

Hera Resources Federation Project | State Significant Development

SOCIAL IMPACT ASSESSMENT

Prepared for Hera Resources | 29 November 2021





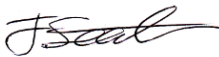
Hera Resources Federation Project

STATE SIGNIFICANT DEVELOPMENT | SOCIAL IMPACT ASSESSMENT

Prepared for Hera Resources
29 November 2021

PR152

Prepared by		Reviewed by
Name	Jamie Seaton	Erin Bourne
Company	Element Environment	Element Environment
Position	Head of Social Impact and Community Engagement	Executive Director
Project Role	Lead SIA Author	Project Director

Signature		
Date	29 November 2021	29 November 2021

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Certification Page

Lead author declaration

I, Dr Jamie Seaton, certify that the social impact assessment (SIA) component of the Hera Resources Pty Ltd Federation Project environmental impact statement (EIS) contains all information relevant to the SIA for the Federation Project, and that the information is not false or misleading. My qualifications and experience are listed below.

Qualifications:

1. Bachelor of Science Hons. (Human Geography)
2. Community Development Diploma
3. Doctorate of Philosophy (Human Geography).

Experience:

I am trained in social science methodologies and I have demonstrated SIA skills in government, private and education settings. I have managed and authored SIAs for projects in New South Wales (NSW) and Queensland.

Date: 29 November 2021



Dr Jamie Seaton – Head of Social Impact Assessment and Community Engagement

ABBREVIATIONS

Abbreviation	Definition
ABS	Australian Bureau of Statistics
AFGM	Aboriginal focus group meeting
AIP	Aquifer Interference Policy
AMSL	Above mean sea level
CCC	Community Consultation Committee
CES	Community Engagement Strategy
CSC	Cobar Shire Council
CSP	Community Strategic Plan
DIDO	Drive-in drive-out
DPIE	Department of Planning, Industry and Environment
EAP	Economic Action Plan
ECA	Ethnographic Content Analysis
EIA	Environmental impact assessment
EIS	Environmental impact statement
Element	Element Environment Pty Ltd
EP&A Act	NSW Environmental Planning and Assessment Act 1979
FIFO	Fly-in Fly-out
FWR Plan	Far West Regional Plan
GIA	Groundwater Impact Assessment
LALC	Local Aboriginal Lands Council
LEP	Local Environmental Plan
LGA	Local Government Area
LSPS	Local Strategic Planning Statement
NSW	New South Wales
NVIA	Noise and Vibration Impact Assessment
QA	Quantitative approaches
ROM	Run of mine
SEARs	Secretary's Environmental Assessment Requirements
SIA	Social impact assessment
SSC	State suburbs
SSD	State Significant Development
UCL	Urban Centres and Localities

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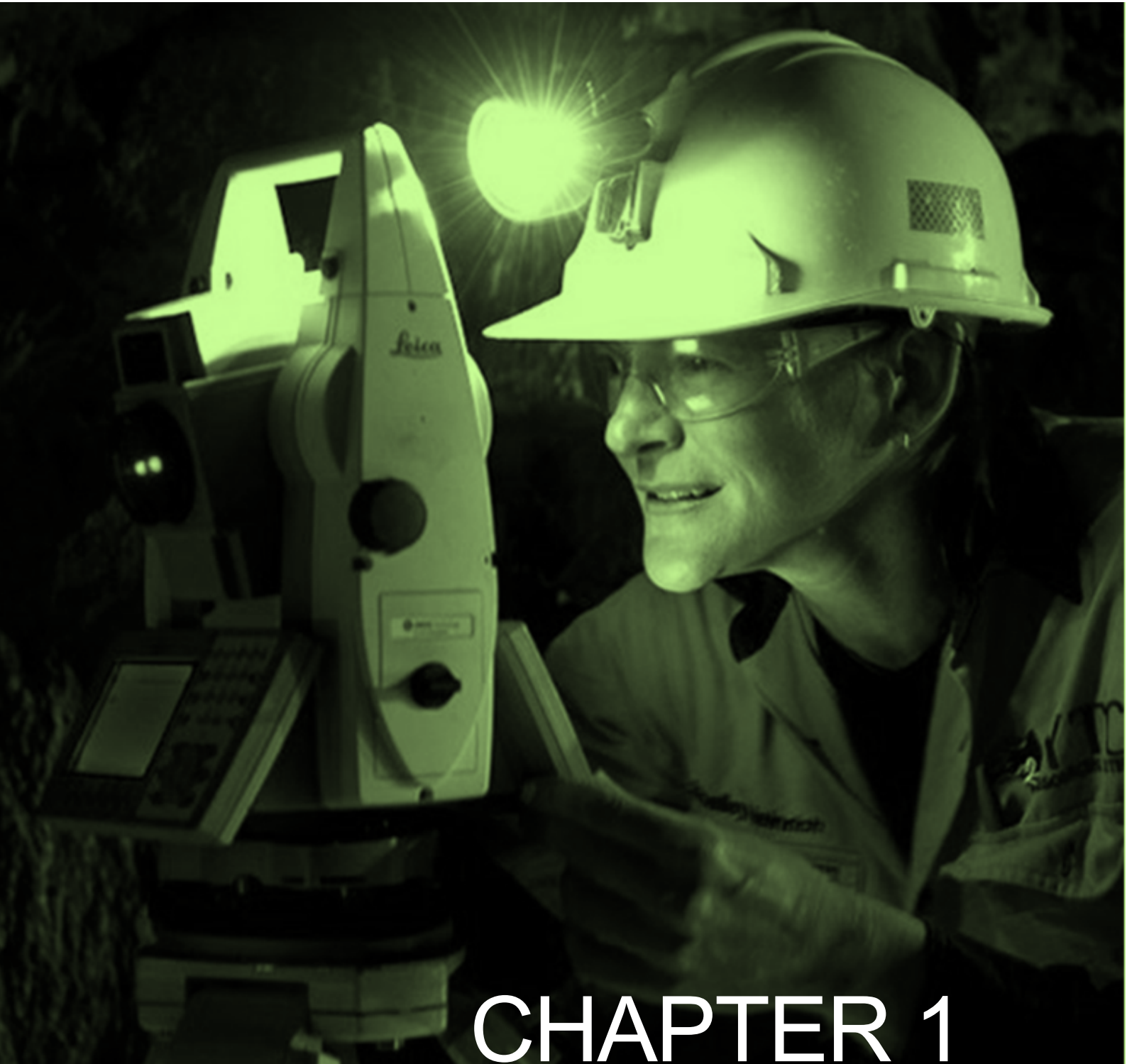
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CHAPTER 1

INTRODUCTION

1 INTRODUCTION

1.1 Purpose of this report

This Social Impact Assessment (SIA) has been prepared as part of a State Significant Development (SSD) application under Part 4, Division 4.7 of the NSW EP&A Act.

This report has been prepared to address the Secretary's environmental assessment requirements (SEARs) (SSD-24319456) for the Federation Project (the Project), issued by NSW Department of Planning, Industry and Environment (DPIE) on 17 August 2021. The SEARs nominated social impacts as being among the key issues that must be addressed via a SIA, prepared in accordance with the DPIE's Social Impact Assessment Guideline For State Significant Developments (sic) (July 2021).

The SEARs reference the following potential social impacts of the Project that need to be addressed in this SIA:

- The likely impacts of the development on the local community;
- Cumulative impacts (considering other mining developments in the locality); and
- Consideration of construction and operational workforce accommodation.

1.2 Objectives of the social impact assessment

The SIA objectives are consistent with the *Social Impact Assessment Guideline For State Significant Projects* (DPIE, 2021), hereafter the 'Guideline', which outlines some mandatory requirements to be met by SIA practitioners in NSW. The Guideline provides a framework for identifying, evaluating and responding to social impacts. It provides guidance for stakeholder and community engagement, data collection, project refinement, and the monitoring and management of social impacts.

This SIA aims to:

- Identify the social locality for the Project;
- Outline the SIA methodology applied for the study;
- Describe the stakeholder and community engagement activities undertaken during the SIA, and the outcomes of these activities;
- Outline the existing social baseline for the Project; and
- Identify, evaluate and respond to the predicted social impacts of the Project.

1.3 Project Description

1.3.1 Project overview

The Federation Project (the Project) is a proposed underground metalliferous mine development located in central-western NSW, approximately 15km south of the Nymagee township and 10km south of Hera Resources Pty Limited's (Hera Resources') Hera Mine. Hera Resources is a wholly owned subsidiary of Aurelia Metals Limited (Aurelia).

Peak Gold Mines Pty Ltd (Peak Gold Mines), a wholly owned subsidiary of Aurelia, operates the Peak Gold Mine, located 10km to the south-east of Cobar.

The Federation Project comprises:

- The establishment and operation of underground gold and metalliferous mining activities, with supporting surface infrastructure, mining approximately 6.95 million tonnes (mt) of ore over a period of 12 to 14 years, referred to as the Federation Site (see Figure 2.4);
- Amendments at the Hera Mine to facilitate mining and processing of Federation ore, including new process plant and disposal of tailings in the Hera Mine tailings storage facility (TSF); and
- Services Corridor between the Federation Site and Hera Mine, including powerline, water pipeline, access track and potentially a tailings pipeline.

The majority of ore produced would be sent to Hera Mine for processing. However up to 200 ktpa would be transported to Peak Gold Mine during the initial four years of processing (total of 750 kt over this period), whilst the new processing plant at Hera Mine is being commissioned.

Access to the underground mine would be via a portal developed through the base of a box cut. The main decline would be developed to gain access to all production levels, where stopes will be excavated. The loosened ore from the stopes would be brought to the surface via underground truck and placed on the Federation Site Run of Mine (ROM) ore stockpile near the box cut. Ore would then be transported by surface trucks via Burthong Road to the Hera Mine ROM stockpile at the Hera Mine process plant.

Hera Mine infrastructure is proposed to be modified to facilitate the Project including a new 750 ktpa processing plant and solar farm. The existing processing plant would continue to operate at Hera Mine until the commissioning of the new plant. The new plant would be within the existing approved footprint of Hera Mine. The new processing plant would produce silver and gold doré and separate lead, zinc and copper concentrates.

A total of 5.8 Mt of tailings would be generated from the processing of the ore from the Site. Of this approximately 5.2 Mt would be produced at Hera Mine, with the remaining 0.6 Mt at PGM. Approximately 60% of total tailings produced would be returned to Site to backfill underground stopes.

Hera Mine and Federation Site would be connected by a Services Corridor. The nominated width of the corridor is 23m with an approximate length of 14.3km. Clearing of existing vegetation would be required to install the proposed services infrastructure, including a power transmission line, water pipeline, access track and potentially a tailings slurry pipeline. The access track would be used for maintenance and inspection requirements and will not be used for haulage or ore.

Concentrate from Hera Mine would be trucked to the Hermidale rail siding for transport, as per the current concentrate transport methods and truck sizing. Concentrate from Peak Gold Mine would be transported to Hermidale or Dubbo rail sidings, as per the current concentrate transport methods and truck sizing.

