boxcut hosting the exhaust outlet. No additional surface infrastructure will be required.

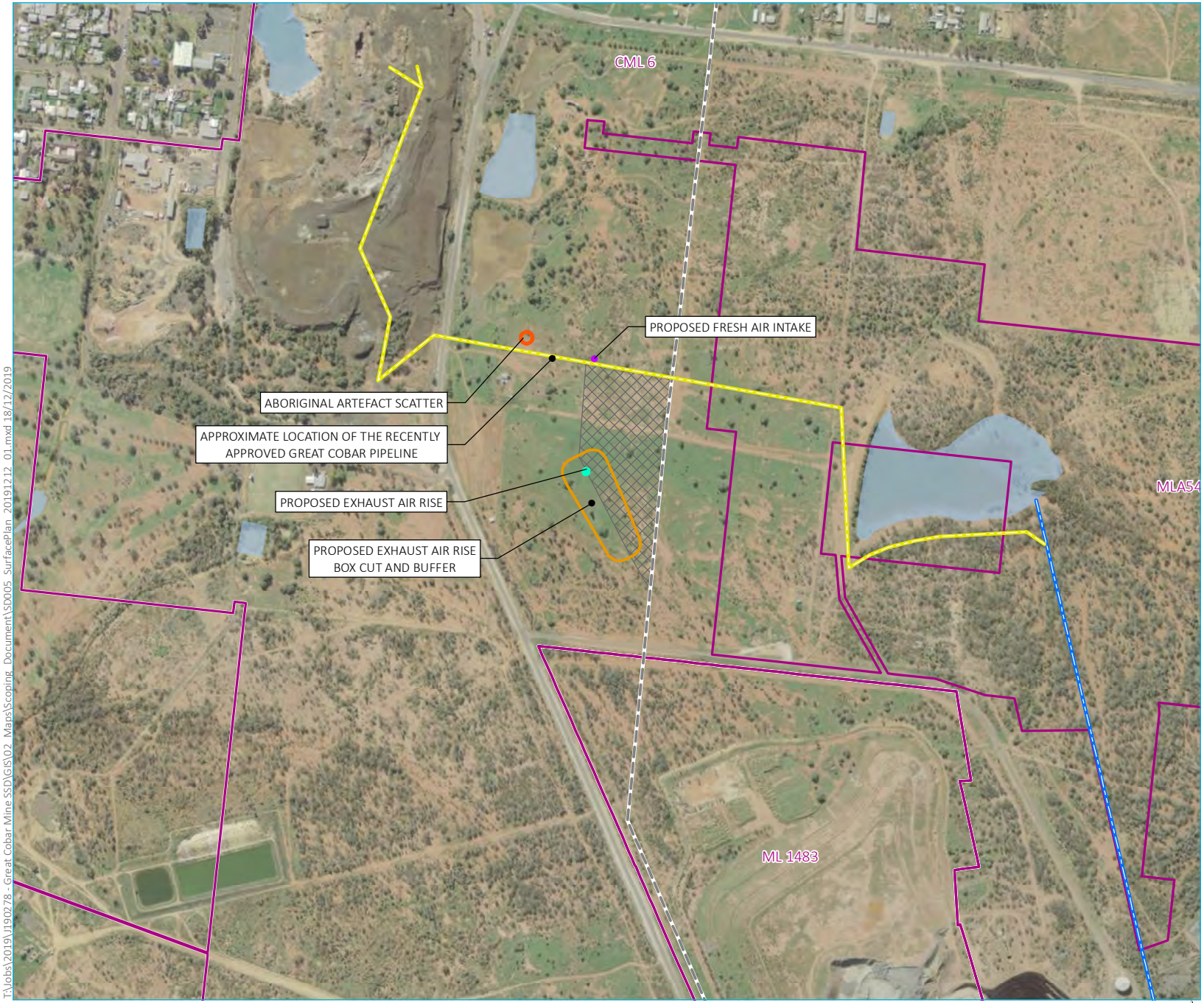
Table 3.1 Detailed overview of the underground project

Development Component	Approved New Cobar Complex Operations	New Cobar Complex Underground Project SSD
Water supply sources and infrastructure	Water used for ore processing at the Peak Complex is sourced from the following internal and external sources: • Water captured from mine dewatering. • High Security surface water from Burrendong Dam. Raw, potable and recycled water will be used as part of underground mining operations. Groundwater inflow within the underground workings is used to supply underground operations. Surplus water is pumped to the Peak Complex Process Plant for use in processing operations or allowed to evaporate in Spain's Dam or Young Australia Dams (a facility licenced to receive dewatering water). Off-site discharge will not be permitted. Extraction rates for groundwater would be limited to 30L/sec. Cobar and the region is currently experiencing a significant drought. If there are no inflows to the Burrendong Dam it is likely High Security water allocations will be cut to 0% in early 2020. PGM sought and has been granted approval by CSC to utilise the groundwater within the historic Great Cobar Mine and approval from Resources Regulator to construct an exploration decline to Great Cobar which is expected to require dewatering. The groundwater extracted from both sites will be used to support operations at New Cobar Complex and Peak Complex.	No changes are proposed to water supply sources or water management infrastructure It is proposed that groundwater recovered from workings will be pumped to the surface and transferred to the process plant at the Peak Complex or evaporated in Spain's Dam or the Young Australia Dams.
Site water management infrastructure	Spain's Dam and Young Australia Dams	No change
Power supply	Electricity to the site via a 132 kilovolt (kV) electricity transmission line (ETL) to Peak Mines substation.	No change
Hours of operation	Underground and above ground activities, 24-hour operations, seven days a week.	No change
Employment	Presently, the average workforce employed at New Cobar Complex is approximately 30 people (including PGM staff and on-site contractor personnel). During peak periods, PGM employs up to 40 people at New Cobar Complex. Approval for an exploration program workforce of up to 25 people.	The underground mine will require a peak workforce of 50 (approximately 10 additional people including PGM staff and on-site contractor personnel). The project will be owner operated with a contractor performing the underground work and PGM having operational control. PGM will continue to undertake all processing.

Table 3.1 Detailed overview of the underground project

Development Component	Approved New Cobar Complex Operations	New Cobar Complex Underground Project SSD
Mining fleet	The existing/approved mobile equipment fleet used for open pit and underground ore extraction, transport and waste rock handling includes: • articulated dump trucks; • cabletec; • compactors; • dozers; • drill rigs. • excavators; • graders; • haul trucks (50t); • jumbos; • LHD Loading dump trucks; • loaders; • rollers; • scrapers; • service truck; • underground development drill; • underground diamond drill rigs; • waste rock dump trucks; and • water trucks.	No change
Rehabilitation and mine closure	Current rehabilitation requirements as per MOP	Rehabilitation, mining closure activities and post mine landuse will be explained in detail as part of the EIS. The Strategic Framework for Mine Closure published by the Australian and New Zealand Minerals and Energy Council and Mineral Resources Council of Australia (ANZECC & MRC, 2000) and the Leading Practice Sustainable Development Program for the Mining Industry – Mine Closure published by the Commonwealth Department of Industry, Innovation and Science (DIIS 2016) would be used as a guide for mine closure. Mine closure concepts and management measures would continue to be developed via the MOP 2019-2022, which outlines specific topsoil handling, rehabilitation and post mining landform objectives, in consultation with relevant regulatory authorities.

Figure 3.1 shows the surface features relating to the ventilation shafts. Figure 3.2 presents a plan view of the New Cobar Complex projected to the surface and Figure 3.3 shows long sections of the deposits. The images show workings already mined (greyed) and areas to be mined under existing approvals (Chesney, New Cobar and Jubilee) or proposed in this project (Gladstone and Great Cobar).



KEY

- Indicative pipeline
- Great Cobar pipeline
- 22kV powerline
- Proposed* exhaust air rise buffer
- Proposed* fresh air intake
- Proposed* exhaust air rise
- Aboriginal artefact scatter
- General area of proposed powerline
- Waterbody

Mining lease boundaries

- New Cobar Complex

* Proposed, but approved under existing REF approvals

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Source: EMM (2019); DFSI (2017); GA (2011); DPE (2019)

0 250 500 m

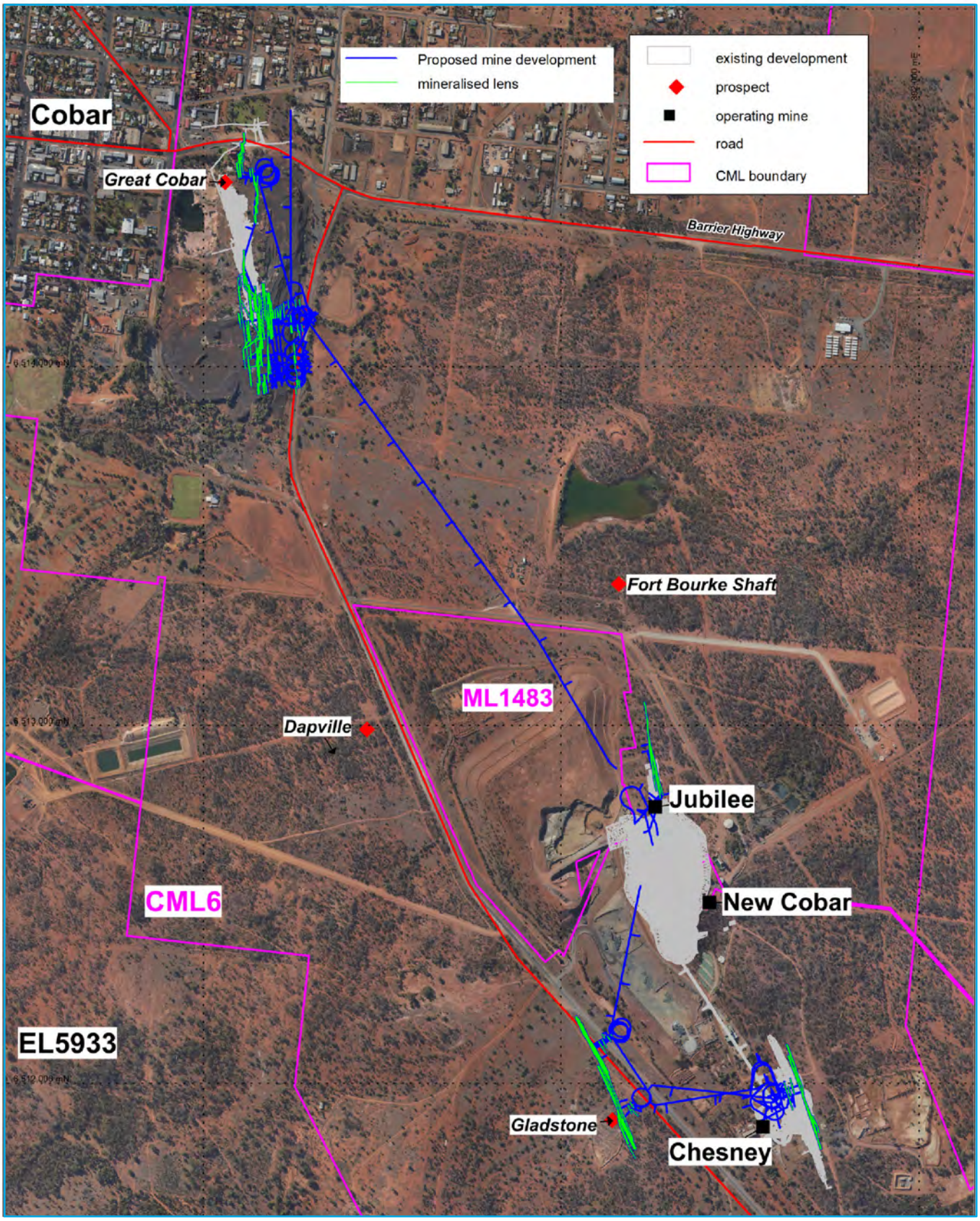
GDA 1994 MGA Zone 55

N

New Cobar Complex - ventilation shaft features

Peak Gold Mines
New Cobar Complex Underground Project EIS
Scoping document
Figure 3.1

EMM creating opportunities



New Cobar Complex - surface plan

EMM
creating opportunities

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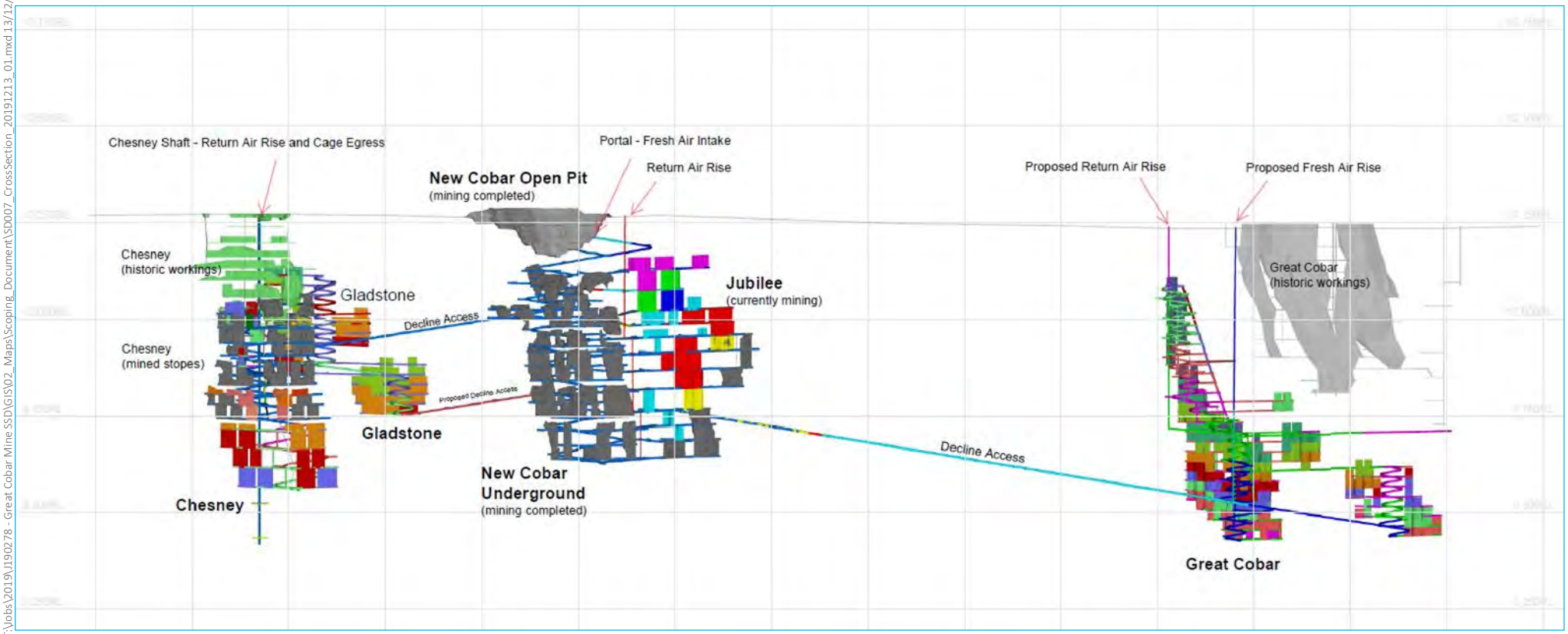

North Mine section - looking west (Chesney, Gladstone, Jubilee & Cobar)

Peak Gold Mines
New Cobar Complex Underground Project EIS
Scoping document
Figure 3.3

EMM
creating opportunities

4 Strategic and statutory context

4.1 Project justification

4.1.1 Need for the project

The New Cobar Complex Underground Project would allow PGM to maintain continuity of mine production at the Peak Complex beyond 2023 and develop an ore body that is most economically mined via underground methods.

The project will facilitate the continuity of employment for the existing PGM workforce, providing job security for local mine employees and contractors. It will also continue to stimulate demand in the local and regional economy.

The project will include the implementation of mitigation and management measures to minimise potential impacts on the environment and community.

The project is anticipated to result in net production benefits to Australia and NSW (over and above the economic benefits of the existing PGM operation). The development would result in additional contributions to regional and NSW output and business turnover and household income. Contributions to the regional economy would include direct economic activity (e.g. direct employment and wages), expenditure on inputs to production that can be sourced from the region such as repairs and maintenance etc., and expenditure of employee wages in the regional economy.

4.1.2 Alternatives considered

a Do nothing

If the project was not to proceed, life of mine would end in 2023. In addition, the following consequences are likely to occur:

- the existing PGM operations would continue to operate as currently approved until 2023;
- there would be no continuation of employment for the existing PGM workforce, thereby forgoing job security for local mine employees and contractors;
- likely consequential social and economic flow-on effects to the town of Cobar arising from mine closure;
- the incremental net benefits of the development would be foregone;
- additional tax revenue from the development would not be created;
- additional royalties for the State of NSW would not be generated;
- the additional potential social and environmental impacts of the project would not occur; and
- the identified mineral resource would remain unmined.

b Other alternatives

The project involves the underground mining of additional ore deposits at the New Cobar Complex, and extension of the current life of mine. The currently proposed mine design has been developed in consideration of environmental and operational constraints.

Detail of these constraints, and where relevant, alternatives considered, are provided below.

Underground Mining Method

The orebody occurs such that open cut mining is not an economic mining method. The underground mine must be developed using open stope mining methods, as this is the most suitable methodology for the geometry of the ore body. Alternative mining methods are therefore not considered further.

Underground Mine Location

As the location of mining is constrained by the location of the identified ore deposit, alternative mining locations have not been considered further.

4.2 NSW planning framework

The NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) provides the statutory framework for the environmental impact assessment of development in NSW. The statutory trigger for development consent is provided for under section 4.2(1) of the EP&A Act.

The EP&A Act and NSW *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) form the statutory framework for planning approval and environmental assessment in NSW. This legislation is supported by Environmental Planning Instruments (EPIs) including State Environmental Planning Policies (SEPPs) and Local Environmental Plans (LEPs).

Clause 7(1)(a) of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (Mining SEPP) provides that development for the purposes of underground mining requires development consent.

4.2.1 State Significant Development

Under the provisions of clause 8(1) and clause 5 to Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) mining development with a capital investment value of more than $30 million is declared State Significant Development (SSD). SSD requires the approval of the Minister for Planning (or delegate – eg Independent Planning Commission (IPC) or DPIE).

Before the Minister can approve an SSD project, an environmental impact statement (EIS) is required to be prepared. The EIS is required to be made available for public exhibition. Following public exhibition, the applicant is required to respond to issues raised in submissions received by DPIE during the exhibition period.

The New Cobar Complex Underground Project will have a capital investment value of more than $30 million. Accordingly, PGM seeks approval for the development as SSD.

4.2.2 Other NSW approvals and licences

In addition to development consent under the EP&A Act, the New Cobar Complex Underground Project would require a number of additional approvals under other relevant environmental legislation. Each of these separate environmental approvals is considered in Table 4.1.

Table 4.1 Other NSW approvals and licences

Stakeholder agency	Legislation	Requirement
DPIE Environment Energy and Science (EES) – NSW Environment Protection Authority (NSW EPA)	*Protection of the Environment Operations Act 1997* (POEO Act)	The project would likely require an amendment to EPL 3596 as a scheduled activity under the POEO Act.
DPIE EES – Biodiversity and Conservation Division (BCD)	*Biodiversity Conservation Act 2016* (BC Act)	Impacts on threatened species and endangered ecological communities are likely to be minimal. Biodiversity Development Assessment Report (BDAR) waiver request to be submitted prior to the issue of SEARs.
	Heritage Act 1977	No impacts to non-Aboriginal heritage expected as part of the project.
	National Parks and Wildlife Act 1974 (NPW Act)	Impacts to Aboriginal heritage and archaeology likely to be negligible. PGM to carry out due diligence assessment as part of EIS preparation. Permits are not required for an SSD mining project for impacts to Aboriginal heritage (section 4.41 of the EP&A Act).
Department of Primary Industries (DPI) - Fisheries	*Fisheries Management Act 1994* (FM Act)	No impacts to threatened species or key fisheries habitat likely as part of the project. No permits likely to be required under the FM Act.
DPIE EES – NSW Resources Regulator	*Mining Act 1992*	The project would be undertaken under the existing Mining Leases (CML6 and MLA1483). The Mining Operations Plan (MOP) would be amended to take into account the operational changes and future rehabilitation of the project workings.
	Pipelines Act 1967	An existing pipeline supplies water allocation from Burrendong Dam between Nyngan and PGM. No additional licences for pipelines are anticipated as part of the Project.
DPIE - Water	*Water Management Act 2000* (WM Act)	The project may require the extension of an existing water use permit. The project may also interfere with an aquifer. A full assessment will be undertaken during the EIS preparation and the need for a water use approval under the WM Act will be determined.
Rural Fire Service (RFS)	*Rural Fires Act 1997* (RF Act)	A bushfire safety authority would not be required under the RF Act for the project.
Transport for NSW	*Roads Act 1993*	No works for mine development are likely to require works approvals under section 138 of the *Road Act 1993*.