1.3.2 Transitional period

It is anticipated that approval for the Project would be obtained in early 2023. Prior to the construction and operation of the Project, an Exploration Decline Program will be undertaken. This activity will be undertaken under a separate approval to that being sought for the Project. The main objectives of the Exploration Decline Program are to further define the mineral resources associated with the Federation deposit, including permitting drilling of exploration drill holes from underground.

Key components of the Exploration Decline Program include:

- Establishment of a Surface Infrastructure Area required to support the exploration decline;
- Development of a box cut, portal, exploration decline, two ventilation rises and one escapeway;

- Transportation to and storage of waste rock within the Surface Infrastructure Area, with subsequent transport of waste rock to Hera Mine;
- Establishment and use of an approximately 14.8km surface pipeline to transfer water from the exploration decline to Hera Mine;
- Exploration drilling from the exploration decline; and
- Extraction of one or more bulk samples together totalling no more than 20,000t and transportation of that material to Hera Mine processing plant via Burthong Road.

It is anticipated that the Exploration Decline Program will commence in November 2021 with the Surface Infrastructure Area established and waste rock being generated from the decline. It is anticipated that ore from the bulk sample will be extracted and processed between the third quarter of 2022 and first quarter of 2023. Based on the current schedule for the Project, there would be a transitional period between Exploration Decline Program activities, mining operations at Hera Mine, and the Project construction and operations. If the Project is approved, the following would occur:

- Construction of Project infrastructure (including the new process plant) would commence in the first half of 2023;
- Exploration Decline Program activities would transition into mining operations at the Federation Site; and
- Hera Mine operations would continue over a period of 6 to 12 months.

From early 2024, it is anticipated that all activities would be related to the Project operations. The operational workforce would be transitioned from Hera Mine operations to Federation Project operations.

1.4 Legislative and social policy context

1.4.1 Legislation

The EP&A Act sets the legislative context for this SIA. The objects of the EP&A Act are to:

- Promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the state's natural and other resources;
- Facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment;
- Promote the orderly and economic use and development of land;
- Promote the delivery and maintenance of affordable housing;
- Protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats;
- Promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage);
- Promote good design and amenity of the built environment;
- Promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants;
- Promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the state; and
- Provide increased opportunity for community participation in environmental planning and assessment.

The SEARs (and therefore the Guideline) are issued under the provisions of the EP&A Act and set legislative requirements that this SIA must accommodate.

1.4.2 State guidelines

Social impact assessment guideline

As described above, the Guideline details how social impacts of state significant projects should be identified, evaluated, responded to and, if appropriate, monitored and managed in accordance with the EP&A Act.

The Guideline outlines some mandatory requirements to be met by SIA practitioners in NSW. It provides:

- A rigorous framework to identify, evaluate and respond to social impacts;
- Guidance on meaningful, respectful and effective stakeholder and community;
- Engagement on social impacts from project planning to post-approval;
- The means to obtain reliable, relevant information, insights and analysis for decision-makers; and
- Advice on how the SIA can inform ongoing engagement, project refinement, monitoring, and adaptive management.

Community and stakeholder engagement guidelines

The *Undertaking Engagement Guidelines for State Significant Projects* (DPIE, 2021a) set out the requirements for effective engagement for state significant projects in NSW. The guidelines outline the actions that DPIE will take in relation to such projects, they identify opportunities for the community to participate in, and they set out requirements for proponents.

These guidelines provide guidance to proponents on:

- Planning their approach to engagement;
- Undertaking engagement to inform the development of the proposal and contribute to better planning outcomes; and
- Reporting back and demonstrating how engagement has shaped the project being assessed.

The Project stakeholder and community engagement activities were undertaken in accordance with the guidelines. See Chapter 4 for the details.

1.4.3 Regional and local community plans and strategies

Regional plans which reflect the aspirations of the community have been developed by the NSW Government and local authority associated with the Project. The regional and local plans outlined below are related to 'place-making' and improving the socio-economic circumstances of the respective populations. They each utilised input from a range of stakeholders and are, therefore, relevant to this SIA.

Far West Regional Plan 2036

The *Far West Regional Plan 2036* (FWR Plan) (DPIE, 2017) is the NSW government's 20-year blueprint for the future of Western NSW. It covers the local government areas (LGAs) of Walgett, Brewarrina, Bourke and Cobar.

The aim is to create a diverse economy that is underpinned by infrastructure and supports the natural environment and resilient communities. The plan aims to achieve this vision by pursuing the following three goals:

- A diverse economy with efficient transport and infrastructure networks;
- Exceptional semi-arid rangelands traversed by the Barwon-Darling River; and

- Strong and connected communities.

The region has an historic connection with mining, which continues to play a defining role for the far west. In particular, the Cobar Shire Council (CSC) is recognised as being an important copper, gold, lead, zinc and silver mining district for nearly 140 years, with the FWR Plan noting that “there is potential for further development in the area” (DPIE, 2017, p.21).

Direction 3 is the key objective from the plan that relates to the Project and is described below. Direction 3 states that areas of mineral and energy resource potential should be protected through local land use strategies and the local environmental plan (LEP).

Direction 3 of the FWR Plan acknowledges that mining operations require water and energy infrastructure to support them and that it will be important to protect and strategically plan for water and energy infrastructure to support new and emerging mining opportunities. In established mining areas such as Cobar, there is potential for water supply deficiencies which could impact the operations as well as the community.

The Project would support the protection of high-valued environmental assets and contribute to developing a strong, diverse and competitive economy. Therefore, the Project could be considered consistent with the directions and goals set out in the FWR Plan.

Sustainable management of mineral resources (Direction 3)

The region has the potential to benefit from the economic and employment flow-on effects of the mining industry during the various phases (exploration and construction, extraction and decommission) of the mining lifecycle.

This plan has identified that because the region relies heavily on drive-in, drive-out workers employment, changes in resident populations and different demands for retail, health, education and emergency services have been encountered. To diversify the local economies, interim land use opportunities will be promoted to enable the productive use of the land without sterilising the potential of the underlying resource. These economies will be more resilient, especially in areas where mineral extraction is declining.

In response to the changing economies, regional-scale modelling tools have been developed by the Western NSW Mining and Resource Development Taskforce. These tools will allow the NSW Government to investigate how Western NSW communities can capitalise on the economic benefits of the mining sector, by ensuring that communities transitioning out of mining are not disadvantaged while those experiencing expansion in this industry benefit from new mining growth.

From an infrastructure perspective, existing and new mining operations require water and energy to support them. Government funding for future water security projects will therefore be critical for the future of the mining industry.

Cobar Shire 2030 Community Strategic Plan

The *Community Strategic Plan* (CSP) (Cobar Shire Council, 2013) identifies the long-term aspirations for the Cobar LGA community and is part of CSCs Strategic Planning Framework, which also includes their Community Engagement Strategy, Delivery Program, Annual Operational Plan and Resource Strategy. It is built on the social justice principles of equity, access, participation and rights. It is informed by the NSW State Plan 2021, the RDA Orana Plan, and community consultation.

The CSP is a long-term strategy spanning 13 years (2017-2030), identifying the outcomes and long-term strategic responses required to meet the following identified values of the Cobar LGA community:

- A community that is generous, engaged and participative and that welcomes new residents and encourages them to stay;
- Vibrant and valued industries with a strong social conscious that participate in the community;
- A well-funded and well governed Council that is engaged with the community and encourages their participation in decision making; and
- Access to quality and well-maintained infrastructure.

The CSP addresses significant community issues, challenges and outcomes by adopting the five strategies outlined below.

1. Community strategies:

- Supporting our families and young people to keep them in the region and providing a good quality of life.
- Providing adequate health care options within the community.
- Quality childcare and educational opportunities.

2. Economic strategies:

- Enhancing and growing two main industries including mining and agriculture.
- Diversifying the business base from mining into other industries such as tourism, health, alternative power generation and expanded rural industries.

3. Governance strategies:

- Strong and participative Council.

4. Infrastructure strategies:

- Access to water, reliable electricity supply, telecommunications networks and transport networks.

5. Environmental strategies:

- Risks, threats and possible opportunities associated with carbon policy.
- Value public land and optimising its use
- Expanding mining industry.

The community was extensively engaged by CSC during the development of the CSP. It is, therefore, an important input to the SIA and a reliable source of secondary information which will be drawn upon for this study.

The Project would potentially alleviate the key issues and challenges of the community through contributing towards the community, economic and environmental strategies.

Economic Action Plan 2017

The purpose of the Economic Action Plan 2017 (EAP) (CSC, 2017) is to provide a clear path towards sustainable economic development in Cobar by cultivating Cobar's businesses and community to achieve economic endurance.

The EAP recognises that "whilst the bulk of Australia's population resides in its capital cities, the bulk of the economic activity occurs in the regions, and several Australian studies have recognised the importance of regions and Local Government Areas in their contribution to the Australian economy" (CSC, 2017, p.6).

The EAP identifies the key elements to a prosperous community as being local leadership, a positive and supportive investment environment, effective utilisation of infrastructure and institutional involvement in the processes of economic development.

CSC is committed to managing the Shire to ensure that actions undertaken to increase diversity in the economy also lead to improvements in living standards for residents.

The Project would support the CSCs economic development in the Cobar LGA by extending the life of the Hera Resources mining operations in the region and enabling the ongoing employment of similar workforce numbers as the current Hera Mine workforce once the Hera Mine ceases operations.

Local Strategic Planning Statement

CSC, in conjunction with DPIE, has prepared a Local Strategic Planning Statement (LSPS) (Cobar Shire Council, 2020), which sets out the 20-year vision for land use in the local area, the special character and values that are to be preserved, and how change will be managed into the future.

The LSPS has been prepared in accordance with clause 3.9 of the EP&A Act. The LSPS brings together and builds on the planning work outlined in the LEP and CSP. The LSPS also gives effect to the FWR Plan, implementing the directions and actions at a local level. The LSPS planning priorities and actions provide the rationale for decisions about land use to achieve the community's broader land use vision.

The vision for Cobar Shire is to be an attractive, healthy and caring environment to live, work and play, achieved in partnership with the community through initiative, foresight and leadership.

Key infrastructure focuses for CSC include:

- CSC capitalising on natural resource and infrastructure investment to be the mining hub for the Far West, with many specialist contracting companies setting up prominent bases. As the mining hub, Cobar Shire will be an established mining community that encourages community cohesion through provision of accommodation within the town centre and agitation towards a local workforce; and
- The exploration of mining and the mining approvals process in the future. CSC will focus on industry and infrastructure development that will utilise or establish local workforces. The approach to development will be agile and quick to respond to opportunities for development.

The Project would support CSC and the community in achieving their vision in terms of infrastructure development.

1.5 Structure of this report

This report is structured in accordance with the Guideline.

The social locality of the study is established (Chapter 2), the method for scoping and preparing the SIA is described (Chapter 3).

The SIA stakeholder and community engagement approach is described in Chapter 4 and the existing social baseline associated with the Project is provided in Chapter 5.