4.2.3 Commonwealth approvals

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for the assessment of environmental impacts on matters of national environmental significance (MNES) and Commonwealth land. It also considers the environmental impacts of actions of Commonwealth agencies on the environment.

A preliminary review of the environmental risks of the project has identified negligible to low impacts on MNES, given there are no likely additional surface impacts associated with the proposed works. No Commonwealth lands/agencies are likely to be affected by the project.

In the interests of transparency, PGM will formally refer the project to the Commonwealth Department of Environment and Energy (DoEE) to seek confirmation that the project is not a controlled action. Submission of the DoEE referral is currently scheduled for March 2020.

5 Engagement during scoping

5.1 Overview

PGM understands that an important part of the project scoping process involves engaging with the community and other stakeholders to understand their perspectives on the matters of importance to them that need to be considered in the EIS. Early engagement with the community and other stakeholders during the scoping phase:

- develops a relationship with the community and other stakeholders;
- provides information about the project to the community and other stakeholders; and
- obtains input on relevant matters to be considered in the EIS.

As part of the Scoping Phase for the New Cobar Complex Underground Project, PGM public consultation which considered the guidance provided by *Social impact assessment guideline for State significant mining, petroleum production and extractive industry development* (DPIE 2017a). In undertaking consultation for the project, PGM engaged with the following stakeholder groups:

- DPIE;
- Local community;
- Commercial and public enterprises;
- Sporting and recreational bodies;
- Cobar Shire Council;
- Community Consultative Committee established voluntarily by PGM in reference to DPIE (2019b) guidelines in early 2019;
- State Government departments (NRAR, BCD, DPIE, Resources Regulator).

A summary of all EIS, including SIA consultation activities are provided in Table 5.1.

Table 5.1 EIS and SIA Consultation activities

Stakeholder/purpose	Location	Date
Scoping Meeting		
DPIE Scoping Meeting	DPIE, Sydney	14 August 2019, 1pm-2pm
Other Agency Meetings		
NRAR	Dubbo	14 November 2019, 12.30pm-1.30pm
BCD, EPA	Dubbo	4 December 2019, 2pm-3pm
Resources Regulator	Orange	6 December 2019, 10am-11am
Local face-to-face meetings		
Cobar Rugby Club	Cobar	Monday (9 September 2019) pm – Tuesday (10 September 2019) pm
Neighbouring landholder	Cobar	Monday (9 September 2019) pm – Tuesday (10 September 2019) pm
Great Cobar Heritage Centre	Cobar	Monday (9 September 2019) pm – Tuesday (10 September 2019) pm
Ngali Pre School	Cobar	Invitation provided – not accepted
Cobar RSL	Cobar	Monday (9 September 2019) pm – Tuesday (10 September 2019) pm
Western Auto and Engineering	Cobar	Invitation provided – not accepted
Local council meetings		
Cobar Shire Council	CSC Offices, Cobar	Tuesday, 10 September 2019, 9am-11am
Cobar Shire Councillors	CSC Offices, Cobar	Thursday, 12 September 2019, 1.30pm-2.30pm
Local community meetings		
Community Consultative Committee	PGM, Cobar	Tuesday, 10 September 2019, 4pm-6pm
Community Information Session	Cobar Golf and Bowling Club	Wednesday, 11 September, 10am-2.30pm and 3.30pm-8pm

5.2 Findings

A summary of the issues raised during consultation is provided below:

- NRAR indicated that PGM will need to clearly demonstrate water usage within the mine (water balance), its effective management, and source / supply arrangements for current, existing approvals and future operations;

- BCD/EPA indicated that a BDAR Waiver request should be lodged prior to, or concurrently with the submission of the scoping document / request for SEARs;

- BCD/EPA indicated that the impacts of works undertaken in association with the development of the exploration decline (as detailed in the *Review of Environmental Factors for the Great Cobar Project* (RW Corkery 2019a)) would have already have occurred at the time of the EIS being submitted and therefore would not need to be assessed by the EIS unless impacts are ongoing.

- Resources Regulator indicated that potential subsidence impacts should be appropriately assessed to ensure no surface impacts.

The social impact assessment (SIA) scoping report (Appendix B) details the findings from the consultation, identifies community and key stakeholders' concerns and assesses them to identify potential social impacts (negative and positive) for the SIA as part of the EIS as summarised in Section 6.7.

6 Scoping of key issues

6.1 Overview

In scoping the New Cobar Complex Underground Project, EMM has conducted a risk assessment and desktop study drawing upon technical specialists, mine personnel and existing information/data from past and ongoing environmental studies/investigations at the New Cobar Complex.

A risk workshop containing technical specialists and mine personnel was convened in August 2019, culminating in the preparation of a risk register delivered to PGM in September 2019. The register provided a preliminary assessment of the likelihood, consequence, risk rating and mitigation for each risk identified.

Further desktop analysis key risks and engagement with community and stakeholder agencies has resulted in the following environmental specialist assessments methodologies being proposed by EMM for the preparation of the EIS.

Key environmental aspects and the scale and nature of likely impacts of the project are summarised in the attached DPIE scoping worksheet (Appendix A), which it is understood will be used by the DPIE to inform discussions when preparing SEARs.

6.2 Groundwater

6.2.1 Key environmental risks

The development and dewatering of underground stopes at the Great Cobar workings is predicted to result in groundwater flow. Ground movement associated with the underground mining operation may also result in changes to the stress field in the host rock surrounding the working and this may affect the hydraulic properties of the rock. These stress changes may arise from creation of the mine void and from blasting operations associated with stope mining.

Water supply for the mine comes from Burrendong Dam. As a result of drought conditions, PGMs allocation has been cut by 70% of the regular allocated amount and this may be cut more significantly in early 2020 if the drought does not ease. PGM has been granted approval to utilise the groundwater within the historical Great Cobar Mine to meet site requirements. Furthermore, the *Review of Environmental Factors for the Great Cobar Project* (RW Corkery 2019a) prepared for the exploration drive to Great Cobar and committed PGM to dewater the exploration decline pending obtaining relevant approvals under the *Water Management Act 2000*. The relevant approvals are currently being determined.

There is only one registered groundwater bore within a 30 km radius of the New Cobar Complex. This belongs to the Cobar Rugby Club and is a back-up supply for irrigation of the club grounds in the event that CSC water allocations are significantly reduced or limited. Initial investigation undertaken by PGM has indicated that the bore may be affected by any drawdown of groundwater in the Great Cobar Shaft assuming groundwater connectivity. Further analysis would be necessary to assess the degree of connectivity.

6.2.2 Assessment methods

a Influence of underground mining on groundwater

PGM will undertake a hydrogeological (groundwater) assessment to inform the preparation of the EIS for the project. Groundwater seepage to the underground mine workings will likely be influenced by the zone of increased permeability arising from mining disturbance. Underground mining studies will assess the extent of disturbance of

the surrounding rock and this will be used to assess the extent of disturbance leading to changes (expected to be increases) in the rock permeability.

The rate and timing of groundwater inflow will change as the underground operation develops. It is anticipated that assessment of the extent of drawdown and the rate of groundwater inflow will need to be assessed during mine development of declines and during mining over the course of the planned underground operation and in the long-term following completion of mining. Modelling of groundwater behaviour will take account of the proposed mine plan to assess inflows and groundwater drawdown over the life of the mine.

Dewatering of the historic Great Cobar Mine is also expected to dewater the historic open-pit. As part of the approval granted by CSC in relation to utilising the Great Cobar groundwater for site demands, PGM engaged ecologists to investigate ecological communities associated with the open-pit. PGM committed to photographing the open-pit dewatering on a regular basis (to form part of the historical display at the Great Cobar Heritage Centre) and to engage an ecologist to inspect the final stages of the dewatering and remove wildlife as required.

The experience obtained from the mining of the existing New Cobar, Chesney and Jubilee deposits provides useful data which will assist in the assessment of groundwater effects of the underground operation.

The following fieldwork program and associated data analyses may be required:

- Installation of piezometers to assess the groundwater levels in the areas of the Great Cobar and Gladstone deposits.
- Testing of newly installed piezometers to assess hydraulic conductivity and water quality.

b Hydrogeological assessment and predictive model

The hydrogeological assessment will include development of a groundwater model, and a quantitative assessment of potential drawdown and groundwater connectivity based on predictive modelling. The assessment will include commentary against the relevant criteria identified in Department of Primary Industries *NSW Aquifer Interference Policy* (2012a), *Water Sharing Plan for the Macquarie-Bogan Unregulated and Alluvial Water Sources* (2012b), and the *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources* (2012c).

6.3 Surface water

6.3.1 Key environmental risks

Water is transported to Cobar from Burrendong Dam, located 335 km south east of Cobar. Water is transport via the Macquarie River to Warren, then via the open Albert Priest Channel to Nyngan, from where it is pumped via a pipeline to the Cobar Shire Council filtration plant adjacent to Fort Bourke Hill, and the New Cobar open cut pit. Approximately 50% of PGMs water allocation is lost by evaporation and leakages between Burrendong Dam and Cobar.

PGMs water allocation has been reduced to 70% of its regular annual allocation from July 1 2019 (1,189ML, reducing to approximately 400ML after evaporation losses). This allocation is likely to be entirely lost if there is no significant rainfall by January 2020. The Burrendong Dam has a current capacity of 2.6% (18 Dec 2019).

It is assumed that there would be minimal surface disturbance outside of already disturbed areas. This would be confirmed during detailed design. The project is likely to cause only very minor changes to the existing mine water balance; however, all changes will be assessed.

6.3.2 Assessment methods

EMM will undertake a hydrological assessment to inform the preparation of the EIS for the project. The hydrological assessment would update the description of the existing physical and hydrological setting based on an updated review of available meteorological, surface water (level, flow and quality) and mine development data.

The update would include the latest recorded water supply, storage and use. Proposed changes to the water management system associated with the project would be detailed and included on a schematic to illustrate how they integrate into the overall water management system.

The existing site water balance model would be revised based on the proposed changes to operational water management as a result of the implementation of the site specific Water Management Plan conditioned by the Resources Regulator for the Great Cobar exploration decline Review of Environmental Factors (RW Corkery 2019) – primarily relating to the extension of life of mine and water supply requirements for underground mining. A key input to the model would comprise underground groundwater inflows identified in the groundwater study.

6.4 Subsidence/geotechnical assessment

6.4.1 Key environmental risks

The principal intention of PGM is to design the project to have minimal surface impacts. Preliminary investigations indicate the key risks for the project, with respect to surface subsidence assessment for the EIS preparation, include:

- damage to surface mine and public infrastructure, including buildings and roads;
- rock mass damage due to underground mine workings resulting in changes to rock mass permeability and groundwater flow; and
- changes to groundwater flow paths may increase water egress into underground workings.

6.4.2 Assessment methods

PGM will commission geotechnical specialists to prepare a subsidence assessment for the project. As part of the subsidence assessment, a suitably qualified expert will prepare a desktop assessment to establish baseline information, followed by empirical assessments of:

- stope stability;
- geology;
- rockmass characteristics;
- faults/structural models; and
- any potential instability propagating to the surface.

6.5 Noise and blasting assessment

6.5.1 Key environmental risks

Surface noise related to the proposed underground operations, including underground blasting, ventilation and material haulage and handling, has the potential to increase the overall mine noise level and potentially exacerbate these current entitlements or possibly increase the zone of entitlements.

6.5.2 Assessment methods

A quantitative desktop noise and blast assessment will be prepared in accordance with the EPA Noise Policy for Industry (NPfI) and Australian and New Zealand Environment and Conservation Council (ANZECC) blast guidelines, as follows:

- undertake a desktop review of historical noise and blasting compliance reports and any other relevant documents and/or studies such as complaint investigations and independent environmental audits;
- analyse the existing meteorological environment to identify noise enhancing weather conditions;
- establish the existing operating noise level from the site based on previous noise impact assessments;
- develop an operational computer noise model of the proposed surface activities related to underground operations using DGMR Software's iNoise®. The model will include features which affect noise propagation, such as topography, ground types, buildings or other solid structures and meteorological parameters;
- predict noise from the activities associated with the proposed underground operations;
- determine the total operating noise level of the existing and proposed operations and assess against the project consent noise limits and the NPfI;
- where an exceedance of criteria is predicted, recommend feasible and reasonable noise mitigation measures. These measures, including their likely effectiveness, would be initially discussed and agreed with PGM then incorporated in the noise model;
- predict and assess blast overpressure and ground vibration levels;
- assess the potential for cumulative noise impacts with other industry in the area in accordance with NPfI methods; and
- assess potential road traffic noise impacts on public roads due to any proposed increase in vehicle movements.

6.6 Air quality and greenhouse gas assessment

6.6.1 Key environmental risks

Key risks associated with air quality and greenhouse gases for the underground project are as follows:

- demonstrating compliance with cumulative impact assessment criteria, accounting for background air quality and existing approved PGMs emission sources; and
- accurate quantification of all emission sources associated with the project, including diesel combustion, to the requirements of EPA.

Community consultation during the scoping stage revealed a strong community perception that emissions from the exhaust vent approved for the Great Cobar Exploration Drive, will have a negative impact on local air quality and health. Specifically, the community has raised concerns with possible emissions of lead dust.

PGM has revised the location and design of this infrastructure in response to these concerns. Given that the exhaust vent would continue operation post EIS approval, it has been relocated 470 m to the southeast of its originally proposed location. The outlet has also been redesigned to direct emissions away from the town.

Accurate quantification of emissions and their sources will be undertaken using the most recent and applicable emission estimation resources used for approval by the NSW EPA on projects of this nature. This will be fully assessed in the air quality impact assessment and the social impact assessment.

6.6.2 Assessment methods

Based on relevant project experience, we anticipate that the scope of the air quality assessment will require the following:

- a quantitative assessment of the potential for air quality impacts of the project in accordance with relevant EPA guidelines;
- an assessment of the likely greenhouse gas emissions from the project; and
- details of proposed mitigation, management and monitoring measures.

The relevant guideline for the air quality assessment will be the *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (EPA 2016). The following scope of works will be completed:

- collate and process all available relevant local and regional air quality and meteorological monitoring data. Monitoring data from the onsite meteorological and air quality monitoring networks at the PGM sites will be the primary resources for baseline analysis and modelling inputs;
- undertake detailed analysis of all collected monitoring data. Identify intra-annual and inter-annual trends, key monitoring statistics, and data gap analysis;
- establish impact assessment criteria and baseline air quality environment;
- in consultation with the acoustics team, establish the meteorological environment;
- in consultation with PGMs environment team and the acoustics team, refine the sensitive receptor location list developed by the *Review of Environmental Factors for the Great Cobar Project* (RW Corkery 2019a) for use in the assessments;

- develop a meteorological dataset suitable for use by an atmospheric dispersion model, using a combination of local and regional monitoring resources and meteorological modelling;
- calculate air pollution emissions (TSP, PM_{10}, $PM_{2.5}$, metals and metalloids and processing fugitives) for two emission scenarios, at this point expected to be representative of underground workings establishment and maximum underground operations. The emission scenarios will be confirmed with PGM and would be consistent with the noise modelling scenarios where practicable;
- undertake atmospheric dispersion modelling and present model predictions of ground level concentrations of all pollutants calculated for the two modelling scenarios quantified;
- assess cumulative impacts accounting for background air quality and existing PGM operations against applicable assessment criteria and provide analysis of compliance;
- quantify greenhouse gas emissions from the project. Incorporate greenhouse gas assessment findings into the air quality impact assessment report; and
- provide recommendations for potential additional air quality mitigation measures, as required.

6.7 Social impact assessment

6.7.1 Key social risks

The discontinuation of mining operations at PGM would likely have a social cost to the local community of Cobar, and the broader regional economy of Far West New South Wales. The underground project would use a contract workforce employed from the local community as a first preference. Workers are asked to relocate to Cobar if they cannot be found locally. For specialised roles, fly-in-fly-out (FIFO) or drive-in-drive-out (DIDO) arrangements may be considered. The pulse of workers associated with construction phase of the project may result in competition for accommodation in Cobar, and potentially competition for skilled and unskilled workers in the local economy. A summary of key social risks identified in the risk workshop is provided below:

- a lack of public understanding the need for or (limited) risks arising from vent shaft/fans;
- a lack of public understanding of contemporary legislation processes;
- the perception that PGM employs an exclusive FIFO/DIDO workforce, and doesn't employ locals;
- community misconception that Pb and Zn have never previously been mined at New Cobar; and
- the misconception by the local community that New Cobar will result in new (increased) employment opportunities arising 2022-2035.

6.7.2 Assessment methods

EMM will undertake a social impact assessment (SIA) for the project. The initial tasks undertaken during the scoping phase to inform the SIA will include the identification of the project's area of social influence; and appropriately identifying potential material social impacts and the level of assessment that is required after the scoping phase. The *DPIE Guideline 3 Scoping Tool Worksheet* will be used to determine the social dimensions of other impacts, such as environmental or economic.

The SIA scoping will be conducted in accordance with the DPIEs *Social Impact assessment guideline: For significant mining, petroleum production and extractive industry development* (DPIE 2017a). As such a suitably qualified person will seek input from the community to inform what the potential social impacts might be and consider:

- potentially affected people and local community surrounding the project;
- supply chains and procurement processes;
- haulage routes;
- transport of goods, materials and equipment;
- the movement of workers, including residential, FIFO and DIDO arrangements (if any);
- the nature and scale of the project;
- social trends or changes experienced by the community
- social infrastructure, built and natural, that have social value to the community; and
- the history of the proposed project and how it is experienced by the surrounding community.

Following the scoping phase, the SIA will:

- describe the social baseline and identify constraints;
- predict changes and trends, and discuss their potential impacts;
- identify and evaluate the likelihood and consequences of potential social impacts of the project;
- develop of strategies that mitigate negative and enhance benefits of social impacts; and
- develop a monitoring and management framework.

6.7.3 Proposed SIA scope

a Proposed area of social influence

The proposed area of social influence will be the local government area (LGA) of Cobar.

b Geographical considerations

The township of Cobar is near the project site and is likely to be the community to be directly impacted by the Project. More broadly, the Cobar LGA may also experience some of the direct impacts. Indirect impacts may also be felt throughout the Central West of NSW and NSW generally, though these are likely to be limited and mostly positive (i.e. economic benefit).

c Potentially affected people

The potentially impacted people include:

- residents of the township of Cobar;
- the Local Aboriginal Land Council;

- landholders and nearby neighbours, including businesses;
- the local business community; and
- current employees of the operation.

6.7.4 Potential social impacts

A preliminary set of potential impacts (negative and positive) has been identified based on the scoping assessment, including the outcomes of community and stakeholder and observations of the local community and Project site. The purpose of identifying potential impacts at this preliminary stage is to ensure that the appropriate range of stakeholders is engaged and that no affected group or individual is excluded from the engagement.

An assessment of negative impacts requiring further assessment and likelihood of potential positive social impacts is detailed in Table 6.1.

Table 6.1 Identified potential positive and negative impacts

Potential social impacts	Negative related to:	Positive related to:
Health and well-being Fears and aspirations	Reduction in air quality due to lead released from air vents especially with nearby schools and parks Water contaminated by lead Increased noise from vent rises causing stress Vibrations due to blasting, increase intensity as mine moves closer to town, damaging properties will cause stress	Increase in employment will reduce stress
Livelihood Community Fears and aspirations	Nearby business fear losing trade due to proximity of Project to town	The continued operation of the mine will provide ongoing employment and supply valuable resources. Employment and training Local economy and businesses
Surrounding – public safety Access to and use of infrastructure, services and facilities Way of life Fears and aspirations	Additional truck movements could cause road safety issues relating to inadequate road formation/width Truck/vehicle safety on local roads Social infrastructure could get contaminated with lead which would lose membership and use of resource Groundwater impacting bores and open cut	Increase population will support continuation of social infrastructure such as schools, health services and recreational groups and facilities.
Decision-making systems	Previous consultation with the community regarded as poor with low level of trust	Strong support for the project Feedback on potential positive impacts and their management Fulfilment of commitments and promises

6.8 Economic assessment

6.8.1 Key environmental risks

The discontinuation of mining operations at PGM would likely have a deleterious impact on the local economy of Cobar and the broader regional economy of Far West New South Wales. The project would allow continuation of ore production and processing, and likely increase local employment and local domestic product.

There may be local benefits from increased demand associated with staff increases including local salary inflation and increased demand for local services and supplies.