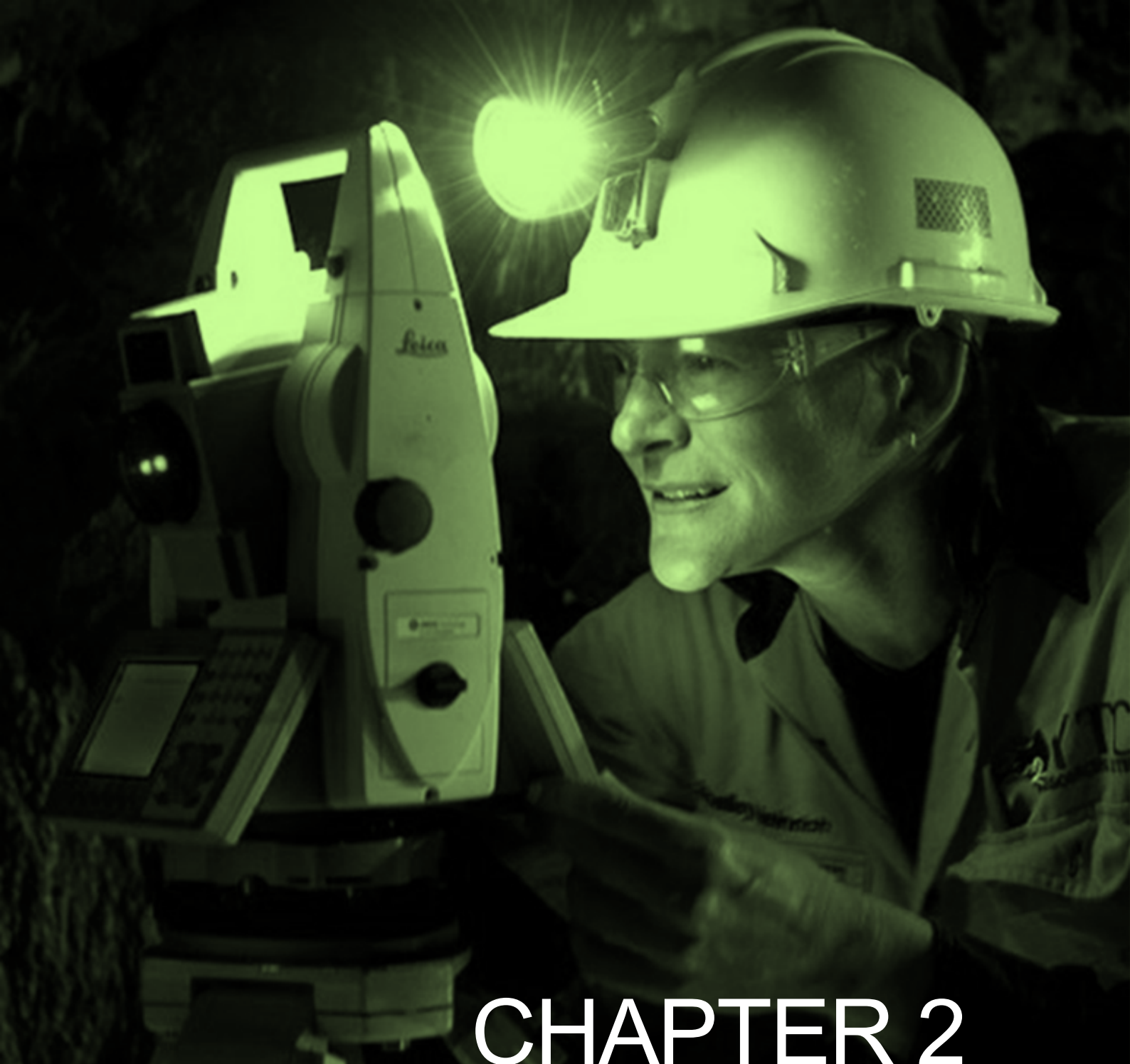
An assessment of the identified social impacts is made in Chapter 6, and finally, the suggested social impact enhancement measures, mitigation measures and residual impacts are described in Chapter 7. Chapter 7 also contains the SIA conclusion.

The structure of this report comprises the ‘review questions’ contained in Appendix C of the Guideline. The review questions are a checklist for the author to confirm this report is compliant with the Guideline in terms of undertaking the SIA and preparing this report. A compliance matrix is presented in Table 1.1 to identify where the review questions are addressed in this report.

Table 1.1 Compliance matrix

Review questions		Location in this report
General		
1	Does the lead author meet the qualification and experience requirements?	Certification page
2	Has the lead author provided a signed declaration?	Certification page
3	Would a reasonable person judge the SIA report to be impartial, transparent and suitably rigorous given the nature of the project?	Entire report
Project's social locality and social baseline		
4	Does the SIA report identify and describe all the different social groups that may be affected by the project?	Section 4.1
5	Does the SIA report identify and describe all the built or natural features that have value or importance for people, and explain why people value those features?	Section 5.3 Section 5.4
6	Does the SIA report identify and describe historical, current, and expected social trends or social changes for people in the locality, including their experiences with this project and other major development projects?	Chapter 4 Chapter 5 Chapter 6
7	Does the social baseline study include appropriate justification for each element, and provide evidence that the elements reflect both relevant literature and the diversity of views and likely experiences?	Section 3.2.1 Chapter 5
8	Does the social baseline study demonstrate social-science research methods and explain any significant methodological or data limitations?	Section 3.2
Identification and description of social impacts		
9	Does the SIA report adequately describe likely social impacts from the perspectives of how people may experience them, and explain the research used to identify them? When undertaken as a part of SIA scoping and initial assessment, has the plan for the SIA report been detailed?	Chapter 6
10	Does the SIA report apply the precautionary principle to identifying social impacts, and consider how they may be experienced differently by different people and groups?	Table 6.1
11	Does the SIA report describe how the preliminary analysis influenced project design and EIS engagement strategy?	Section 6.1
Community engagement		
12	Were the extent and nature of engagement activities appropriate and sufficient to canvass all relevant views, including those of vulnerable or marginalised groups?	Section 4.2
13	How have the views, concerns and insights of affected and interested people influenced both the project design and each element of the SIA report?	Chapter 6 Chapter 7
Predicting and analysing social impacts		
14	Does the SIA report impartially focus on the most important social impacts to people at all stages of the project, without any omissions or misrepresentations?	Entire report

Review questions		Location in this report
15	Does the SIA report analyse the distribution of both positive and negative social impacts, and identify who will benefit and who will lose from the project?	Table 7.1
16	Does the SIA report identify its assumptions, and include sensitivity analysis and alternative scenarios? (including 'worst-case' and 'no project' scenarios where relevant)	Section 7.4.1
Evaluating significance		
17	Do the evaluations of significance of social impacts impartially represent how people in each identified social group can expect to experience the project, including any cumulative effects?	Chapter 6
18	Are the evaluations of significance disaggregated to consider the likely different experiences for different people or groups, especially vulnerable groups?	Chapter 6
19	Does the SIA report propose responses that are tangible, deliverable, likely to be durably effective, directly related to the respective impact(s) and adequately delegated and resourced?	Chapter 7
20	Does the SIA report demonstrate how people can be confident that social impacts will be monitored and reported in ways that are reliable, effective and trustworthy?	Section 7.5
21	Does the SIA report demonstrate how the proponent will adaptively manage social impacts and respond to unanticipated events, breaches, grievances and non-compliance?	Section 7.5



CHAPTER 2

SOCIAL LOCALITY

2 SOCIAL LOCALITY

2.1 Regional context

The Federation Site is in Cobar LGA in the Orana region. It is situated in the centre of NSW encompassing an area of around 45,600 square kilometres, about 700 km north-west of Sydney and 650 km north of Canberra.

Cobar Shire is located on the crossroads of three major highways with excellent road, rail and air links to most of Australia's capital cities:

- The Kidman Way linking Melbourne to Brisbane;
- The Barrier Highway linking Sydney to Adelaide via Broken Hill; and
- The Wool Track linking the Sunraysia area to south-east Queensland.

Other villages in the Shire are Euabalong and Euabalong West, Murrin Bridge, Mount Hope and Nymagee. Murrin Bridge, located on the banks of the Lachlan River, is an Aboriginal community, owned and operated by the Murrin Bridge Local Aboriginal Lands Council (LALC) (CSP, 2013)

The local Aboriginal history is an important part of Cobar, or 'Kubbur', as the area was referred to by the Ngiyampaa people who inhabited the area prior to European settlement. The main language groups are Ngiyampaa in the centre, Ngemba in the north-east, Wiradjuri in the south and Paakantkji in the north west (CSC, 2013).

The Site is approximately 15km south of Nymagee as shown in Figure 2.1.

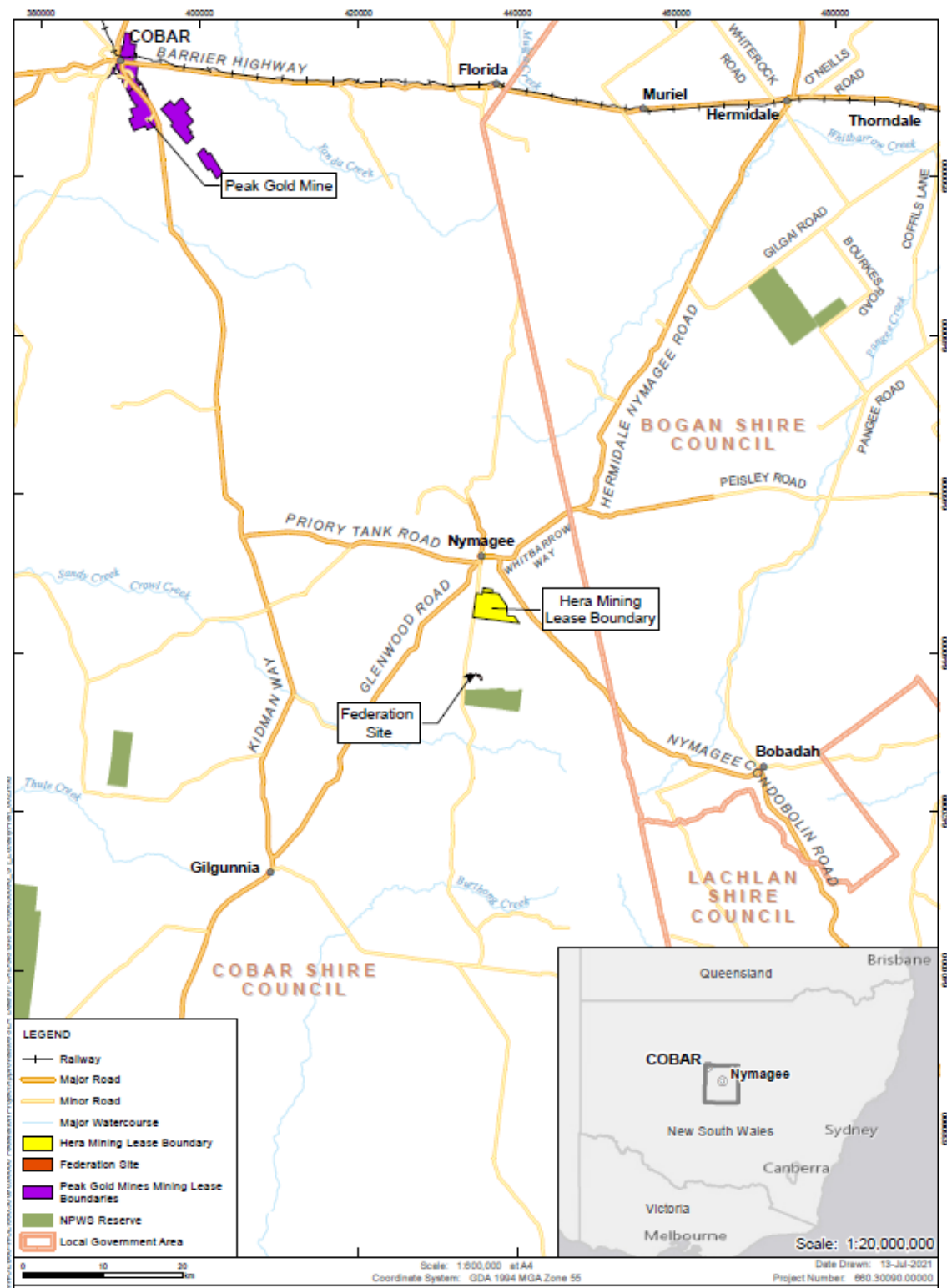


Figure 2.1 Regional context of the Federation Site

2.2 Nymagee and surrounding land use

Nymagee is the closet township to the Federation Project. It is located at the intersection of Milford Street and Hartwood Street. The township was founded in 1879 and copper was discovered in 1876. Nymagee mine was first mined in 1880 and mining continued until its closure in 1917.

Nymagee contains the following social infrastructure:

- Police Station (staffed part-time);
- Catholic Church;
- Anglican Church;
- Park;
- Cricket ground and tennis courts;
- Public School;
- Hotel;
- War Memorial and Community Hall;
- Country Women's Association rooms;
- Rural Fire Service station; and
- Cemetery.

Nymagee airport is located approximately 1km to the north of the Nymagee township, and the racecourse is located on Rosevale Road approximately 2km to the north of the Nymagee township. The non-operational Nymagee Mine is located on the south-western outskirts of the town, enclosed by perimeter fencing. The area is dominated by agricultural land uses and native semi-arid woodland. Figure 2.5 illustrates the Nymagee township and the Nymagee suburb.

The Project falls within the Cobar Penepine Bioregion (Office of Environment and Heritage: NSW National Parks and Wildlife Service, May 2014) and is characterised by native vegetation that is subject to grazing and contains several non-perennial watercourses and tributaries. The Site is located at an elevation of approximately 320m above mean sea level (AMSL). Topography rises gradually in an easterly direction and contains a prominent peak (380m AMSL) immediately east of the Site.

The property on which the Site is located abuts Burthong Road to the west and shares its southern boundary with the Balowra State Conservation Area.

2.3 The Federation Project

As described in the Project description (Section 1.3), the Federation Project comprises proposed infrastructure at both the existing Hera Mine and the proposed Site. Figure 2.2 illustrates the indicative Project boundary (titled the 'Indicative Hera and Federation Project boundary' in the figure legend) which surrounds both locations.

Hera Mine is accessed from the Nymagee-Burthong Road, approximately 4.5 km to the south of Nymagee (refer Figure 2.2). The Project would create a relationship between Hera Mine and the Federation Site by virtue of proposed infrastructure and operational connections required for the operations of the Project. The connections would include:

- The proposed infrastructure in the Services Corridor;
- The haulage route between Hera Mine and the Site along Burthong Road;
- The solar farm and transmission line required to provide power from the Hera Mine to the Site; and
- The processing of ore from the Site at a new processing plant at Hera Mine.

Figure 2.3 (Hera Mine) and Figure 2.4 (Federation Site) illustrate the proposed connecting features of the Project. Consistent with the EIS, these features are subject to assessment in the SIA.