6.8.2 Assessment methods

An economic impact assessment will be prepared to inform the EIS. The economic and social impact assessments will be closely aligned, to ensure consistency in assessment methodology and outcomes. The economic impact assessment would include a cost benefit analysis (CBA), which would:

- establish the base case and define the project;
- identify incremental costs and benefits;
- quantify and value the economic costs and benefits of the Project including mining costs and benefits, and environmental costs and benefits (benefit transfer); and
- develop a spreadsheet model which considers risk and uncertainty, unquantified impacts, and the distribution of costs and benefits.

The economic impact assessment would also include a local effects analysis (LEA) of direct effects in accordance with the *Guidelines for the economic assessment of mining and coal seam gas proposals* (DP&E 2015) and the *Technical notes supporting the guidelines for the economic assessment of mining and coal seam gas proposals* (DPIE 2018). The LEA would include:

- development of input-output model of the regional economy;
- preparation of summary information on the structure of the regional economy;
- sort and allocate financial data;
- analysis of the construction and operation regional economic impacts; and
- consideration of the regional economic effects of cessation of the mine.

6.9 Visual assessment

6.9.1 Key environmental risks

No new surface infrastructure is proposed for the project, and the majority of works associated with the project would not be visible by neighbours or publicly accessible areas. Some surface activities will occur at night, as is presently the situation. There is no permanent lighting in place on the ROM pad, but lighting is required from time to time. Lighting from the mine is not a matter of concern raised by the community (or regulators) during the scoping consultation. Given the non-permanent nature of the lighting on the ROM pad and absence of community concern and only rehabilitation of the site and final post-closure landforms will require visual impact assessment.

6.9.2 Assessment methods

GIS modelling software will be used to prepare a viewshed analysis (using topographical contours, vegetation; operational infrastructure and final landform data) for the current landform.

This analysis will be run on the existing landform, a nominated 'working' landform and the final post mining landform for the purpose of assessing the likely visual impact on visual receptors. This may include photomontage images for representative viewpoints. The significance of changes compared to the existing and approved development will be assessed. Photomontages of the mine operations at the 5-year and 10-year intervals and final post mining landform will be produced.

6.10 Ecology assessment

6.10.1 Key environmental risks

Although the overall design intent of the project proposal is to avoid new surface impacts, the establishment of a powerline (up to 400 m long) to supply power for a ventilation fan to be installed at the exhaust vent (boxcut) and an emergency egress winder at the air inlet (both vents will be established during construction of the approved Great Cobar exploration drive), will be required (see Figure 3.1). The power line will be connected to the existing 22 kV powerline that runs north to south supplying power from Cobar to PGM operations. The powerline, will traverse through areas of existing surface disturbance. These areas consist of land substantially cleared and/or containing sparse native woody vegetation resulting from past thinning. The powerline will be located to ensure removal or safety pruning of extant native woody vegetation is not necessary.

The project involves underground mining, with minimal surface works outside previously disturbed footprints. Risks to biodiversity will depend on the location and extent of underground workings. PGM operations have a history of very low to negligible levels of subsidence. Should surface disturbance occur, including impacts to land overlying areas to be mined contain biodiversity values, these will need to be assessed in accordance with the BC Act, FM Act and the Commonwealth EPBC Act.

A key aspect in the early stages of the project will be to inform the EPBC Act referral and determined whether MNES will potentially be impacted by the project.

6.10.2 Assessment methods

It is proposed that a desktop assessment is undertaken and will include a review of databases and relevant legislation and policies, as well as a current literature. The desktop assessment will present the mapping of the findings and provide knowledge gaps and recommendations for further work where relevant.

Consultation with the DoEE in Canberra and the BCD/EPA in Dubbo will also be undertaken.

Given the minimal predicted level of impact on biodiversity values anticipated with the project, a Biodiversity Development Assessment Report (BDAR) waiver request has been prepared to accompany the request for SEARs for the project.

6.11 Aboriginal and non-Aboriginal heritage assessments

6.11.1 Key environmental risks

There are 25 buildings listed as heritage items on the *Cobar Local Environmental Plan 2012* within the broader Cobar township area. The *Cobar Pastoral and Mining Technology Museum 1910* (I8) which was the former mine administration offices associated with the Great Cobar Mine (which occurred between 1890 and 1919) is situated within CML6 but adjacent to PGM. The LEP identifies *Towser's Huts* (I24), Fort Bourke Hill, Kidman Way as being present within vicinity of the New Cobar Complex. One of these items *Cobar Railway Station and Yard* (I10) is also listed on the NSW State Heritage Inventory.

The New Cobar Complex existing infrastructure areas has been exposed to extensive surface disturbance and the presence of Aboriginal objects is considered highly unlikely. Aboriginal heritage sites (recorded on the Aboriginal Heritage Information Management System (AHIMS)) and archaeological relics are not known within the mine site. No lands declared as aboriginal places under the *National Parks and Wildlife Act 1974* are present within the New Cobar Complex area. The *Great Cobar Pipeline Statement of Environmental Effects* (RW Corkery 2019b) identified the presence of an artefacts scatter of aboriginal origin, in proximity to one of the Great Cobar Exploration Drive's air rises.

Because the project is largely located underground and within the previous disturbance area of the mine, the proposed project is likely to have negligible impact on Aboriginal and non-Aboriginal heritage.

As outlined in Section 6.2, dewatering of the historic Great Cobar Mine is also expected to dewater the historic open pit. Although this feature is not heritage listed, the community expressed some concern at its potential dewatering but were supportive of the proposal put forward by PGM. An approval to utilise groundwater in the Great Cobar Mine has been granted by CSC. As part of this approval it was put on public display for consultation and no objections to the proposal were received. As PGM already has an approval to use of the Great Cobar groundwater for site demands, this will not be considered further.

The scope of works will include a desktop due diligence assessment comprising:

- a summary of statutory requirements and relevant legislation; and
- a register search for listed heritage sites.

6.12 Traffic and transport assessment

6.12.1 Key environmental risks

The underground project has the potential to increase traffic numbers on local roads, during construction and operation. The traffic assessment will assess the likely project impacts to road capacity, traffic safety and site access including Austroads intersection design standards and the likely maximum size of trucks using each intersection during construction.

The traffic and transport assessment will also include consideration of local haulage routes for hazardous materials haulage.

6.12.2 Assessment methods

The study methodology will follow the standard Roads and Maritime Services (RMS) guidelines for traffic impact assessment incorporating the following:

- site observations and existing road network and traffic generation;
- proposed site access and circulation;
- traffic generation by the project;
- impacts to the road network;
- impacts to intersection operations;
- traffic safety and review of accident history; and
- adequacy of the site truck and car parking areas.

A visual inspection of the primary affected road, Kidman Way between the Peak Complex, the New Cobar Complex and Cobar town centre will be undertaken by specialist personnel to confirm their current general road widths and traffic conditions. Photographs will be taken at the key relevant project access intersection locations.

Existing RMS and CSC traffic data for the study area road network would be reviewed and used to confirm the current daily and hourly traffic volumes, which would then enable the project access and transport route traffic impacts to be assessed.

The traffic assessment will primarily focus on impacts during the construction phase of the project but would also quantify any forecast additional operational traffic generated to show if any additional impacts would be expected. Based on this understanding, the likely additional site operations daily and peak hourly traffic movements are likely to be minimal.

7 Community and stakeholder agency engagement

7.1 Overview

The EIS engagement will adopt the International Association for Public Participation (IAP2) approach as shown in the Community and Stakeholder Engagement Strategy (CSES) (see Appendix C).

The CSES identifies:

- assessment of stakeholders;
- purpose of engagement with each identified stakeholder;
- appropriate method of engagement for each identified stakeholder;
- likely issues to be raised in consultation;
- engagement materials; and
- engagement action plan.

The CSES is a living document that will be review intermittently to allow for addition of new stakeholders, issues, and methods when and if required as more detailed information is available.

8 Conclusion

8.1 Scoping Meeting

The purpose of this scoping report is to accompany the request for SEARs for the New Cobar Complex Underground Project to provide an overview of PGM's proposal to extend mining operations at the New Cobar Complex.

The project seeks to introduce additional underground mine areas at the New Cobar Complex using stope mining practices, in addition to the existing underground workings, to exploit newly identified ore deposits at Great Cobar and Gladstone. This development will extend the mine life to 2035 under current market conditions.

Mineral processing and tailings storage will continue at the Peak Complex under planning approvals issued by CSC. In accordance with DPIE advice, PGM will seek development approval for all future TSF lifts necessary to accommodate the additional 12 years of ore processing arising from the from the New Cobar Complex project, prior to submission of the New Cobar Complex Underground Project SSD EIS.

This scoping document has been prepared by EMM Consulting Pty Limited on behalf of Peak Gold Mines Pty Ltd, the applicant for the New Cobar Complex Underground Project.

This document outlines the development of the project scope, the proposed assessment pathway, how PGM intends to undertake the impact assessment, report on the findings of scoping phase consultation, and identify the range of consultation proposed as part of the assessment report preparation and public exhibition.

Based on the findings of the scoping assessment, the following unranked listing of key issues will be addressed in the EIS for the underground workings:

- noise, vibration and blasting;
- surface and groundwater;
- subsidence;
- air quality and greenhouse gas assessment;
- visual;
- biodiversity;
- soils and rehabilitation;
- heritage, including Aboriginal cultural heritage and historic heritage;
- social; and
- economic.

Other issues or matters that require assessment, but may not require a standalone or detailed technical assessment in the EIS are:

- cumulative impacts, and
- climate change and other risks.

Glossary

Abbreviations and technical terms which are used in this report are defined in the table below.

Term	Definition
ABN	Australian Business Number
AHD	Australian height datum
AHIMS	Aboriginal Heritage Information Management System
ANZECC	Australian and New Zealand Environment and Conservation Council
BC Act	*Biodiversity Conservation Act 2016* (Commonwealth)
BDAR	Biodiversity Development Assessment Report
bgl	below ground level
CBA	cost benefit analysis
CSC	Cobar Shire Council
DFN	discrete fracture network
DIDO	Drive-in-drive-out.
DoEE	Department of Environment and Energy (Commonwealth Government))
DoI	Department of Industry
DPIE	Department of Planning, Industry and Environment
DUAP	Department of Urban Affairs and Planning (former)
EMM	EMM Consulting Proprietary Limited
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	Environment Protection Authority
EPI	environmental planning instrument
EPL	environment protection licence
ESCMP	Erosion and Sediment Control Management Plan
ETL	electricity transmission line
FIFO	Fly-in-fly-out
FM Act	*Fisheries Management Act 1994*
ha	hectare
HEC	Hydro Engineering and Consulting Pty Ltd
ICDS	Internal Catchment Drainage System
IPC	Independent Planning Commission
IWL	Integrated Waste Landform
km	kilometres
kV	kilovolt
LEA	local effects analysis
LEP	local environmental plan
m	metre

Term	Definition
Mining SEPP	*State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*
ML	mining lease
MLA	mining lease application
MNES	matters of national environmental significance
MOP	Mining Operations Plan
MW Act	*Water Management Act 2000*
NPfI	*Noise Policy for Industry* (EPA 2017)
NPW Act	*National Parks and Wildlife Act 1974*
OEH	Office of Environment and Heritage
Peak Gold Mines	Peak Gold Mines Pty Ltd (the applicant)
PGM	Peak Gold Mines
PM	particulate matter (10 microns or 2.5 microns in diameter)
POEO Act	*Protection of the Environment Operations Act 1997*
ROM	Run of Mine
SEARs	Secretary's environmental assessment requirements
SEPP	State environmental planning policy
SIA	social impact assessment
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2011*
SSD	State significant development
tpa	Tonnes per annum
TSF	tailings storage facility
TSP	total suspended particles
WRE	Waste rock emplacement

References

The following documents have been referred to in the preparation of this document:

ANZECC & MRC 2000, *Strategic Framework for Mine Closure*. Australian and New Zealand Minerals and Energy Council and Mineral Resources Council of Australia.

ANZECC 1990, T*echnical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration,* Australian and New Zealand Minerals and Energy Council, Canberra, ACT.

DIIS 2016, *Leading Practice Sustainable Development Program for the Mining Industry – Mine Closure*. Commonwealth Government, Canberra, ACT.

DP&E 2015, *Guidelines for the economic assessment of mining and coal seam gas proposals*. NSW Government – Department of Planning and Environment, Sydney, NSW.

DPI 2012a, *NSW Aquifer Interference Policy*, NSW Government - Department of Primary Industries, Sydney, NSW.

DPI 2012b, *Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Sources*, NSW Government – Department of Primary Industries, Sydney, NSW.

DPI 2012c, *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources.* NSW Government -Department of Primary Industries, Sydney, NSW.

DPIE 2017a, *Social impact assessment guideline for State significant mining, petroleum production and extractive industry development*. NSW Government – Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2017b, *Community and Stakeholder Engagement: Draft Environmental Impact Assessment Guidance Series June 2017.* NSW Government – Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2018, *Technical notes supporting the guidelines for the economic assessment of mining and coal seam gas proposals.* NSW Government – Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2019a, *Preparing a Scoping Report Guidance for State Significant Projects.* NSW Government - Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2019b, *Community Consultative Committee Guideline – State Significant Projects*. NSW Government - Department of Planning, Industry and Environment, Sydney, NSW.

EPA 2016, *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW.* NSW Government - Environmental Protection Agency, EPA, Sydney, NSW.

EPA 2017, *Noise Policy for Industry*, NSW Government -Environmental Protection Agency, Sydney, NSW.

PGM 2016, *Erosion and Sediment Control Plan.* Peak Gold Mines Pty Ltd, Cobar, NSW.

PGM 2019, *Mining Operations Plan 1 August 2019 – 31 July 2022.* Peak Gold Mines Pty Ltd, Cobar, NSW.

RW Corkery 2019a, *Review of Environmental Factors for the Great Cobar Project.* Prepared for Peak Gold Mines Pty Ltd.

RW Corkery 2019b, *Great Cobar Pipeline Project, Statement of Environmental Effects.* Prepared for Peak Gold Mines Pty Ltd.

Appendix A

DPIE Scoping worksheet

Environmental Impact Statement (EIS) scoping worksheet for:	hh	Date:	

What matters might be impacted?			What activities might cause an impact?	What are the characteristics of the impact?						How will the impact be managed?	What are the community and other stakeholder views?	What level of assessment and engagement is required in the EIS preparation phase?	
Social and environmental matters I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements *Click on the matter for a description, or the link above for full glossary*			Without any mitigation, is the proposal likely to impact on the matter? *(Select from list)*	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. if applicable, list the receptor being impacted and its status. *E.g. construction noise will be heard at nearby school* If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? *(Manual entry)*	Is the impact, without mitigation, expected to cause a material effect with regard to its... *(Answer 'Y', 'N' or '?')* *Click on characteristic for description, or the link above for further detail*				Does the impact need assessment in the EIS? *(Auto fills)*	Is the impact, without mitigation, expected to have a material cumulative effect with other impacts (including from other projects)? *(Select from list)*	What safeguards and management measures are expected to be required to address the impact? *(Select from list)*	Are there community or other stakeholder concerns regarding the impact or activity? *(Based on engagement with community and other stakeholders)* *(Select from list)*	Expected level of assessment and/or engagement required *(Auto fills)*	Relevant section in Scoping Report *(Manual entry)*
					extent?	duration?	severity?	sensitivity?						
What does the proposal mean for people?	AMENITY	acoustic	Likely	Operation of vent riser fans will generate noise audible in the surrounding area, potentially impacting local residents and visitors.	Y	Y	Y	Y	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	
		visual	Likely	Only additional surface infrastructure is a short (no more than 400m) power line.	Y	Y	N	N	Yes	No	Standard	No	Other Issue	
		odour	n/a											
		microclimate	n/a										No assessment necessary - Worksheet only	
		vibration	Likely	Vibrations due to blasting, increase intensity as mine moves closer to town, damaging properties	Y	Y	Y	Y	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	
	ACCESS	access to property	n/a										No assessment necessary - Worksheet only	
		utilities	Likely	Raw, potable and recycled water will be used as part of underground mining operations, however water usage is not expected to be greater than current usage, but will extend demand for 12 years. Electricity will be supplied to the site using the existing 132kV electricity transmission line.	N	Y	N	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
		road and rail network	Likely	Ore will be transported from New Cobar to Peak along Kidman Way at a rate of up to 50 truck movements per day. This will have an impact on existing road users, including residents and visitors. Mining operations will take place at depth below Kidman Way.	N	Y	Y	Y	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	
		offsite parking	n/a											
		other - please specify	n/a										No assessment necessary - Worksheet only	
	BUILT ENVIRONMENT	public domain	Likely	Operations will continue near the Fort Bourke Hill Lookout area (public domain), however no changes are anticipated. There is a low likelihood that dewatering of the Great Cobar workings may impact the water level in the Great Cobar historic open cut adjacent to Lewis Street, Cobar; this is privately owned, however visible from public domain.	?	?	?	Y	Unknown	No	Unknown	Yes	Key Issue + Focussed Engagement	
		public infrastructure	Likely	Ore will be transported from New Cobar to Peak along Kidman Way at a rate of up to 50 truck movements per day. These may have an impact on physical infrastructure and road users. Mining operations will take place at depth below Kidman Way.	N	Y	Y	Y	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	
		other built assets	n/a										No assessment necessary - Worksheet only	
		other - please specify	n/a										No assessment necessary - Worksheet only	
	HERITAGE	natural	Unlikely	No additional surface disturbance will be required, therefore the project will not impact any natural heritage features of significance.								No	Scoping Report	
		cultural	Likely	There is a low likelihood that dewatering of the Great Cobar workings may impact the water level in the Great Cobar historic open cut adjacent to Lewis Street, Cobar.	?	?	?	Y	Unknown	No	Unknown	Yes	Key Issue + Focussed Engagement	
		Aboriginal cultural	Unlikely	No additional surface disturbance will be required, therefore the project will not impact any Aboriginal cultural heritage features of significance.								No	Scoping Report	
		built	Likely	There is a poassibility that dewatering of the Great Cobar workings may impact the water level in the Great Cobar historic open cut adjacent to Lewis Street, Cobar.	?	?	?	Y	Unknown	No	Unknown	Yes	Key Issue + Focussed Engagement	
		other - please specify	n/a										No assessment necessary - Worksheet only	
	COMMUNITY	health	Likely	There are community concerns that exhaust air from the vent risers will have a negative impact on the health of local residents and visitors.	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		safety	Likely	Ore will be transported from New Cobar to Peak along Kidman Way at a rate of up to 50 truck movements per day. These may have an impact on the safety of road users.	N	Y	Y	Y	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	
		services and facilities	Likely	The small increase in workforce, and the extension of mine life may have an impact (potentially positive and negative) on the services and facilities available to residents and visitors of Cobar.	Y	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
		Social / community infrastructure	Likely	Social / comminity infrastructure may become contaminated with lead rendering them unusable or affecting membership / utilisation	?	?	?	Y	Unknown	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		cohesion, capital and resilience	Likely	Mining is integral to the community of Cobar, and the continuation of mining activities may have an impct (potentially positive and negative) on community cohesion, capital and resilience.	Y	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
		housing	Likely	The small increase in workforce, and the extension of mine life may have an impact (potentially positive and negative) on the housing and accommodation available to residents and visitors of Cobar.	Y	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
		other - please specify	n/a										No assessment necessary - Worksheet only	
		natural resource use	Likely	The natural resource of mineral bearing ores will be used to produce metals and metal concentrates for sale.	Y	Y	Y	N	Yes	No	Standard	No	Other Issue	