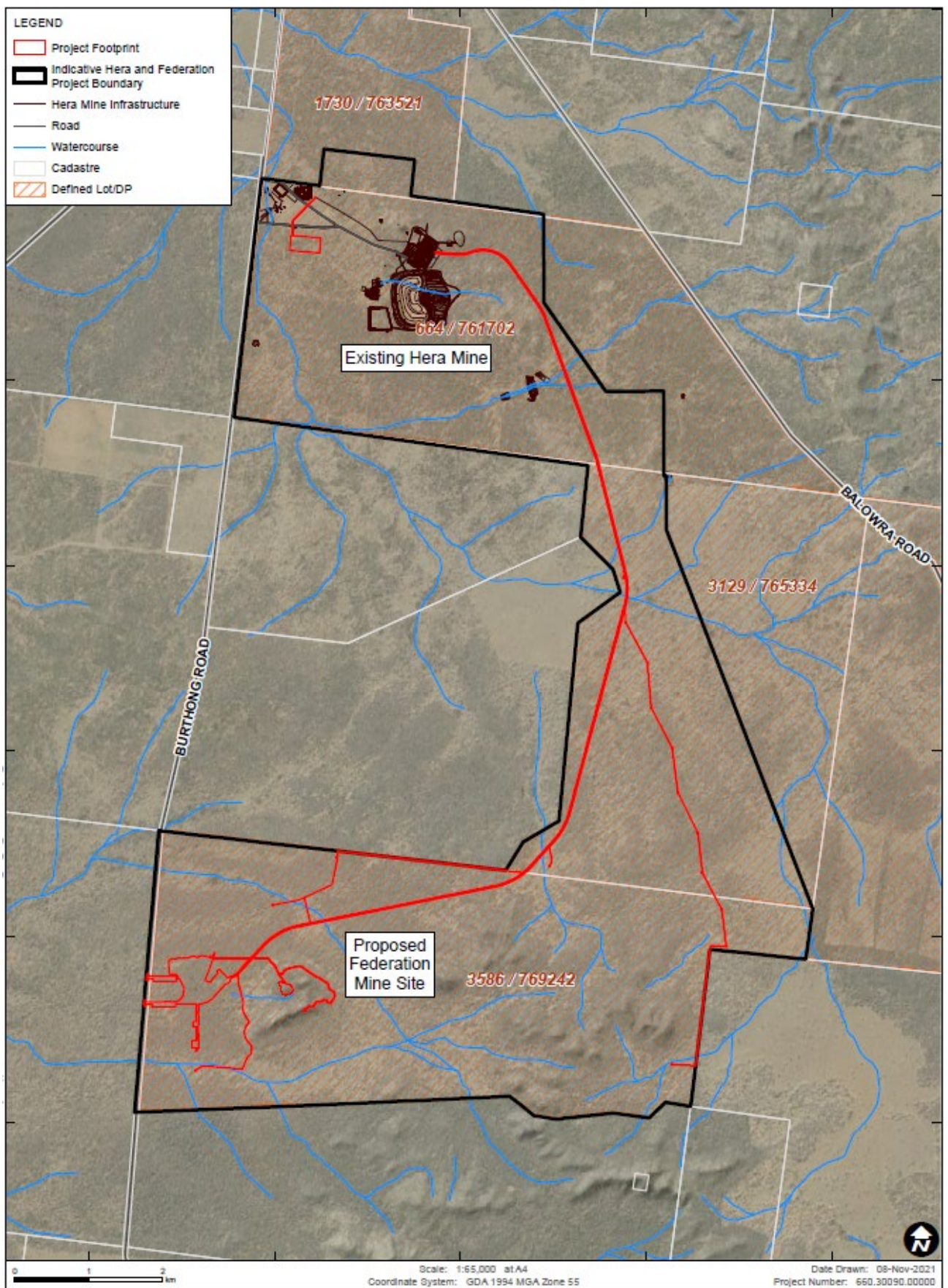


Figure 2.2 The Federation Project boundary

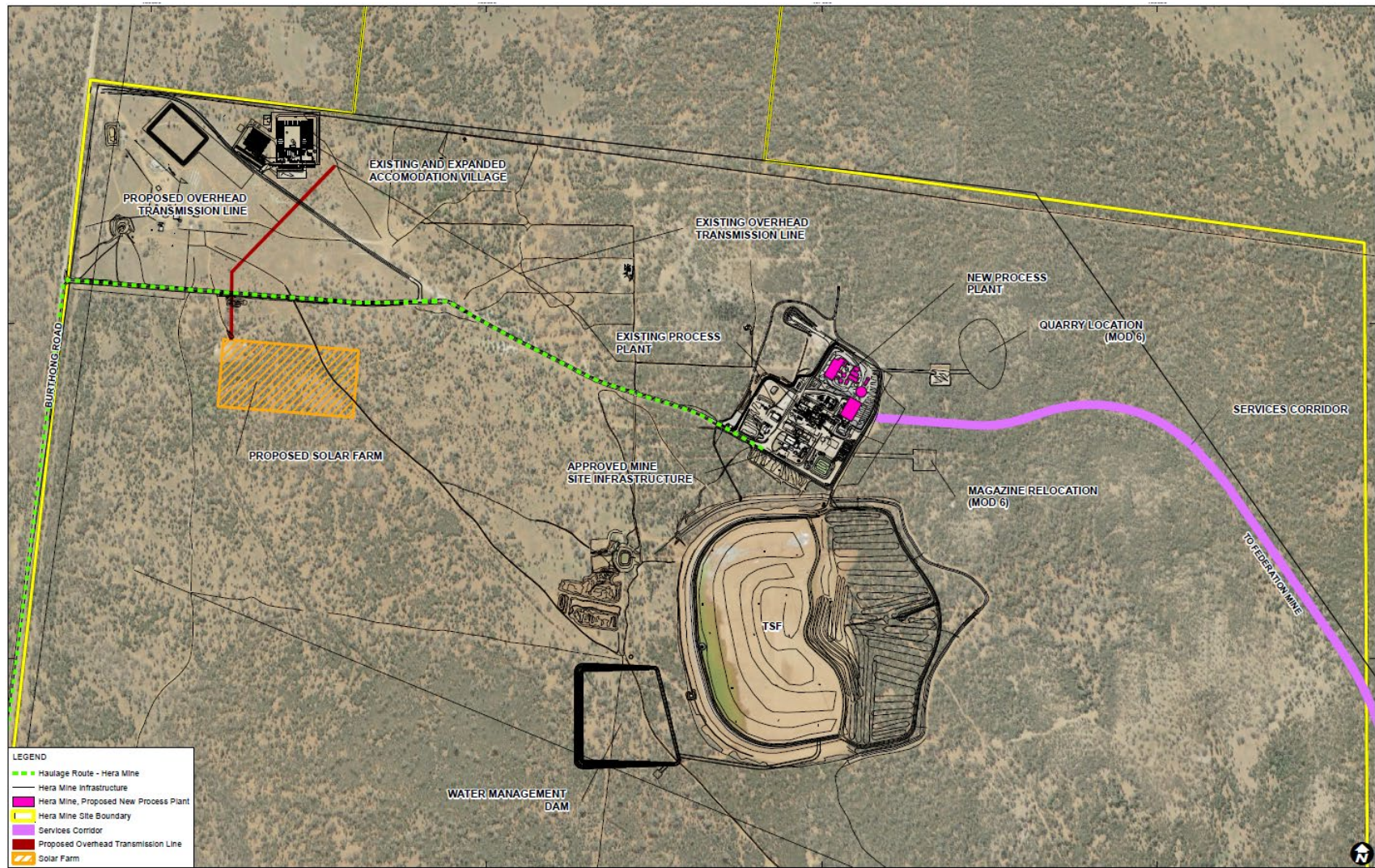
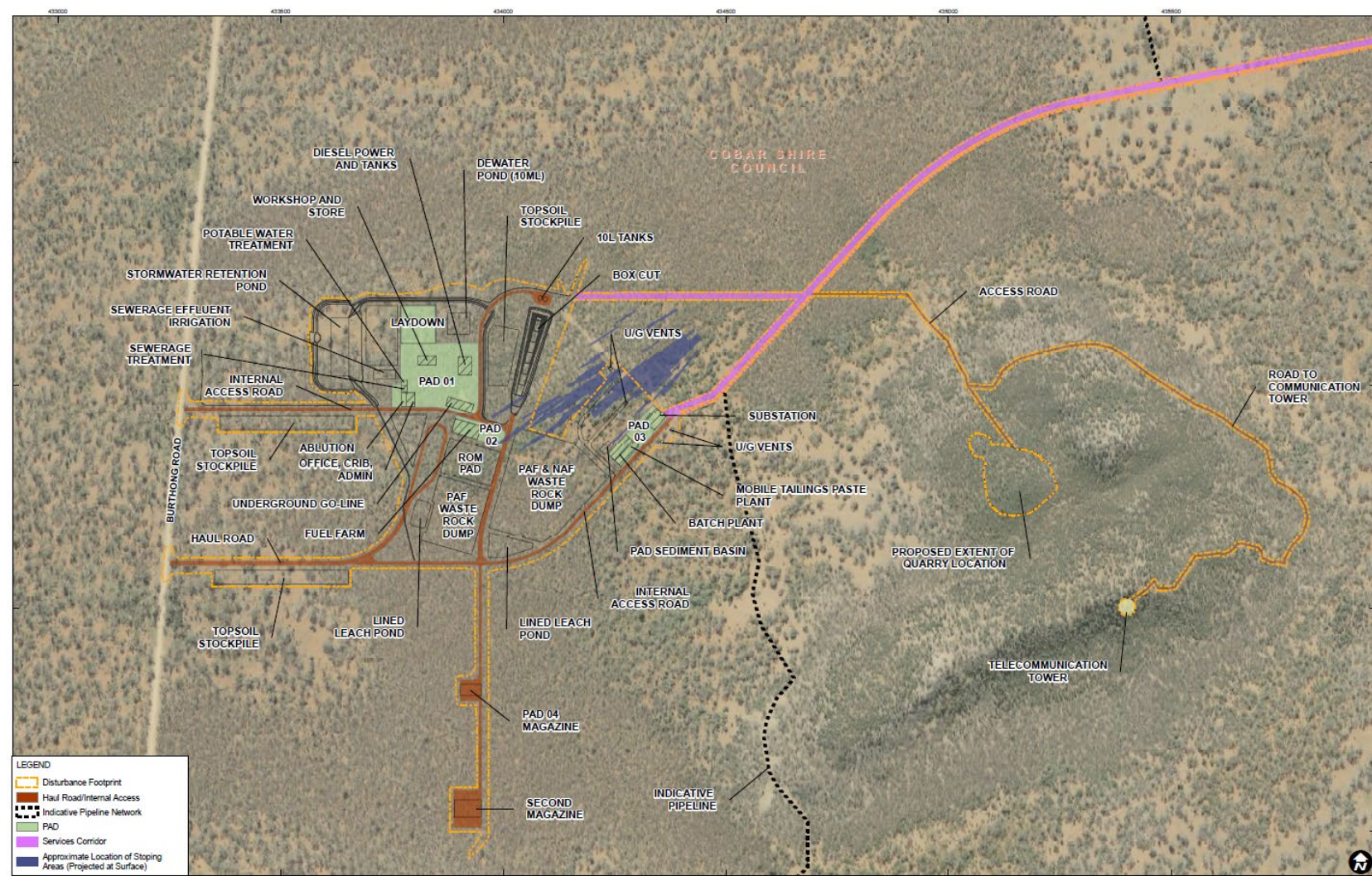


Figure 2.3 Hera Mine



2.4 The Federation Project social locality

The social locality for the Project is in Figure 2.5. It has been selected by considering the Project features and their potential impact for people in Nymagee, points of interest near to Nymagee (including residences) and Cobar Shire more broadly. It recognises the Project haulage routes (including to Peak Gold Mine near Cobar) and supply of concentrate to Hermidale.

The social locality was developed by considering the range of factors in Table 2.1.

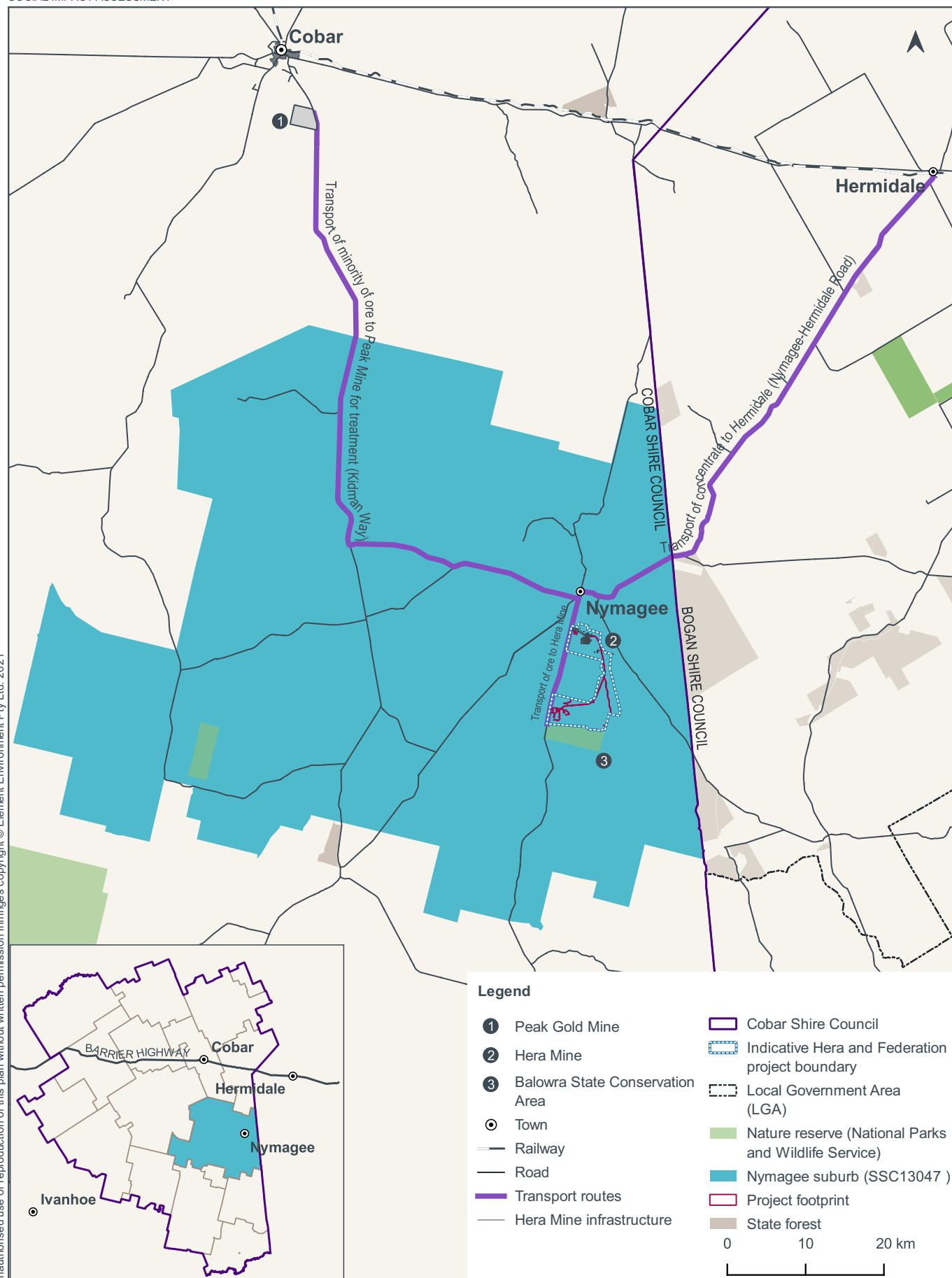
Table 2.1 Social locality development

Factors considered	Relationship to the social locality
Scale and nature	The scale and nature of the Project is not identical to but like other metalliferous far western NSW mine projects in terms of: ▪ Mining method; ▪ Transport including traffic volume; ▪ Required workforce; and ▪ Lifespan of the mine. Comparative operational projects are the: ▪ Tomingley Gold Project (RW Corkery & Co, 2011); ▪ Hera Project (RW Corkery & Co, 2011a); and ▪ Tritton Copper Mine (RW Corkery & Co, 2018)
Who may be affected	The Project has a strong connection to the people of Nymagee. Populations in Cobar and Hermidale are also relevant connections to the Project due to its transport routes (refer Figure 2.5) and residences of current Hera Mine staff. The Project workforce would not all be based locally (see Table 6.3), however the residential locations of non-local staff were not considered material to the development of the social locality because they are widely dispersed (e.g., in central, western, coastal NSW and elsewhere). The Project would be in an area of low population density. The nearest sensitive receivers to the Hera Mine infrastructure areas are located approximately 2.5km to the north on the western side of Burthong Road, and 3km the south west on the western side of Burthong Road. The closest residence to the Site is located approximately 6km to the south. There are two residences located along Burthong Road. One approximately 280m from the road and the other approximately 760m from the road. The Hera Mine complaints register provides an indication of where negative impacts of the Hera Mine are felt. Complaints between 2012 and 2020 were mainly lodged by residents in the suburb of Nymagee. Figure 2.6 shows the location of sensitive receivers.
Whether any vulnerable or marginalised people may be affected	The SIA recognises that Aboriginal people in the social locality are a marginalised group. Engagement with Aboriginal people and LALC representatives was undertaken for the SIA (see Chapter 4 for the engagement methodology). In addition, Hera Resources has an existing relationship with two vulnerable residents who were also identified by SIA research participants. The residents were consulted as part of the SIA.
Built or natural features	The Project falls within the Cobar Peneplain Bioregion (Office of Environment and Heritage: NSW National Parks and Wildlife Service, 2014) and is characterised by native vegetation that is subject to grazing and contains several non-perennial watercourses and tributaries. The Site is located at an elevation of approximately 320m AMSL. Topography rises gradually in an easterly direction and contains a prominent peak (380m AMSL) immediately east of the Site. The Site abuts Burthong Road to the west and shares its southern boundary with the Balowra State Conservation Area. A range of built features typical of regional NSW towns exist in the social locality in Nymagee, Hermidale and Cobar.
Relevant social, cultural, and demographic trends,	According to the Australian Bureau of Statistics (ABS) (ABS, 2016), Cobar's population has been reasonably steady for the past ten years. However,

Factors considered	Relationship to the social locality
and other change processes	anecdotal evidence derived from consultation with local residents suggests that the population of Cobar is in decline. The ABS indicates that during the 2016 Australian Census (ABS, 2016), the population of Nymagee suburb was 100. During the 2006 Australian Census, the population was only marginally higher with a population of 103 (ABS, 2006). In the Cobar region, a mining industry shift from Cobar based workforces to fly-in-fly-out [FIFO] or drive-in -drive-out (DIDO) workforces has been evident in recent history. Another change relevant to the social locality is the recent road surface seal on Whitbarrow Way. This development makes vehicular access to Nymagee more efficient. It has resulted in heavy and tourist vehicles visiting Nymagee more frequently.
History	Section 2.1 describes Aboriginal history in Cobar and the cultural heritage report (AREA, 2021) describes Aboriginal sites within and surrounding Nymagee which hold significant value to local people. Nymagee non-Indigenous history has strong linkages to mining as described in Section 2.2.