Environmental Impact Statement (EIS) scoping worksheet for:			hh								Date:			
What matters might be impacted?			**What activities might cause an impact?**		**What are the characteristics of the impact?**						**How will the impact be managed?**	**What are the community and other stakeholder views?**	**What level of assessment and engagement is required in the EIS preparation phase?**	
Social and environmental matters **I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements** ***Click on the matter for a description, or the link above for full glossary***			**Without any mitigation, is the proposal likely to impact on the matter?** ***(Select from list)***	**If there is a 'likely' impact:** **1. list the activities expected to cause the impact; and** **2. if applicable, list the receptor being impacted and its status.** *E.g. construction noise will be heard at nearby school* **If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location?** ***(Manual entry)***	**Is the impact, without mitigation, expected to cause a material effect with regard to its...** ***(Answer 'Y', 'N' or '?')*** ***Click on characteristic for description, or the link above for further detail***				**Does the impact need assessment in the EIS?** ***(Auto fills)***	**Is the impact, without mitigation, expected to have a material cumulative effect with other impacts (including from other projects)?** ***(Select from list)***	**What safeguards and management measures are expected to be required to address the impact?** ***(Select from list)***	**Are there community or other stakeholder concerns regarding the impact or activity?** ***(Based on engagement with community and other stakeholders)*** ***(Select from list)***	**Expected level of assessment and/or engagement required** ***(Auto fills)***	**Relevant section in Scoping Report** ***(Manual entry)***
					extent?	**duration?**	**severity?**	**sensitivity?**						
What does the proposal mean for the natural environment?	ECONOMIC	livelihood	Likely	Mining is integral to the economy of Cobar, and the continuation of mining activities will have a likely positive impact on the livelihoods of those employed by the mine and ancillary services.	Y	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
		opportunity cost	n/a										No assessment necessary - Worksheet only	
		other - please specify	n/a										No assessment necessary - Worksheet only	
	AIR	particulate matter	Likely	Underground mining activities will result in airborne particles of dust and particulates, some of which will be discharged at the surface vent risers, potentially impacting local residents and visitors.	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		gases	Likely	Underground mining vehicles and plant will result in CO2, Nox and other emissions being discharged from the vent risers which may have an impact on the atmosphere.	N	Y	N	N	No			No	Scoping Report	
		atmospheric emissions	Likely	Underground mining vehicles and plant will result in CO2, Nox and other greenhouse gases being discharged from the vent risers which may have an impact on the atmosphere.	N	Y	N	N	No			No	Scoping Report	
		Public health risk from lead	Likely	Potential risk that dust particulates may include lead which could impact local residents.	?	?	?	Y	Unknown	No	Project Specific	Yes	Key Issue + Focussed Engagement	
	BIODIVERSITY	native vegetation	Unlikely	Negligible additional surface disturbance or vegetation clearance will be required, therefore potential impacts to native flora will be negligible.								No	Scoping Report	
		native fauna	Unlikely	Negligible additional surface disturbance or vegetation/habitat clearance will be required, therefore potential impacts to native fauna will be negligible.								No	Scoping Report	
		other - please specify	n/a										No assessment necessary - Worksheet only	
	LAND	stability and/or structure	Likely	Underground mining activities have the potential to impact stability of the surrounding geology which could have indirect impacts at the surface.	Y	Y	Y	N	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		soil chemistry	Unlikely	Existing site includes waste rock emplacements that have been wholly or partially rehabilitated. These waste rock emplacements and proposed mining activities are unlikely to have any impact on soil chemistry.								No	Scoping Report	
		capability	Unlikely	Existing site includes waste rock emplacements that have been wholly or partially rehabilitated. These waste rock emplacements and proposed mining activities are unlikely to have any impact on current land capability.								No	Scoping Report	
		topography	Likely	Existing site includes waste rock emplacements that have been wholly or partially rehabilitated. These waste rock emplacements and proposed mining activities may cause changes to the topography as part of the final rehabilitated landform.	Y	Y	Y	N	Yes	No	Project Specific	No	Key Issue	
		other - please specify	n/a										No assessment necessary - Worksheet only	
	WATER	water quality	Likely	Mining activities and dewatering of underground workings may have an impact on groundwater and surface water quality.	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		water availability	Likely	Dewatering of underground workings may reduce the availability of groundwater to other potential users.	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		hydrological flows	Likely	Changes to topography as part of final rehabiliated landforms may impact hydrological flows if not designed appropriately.	Y	Y	Y	Y	Yes	No	Project Specific	No	Key Issue	
		other - please specify	n/a										No assessment necessary - Worksheet only	
What risks does the proposal face?	RISKS	coastal hazards	n/a										No assessment necessary - Worksheet only	
		flood waters	Unlikely	Surface infrastructure is unlikely to be impacted by floodwaters due to location and design (bunded vent risers).								Yes	Scoping Report + Explain avoidance	
		bushfire	Unlikely	No part of the project is located in an area prone to bushfires as determined by the online bush fire prone land tool operated by the NSW rural fire service.								No	Scoping Report	
		undermining	Likely	Mining activities and dewatering of underground workings may have surface impacts.	Y	Y	Y	N	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		steep slopes	Likely	Existing site includes waste rock emplacements that have been wholly or partially rehabilitated and an open cut pit. These landforms will have steep slopes.	Y	Y	Y	Y	Yes	No	Project Specific	No	Key Issue	
		failure of water storage dams	Likely	Exiting water storages not constructed to contemporary standards	?	N	Y	?	Unknown	No	Standard	No	Other Issue	
		other - please specify	n/a										No assessment necessary - Worksheet only	

Appendix B

Social impact assessment scoping report

New Cobar Complex Underground Project: Social Impact Assessment

Scoping report

Prepared for Peak Gold Mines Pty Ltd
December 2019

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New Cobar Complex Underground Project: Social Impact Assessment

Scoping report

Report Number

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Client

Peak Gold Mines Pty Ltd

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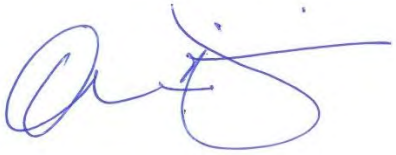

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20 December 2019

Executive Summary

Overview

Peak Gold Mines Pty Ltd (PGM), a wholly owned and operated subsidiary of Aurelia Metals Limited (Aurelia), owns and operates the Peak Gold Mines operation south-east of Cobar, central-west New South Wales (NSW). PGM is in the process of investigating options for extending the life of the New Cobar Complex, and has identified the Gladstone and Great Cobar Deposits as targets for future mining which will extend mining to 2035. The Great Cobar deposit was historically exploited by surface and underground mining between 1870 and 1919, but no mining activity has been undertaken since that time.

PGM is proposing to extend the life of mine for operations in the New Cobar Complex from 2023 to 2035 through the development of mining in the Gladstone and Great Cobar Deposits. The extension would utilise existing surface infrastructure and access to the operations would be from declines constructed from existing underground operations.

The capital investment value of the proposed extension would is greater than $30M and therefore the development is state significant (SSD) with respect to the *Environmental Planning and Assessment Act 1979* and the *State Environmental Planning Policy (State Regional Development) 2011.* Consequently, it requires approval from the State. As a result, PGM is seeking to consolidate all existing development consents applicable to the New Cobar Complex within a single modern consent issued by the Department of Planning, Industry and Environment (DPIE).

Ore processing will remain at the existing approved rate of up to 800,000 tpa, with production of ore from Great Cobar and Gladstone deposits making up for the future decrease in production from other workings across PGM. All processing will occur at the existing Cobar Shire Council approved ore processing and Tailings Storage Facility situated in the Peak Complex. These operations are not the SSD. The extension of mining operations will require mining the Great Cobar and Gladstone deposits. This would require 50 ore truck movements along Kidman Way per day averaged over a calendar year. The harvesting of waste rock and transportation of that material will go back underground for use in stope backfilling or bought to the surface and stored in the existing waste rock emplacement or used in rehabilitation / construction activities (e.g. future tailings dam wall lifts). It is anticipated that there would be negligible surface disturbance.

The continuation of operations will sustain the existing workforce. There may be opportunities for temporary employment during construction and some specialised roles during operation.

A social impact assessment was undertaken to inform the scoping document prepared in support of the request for SEARs.

Key social risks

The discontinuation of mining operations at PGM would likely have a social cost to the local community of Cobar, and the broader regional economy of Far West New South Wales. The underground project would use a contract workforce employed from the local community as a first preference. Workers are asked to relocate to Cobar if they cannot be found locally. For specialised roles, fly-in-fly-out (FIFO) or drive-in-drive-out (DIDO) arrangements may be considered. The pulse of workers associated with construction phase of the project may result in competition for accommodation in Cobar, and potentially competition for skilled and unskilled workers in the local economy. A summary of key social risks identified in the risk workshop is provided below:

- a lack of public understanding the need for or (limited) risks arising from vent shaft/fans;
- a lack of public understanding of contemporary legislation processes;

- the perception that PGM employs an exclusive FIFO/DIDO workforce, and doesn't employ locals;
- community misconception that Pb and Zn have never previously been mined at New Cobar; and the misconception by the local community that New Cobar will result in new (increased) employment opportunities arising 2022-2035.

Proposed SIA scope

The SIA scoping will be conducted in accordance with the DPIEs *Social Impact assessment guideline: For significant mining, petroleum production and extractive industry development* (DPIE 2017). As such a suitably qualified person will seek input from the community to inform what the potential social impacts might be and consider:

- potentially affected people and local community surrounding the project;
- supply chains and procurement processes;
- haulage routes;
- transport of goods, materials and equipment;
- the movement of workers, including residential, FIFO and DIDO arrangements (if any);
- the nature and scale of the project;
- social trends or changes experienced by the community
- social infrastructure, built and natural, that have social value to the community; and
- the history of the proposed project and how it is experienced by the surrounding community.

Following the scoping phase, the SIA will:

- describe the social baseline and identify constraints;
- predict changes and trends, and discuss their potential impacts;
- identify and evaluate the likelihood and consequences of potential social impacts of the project;
- develop of strategies that mitigate negative and enhance benefits of social impacts; and
- develop a monitoring and management framework.

The proposed area of social influence will be the local government area (LGA) of Cobar. The township of Cobar is near the project site and is likely to be the community directly impacted by the Project. More broadly, the Cobar LGA may also experience some of the direct impacts. Indirect impacts may also be felt throughout Far West of NSW and NSW generally, though these are likely to be limited and mostly positive (i.e. economic benefit).

The potentially impacted people include:

- residents of the township of Cobar;
- the Local Aboriginal Land Council;
- landholders and nearby neighbours, including businesses;

- the local business community; and
- current employees of the operation.

A preliminary set of potential impacts (negative and positive) has been identified based on the scoping assessment, including the outcomes of community and stakeholder and observations of the local community and Project site. The purpose of identifying potential impacts at this preliminary stage is to ensure that the appropriate range of stakeholders is engaged and that no affected group or individual is excluded from the engagement.

An assessment of negative impacts requiring further assessment and likelihood of potential positive social impacts is detailed in Table ES.1.

Table ES.1 Identified potential positive and negative impacts

Potential social impacts	Negative related to:	Positive related to:
Health and well-being Fears and aspirations	Reduction in air quality due to lead released from air vents especially with nearby schools and parks Water contaminated by lead Increased noise from vent rises causing stress Vibrations due to blasting, increase intensity as mine moves closer to town, damaging properties will cause stress	Increase in employment will reduce stress
Livelihood Community Fears and aspirations	Nearby business fear losing trade due to proximity of Project to town	The continued operation of the mine will provide ongoing employment and supply valuable resources. Employment and training Local economy and businesses
Surrounding – public safety Access to and use of infrastructure, services and facilities Way of life Fears and aspirations	Additional truck movements could cause road safety issues relating to inadequate road formation/width Truck/vehicle safety on local roads Social infrastructure could get contaminated with lead which would lose membership and use of resource Groundwater impacting bores and open cut	Increase population will support continuation of social infrastructure such as schools, health services and recreational groups and facilities.
Decision-making systems	Previous consultation with the community regarded as poor with low level of trust	Strong support for the project Feedback on potential positive impacts and their management Fulfilment of commitments and promises

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1 Introduction

1.1 Project overview

Peak Gold Mines Pty Ltd (PGM), a wholly owned and operated subsidiary of Aurelia Metals Limited (Aurelia), owns and operates the Peak Gold Mines operation south-east of Cobar, central-west New South Wales (NSW) (see Figure 1.1).

The PGM operation comprises the New Cobar Complex located 3 kilometres (km) to the south-east of Cobar town centre and the Peak Complex located 10 km south-east of the town centre; both complexes are located adjacent to the Kidman Way which connects Cobar to Hillston and Griffith (south).

Metallurgically, the area around Cobar comprises a series of polymetallic high-grade ore bodies dominated by gold, silver, copper, lead and zinc, with a long history of stable, large-scale, low cost production that has produced more than 200,000 tonnes of copper and three million ounces of gold since mining began in the area in 1870.

1.1.1 Proposed development

PGM is in the process of investigating options for extending the life of the New Cobar Complex, and has identified the Gladstone and Great Cobar Deposits as targets for future mining which will extend mining to 2035 under current market assumptions. The Great Cobar deposit was historically exploited by surface and underground mining between 1870 and 1919, but no mining activity has been undertaken since that time.

PGM has obtained conditional approval for development of an exploration decline to target deeper resources (700–800 m bgl) within the Great Cobar deposit for ore evaluation. The objectives of the exploration activities are to:

- further define the mineral resource;
- provide further samples for metallurgical, geotechnical and associated test work; and
- allow for a program of trial grade control drilling in advance of extraction of two bulk samples to permit comparison of close-spaced drilling results with the average bulk sample grade.

PGM proposes to use the decline, infrastructure and vent rises developed for the exploration drive for mining of the Great Cobar deposit. Although no new surface infrastructure is proposed at this stage of the project, additional dewatering may be required. This will be further investigated and clarified during the EIS process.

Ore processing would remain at the existing approved rate of up to 800,000 tpa, with production of ore from Great Cobar and Gladstone deposits making up for the future decrease in production from other workings across PGM.

Additionally, there are remaining resources in the New Cobar and Chesney deposits that are mineral rich, but which are currently not economical to mine in isolation. Keeping the New Cobar Complex operational and gaining access to Great Cobar and Gladstone would lead to increases in economies of scale and maximise opportunities to mine these resources.

Mining operations at PGM are undertaken under development consent issued by Cobar Shire Council. All mining activities undertaken at the New Cobar Complex, with the exception of mining the Great Cobar and Gladstone Deposits, are already approved activities.

As the capital investment value of the proposed expansion would be greater than $30M, the development is state significant with respect to the *Environmental Planning and Assessment Act 1979* and the *State Environmental*

Planning Policy (State Regional Development) 2011 and therefore requires approval from the State. As a result, PGM is seeking to consolidate all existing development consents applicable to the New Cobar Complex within a single modern consent issued by the Department of Planning, Industry and Environment (DPIE).

Once approved all CSC development consents for the New Cobar Complex would be surrendered. Approval will be sought for the following project elements accessed from, and undertaken within, the existing New Cobar Complex located within CML6 and MLA1483 (see Figure 1.3):

- underground mining of the:
  - New Cobar deposit (existing approval by CSC);
  - Chesney deposit (existing approval by CSC);
  - Great Cobar deposit (not approved); and
  - Gladstone deposit (not approved).
- transportation of extracted ore to the existing surface ROM Pad or Waste Rock Emplacement (current approval for 25 trucks per day under existing approval by CSC);
- crushing and screening of ore as required within the existing surface ROM pad (existing approval by CSC);
- transportation of ore to the Peak Complex for processing via Kidman Way using road registered heavy vehicles (existing approval by CSC);
- harvesting of waste rock and transportation of that material back underground for use in stope backfilling operations, storing in the approved waste rock emplacement or transported to the Peak Complex for use in operations (back-fill, rehabilitation and construction); and
- continuation of all other approved activities within the New Cobar Complex.

1.2 Purpose of the social impact assessment scoping report

The purpose of this social impact assessment (SIA) scoping report is to accompany the environmental impact assessment scoping report to request and inform the content of the Secretary's Environmental Assessment Requirements (SEARs). The SEARs will identify the requirements and level of environmental assessment required to accompany the DA and associated EIS.

This scoping study is an evaluative procedure and its primary objective is to define the scope of the SIA for the project to:

- identify potentially affected people;
- identify and understand the area of social influence;
- identify the potential, negative and positive, social impacts for further investigation as part of the EIS; and
- determine the level of assessment required for each potential social impact.

This report has been prepared by EMM Consulting Pty Limited (EMM) on behalf of PGM in accordance with the *Social impact assessment guideline for State significant mining, petroleum production and extractive industry development* (DPIE, 2017).

2 Project description

The underground expansion of the New Cobar Complex involves the development of new underground workings in the Great Cobar and Gladstone deposits. This will be the only extension of the existing mining operation as the New Cobar and Chesney Deposits are already being mined under an existing CSC approval and existing surface infrastructure within the complex is suitable and adequate to address requirements of mining these deposits. Key aspects of the project include:

- development of underground mining operations within the Great Cobar and Gladstone deposits using underground stope mining methods;
- extension of the life of mine by 12 years from 2023 to 2035 (using current market assumptions);
- increasing the underground mining fleet and associated workforce;
- increasing ore truck movements on the Kidman Way;
- power supply to vent fans and emergency egress;
- water supply; and
- negligible surface disturbance outside of already approved surface disturbance areas (subject to detailed design).

2.1 Project location

PGM lies between 3 km (New Cobar Complex) and 10 km (Peak Complex) to the south-east of the town of Cobar, some 270 km to the north-west of Dubbo, 310 km to the north of Griffith and 550 km to the north-west of Sydney (see Figure 2.1).

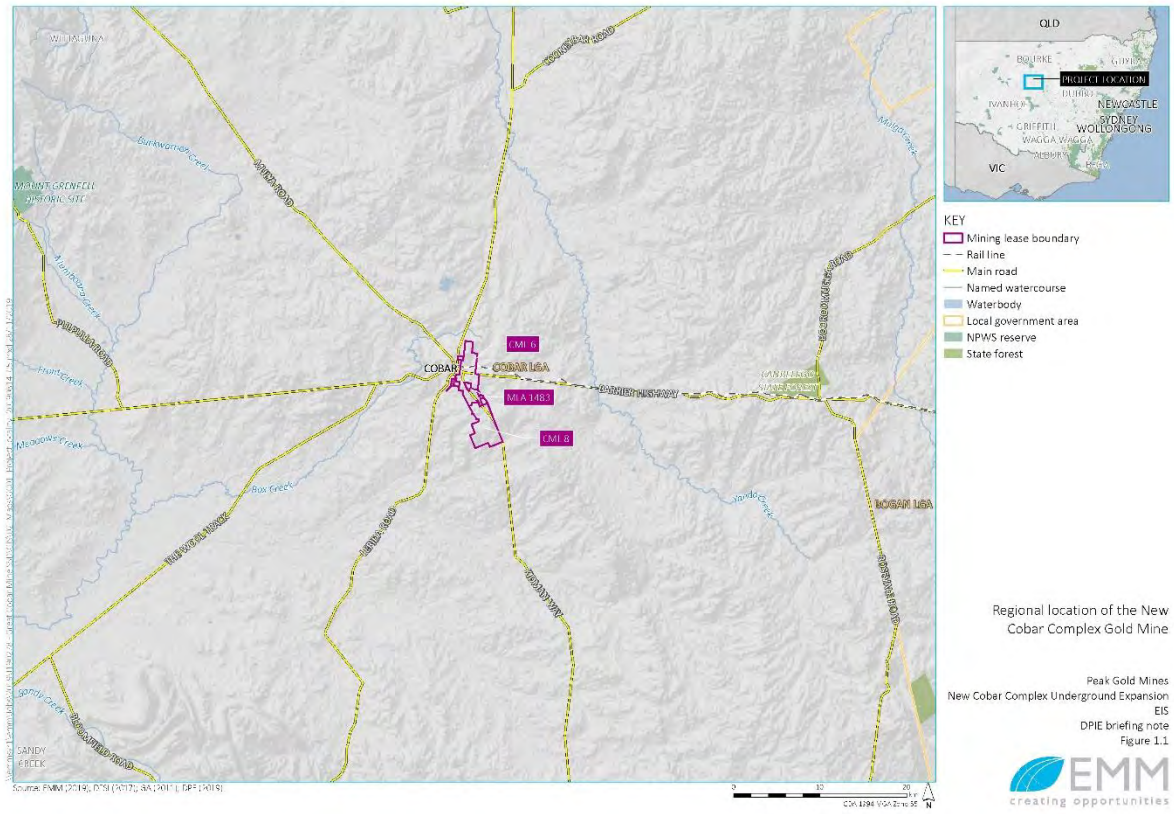


Figure 2.1 Site locality

PGM is located within the Darling catchment of the Barwon-Darling and far western catchments water management area and is part of the Murray-Darling Basin.

The area of land to which PGMs approval extends is CML8 which contains the Peak Complex, and CML6 and MLA1483 which contains the New Cobar Complex (see Figure 2.2).

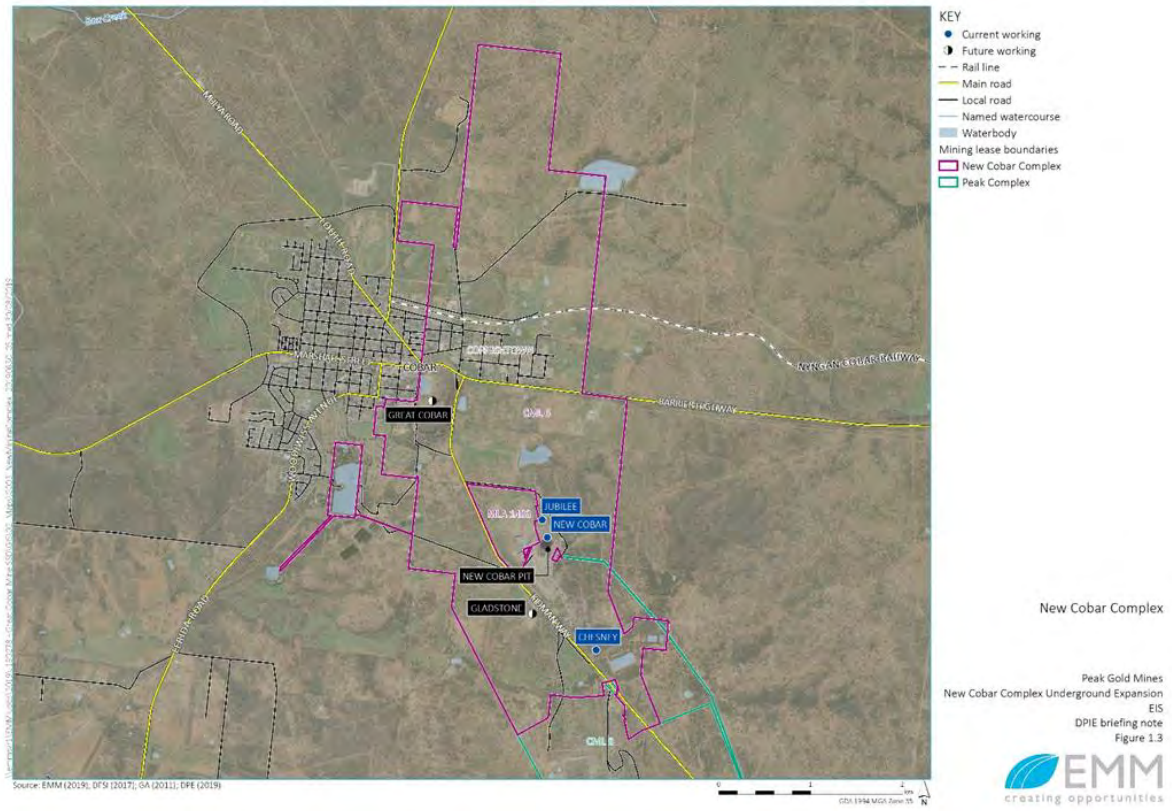


Figure 2.2 Peak Gold Mines mining leases and mine complexes

Further details of the project are available in Section 2 of the *New Cobar Complex Underground Project Scoping Document.*

2.2 Proposed changes

The current operations will exhaust the supply of economic ore by 2023. The proposed New Cobar Complex is anticipated, under current economic conditions, to extend the underground operations by an additional 12 years to 2035.

The extension of mining operations will require mining the Great Cobar and Gladstone deposits. This would require 50 ore truck movements along Kidman Way per day averaged over a calendar month. The harvesting of waste rock and transportation of that material will go back underground for use in stope backfilling. It is anticipated that there would be negligible surface disturbance.

The continuation of operations will sustain the existing workforce. There may be opportunities for temporary employment during construction and some specialised roles during operation.

3 SIA scoping methodology

3.1 Baseline review

The existing project information provided by PGM, along with ABS demographic and economic data been combined to define the project area of social influence; to identify potentially affected communities and key stakeholders.

3.2 Identification of area of social influence

The area of social influence was mapped to identify surrounding stakeholders who would potentially be directly or indirectly affected by the project. This includes identifying landholders, businesses and social services who may have an interest in the project and who would potentially be impacted.

3.3 Stakeholder engagement activities

Community Consultative Committees (CCC) are encouraged by DPIE to ensure that community and stakeholders are:

- kept informed of the status of projects, any new initiatives, and the performance of proponents;
- consulted on the development of projects, management plans and proposed changes to approved projects; and
- able to provide feedback on key issues that may arise during the development or implementation of projects (DPIE 2019).

DPIE determines the requirement for establishment of a CCC through the SEARS or post approval through conditions of approval for the project (DPIE 2019). However, PGM voluntarily established a CCC for the Project in accordance with the *Community Consultative Committee Guideline: State Significant Projects January 2019* to ensure that the identification of impacts was informed by the community and stakeholders. This allowed the scoping to include input from the CCC which will strengthen the integrity and continuity of the SIA.

During scoping the following engagement activities were undertaken:

- scoping meeting with DPIE;
- face-to-face interviews with council, landholders and other key stakeholders;
- meeting with CCC;
- two community information sessions (CIS);
- on-line survey; and
- posters and information sheets.

Engagement activities were undertaken between 9—10 September 2019 in Cobar with a range of key stakeholders as summarised in Table 3.1. Invitations to have a confidential face-to-face interview with EMM's representative was extended to nearby landholders, business owners, sporting groups, and one pre-school.

PGM and EMM representatives met with Council representative on 10 September 2019 to advise of the proposal, seek feedback on issues and concerns for consideration, and to provide a briefing on the preparation of the SIA. The additional face-to-face interviews took place between the representatives identified in Table 3.1 and an EMM representative who provided:

- an overview of the SIA process;
- requirements for engagement;
- project briefing; and
- identified stakeholder concerns regarding the project.

Table 3.1 Consultation activities

Stakeholder/purpose	Location	Date
Scoping Meeting		
DPIE Scoping Meeting	DPIE, Sydney	14 August 2019 1pm-2pm
Local face-to-face meetings		
Cobar Rugby Club	Cobar	Afternoon Monday 9 September 2019 – afternoon Tuesday 10 September 2019
Neighbouring landholder	Cobar	Afternoon Monday 9 September 2019 – afternoon Tuesday 10 September 2019
Great Cobar Heritage Centre	Cobar	Afternoon Monday 9 September 2019 – afternoon Tuesday 10 September 2019
Ngali Pre School	Cobar	Invitation provided – not accepted
Cobar RSL	Cobar	Afternoon Monday 9 September 2019 – afternoon Tuesday 10 September 2019
Western Auto and Engineering	Cobar	Invitation provided – not accepted
Local council meetings		
Cobar Shire Council	Cobar Shire Council Offices, Cobar	Tuesday, 10 September 2019 9am-11am
Cobar Shire Councillors	Cobar Shire Council Offices, Cobar	Thursday 12 September 2019 1.30pm-2.30pm
Local community meetings		
Community Consultative Committee	PGM, Cobar	Tuesday, 10 September 2019 4pm-6pm
Community Information Session	Cobar Golf and Bowling Club	Wednesday, 11 September 10am-2.30pm 3.30pm-8pm

Two CIS were held on 11 September attended by 12 community members. PGM advertised the CIS in the Cobar Weekly for four weeks prior the event (Appendix A).

PGM and EMM representatives were available at the CIS to answer any questions raised by community members and they were provided an opportunity to respond to the on-line survey. At the CIS the following information was available on posters (Appendix B) and in an information sheet (Appendix C):

- project overview;
- EIS studies;
- planning approvals process; and
- how to have your say.

An on-line survey (Appendix E) was conducted with 50 respondents to identify:

- previous awareness of and interactions with PGM;
- previous issues raised and satisfaction with PGM response;
- current awareness of the project; and
- potential impacts and concerns related to the project.

Posters were relocated to the Cobar Library and posted on the wall outside to maximise community awareness of the Project. In addition, hard copies of the information sheet and survey were left on the counter to allow residents without access to the internet to provide feedback and respond to the survey in writing. Only one hard copy response was received.

3.4 Site inspection

An inspection of the site and surrounding area, including the city of Cobar and surrounding residential neighbourhoods, was conducted by an EMM representative on between 9—11 September 2019 to scope the environmental and socio-economic conditions in which communities were located, for example topography, housing and infrastructure and livelihood (including places of employment) activities. The observations have been used to inform the assessment of potential impacts related to visual amenity, noise, dust and traffic.

4 Cobar community profile

This section provides a brief snapshot of the social conditions of Cobar township and the broader region in which the project will operate. The area of social influence for the project has been identified as Cobar township locally and the broader Cobar Shire Council (CSC) area.

The Cobar township and CSC demographic has been mapped to Australian Bureau of Statistics (ABS) (Table 4.1) and a community profile compiled using the 2016 Census of Population and Housing data.

Table 4.1 ABS categories

Area	ABS data set
Cobar township	Cobar State Suburb Code (SSC)
Cobar Shire Council	Cobar Local Government Area (LGA)

Given the population of Cobar SSC (3,990) does not differ greatly from Cobar LGA (4,647) the demographic profile has been provided using Cobar LGA which includes residents of Cobar SSC.

4.1 Demographic profile

The ABS estimated resident population of 4,647 in the Cobar LGA. The population of Cobar LGA had 2% more males than NSW (ABS 2016). The median age in Cobar SSC and Cobar LGA was 36 years which is slightly younger than the median age of people in NSW (38 years).

The population of Cobar region is projected to increase to 60,831 people in 2036 according to medium series projections (DRC 2016).

Table 4.2 Summary ABS demographic

Data	Cobar LGA	NSW
Population	4,647	7,480,228
Male (%)	51.5%	49.3%
Female (%)	48.5%	50.7%
Median age	36	38

ABS 2016 *2016 Census of Population and Housing General Community Profile Catalogue number 2001.0*

In Cobar SSC and Cobar LGA children aged 0 – 14 constituted 22.2% of the population for both compared to 18.5% for NSW. Those people aged 65 years and older in Cobar SSC and Cobar LGA was 13.4% and 13.7% of the population which is a smaller proportion of the population when compared to NSW (16.3%) (ABS 2016). Like many regional communities in Australia, there is a slight drop in the population between the ages of 15 and 24 years of age. People in this age bracket make up 10.9% of the population of the Cobar LGA compared to 12.5% in NSW generally.

4.2 Aboriginal and Torres Strait Islander peoples

Cobar LGA (13.7%) had a significantly larger proportion of their population that identified as Indigenous compared to NSW (2.9%). The spread between male and female did not differ greatly between Cobar LGA and NSW.

Table 4.3 Summary Indigenous status

Data	Cobar LGA	NSW
Indigenous population	638	216,176
Indigenous population as % total	13.7%	2.9%
Male (%)	50.6%	49.7%
Female (%)	49.4%	50.3%

4.3 Cultural diversity

Most of the population of the Cobar LGA was born in Australia 80.0%, with the other most common countries of birth being England (2.0%), Ireland (1.1%) and Scotland (0.7%). Of people in Cobar LGA, 72.1% stated that both of their parents were born in Australia (ABS 2016) and 84.1% of people only spoke English at home. Diversity is much lower than the NSW average.

4.4 Education

University educational attainment is lower in Cobar LGA compared to the rest of NSW with only 9% reporting a Bachelor's degree or higher compared to 23% throughout NSW (ABS 2016). The population in Cobar LGA is more likely to have attained a Certificate III with 18% reporting this level of attainment, compared to 12% throughout NSW (ABS 2016). This indicates a high proportion of vocational and trade qualifications.

4.5 Workforce

Workforce participation was slightly higher in Cobar compared to NSW generally with 66% participation compared to 59% (ABS 2016). The number of reported people in Cobar LGA available labour force was 2,138, of which 2,014 were employed. Of those employed 70.1% worked full-time and 22.2% worked part-time 12.4%. In Cobar LGA there were 5.8% unemployed compared to 6.3% in NSW (ABS 2016).

The most common industries providing employment in Cobar LGA were mining (32.0%), agriculture, forestry and fishing (11.7%), health care and social assistance (7.7%), public administration and assistance (6.6%) and education and training (6.0%). Of the total employed people in the study area, 18.5% were employed as technicians and trade workers, 17.8% as machinery operators and drivers, 15.6% as managers, and 12.0% as professionals (ABS 2016).

Local residents make up 66% of Pybar employees and 94% of PGM employees (at the New Cobar and Peak complexes) and fill mostly unskilled roles (PGM 2019).

4.6 Housing and accommodation

In Cobar LGA, the median weekly rent was $160, while the median monthly mortgage repayment was $1,300 (ABS, 2016). These payments are substantially less than the NSW median ($1,986). In Cobar the average household size

was 2.4 persons, with most households being family households (67.3%). Most homes were owned (53.7%) either outright (32.0%) or with a mortgage (25.3%), while 38.2% of dwellings were rented.

Using realestate.com.au as a proxy for understanding the availability of housing and accommodation, there were 63 properties for sale and 32 properties for rent as at 21 October, 2019.

4.7 Local business

In 2018, 36.4% of businesses in Cobar LGA employed fewer than 20 people. Only 5 out of the 456 registered businesses in the area employ between 20-199 employees (ABS 2018). The highest percentage of registered businesses in Cobar LGA were in the agriculture, forestry, and fishing industry (39.9%) and construction (13.2%) (ABS 2018).

4.8 Income

The median total personal income at the time of the 2016 census was $706/week, while the median total family[1] income was $1,923/week and the median total household[2] income was $1,495/week (ABS 2016).

4.9 Vulnerable groups

There are two identified groups that would be considered vulnerable. Firsty there is an indication of a small homeless population with 4 improvised home, tent, sleepers out dwellings occupied by 10 people identified in the 2016 Census (ABS 2016). The second group are those people living with a disability with 4% of the population of Cobar LGA identifying as having a need for assistance in the 2016 Census.

4.10 Health

Cobar is located with the NSW Ministry of Health Far West local health district (LHD), which in 2017 – 2018 had an asthma prevalence rate of 9.4 per 100,000 lower than for all other LHDs. In the same period Far West LHD saw more females (1,852.2 per 100,000 of population) and males (2,131.7 per 100,000 of population) hospitalised for respiratory conditions, which is a higher rate than all other LHDs (1,610.5 and 1,837.2 per 100,000 of population, respectively) (NSW Ministry of Health 2018).

[1] Family is defined as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household (ABS 2016).

[2] A household is defined as one or more persons, at least one of whom is at least 15 years of age, usually resident in the same private dwelling (ABS 2017).

5 SIA engagement

This section summarises the findings of the engagement activities. The consultation had two objectives:

1. provision of information about:
    - the Project;
    - the EIS process; and
    - opportunities for contributing to the EIS and having your say.
2. identification of community and stakeholder concerns for the Project.

5.1 Summary of findings

The identified community and stakeholders identified a range of issues that are summarised in Table 5.1 and discussed in detail below.

Table 5.1 Community stakeholder identified issues

	Engagement activities				
Issues	**Cobar SC**	**CCC**	**Landholders & nearby neighbours**	**Community Survey**	**CIS**
Location of mine and vent rises located close to town:		✓	✓	✓	✓
Health due to air quality particularly lead and dust	✓	✓	✓	✓	✓
Noise		✓	✓	✓	✓
Community relations, including consideration of community perceptions	✓	✓	✓	✓	✓
Subsidence and sinkholes due to historical incident in 1996. Existing properties require maintenance as a result of subsidence.		✓	✓	✓	✓
Vibrations due to blasting, increase intensity as mine moves closer to town, damaging properties		✓	✓	✓	✓
Mining camp and FIFO/DIDO	✓		✓	✓	✓
Water			✓		✓
Town water and water tanks		✓	✓		✓
Groundwater impacting bores and open cut		✓	✓	✓	✓
Infrastructure – power and social services		✓	✓		✓
Employment and training			✓	✓	✓
Local economy and businesses		✓	✓		✓
Traffic along Kidman Way due to increase truck movements	✓	✓			
Flood			✓		

The most frequently raised issues during all engagement activities by those consulted (Table 5.1) were community relations between PGM and the community and air quality.

During each engagement activity community and key stakeholders who participated (Table 5.1) expressed that PGM do not have a good relationship with their community which has contributed to a lack of trust. This included some participants feeling that their concerns were dismissed and not given due consideration.

In relation to air quality, those consulted expressed concern at the close proximity of the approved Great Cobar Exploration Decline vent rises to the town, and particularly the exhaust vent rise. Concerns with the exhaust vent related to emissions and health risks to the community as a result of a perception that lead would be present in vent emissions. The effects on schools, parks and properties in proximity to the exhaust vent were viewed as most problematic. Concern was also expressed that existing public health exposure limits for lead were not sufficient to protect the health of the community.

Subsidence and vibrations from blasting created angst among those consulted (Table 5.1) with reports of damage to properties and ongoing maintenance due to subsidence. It was reported that there are widespread stories regarding sinkholes appearing in parts of Cobar throughout its history (personal communication 2019). This concern is further compounded by a documented major collapse at a nearby (not PGM) mine in 1996.

Those consulted raised workforce concerns (Table 5.1) related to the number of fly-in-fly-out (FIFO) workers and their being housed at the workers accommodation camp. This was perceived as causing a decline in the viability of the town.

Water was a concern for multiple reasons the most frequently cited by those consulted (Table 5.1) were drought and collection of water in tanks. This was compounded by the community's concern regarding their perception that lead dust deposition onto roofs would flow into rainwater tanks when it rained. This matter was compounded by the lack of trust that those consulted had for existing public health exposure limits for lead, as discussed above. The current drought conditions and the effects of climate change exacerbate the level of angst community members have surrounding water security.

A full range of issue identified in the community survey are provided in Figure D.7.

The potential positive consequences of the Project that were identified by community included:

- employment;
- business opportunities; and
- increase population which will provide support for continuation of:
    - schools
    - health services; and
    - recreational groups and facilities.

For a summary of the positive and negative impacts identified see Figure D.6.

6 Proposed SIA scope

This section proposes the scope of the SIA as part of the EIS for the Project.

6.1 Proposed area of social influence

The proposed area of social influence will be the local government area (LGA) of Cobar.

6.1.1 Geographical

The township of Cobar is near the Project site and is likely to be the community to be directly impacted by the Project. More broadly, the Cobar LGA may also experience some of the direct impacts. Indirect impacts may also be felt throughout Far West of NSW and NSW generally, though these are likely to be limited and mostly positive (i.e. economic benefit).

6.1.2 Potentially affected people

The potentially impacted people include:

- residents of the township of Cobar, with particular;
- Aboriginal Land Council;
- landholders and nearby neighbours, including businesses;
- local business community; and
- current employees of the operation.

6.2 Potential social impacts

A preliminary set of potential impacts (negative and positive) has been identified based on the scoping assessment, including the outcomes of community and stakeholder and observations of the local community and Project site. The purpose of identifying potential impacts at this preliminary stage is to ensure that the appropriate range of stakeholders is engaged and that no affected group or individual is excluded from the engagement.

An assessment of negative impacts requiring further assessment and likelihood of potential positive social impacts is detailed in Table 6.1 below.