Figure 2.5
Social locality

Hera Resources Federation Project
SOCIAL IMPACT ASSESSMENT



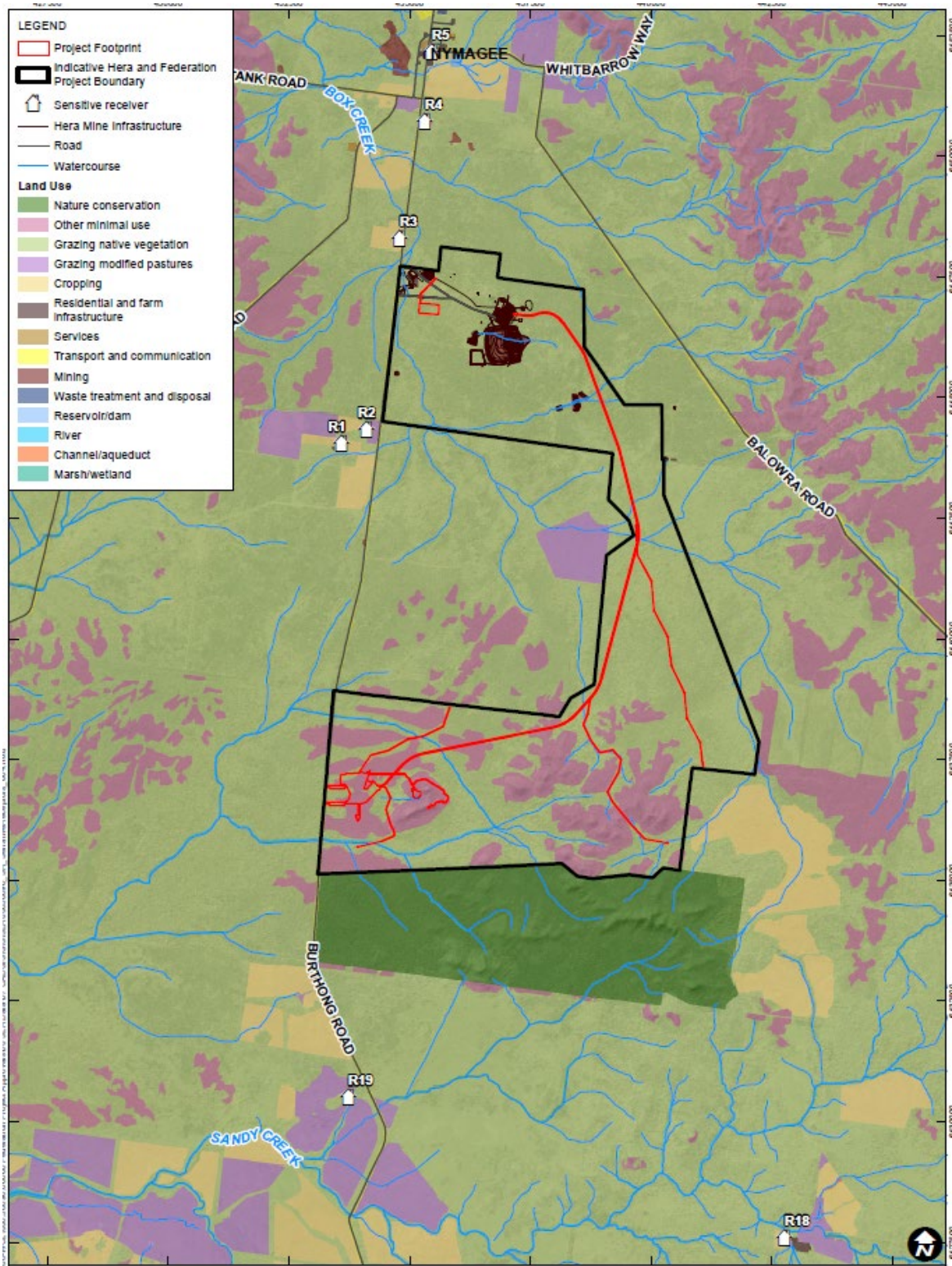
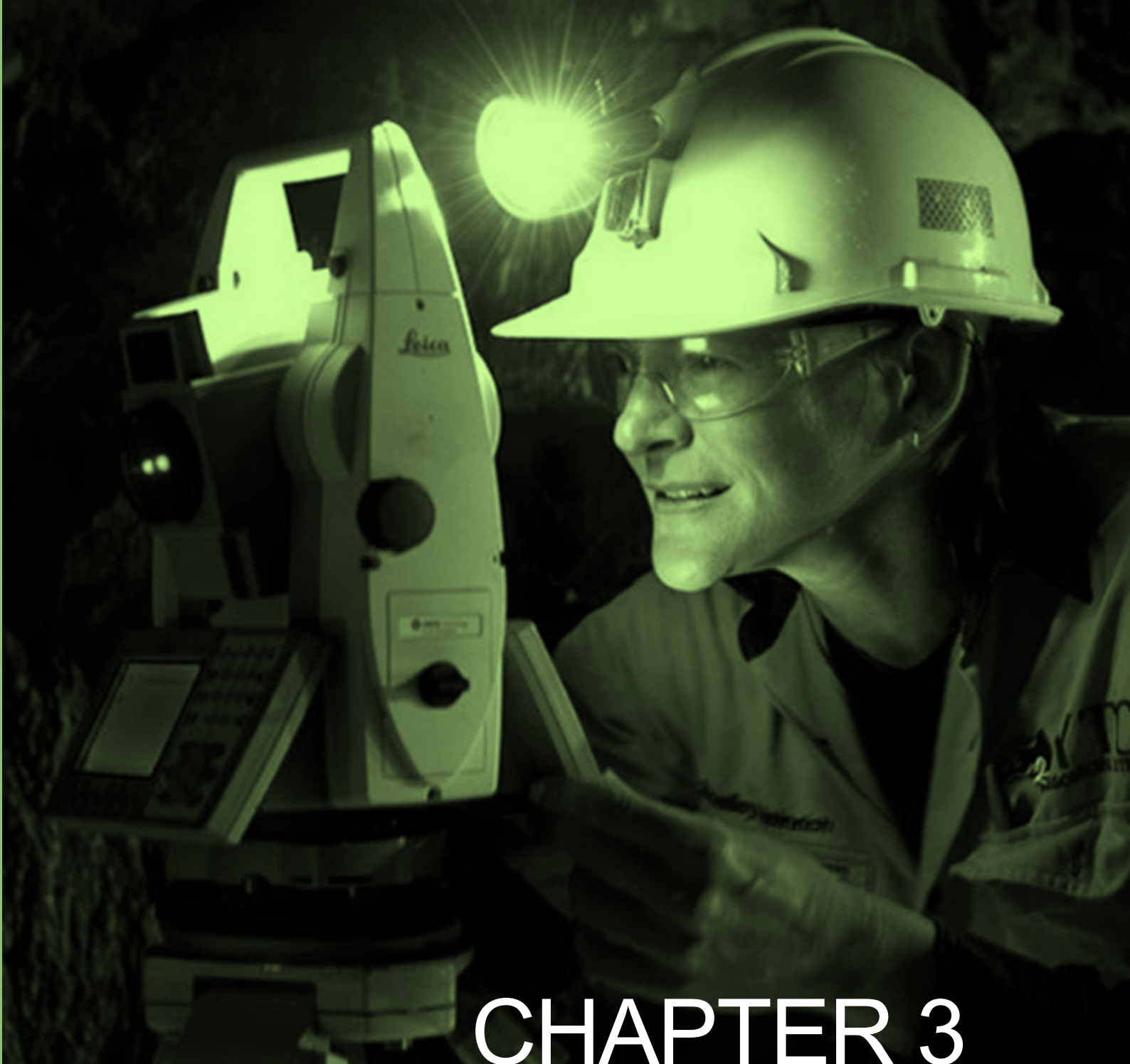


Figure 2.6 Sensitive receivers and land use



CHAPTER 3

METHODOLOGY

3 METHODOLOGY

In accordance with the SEARs, the methods described below enabled the collection of data to address the social impact categories defined in the Guideline (refer Appendix A). Whilst this chapter describes the SIA methodology, it does not identify which social impact category each method is designed to address. This link is made clear in Chapter 6 and summarised in Table 6.1.

Following this chapter, the approach to the Project stakeholder engagement is outlined in Chapter 4, and the social baseline is outlined in Chapter 5. Predicted social impacts of the Project are assessed in Chapter 6 and positive impact enhancement, impact mitigation and residual impacts are part of the SIA conclusion in Chapter 7.

3.1 Scoping methodology (Phase 1)

The methods applied to scope the SIA are described below.

3.1.1 Scoping meeting with Project team and NSW DPIE

To conduct a thorough SIA scoping exercise, a meeting was held with the Federation Project team in February 2021. The meeting enabled:

- Discussion about the Project features, its interface with Hera Mine and surrounding population;
- Identification of potential positive and negative social impacts;
- Discussion and understanding of the Site and surrounding land uses;
- The social locality development and the potential for cumulative social impacts;
- Identification and analysis of stakeholders; and
- Identification and discussion of existing Project correspondence, including consultation and environmental/social performance records.

The same Project team met regularly during scoping to identify and discuss potential Project enhancements and refinements in response to predicted social impacts.

A scoping meeting was also held with DPIE representatives in mid-May 2021. The Project team presented a Project overview to DPIE representatives and discussed preliminary social locality considerations.

3.1.2 Literature review

Literature was reviewed to scope potential social impacts predicted to arise from major projects in development near the Project. Being two such projects, environmental assessments of the New Cobar Complex (EMM, 2019) and the Cobar Biohub (AECOM, 2018) were reviewed. Both would require separate workforces, so the potential for cumulative impact was considered.