Table 6.1 Identified potential positive and negative impacts

Potential social impacts	Negative related to:	Positive related to:
Health and well-being Fears and aspirations	Reduction in air quality due to lead released from air vents especially with nearby schools and parks Water contaminated by lead Increased noise from vent rises causing stress Vibrations due to blasting, increase intensity as mine moves closer to town, damaging properties will cause stress	Increase in employment will reduce stress
Livelihood Community Fears and aspirations	Nearby business fear losing trade due to proximity of Project to town	The continued operation of the mine will provide ongoing employment and supply valuable resources. Employment and training Local economy and businesses
Surrounding – public safety Access to and use of infrastructure, services and facilities Way of life Fears and aspirations	Additional truck movements could cause road safety issues relating to inadequate road formation/width Truck/vehicle safety on local roads Social infrastructure could get contaminated with lead which would lose membership and use of resource Groundwater impacting bores and open cut	Increase population will support continuation of social infrastructure such as schools, health services and recreational groups and facilities.
Decision-making systems	Previous consultation with the community regarded as poor with low level of trust	Strong support for the project Feedback on potential positive impacts and their management Fulfilment of commitments and promises

7 References

ABS 2016 *2016 Census of Population and Housing General Community Profile Catalogue number 2001.0*

ABS 2016 *2901.0 - Census of Population and Housing: Census Dictionary, 2016*. On-line https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter32102016

ABS 2017 2901.0 - Census of Population and Housing: Census Dictionary, 2016. On-line https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter34902016

ABS 2018 *8165.0 - Counts of Australian Businesses, including Entries and Exits, June 2014 to June 2019*

DPIE 2019 *Community Consultative Committee Guideline: State Significant Projects January 2019.* On-line https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Community-Consultative-Committee-Guideline-31-01-2019.pdf

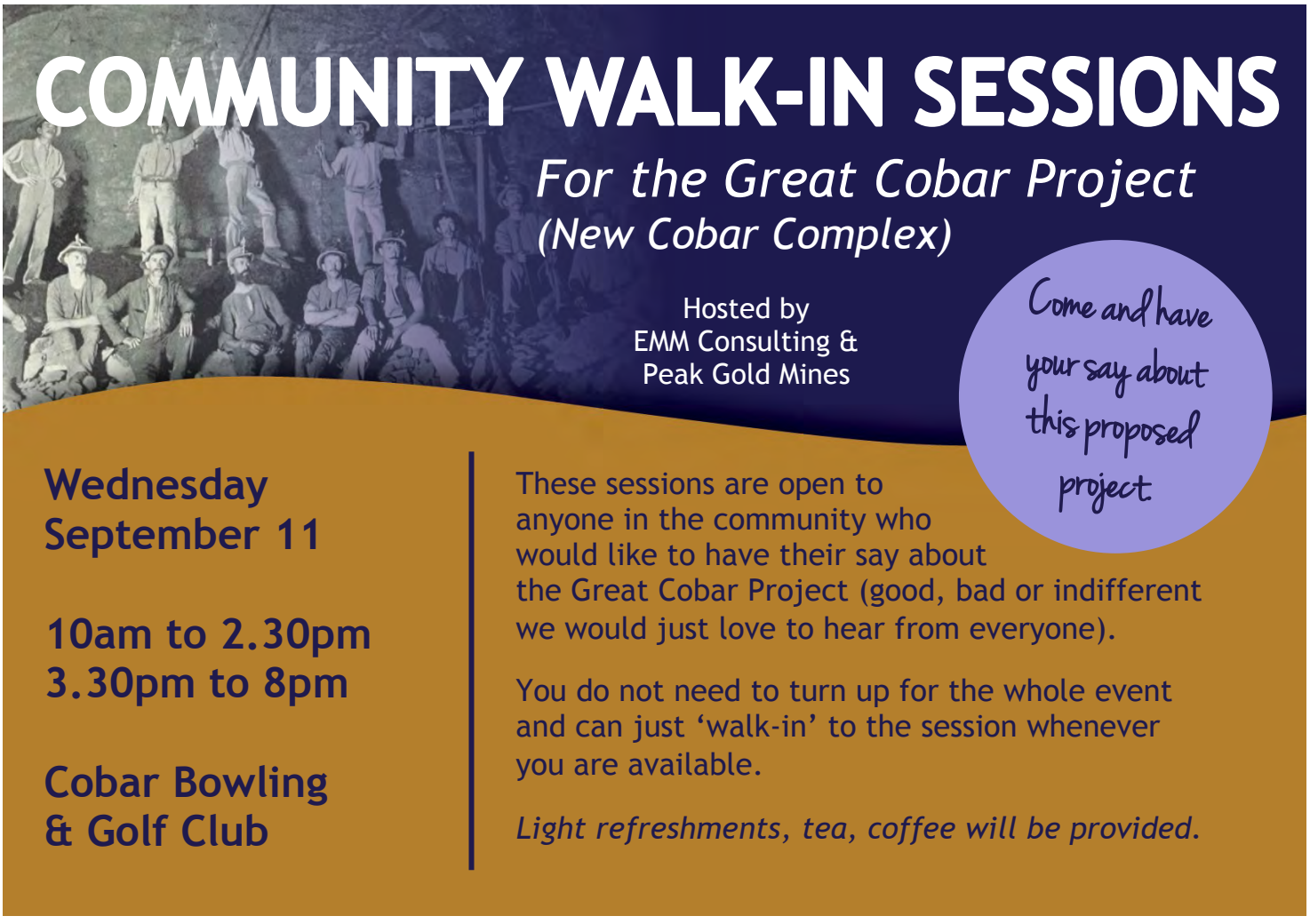
DPIE 2017 *Social impact assessment guideline for State significant mining, petroleum production and extractive industry development*

NSW Ministry of Health 2018 *HealthStats NSW* http://www.healthstats.nsw.gov.au/Indicator/res_typehos/res_typehos_lhn_snap?&topic=Respiratory%20disease&topic1=topic_res&code=res%20lung

Personal Communication 2019 *Community and stakeholder interviews*

Appendix A

Advertisement: CIS

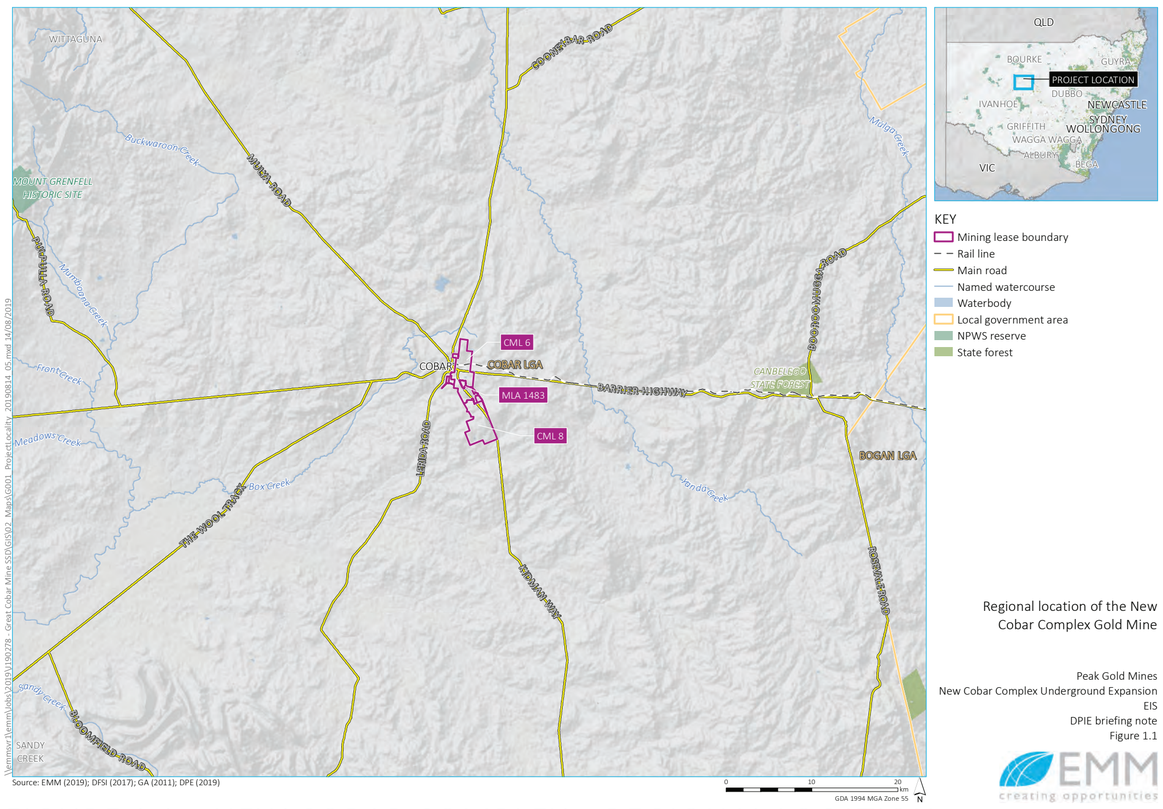

COMMUNITY WALK-IN SESSIONS
For the Great Cobar Project
(New Cobar Complex)
Hosted by
EMM Consulting &
Peak Gold Mines
Come and have your say about this proposed project
Wednesday
September 11
10am to 2.30pm
3.30pm to 8pm
Cobar Bowling
& Golf Club
These sessions are open to anyone in the community who would like to have their say about the Great Cobar Project (good, bad or indifferent we would just love to hear from everyone).
You do not need to turn up for the whole event and can just 'walk-in' to the session whenever you are available.
Light refreshments, tea, coffee will be provided.

Appendix B

CIS Posters

NEW COBAR COMPLEX PROJECT

ABOUT THE NEW COBAR COMPLEX PROJECT



KEY
- Mining lease boundary
- Rail line
- Main road
- Named watercourse
- Waterbody
- Local government area
- NPWS reserve
- State forest

Regional location of the New Cobar Complex Gold Mine

Peak Gold Mines
New Cobar Complex Underground Expansion EIS
DPIE briefing note
Figure 1.1

EMM creating opportunities

FIGURE 1.1 – NEW COBAR COMPLEX – REGIONAL LOCATION

WHAT IS THE NEW COBAR COMPLEX PROJECT?

Peak Gold Mines Pty Ltd (PGM), a wholly owned and operated subsidiary of Aurelia Metals Limited (Aurelia) is proposing to extend operations at New Cobar Complex (which includes the New Cobar and Chesney deposits) by developing new underground operations to include the Great Cobar and Gladstone deposits. Collectively these deposits make up the New Cobar Complex. Together with the Peak Complex to the south, these complexes make up the PGM.

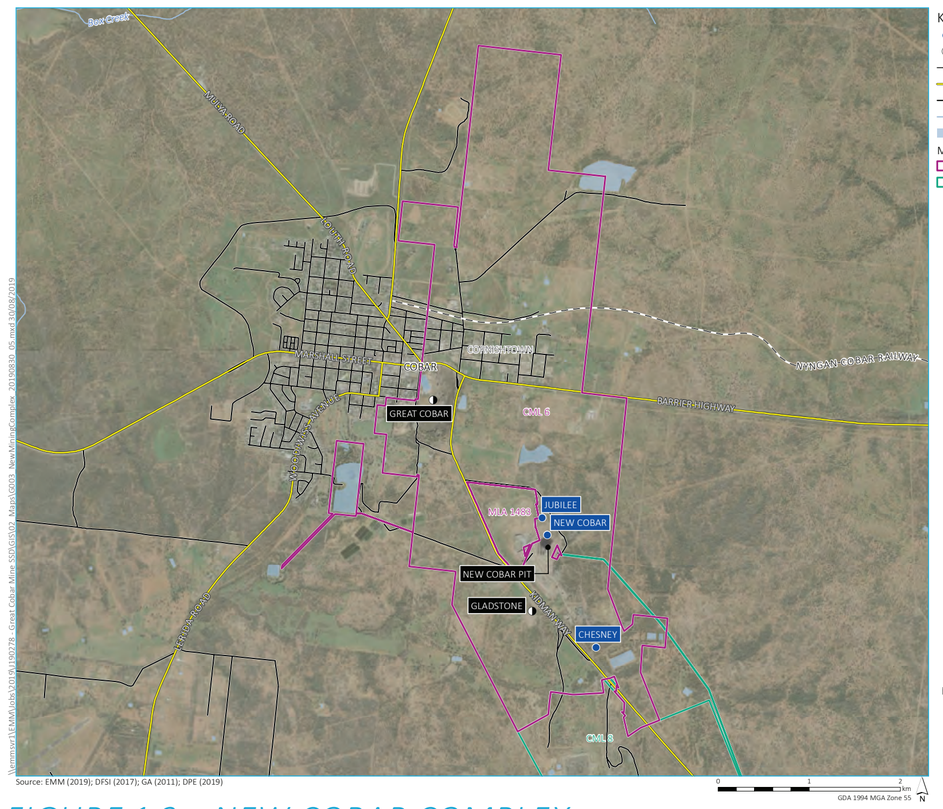
In order to comply with State planning legislation, PGM is seeking a single contemporary approval through the Department of Planning, Infrastructure and Environment (DPIE) for the New Cobar Complex that incorporates the four deposits of New Cobar, Chesney, Great Cobar and Gladstone.

WHERE IS THE NEW COBAR COMPLEX?

PGM is situated between three and ten kilometres to the south-east of the town of Cobar, approximately 270 kilometres to the north-west of Dubbo, 310 kilometres to the north of Griffith and 550 kilometres to the north-west of Sydney (see Figure 1.1).

PGM is located within the Darling catchment of the Barwon-Darling and far western catchments water management area and is within the Murray-Darling Basin.

PGM's approval relates to land within Consolidated Mining Lease (CML) 8 which contains the Peak Complex, and CML 6 and Mining Lease 1483 containing the New Cobar Complex (see Figure 1.3).



KEY
- Current working
- Future working
- Rail line
- Main road
- Local road
- Named watercourse
- Waterbody

Mining lease boundaries
- New Cobar Complex
- Peak Complex

New Cobar Complex

Peak Gold Mines
New Cobar Complex Underground Expansion EIS
DPIE briefing note
Figure 1.3

EMM creating opportunities

FIGURE 1.3 – NEW COBAR COMPLEX

WILL THE PROPOSED NEW COBAR COMPLEX EXTEND THE LIFE OF MINE?

YES The current operations will exhaust the supply of economical ore by 2023. With the proposed New Cobar Complex, it is estimated under the current economic conditions that life of the underground operations would extend to 2035. That is an additional 12 years.

WILL THERE BE MORE JOB OPPORTUNITIES CREATED?

There may be opportunities for temporary employment during construction as well as specialised roles.

The continuing operations will sustain the existing workforce.

WHAT CHANGES?

- Life of mine to 2035 (using current market assumptions)
- Extending mining to the Great Cobar and Gladstone deposits
- Proposed 50 ore truck movements along Kidman Way (per day averaged over a calendar month)
- Power supply
- Water supply
- Harvesting of waste rock and transportation of that material back underground for use in stope backfilling operations
- Negligible surface disturbance

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NEW COBAR COMPLEX PROJECT

ENVIRONMENTAL, SOCIAL AND ECONOMIC STUDIES

ENVIRONMENTAL IMPACT STATEMENT

PGM is preparing an Environmental Impact Statement (EIS), to accompany the State Significant Development Application for the New Cobar Complex.

The EIS will include technical studies that will assess the economic, environmental and social impacts of the project.

PGM has engaged third-party experts to conduct these studies. The studies will assess the level of impacts and provide mitigation strategies to manage impacts where necessary.

DPIE will advise on the information that must be included in the EIS when they issue the Secretary's Environmental Assessment Requirements (SEARs).

ENVIRONMENTAL STUDIES

PGM has engaged EMM Consulting to conduct specialist studies in:

Groundwater – assess the likely impact of the underground development on local aquifers and the potential for interaction with surface water. The registered bore at the Cobar & District Rugby Union Club will be assessed as part of the groundwater study.

Blast Vibration – consider the impacts to the local community associated with the development of the underground decline and 'stope firing'.

Air Quality – consider the potential impact of the air quality on the local community especially the likely impact from the proposed vent fan.

Social – assess the potential social impacts of the underground development in accordance with the DPIE Social Impact Assessment Guidelines.

Noise – consider the impacts to the local community associated with the operation of mining operations at the New Cobar Complex, including the air vents.

Other technical studies include:

- Subsidence
- Surface Water
- Ecology
- Aboriginal and non-Aboriginal heritage
- Greenhouse Gases
- Traffic and transport
- Economic
- Soils and rehabilitation
- Human health assessments/risks
- Visual impacts, hazards and risks, hazardous chemical haulage routes, greenhouse gas and sustainability.

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NEW COBAR COMPLEX PROJECT

PLANNING APPROVALS PROCESS

Over the next 12–14 months PGM will be preparing an Environmental Impact Statement (EIS), to accompany the State Significant Development Application for the New Cobar Complex.

SCOPING

PGM develops initial concept design options for the project and undertakes early consultation with the community and stakeholders

DPIE issues Secretary's Environmental Assessment Requirements (SEARs)

EIS DELIVERY

PGM prepares an EIS in accordance with the SEARs

PGM undertakes consultation with the commuity prior to submitting the EIS, to help inform the project and provide opportunities for feedback

PUBLIC EXHIBITION

The EIS and the State Significant Development Application are submitted to DPIE

The EIS and the State Significant Development Application placed on public exhibition for at least 28 days

Community and other stakeholders have 28 days to wirte a submissions and have their say

RESPONDING TO SUBMISSIONS

After Exhibition, the Department will publish all submissions received and PGM will prepare a Response to Submissions Report to respond to any issues raised

ASSESSMENT AND DETERMINATION

The Minister for Planning will evaluate and provide a determination

The start of this process is EIS Scoping – where the details of the specialist environmental studies are agreed with the State Government, Regional Council and other stakeholders. This results in the SEARs being issued.

The EIS technical studies that assess the economic, environmental and social impacts of the proposed New Cobar Complex will then be undertaken to address the requirements of the SEARs.

Once the technical studies are complete, a draft EIS will be prepared, which will be placed on public exhibition.

The community and other stakeholders will be invited to make a submission on the exhibited EIS. PGM will then provide a response to these submissions in a report to DPIE.

DPIE will then prepare an assessment report including recommended conditions of consent.

As this proposed project falls into the category of a State Significant Development, the consent authority will be a delegate of the Minister of Planning or the Independent Planning Commission.

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NEW COBAR COMPLEX PROJECT

HAVE YOUR SAY ...

We are currently in the early, scoping stages of the planning process where we are seeking stakeholders' views on the scope of the EIS.

This early consultation is an opportunity to hear from the local community about the issues they feel strongly about.

Your feedback in this initial stage is important as it will inform the request for SEARs and ensure the EIS addresses the issues that you are concerned about.

What are your potential concerns about the project?

Are there particular issues you would like more information about?

We will continue to engage with the community throughout the planning process and ensure there are adequate opportunities to provide feedback on the draft Environmental Impact Statement prior to public exhibition.

PGM'S COMMUNITY FOCUS

PGM seeks to form genuine partnerships with our community stakeholders by listening to and understanding their needs and working together towards a common purpose.

We support a number of local community initiatives, including:

- Cobar Miner's Race Club
- The Cobar & District Rugby Union Club
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- Buckwaroon Landcare Group
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For more information:

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Email: greatcobar@aureliametals.com.au

Call PGM Operations on 02 6830 2213

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Appendix C

CIS Information sheet

NEW COBAR COMPLEX PROJECT

APPROVAL IS BEING SOUGHT FOR TO EXTEND OPERATIONS AT NEW COBAR COMPLEX

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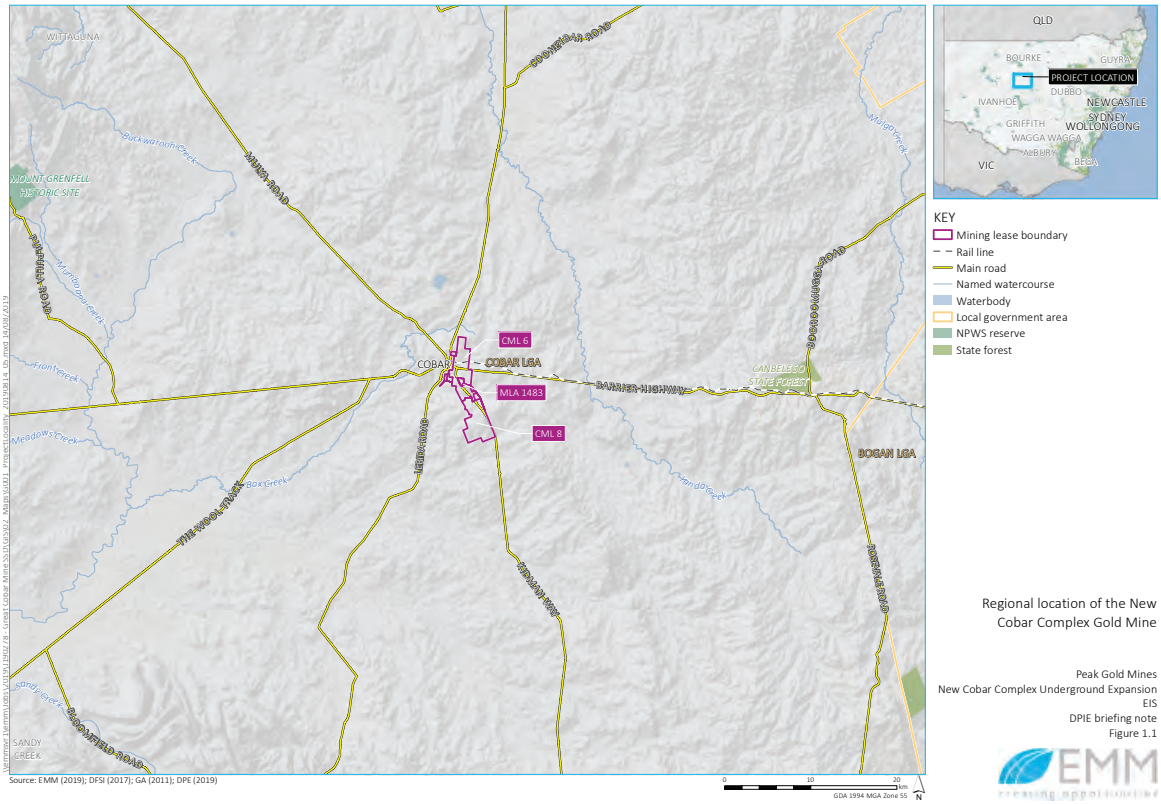

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Peak Gold Mines
New Cobar Complex Underground Expansion EIS
DPIE briefing note
Figure 1.1