Public and internal documentation associated with the Hera Mine was also reviewed for background information and the scoping of social impacts. For example, the latest minutes of the Hera Mine Community Consultative Committee (CCC) were reviewed.

3.1.3 Scoping tool

Scoping of the SIA was undertaken prior to July 2021 when the Guideline was released. Subsequently, a version of the scoping tool in use prior to the current Guideline was adopted to scope the SIA. The process involved:

1. Using early engagement results as inputs to the scoping tool, considering each social impact matter in the Guideline and predicting how likely it would be that the Project would impact it (note that characteristics of potential impacts including extent, duration, severity and sensitivity were considered at this initial step and recorded in the scoping tool, reproduced in Appendix B)
2. For each matter, considering and assessing the material characteristics of any likely impact;
3. For each matter, considering stakeholder/community opinions and sentiment towards the Project;
4. For each matter, determining whether a social impact will arise from the Project, and then developing a rationale for the decision;
5. For each matter, determining the level of assessment (and engagement) required in the Phase 1 SIA, and selecting from the following list the most appropriate SIA type:
 - Desktop – another specialist study or section of the EIS will provide the information and analysis needed to predict, evaluate and develop a response to the social impact, including relevant primary and secondary research, qualitative and quantitative data and appropriate engagement with potentially affected people, to establish a baseline and support predictions. If this is the case, the SIA component of the EIS only needs to review the data and findings from the other sources through a SIA lens and cross-reference and integrate them into the overall social baseline and assessment.
 - Standard – most information and analysis needed to predict, evaluate and develop a response to the social impact will be provided by another specialist study or section of the EIS, but it will need to be supplemented with further evidence gathering and analysis to fill any gaps to obtain a complete picture from a SIA perspective.
 - Comprehensive – only limited or no information and analysis will be provided by another specialist study or section of the EIS. If so, the author/s of the SIA component of the EIS will need to undertake the evidence gathering and analysis needed to predict, evaluate and develop a response to the social impact; and
6. Considering each matter and its associated level of assessment (determined by the scoping tool) in the context of the social impact categories in the draft 2017 version of the guideline.

In Phase 2 SIA, the scoping tool results were adapted to the current Guideline. The level of assessment for each social impact identified in the scoping phase is identified in Table 6.1.

3.1.4 Semi-structured interviews

Interviews were conducted in a semi-structured format using a list of predetermined questions. This format provided a flexible structure which allowed the interviewer to create and ask questions about situations as they emerged and the interviewee to digress and express views freely (Viela, 2018).

The work of Bradshaw and Stratford (2005) regarding qualitative research design and rigour was helpful in designing the semi-structured interview methodology. The authors provide guidance in relation to participant selection and sampling. Their work explains that in qualitative research, the number of people we interview, communities we observe, or texts we read, is less important than the quality of who or what we involve in our research, and how we conduct that research. Their work emphasises that ‘purposive’ sampling is typical in this type of research and that the sample is not intended to be representative given the emphasis is usually on the analysis of meanings. These principles were applied to the SIA interviews.

The implementation of the method involved:

1. Developing the pre-determined interview questions, designed to explore the social matters identified in the scoping tool;

2. Sending an interview invitation letter to the participant. The letter explained the purpose of the interview, the intention to record it, and provided some frequently asked questions. It explained that consent was required, and sought to obtain it in a “free, prior and informed” (Vanclay, 2015, p. 6) fashion;
3. Obtaining participant consent;
4. Arranging an interview date;
5. Conducting and recording the interview;
6. Drafting and conducting a qualitative analysis of the interview transcript; and
7. Extracting transcript content for use in the SIA.

The semi-structured interview method was also applied in Phase 2 of the SIA.

3.1.5 Community values survey

An online community values survey was conducted during the SIA Phase 1. The survey aimed to:

- Identify the demographic and contact details of the participants;
- Determine what participants valued about Nymagee and its surrounds; and
- Identify how participants felt about Hera Mine and the proposed Federation Project, both at the time of the survey and in the future.

The first attempt to recruit survey participants was first made via an email to the Hera Mine stakeholder database in April 2021. Further attempts to recruit participants were made via:

- Distribution of the online survey link to Community Information Session attendees (March 2021);
- Additional email invitation to the stakeholder database (August 2021); and
- Hardcopy distributions to the Nymagee Hotel and Nymagee Library.

3.1.6 Social locality development

A social locality is the geographical social footprint of a project, which is not exclusively contained in a project boundary. The Guideline explains that a ‘social locality’ does not have a prescribed meaning or refer to a fixed, pre-defined geographic boundary. This concept is further defined by Vanclay & Esteves (2011) who argue that relationships in and between scales will affect what people understand as impacts. This means that people may not perceive social impacts created by a project to be those felt exclusively in or immediately adjacent to the project boundary, or at a time when the site is operating. Instead, it is possible for impacts to be felt at locations outside the project boundary and at any time of day (particularly in the event of long-distance haulage routes or complex supply chains).

The above observations were adopted for the Project. Care was taken to determine the social locality comprising the area in the Project boundary, but also the areas external to the Project boundary where social impacts may arise. The development of the ASI considered factors including but not limited to:

- Supply chains;
- Transport of goods;
- Materials and equipment;
- Movement of workers (drive-in-drive-out/fly-in-fly-out working arrangements);
- Natural features and recreational values;
- Ancillary infrastructure; and
- Reputation of other industrial operations in the area.

Both primary and secondary data was collected and analysed in developing the social locality. Primary data, derived from discussions with the Project team, was reliable given the comprehensive knowledge of the area that the employees held. Secondary data in the form of the Hera Mine complaints register was used to further develop an understanding of the social locality. This data provided an insight into the frequency of issues the community has raised with Hera Resources in past years.

Results of the scoping activities which assisted the development of the social locality are in Table 2.1.

3.2 SIA methodology (Phase 2)

3.2.1 Existing social baseline

An analysis of the existing population was undertaken to establish the social baseline. Secondary data was obtained from the most reliable sources available, primarily being the 2016 Australian Census of Population and Housing (ABS, 2016). In the context of the Project, data was available at the Cobar LGA scale. It was selected for the baseline as it provided more adequate coverage of the social locality (i.e., the Urban Centre/Locality scale was too fine). Where available and relevant, comparative data at the NSW state and other levels were obtained and formed part of the baseline for comparison purposes.

A wide range of social indicators were considered prior to conducting the statistical analysis and developing the baseline. Social indicators were selected based on the three strategies in the CSP (Cobar Shire Council, 2013, refer Section 1.4.3). Being CSCs primary corporate community strategy developed with community input, it was logical to use complimentary indicators in the SIA baseline. Using the CSP as a guide to select the social indicators provided confidence that they represented the health and wellbeing values, and interests of the communities (Vanclay, 2015) surrounding the Project. Social indicators and their relevance to the CSP is outlined in Table 3.1.

Table 3.1 Relationship between the SIA baseline and the CSP

CSP strategy	Relevant baseline social indicator
Community	Indigenous population Multi-culturalism Place of birth Education
Economic	Employment Status of industry Income Education Socio-economic index
Infrastructure	Social infrastructure analysis (refer Section 5.3)

3.2.2 Existing social infrastructure

The *Spatial Services NSW Point of Interest* web service was searched to determine the existing social infrastructure near the Project. The web service allows users to search for and identify the location of features that people may want to see on a map, know about or visit. Point of Interest features are maintained within the Spatial Services Digital Topographic Database. The features are listed under the following categories:

- Community;
- Education;

- Medical;
- Recreation;
- Transportation;
- Utility;
- Hydrography;
- Physiography; and
- Place.

The categories (and the associated features) most relevant to the SIA were selected for display in the existing social infrastructure (see Figure 5.2).

3.2.3 Social impact assessment methods

A range of methods were selected for the SIA. Each method was adopted to address one or more of the matters determined by the Guideline scoping tool, to require further social impact investigations. The selection process involved:

1. Populating the scoping tool with the relevant information;
2. Determining the level of assessment prescribed by the scoping tool;
3. Selecting a method or a combination of methods to satisfy the level of assessment, bearing in mind:
 - a. The specific social impact category to which the assessment related;
 - b. The availability of existing data (if any) held by the Project team; and
 - c. Feasibility of the methods (e.g. time, cost, reliability).

The methods adopted for the study are outlined below. The social impact categories to which each method relates are identified in Chapter 6.

Ethnographic content analysis (media analysis)

Altheide's (1996) ethnographic content analysis (ECA) was selected and adapted as the method to assess impacted social matters identified during the scoping exercise.

ECA is a qualitative media analysis method used to obtain, categorise and analyse different media documents (such as newspapers and magazines) in addition to other forms of media delivered online and via television.

ECA is an approach which blends the "traditional notion of objective content analysis with participant observation to form ethnographic content analysis" (Altheide, 1996, p. 2). It is, therefore, unlike the traditional positivist and quantitative approach to media analysis which engages in a rigorous quantitative testing of phenomena against a template devoid of human interface (Guba & Lincoln, 2005).

Instead, ECA encourages the investigator to be reflexive and interactive, and it enables an element of ongoing discovery as progress is made towards the SIA research goal. In this way ECA enables documents to be "studied to understand culture or the process and the array of objects, symbols, and meanings that make up social reality shared by members of a society" (Altheide 1996, p.2).

The characteristics of ECA are clearly distinguished from those associated with quantitative approaches (QA) to media analysis (see Table 3.2 for a comparison). Unlike QA which is concerned with statistical reliability, Altheide (1996) suggests that the emphasis of ECA is fixed more so on research 'validity'.

Although itself a term commonly associated with statistical tests, validity in this sense refers instead to the degree of rigour in a research project, as determined by the interpretive community who check the research for credibility and good practice (Bradshaw & Stratford, 2005).

ECA is also dissimilar to QA in terms of researcher involvement. Each of the research phases in an ECA approach is very individualistic in the sense that the main investigator is ‘involved’ with the concepts, relevance and development of the protocol and the way in which items are collected for purposes of later analysis (Altheide, 1996). Furthermore, in contrast to QA, data for ECA is predominantly collected using a purposive or theoretical sampling technique and is not intended to provide a representative sample (refer Bradshaw and Stratford, 2005).

As shown in Table 3.2, ECA focuses on narrative data (in addition to numerical data that is more commonly associated with QA) and allows the researcher to make analytical commentary on this data. This approach not only involves the measurement of the frequency and extent of terms consistent with QA approaches, but it also enables the investigation of text meaning, and encourages the provision of descriptive information (Altheide, 1996).

The qualitative text analyst produces this descriptive information by repeatedly exploring the sampled texts and by noting the peculiarities contained in the sample (Roberts, 1997). It is through this process that the analytical concepts emerge and are applied to the text in ECA research. Roberts (1997) describes this as a key difference between QA and ECA; on the one hand “quantitative researchers specify their measures and their tests in advance...on the other hand, qualitative [ECA] researchers typically explore their data, applying one classification scheme after another, before settling on that scheme (or schemes) that in their view resonates best with their data” (Roberts 1997, p.2). Analysis, therefore, “takes place throughout the entire research process, a study is shaped and reshaped as a study proceeds, and data is gradually transformed into findings” (Watt, 2007, p. 95).