Figure 1.1 – New Cobar Complex Regional Locality

LOCATION

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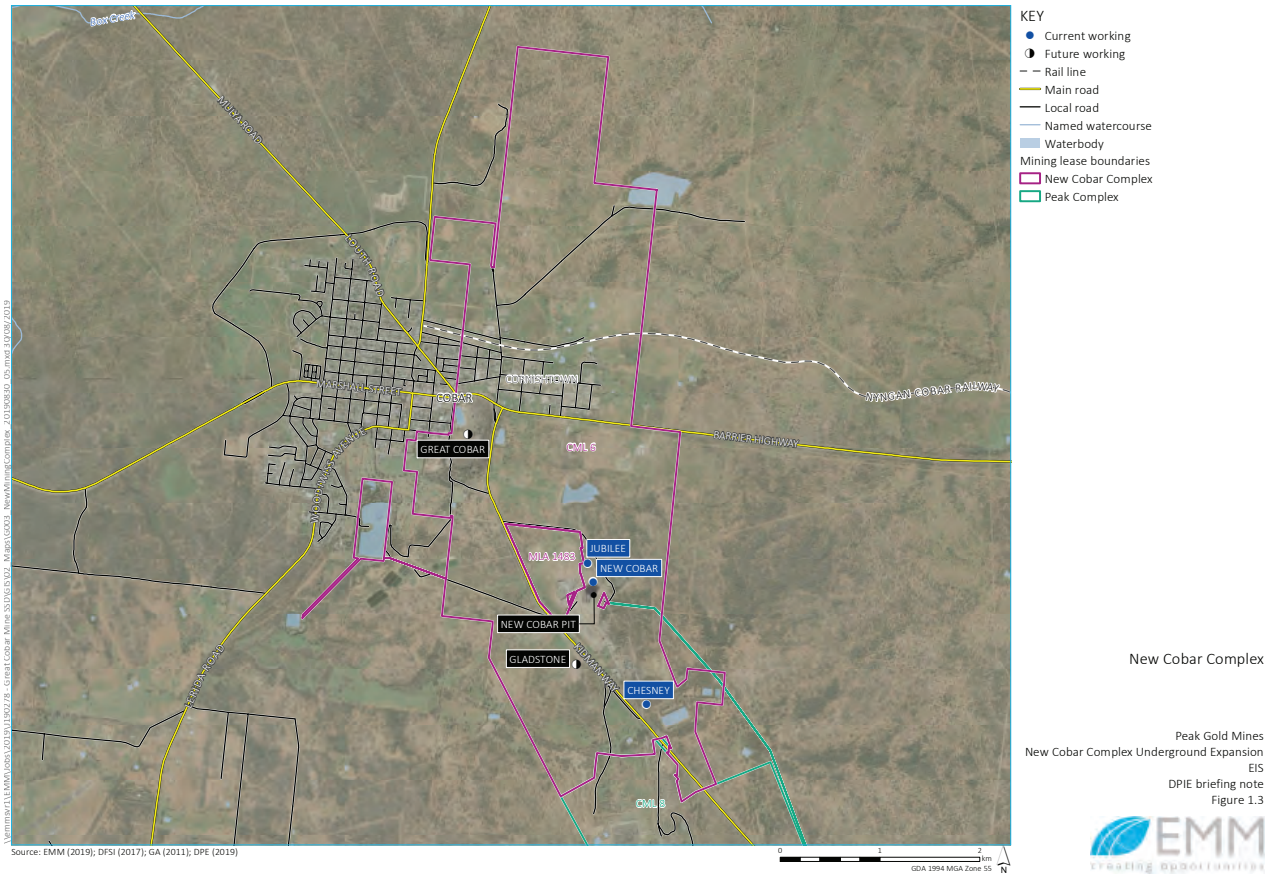

Figure 1.3 – New Cobar Complex

PROPOSED CHANGES

The current operations will exhaust the supply of economic ore by 2023. The proposed New Cobar Complex is anticipated, under current economic conditions, to extend the underground operations by an additional 12 years to 2035.

The extension of mining operations will require mining the Great Cobar and Gladstone deposits. This would require approximately 50 ore truck movements along Kidman Way per day averaged over a calendar month. This extension would require additional power and water supply beyond current usage. The harvesting of waste rock and transportation of that material will go back underground for use in stope backfilling. It is anticipated that there would be negligible surface disturbance.

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Email: greatcobar@aureliametals.com.au

Call PGM Operations on 02 6830 2213

Appendix D

Community survey findings

D.1 Community survey

An online survey was distributed to the community via (insert distribution methods) between 3 September and 4 November 2019. A total of 50 surveys were collected. There was a total of 12 questions in the survey covering demographics, perceptions of PGM, and potential impacts. Participants were not forced to answer any questions.

There was an even split of gender between participants, with 22 male and 22 female participants. A further 5 participants did not respond to this question. Whilst there were surveys completed by participants from a broad range of age group, the vast majority were aged between 25 and 44 (65% or n=32). In terms of stakeholder types, most (71% or n=35) were classified as residents, 22% (or n=11) were landholders and 14% (or n=7) were business owners, noting that some participants fell into more than one stakeholder category. There were five participants that identified at Aboriginal and/or Torres Strait Islander and one participant identified as having a disability or special need.

D.1.1 PGM

Of the 50 survey participants, almost half (49%) had previous interactions with PGM (Figure D.1).

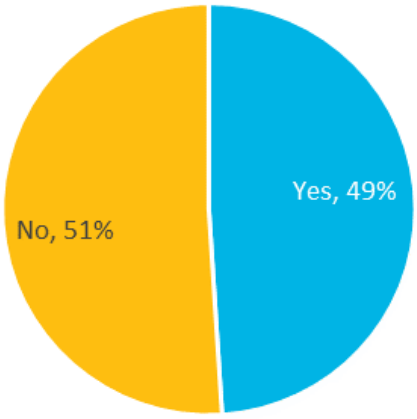

Figure D.1 Participants previous interaction with PGM

i Issues raised with PGM

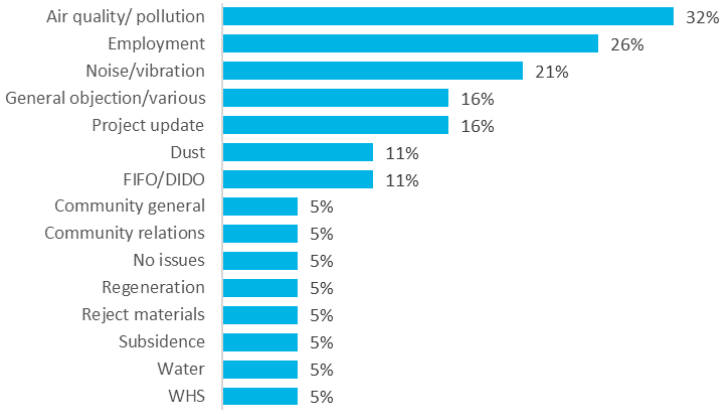

Figure D.2 Issues raised with PGM

Participants that reported that they previously had contact with PGM were asked a follow-up question regarding the issues that were discussed during their interactions with PGM. The main issue raised was air quality (32%), followed by employment (26%) and noise/vibration (21%) (Figure D.2).

ii Satisfaction with PGM

Those who previously had interactions were then asked how satisfied they were with PGM's response to their issue and 42% reported they were unsatisfied (30% not at satisfied). Fewer (30%) reported that they were satisfied (Figure D.3).

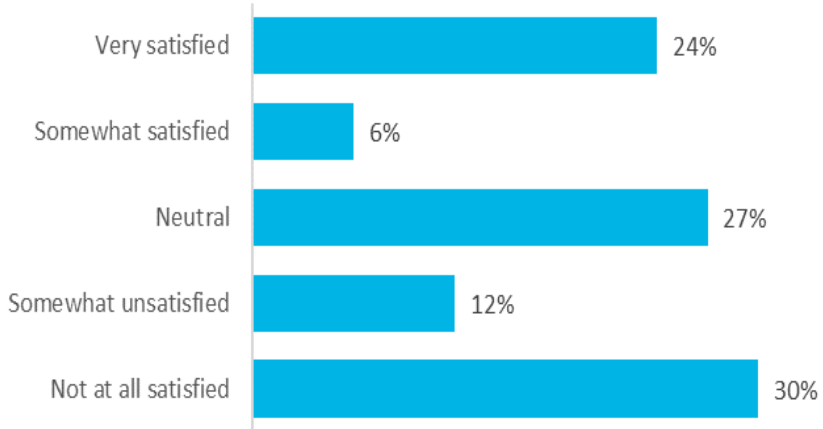

Figure D.3 Satisfaction with PGM response to issues

D.1.2 New Cobar continuation project

Participants were then asked if they were aware of the project (Figure D.4) and how supportive they were (Figure D.5). Most (42%) felt that their knowledge of the Project was at least 'good', around one-third (33%), felt it was fair and the remainder (25%) reported that it was poor at most.

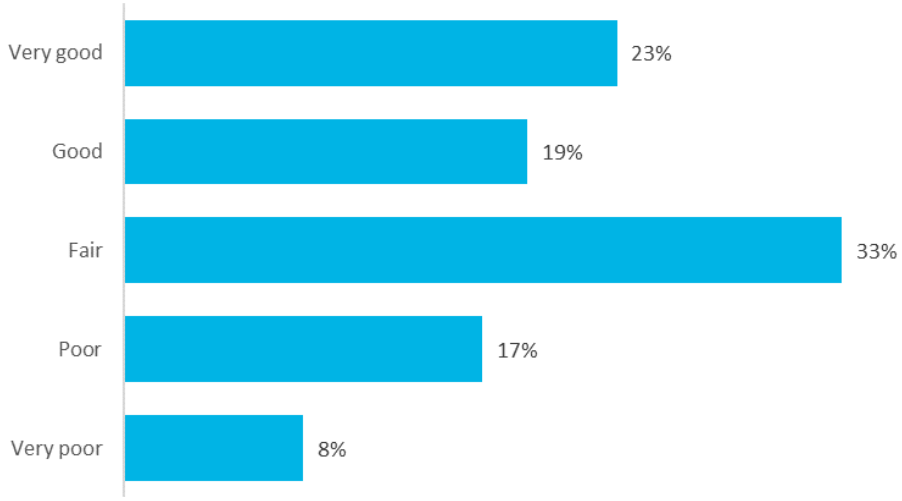

Figure D.4 Awareness of the project

The Project was generally supported by participants with the majority (54%) indicating they were at least supportive with 35% indicating they were strongly supportive. Just under one-third (31%) though, were opposed to the project. A further 15% were neutral or undecided (Figure D.5).

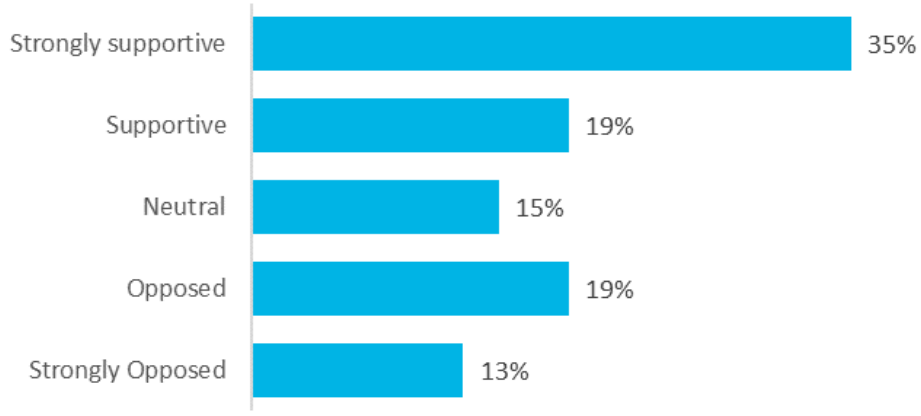

Figure D.5 Supportiveness and opposition to the project

All participants were then asked to rate issues in relation to the their potential positive of negative impacts. Participants felt that the most positive impact would be related to employment (64% in total). Nosie was rated as the most negative impact (43% in total), followed by vibration (41% in total) and air quality (41% in total). Whilst a

total of 39% felt that impacts on groundwater would be negative, it was rated highest we considering the 'very negative' rating in isolation with 27% rating as this category (see Figure D.6).

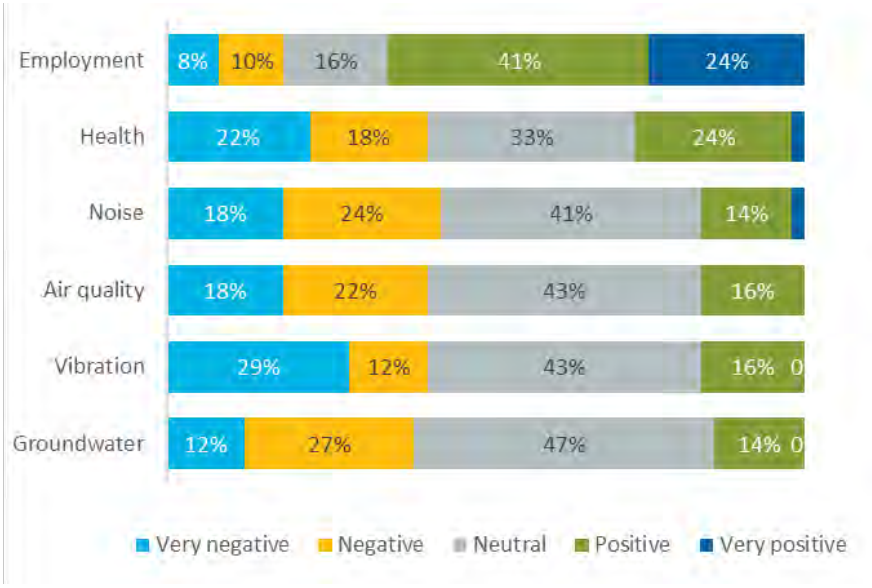

Figure D.6 Community rated impacts

Participants were asked a follow-up question to ascertain if they felt there were any other impacts. The proximity of the project to the community was raised the most (18%), followed by local employment again (10%). Community relations/engagement, impacts related to the non-resident workforce and noise/vibration were raised by 8% of participants. Other impacts not previously flagged by more than one participant included the housing (4%), community generally (4%), occupational health and safety (4%), local business (4%) and the timing of the project (4%).

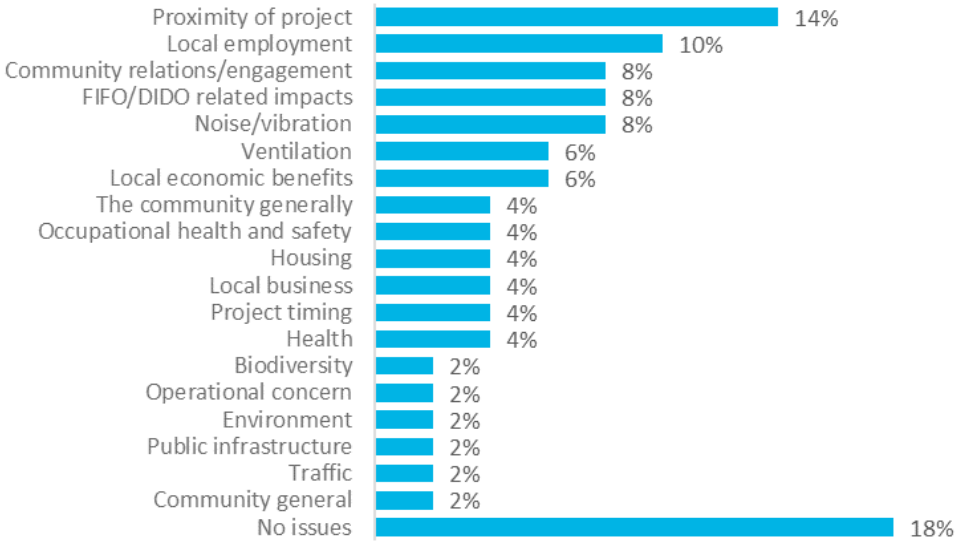

Figure D.7 Other community identified issues/impacts

Appendix E

Community survey (on-line)

New Cobar Complex Project

Introduction

Peak Gold Mines Pty Ltd (PGM), a wholly owned and operated subsidiary of Aurelia Metals Limited (Aurelia) is proposing to extend operations at New Cobar Complex (which includes the New Cobar and Chesney deposits) by developing new underground operations to include the Great Cobar and Gladstone deposits. Collectively these deposits make up the New Cobar Complex. Together with the Peak Complex to the south, these complexes make up the Peak Gold Mine.

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Location

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Proposed changes

The current operations will exhaust the supply of economic ore by 2023. The proposed New Cobar Complex is anticipated, under current economic conditions, to extend the underground operations by an additional 12 years to 2035.

The extension of mining operations will require mining the Great Cobar and Gladstone deposits. This would require approximately 50 ore truck movements along Kidman Way per day averaged over a calendar month. This extension may require additional power beyond current usage however no additional water will be required. The harvesting of waste rock and transportation of that material will go back underground for use in stope backfilling. It is anticipated that there would be negligible surface disturbance.

The continuation of operations will sustain the existing workforce. There may be opportunities for temporary employment during construction and some specialised roles.

For more information visit Aurelia's website at http://aureliametals.com/projects/peak/new-cobar

1. Have you had any interaction with PGM?

- [ ] Yes
- [ ] No

2. During your interactions with PGM what issues did you discuss?

3. How **satisfied** were you with PGM's response to the issues you raised?

Not at all satisfied	Somewhat unsatisfied	Neutral	Somewhat satisfied	Very satisfied
○	○	○	○	○

4. How would you rate your **awareness** of the proposed New Cobar Complex?

Very poor	Poor	Fair	Good	Very good
○	○	○	○	○

5. How do you **feel about** the proposed New Cobar Complex Project?

Strongly Opposed	Opposed	Neutral	Supportive	Strongly supportive
○	○	○	○	○

6. Rate the following **potential impacts** from the proposed New Cobar Complex

	Very negative	Negative	Neutral	Positive	Very positive
Air quality	○	○	○	○	○
Noise	○	○	○	○	○
Vibration	○	○	○	○	○
Groundwater	○	○	○	○	○
Employment	○	○	○	○	○
Health	○	○	○	○	○

Any other potential issues or impacts you wish to raise

7. Do you have any **issues or concerns** about the proposed New Cobar Complex?

8. What is your **postcode**?

9. What is the name of your **town/suburb?**

10. Which of the following **age brackets** do you fall into?

- ◯ Under 18
- ◯ 18-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55-64
- ◯ 65+

11. Which of the following do you **identify** as?
Please select all that apply to you.

- ☐ Male
- ☐ Female
- ☐ Other gender
- ☐ Aboriginal
- ☐ Torres Strait Islander
- ☐ I speak a language other than English at home
- ☐ I have a disability and/or special need
- ☐ Landholder
- ☐ Business owner
- ☐ Resident

12. Would you like to be **contacted further** about this project? If so, please provide your **contact details** below.

- ◯ Yes
- ◯ No

Your contact information. Please provide your name, email, and telephone.

Appendix C

Community and stakeholder engagement strategy

Community and Stakeholder Engagement Strategy

New Cobar Complex Expansion Project

Prepared for Peak Gold Mines Pty Ltd
August 2019

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Community and Stakeholder Engagement Strategy

New Cobar Complex Expansion Project

Report Number

J190278 RP5C

Client

Peak Gold Mines Pty Ltd

Date

2 August 2019

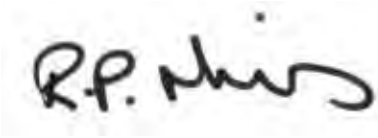
Version

v2 Draft

Prepared by

Andrea Kanaris
Associate, SIA National Technical Lead
20 December 2019

Approved by



Rob Morris
Associate Director
20 December 2019

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1 Purpose and objectives

Peak Gold Mines Pty Ltd (PGM) has engaged EMM Consulting Pty Limited (EMM) for the management and delivery of an environmental impact statement (EIS) for the New Cobar Complex Underground Expansion EIS (the project) at Peak Gold Mines (PGM).

The project will require approval as a state significant development (SSD) and as such EIS engagement that meets the requirement set out in the NSW Department of Planning, Industry and Environment's (DPIE, 2017) the Community and Stakeholder Engagement guideline as part of its Draft Environmental Impact Assessment Guidance Series (June 2017) (the Engagement Guideline).

EMM understands that Peak Gold Mines held a community meeting in March 2019 that was attended by approximately 40 local community members. At the meeting the community were provided with information about the new vent shafts close to town. The community raised concerns regarding vibration, air quality, water contamination, water run-off and the location of vent rises on the slag dump and the potential impacts on human health. In addition, the use of mining contractors is considered likely to exacerbate the increasing concern about fly-in-fly-out (FIFO) and drive-in-drive-out (DIDO) workforces as there is a perception that they spend money in their hometowns and taking the benefits away from the local community.

The Community and Stakeholder Engagement Plan (CSEP) outlines the engagement activities required to support PGM and the EIS project team to deliver the EIS and adequately meet government requirements relating to EIS engagement outlined in the Engagement Guideline (DPIE, 2017).

The engagement program has several processes and outcome objectives, namely to:

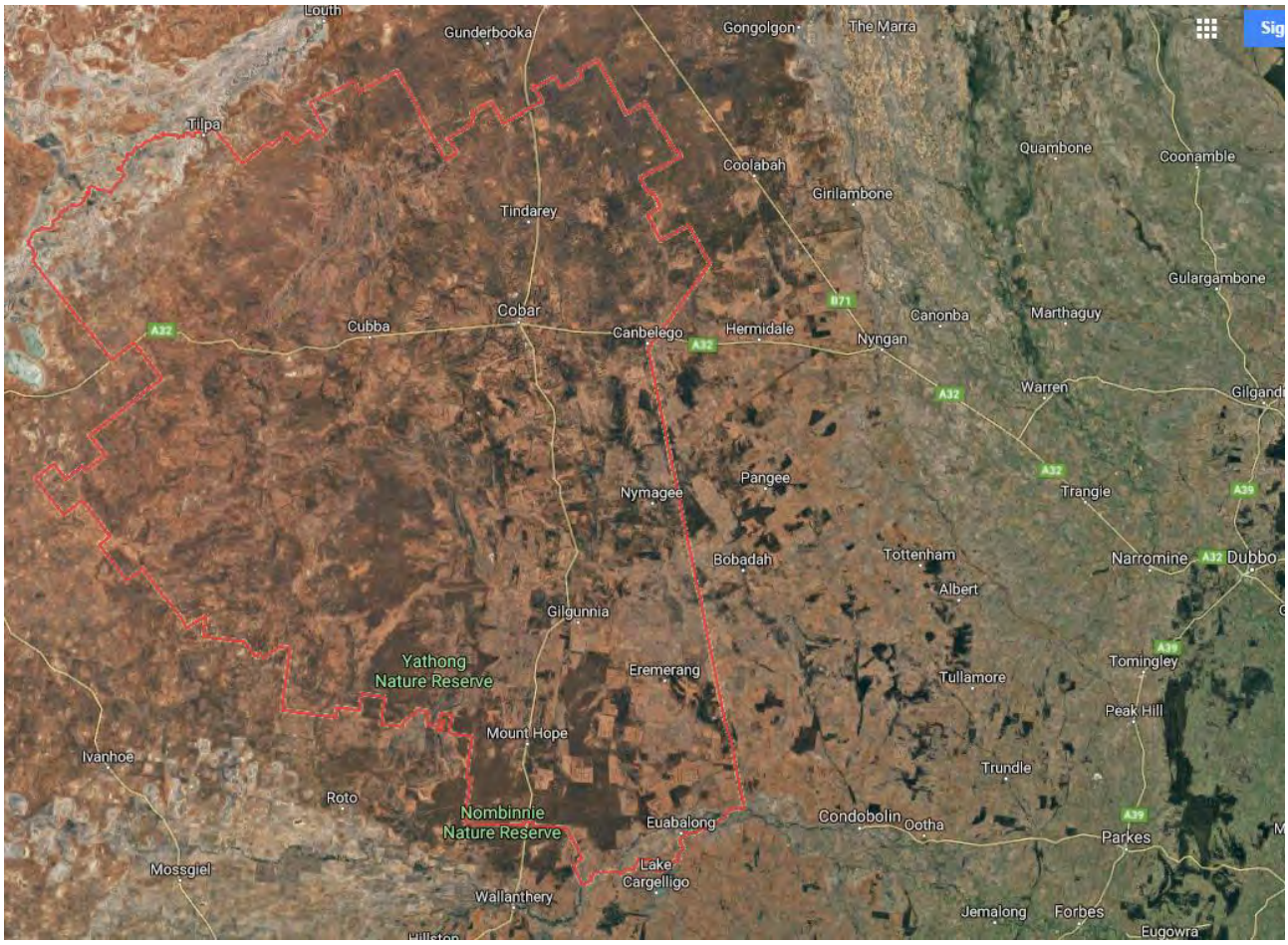
- afford meaningful involvement of key stakeholders in the Project, by disseminating information on the New Cobar project and gathering input to inform the New Cobar project, social impact assessment and relevant technical studies;
- provide stakeholders with the opportunity to participate in the options analysis process and contribute to identifying a preferred option (where options exist);
- build and strengthen relationships between key stakeholders and PGM; and
- provide internal and external stakeholder confidence that the proposed New Cobar Complex has been comprehensively considered.

The CSEP has been informed through negotiation with the Group Manager – Environment, PGM and is a living document to be reviewed bi-monthly.

2 Community context

The New Cobar project is located to the south-east of Cobar town, adjacent to the Barrier Highway and Kidman Way in the Cobar Shire Council (SC). With an area of 45,609 square kilometres, Cobar SC (Figure 2.1) is approximately two-thirds the size of Tasmania.

Figure 2.1 Cobar Shire Council Area



Cobar SC is home to approximately 4,647 people and has thriving mining - copper, lead, silver, zinc, gold - and pastoral industries that fuel its prosperity. The township of Cobar (Figure 2.2) offers a wide range services as well as attractions and activities, that make it a major tourist destination (Cobar SC, 2019).

Figure 2.2 Cobar township

2.1 Area of social influence

The area of social influence is determined through the scoping phase of the SIA. For the purposes of this document the main area of social influence will be Cobar state suburb (SSC) and Cobar local government area (LGA).

3 Project overview

The New Cobar Complex is located to the south-east of the town of Cobar, south of the Barrier Highway and adjacent to Kidman Way. Geologically, the area contains a series of polymetallic high-grade ore bodies dominated by gold, copper, lead and zinc, with a long history of stable, large-scale, low cost production. The Cobar gold field has produced more than 200,000 tonnes of copper and three million ounces of gold since mining began in the area in 1870.

PGM commenced production in 1992 as an underground mining operation producing gold, copper, lead, zinc and silver. The ore deposits currently being mined in the wider PGM complex include New Cobar, Chesney, Perseverance, New Occidental and Peak.

The New Cobar Complex comprises the New Cobar and Chesney deposits which are mined by underground mining techniques with access from a portal (and decline) from the base of the New Cobar open pit. Underground mining commenced in 2004 when the open cut ceased operation. The Peak Complex is located approximately 5 km south of the New Cobar Complex; it includes the Perseverance and Peak deposits, as well as the processing plant and associated infrastructure.

PGM is in the process of investigating options for expanding the life of PGM through the exploration of deeper resources (700-800 m bgl) beneath the original Great Cobar deposit. The Great Cobar deposit is located to the north-east of the former New Cobar open cut pit and the deposit was historically exploited by surface and shallow underground mining.

PGM has recently obtained approval for development of an exploration drive to access the Great Cobar Deposit from the New Cobar Complex. The objectives of the exploration activities are to:

- further define the mineral resource;
- provide further samples for metallurgical, geotechnical and associated test work; and
- allow for a program of trial grade control drilling in advance of extraction of two bulk samples to permit comparison of close-spaced drilling results with the average bulk sample grade.

The exploration drive has been approved and PGM is considering options to further develop PGM over the life of mine (LOM), which includes the proposed underground mining operations within the Great Cobar deposit. Mining of this deposit has the potential to extend the LOM by 10+ years. Mining of the deposit will utilise the decline and infrastructure developed for the exploration decline (Great Cobar Exploration Decline).

Mining operations at PGM are currently undertaken under development consent issued by Cobar Shire Council. All current mining and exploration activities undertaken at the New Cobar Complex are approved activities.

As the capital investment value of the New Cobar Complex Underground Expansion will be greater than $30M, the development is state significant with respect to the Environmental Planning and Assessment Act 1979 and the State Environmental Planning Policy (State Regional Development) 2011 and requires approval from the State. PGM is therefore seeking to consolidate all existing development consents applicable to the New Cobar Complex within a single contemporary consent issued by the Department of Planning, Industry and Environment (DPIE). Once approved, all development consents approved by Cobar Shire Council for the New Cobar Complex will be surrendered. Approval will be sought for the following project elements accessed from and undertaken within the existing New Cobar Complex located within CML6 and ML1483:

- underground mining of the:

  - New Cobar deposit;
  - Chesney deposit; and
  - Great Cobar deposit;

- transportation of extracted ore to the existing surface Run of Mine (ROM) Pad or Waste Rock Emplacement;
- crushing and screening of ore within the existing surface ROM pad;
- transportation of ore to the Peak Complex for processing via Kidman Way using road registered heavy vehicles with a capacity of up to 50t;
- harvesting of waste rock and transportation of that material back underground for use in stope backfilling operations; and
- continuation of all other approved activities within the New Cobar Mine Complex.

In accordance with advice from DPIE, PGM will seek Cobar Shire Council approvals for all lifts of the tailings storage facility (at the Peak Complex) to 2035.

3.1 Project drivers and preferred project outcome

The key project schedule driver is the target milestone of a planning approval for this project by the end of Q3 2023 to ensure continuity of production.

3.2 Approval pathway

The project will be a State significant development (SSD) pursuant to the provisions of the State Environmental Planning Policy (State and Regional Development) 2011. Accordingly, the project will be subject to the provisions of Part 4, Division 4.1 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act).

3.3 Design interface

EMM's project manager (Andrew Dickinson) will seek design inputs from PGM's Group Manager (Environment) during design development and distribute amongst the project team.

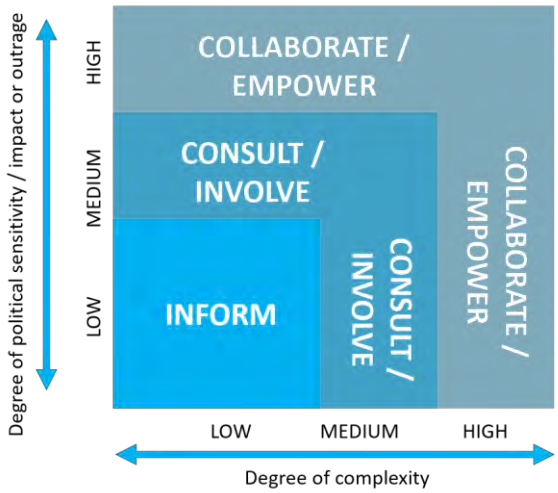
4 Approach

EMM communications community and stakeholder engagement follows the process shown in Figure 4.1 and Figure 4.2 described below.

Figure 4.1 Communication and Community engagement process

Identification of stakeholders involves identifying anyone interested in the project or process. Large projects, such as infrastructure projects, often attract a lot of community interest and their impacts are far reaching. The two broad categories of stakeholders are those who contribute to a project and those who are affected by a project.

Figure 4.2 Stakeholder mapping matrix



Analysis of the stakeholders involves consideration of the potential sensitivity, impact and outrage the project may generate against the complexity of the project. This is done by mapping stakeholder against the matrix shown in Figure 4.2. Depending on where stakeholders fall on the matrix informs the level of engagement required.

Prioritisation of the stakeholder's communication and engagement needs is incorporated in the matrix in Figure 4.2. Those who are assessed as low need to be kept informed; medium need to be consulted and/or involved; and high need to be engaged using collaborative and/or empowerment methods.

EMM **engagement** with stakeholders aligns with the needs of each stakeholder group to support risk management and maximise benefits of the project. The IAP2 public participation spectrum is used to guide engagement activities.

EMM will provide regular **reports** on stakeholder engagement as part of the project management reports.

Table 4.1 IAP2 public participation spectrum[1]

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problems, alternatives and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To partner with the public in each aspect of the decision including the development and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Methods of engagement	• Fact sheets • Websites • Information sessions	• Public comment • Focus groups • Surveys • Public meetings	• Facilitated workshops • Deliberate polling	• Citizen advisory committees • Consensus-building • Participatory decision-making	• Citizen juries • Ballots • Delegated decisions

Ongoing **monitoring** and **evaluation** are achieved by developing and maintaining an issue register for the life of the project. Allowing EMM and PGM to:

- monitor stakeholder sentiment;
- understand and respond to issues as they arise;
- re-prioritise stakeholders if required; and
- adapt engagement methods where appropriate.

Stakeholders will be provided the opportunity to evaluate the engagement activities through evaluation surveys, complaints mechanisms, and on-line and off-line feedback forms. The evaluation informs improvement in the process and methods.

4.1 Assessment of potentially impacted stakeholders

A summary of the assessment of potentially impacted stakeholders and the appropriate engagement methods to be adopted during the EIS process is shown in Table 4.2.

All stakeholders will be informed regardless of the outcomes of the assessment.

Table 4.2 Identified stakeholders and methods of engagement

Stakeholder	Risk	Goal	Method
Internal			
PGM Mine Manager	High	Empower	• Delegated decision
PGM Executive	High	Empower	• Decision makers

[1] Source: International Association for Public Participation, 2007. *IAP2 Spectrum of Public Participation.* www.iap2.org

Table 4.2 Identified stakeholders and methods of engagement

Stakeholder	Risk	Goal	Method
External			
Cobar Shire Council	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
CCC Members	Medium/High	Involve/Collaborate: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Heritage Centre	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Ngali Pre-school	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Cobar Pre-school	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Cubby House Child Care Centre	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Far-west Family Day Care	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Cobar Camels Rugby Union Club	High	Collaborate: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
KS*1	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
KS2	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
PCYC	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment

Table 4.2 Identified stakeholders and methods of engagement

Stakeholder	Risk	Goal	Method
RSL / Vince's Takeaway	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Western Auto	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Country Women's Association	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Rotary Club	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Copper City Tyre Service	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Copper City Motel	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Cobar Public School	Medium	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Face to face meetings • Facilitated workshop • Public comment

Table 4.2 Identified stakeholders and methods of engagement

Stakeholder	Risk	Goal	Method
Cobar High School	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
TAFE NSW	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
KS3	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions
Cobar Health Service	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Cobar Primary Health Care Centre	Medium	Involve: • identification of potential impacts and mitigation and management.	• Face to face meetings • Facilitated workshop • Public comment
Lifeline	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Cobar Rural Fire Service	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Fire Service	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment

Table 4.2 Identified stakeholders and methods of engagement

Stakeholder	Risk	Goal	Method
Paramedics	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Police	Low	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Emergency Services	Medium	Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Focus groups • Surveys • Information sheets • Websites/Facebook • Information sessions • Public comment
Cobar residents	Low/Medium	Inform/Consult: • Obtain feedback and alternatives • Provide balanced and objective information • Increase understanding of the project and problems and alternatives	• Information sheets • Websites/Facebook • Information sessions • Surveys • Public comment

Table 4.2 notes:

* key stakeholder (KS) and/or nearby neighbour

4.2 Stakeholder issues

There are likely to be several key issues which may become the focus of stakeholder engagement at a community and regional level in relation to the project. In March 2019 Peak Gold Mines held a community meeting that was attended by approximately 40 local community members who raised concerns regarding:

- vibration;
- air quality;
- water contamination;
- water run-off and the location of vent rises on the slag dump, and
- the potential impacts on human health.

In addition, the use of mining contractors is considered likely to exacerbate the increasing concern about FIFO and DIDO workforces as there is a perception that they spend money in their hometowns and taking the benefits away from the local community.

As additional issues are raised, they will be documented in the EIS issues register and managed and monitored accordingly.

5 Engagement strategy

5.1 Approach

The approach to engagement to be adopted for the New Cobar Complex will be proactive and transparent and will be undertaken from the scoping phase of the EIS to the submission of the EIS report, and beyond project approval.

Both internal and external key stakeholders will be contacted to provide briefings on the project and engaged through a range of methods:

- information sheets;
- project website;
- briefings;
- face to face meetings;
- community information sessions.

The information provided by stakeholders will be captured in a project information register which will both track issues and ensure that the appropriate responses are provided and documented. The EIS engagement process will, where appropriate, integrate with the social impact assessment (SIA) to ensure all information provided and received is consistently documented and considered.

Both State and local government representatives will initially be provided with key briefings on the New Cobar Complex project and PGM's broader activities.

Ongoing EIS engagement will occur at a regional and local level, firstly targeting local government representatives and key stakeholders across the social area of influence – Cobar, Cobar Shire and landholders and/or nearby neighbours in proximity to the New Cobar Complex.

The existing CCC provides an open forum for discussion with key stakeholders on issues directly relating to the New Cobar Complex project. The CCC members will be briefed during the scoping phase and provide an important mechanism to facilitate community input to Project decision making across the life of the EIS.

Wider community input will be obtained during the scoping phase through attendance at a community information session and the provision of an information sheets. As the EIS progresses ongoing consultation with be conducted through additional information sheets, community information sessions and access to the project team via a project email address. In addition, community and key stakeholders will be provided the opportunity to provide input to the SIA through:

- community online survey;
- in-depth interviews;
- telephone interviews; and
- key stakeholder workshops.

To ensure efficiency and reduce consultation fatigue the EIS engagement activities will, where appropriate, be conducted in parallel to the SIA.

5.2 Engagement Materials

Materials will be developed to support the engagement program and will include:

- interview guides – to direct stakeholder discussions;
- meeting briefing notes – to assist senior IAR people prepare for meetings with senior government officials;
- project presentations – to facilitate stakeholder briefings;
- project information sheets - to outline the Project and to summarise project options and assessment outputs. It is anticipated that two information sheets will be developed:
    - project information sheet #1 - to provide an overview of the New Cobar project and its assessment program;
    - project information sheet #2 – to provide a summary of the outcomes of the assessment; and
- project posters – to facilitate community displays and information sessions.

Materials will utilise key messages relating to the project, as agreed with PGM and will be developed by EMM for client review prior to use in the engagement program.

5.3 Roles and responsibilities

The Stakeholder Engagement plan will be managed and implemented by EMM with input from PGM as required. Effective liaison will be important to ensure consistency in information provision, collation and analysis to inform project assessments and afford effective documentation of stakeholder issues and perspectives.

An overview of engagement roles and responsibilities are detailed in

Table 5.1 Roles and responsibilities

Name	Role	Responsibility
Neal Valk	General Manager, PGM	Decision making
Jonathan Thompson	Group Manager - Environment, Aurelia Metals	Direction and review
Andrea Kanaris	Engagement Lead, EMM	Delivery of SCEP
Ellie Evans	EIS Support, EMM	EIS support
Samantha Lloyd	Environment and Social Responsibility Advisor, PGM	Support delivery of CSEP
Andrew Dickinson / Rob Morris	New Cobar Complex Underground Project SSD EIS, Project Management Team, EMM	EIS Project Management

6 Engagement action plan

This engagement plan is part of a living document and will be reviewed bi-monthly along with the remainder of the CSEP.

Table 6.1 EIS Engagement plan

Activity	Description	Responsibility	Name	Timeframe
Develop community and stakeholder engagement strategy	• Area of social influence • Stakeholder identification and mapping • Engagement approach • Engagement materials • Roles and responsibilities	Delivery	EMM	Mid October 2019
		Review	PGM	End October 2019
Develop EIS project issues register (PIR)	• Issues raised (include date received) • Questions posed (include date received) • Actions taken and responses provided (include date provided) • Person responsible for response • Themes (water, air, noise, health, etc)	Delivery	EMM	September 2019
		Input	PGM	
Ongoing maintenance of EIS PIR	• Regular inputs • Updates to project team	Delivery	EMM	Ongoing to end of EIS Fortnightly
Information sheet 1	• Project summary/description • EIS process and requirements • How community can input to process • Timeframe and deliverables			
Materials for community information session	• Information sheet (see above for detail)	Delivery	EMM	September 2019

Table 6.1 EIS Engagement plan

Activity	Description	Responsibility	Name	Timeframe
	• Posters	Review	PGM	September 2019
Community information session 1	• Inform community about New Cobar Complex • Distribute information sheets	Delivery	EMM	September 2019
	• Document attendance	Support	PGM	
Community Consultative Committee	• EIS progress reports and upcoming fieldwork • Provide technical report findings • Update on community engagement activities and sentiment • Attend quarterly meetings if requested	Delivery	EMM	Ongoing to end of EIS
	• New Cobar Complex updates • Document meetings/secretariat support	Delivery/support	PGM	
Information sheet 2	• Project update • EIS progress and technical findings • Issues raised by community • Next steps			August 2020
Community information session 2	• EIS progress and technical and SIA findings • Issues raised by community • Next steps	Delivery	EMM	September 2020
	• Distribute information sheets • Document attendance	Support	PGM	
EIS Engagement reporting	• Draft report	Delivery	EMM	October 2020
	• Final report	Review	PGM	February 2021

7 References

Cobar Shire Council, 2019. Welcome to Cobar Shire Council. Available online https://www.cobar.nsw.gov.au/

DPIE, 2017. *Community and Stakeholder Engagement: Draft Environmental Impact Assessment Guidance Series June 2017*