Table 3.2 A comparison of quantitative media analysis and ECA (source: Altheide 1996)

Characteristic	Quantitative approach to media analysis (QA)	Ethnographic approach to media analysis (ECA)
Emphasis	Reliability	Validity
Primary Researcher involvement	Data analysis and interpretation	All phases
Sample	Random or stratified	Purposive or theoretical
Type of data	Numbers	Numbers; narrative
Narrative description and comments	Seldom	Always
Concepts emerge during research	Seldom	Always
Data analysis	Statistical	Textual; statistical
Data presentation	Tables	Tables and text

Applying ECA to CSC business papers

CSC business papers were the source of information used for the ECA. The papers contain the agenda of CSC meetings and a discussion of matters that come before Council.

The most important element of the entire ECA exercise is the protocol (or a data collection sheet). It is “a way to ask questions of a document; a protocol is a list of questions, items, categories or variables that guide data collection from documents” (Altheide 1996, p.26). It is, therefore, an essential utility of ECA. The protocol itself consists of two tables, Table A and Table B, as shown in the example in Figure 3.1.

Table A has eight columns with the following headers and definitions:

1. Case number - a number sequentially allocated to each item in a business paper section being analysed (i.e. number ‘1’ was allocated to the first section analysed, number ‘2’ to the second and so on);
2. Search string – the word or phrase used to search for in the business paper, via the search function on the adobe or word document;
3. Publication - the title of the document which contained the business paper section. Each section analysed in this ECA exercise was sourced from the CSC business paper available on the CSC website;
4. Date of document - the production date of the document;
5. Section - the title of the business paper section;
6. Frame - a numeral, corresponding to a particular Frame in Table B which is allocated during the analysis of a business paper section;
7. Theme - a numeral, corresponding to a particular Theme in Table B which is allocated during the analysis of a business paper section; and
8. Discourse - a numeral, corresponding to a particular discourse in Table B which is allocated during the analysis of a business paper section.

A new record containing the above information was added to Table A each time a business paper section containing a narrative about the target social impact matter (identified during the scoping exercise and described in Chapter 6) was read.

TABLE A							
Case No.	Search string	Publication	Date of article	Section	Frame	Theme	Discourse
1	Aurelia, Hera, Peak, Federation	CSC Business paper	27/02/2014	Stock/Cattle Truck Wash Bay	1	1	1
2	Aurelia, Hera, Peak, Federation	CSC Business paper	28/08/2014	Budget items required to be carried over	1	1	1
3	Aurelia, Hera, Peak, Federation	CSC Business paper	28/08/2014	New Cobar water treatment plant – selection of site	1	2	2

TABLE B					
Frames		Themes		Discourses	
1	Community infrastructure need	1	Funding required for community infrastructure or social project	1	Peak Gold Mine is a possible donor and funding solution
2	Social project need	2	Property required for community infrastructure	2	Peak Gold Mine is a valued community partner
3	Community planning processes	3	Positive relationship with Council	3	Hera Resources in a funding partner

Figure 3.1 ECA protocol

The second table (Table B) contained in the protocol lists all the categories (frames, themes and discourses) that emerged from the business paper section. Table B is best understood as a 'lookup table' or a 'storage table' which holds the categories that are individually applied to business paper sections during analysis. The three columns in Table B (refer Figure 3.1) have the following headers and definitions:

1. Frames - “very broad thematic emphases or definitions of a report” or “a way of discussing the problem or the kind of discourse that will follow” (Altheide 1996, p.30);
2. Themes - “general meanings or even ‘mini frames for a report’” or “the recurring typical theses that run through a lot of reports” (Altheide 1996, p.30); and
3. Discourses - “a series of representations, practices and performances through which meanings are produced” (Johnston & Gregory, 2000, p. 178).

Each business paper section that mentioned or suggested an association to the target social impact category was analysed for its relevance to the Project. Using Table B, this objective was achieved by developing a frame, theme and discourse for each business paper section. As each section was read, the message it conveyed about the target social impact was considered, and the most appropriate frame, theme and discourse was allocated to it. Sections that did not contain content meeting the definitions of a frame, theme and discourse were disqualified from the ECA. The frames, themes and discourses were developed, defined in one or two sentences, and added to Table B as they emerged from reading each business paper. The categories were, therefore, ‘stored’ in Table B, and they were assigned a numerical code which was eventually copied into the corresponding cell in Table A.

Rather than being produced at the end of the collection and analysis of business paper sections, both tables which comprise the protocol are drawn up prior to commencement and entries are gradually and progressively added to it during the execution of ECA. Each time a pertinent business paper section containing a discourse relevant to the target social impact matter was read, a new record was added to Table A.

In addition, if no suitable categories (i.e. frames, themes or discourses) existed in Table B, then new categories were developed and added to that table. The information added to each new record in the protocol corresponds with details sourced from each individual business paper section. The protocol was, therefore, expanded as the newspaper sample was read.

There were ten key steps involved in carrying out the ECA method, and whilst being fundamental to the practice of ECA, the protocol is not utilised until step four. The following section will outline all ten steps and further illustrate the utility of the Protocol described above.

The ten steps of ECA

The implementation of ECA to CSC business papers involved carrying out ten of the key steps defined by Altheide (1996). Each of these ten steps is listed below, along with a description of how it was applied in the context of this SIA.

Step 1: pursue a specific problem and opportunities to be investigated.

The SIA scoping identified social matters that required assessment as part of the SIA. These assessments resemble the problems and opportunities that need to be investigated.

Step 2: become familiar with the process and context of the information source. Explore possible sources of information.

Given CSCs position as the local authority in Cobar shire and an organisation with many community interfaces, the CSC business papers are a unique source of social narratives. The business papers communicate the views held by society in respect to a range of social issues and they do so in a standardised process. This process involves the regular and frequent publication of council reports in a uniform format. Business papers are made available online and free of charge. For these reasons they were adopted for the ECA exercise.

Step 3: become familiar with several examples of relevant documents and select a unit of analysis.

Familiarity with individual business paper sections was gained via an downloading a business paper from the CSC website and using the search terms “Aurelia, Hera, Peak, and Federation”. The search used the ‘find’ function in the word or pdf documents. Any positive searches were read. The process enabled recognition of the layout of the business papers and some sections (e.g., monthly status reports) were not analysed on the basis they were repeated month to month and gave little value to the ECA.

A decision was made during the initial scoping about the ‘unit of analysis’ to be incorporated into the ECA exercise. A unit of analysis refers to the portion or segment (e.g., a particular page, an individual article, a certain paragraph) of relevant documents that will be subject to ECA.

It was decided that individual sections (including any heading and body text) that mentioned or suggested an association to the target social impact categories would be the unit of analysis. This decision was made “because it was clear from the content of the messages [contained in the business paper sections] that they could not be further reduced before analysis without losing valuable contextual information” (Markman & Simons, 2003, p. 16).

Step 4: list several categories (variables) to guide data collection and draft a protocol (data collection sheet).

Step 4 marked the phase where a protocol (or data collection sheet) was first introduced to the ECA exercise. Categories (i.e., frames, themes and discourses) that emerged from the business paper sections read during Step 3 were entered into a draft protocol (refer Figure 3.1) as they emerged.

Step 5: test the protocol by collecting data from several documents.

At Step 5 the additional business paper sections were collected to test the protocol. The same search terms used at Step 3 were adopted. During the collection and analysis activities there were additional frames, themes and discourses that emerged from the content of the business papers. An entry was created in the protocol for each relevant section, and the protocol expanded progressively as a consequence.

Step 6: revise the protocol and select several additional cases to further refine the protocol.

The protocol was revised when all business paper sections that mentioned or suggested an association to the target social impact category had been tentatively analysed. The revision involved checking the definitions of all categories to ensure that they were succinct and appropriate for the business paper sections that they represented. Modifications to inadequate categories listed in Table B of the protocol were made as needed. The modifications were made in one of four ways; categories were renamed, re-defined, split into two, or merged into one.

Step 7: arrive at a sampling rationale and strategy (e.g., theoretical, purposive, opportunistic, cluster or stratified).

Following the consideration of a range of sampling techniques, theoretical sampling was the technique adopted. Theoretical sampling involves “the selection of material based on emerging understanding of the topic under investigation” (Markman & Simons, 2003, p. 17). The theoretical sampling technique was adopted to identify and refine knowledge of narratives about positive social impacts related to Aurelia, Hera Mine, Peak Gold Mine or the Federation Project over time.

At Step 7, other sampling parameters were confirmed such as the publication date range. Business papers published monthly between January 2014 and July 2021 were considered for the ECA method. This date range was selected as it included all the business papers available on the CSC website at the time of the study.

Step 8: Collect data for the target social matter.

The search terms were applied and relevant business paper sections were collected in a sustained and diligent fashion until all business papers had been analysed.

As business paper sections were collected, they were added to the protocol following the procedure outlined earlier (i.e. a record of each business paper section was created in Table A of the protocol using its attribute details, and each business paper section was categorised with a frame, theme, and discourse in Table B).

At the completion of Step 8 the sample had been obtained, each business paper section in the sample had been subject to content analysis, and the results from these analyses had been recorded in the protocol. The results provided a means to understand the likely positive social impacts of the Project, via the discourses being circulated amongst the Cobar Shire community.

Step 9: consider the content analysis results shown in the 'discourse' column. Write summaries or overviews of the key findings.

The individual results were considered once every business paper section listed in Table A of the protocol had been analysed and the results had been entered into the 'discourse' column. Summaries were produced of each discourse and they were the key findings of the ECA exercise.

Step 10: integrate the findings including the discourse interpretations and key concepts into the SIA report.

The final step of the ECA involved collating the results contained in the protocol and the discourse summaries into the SIA report. Chapter 6 contains the results.

Hera Mine workforce survey

An online survey was used to investigate and identify the Hera Mine workforce usage of medical services in Cobar (this matter is nominated in Chapter 6). It also investigated service types and usage in other locations and workforce spend in the local community. The goal and value of this method is well suited to the SIA objectives, as described by (McLafferty, 2016, pp. 129-30):

"The goal of survey research is to acquire information about the characteristics, behaviours and attitudes of a population by administering a standardised questionnaire, or survey, to a sample of individuals. Surveys have been used to address a wide range of geographical issues, including perceptions of risk from natural hazards; social networks; environmental attitudes; travel patterns and behaviours; and access to employment.

...

Survey research is particularly useful for eliciting people's attitudes and opinions about social, political, and environmental issues such as neighbourhood quality of life, or environmental problems or risks".

The online survey was used because it is comparatively inexpensive, a survey invitation could be easily distributed to respondents via a web address provided via email and results could be obtained in real time.

Survey design

The survey was designed to investigate the demand placed on Cobar medical services by FIFO/DIDO Hera Mine employees and other matters referred to above. The design involved a series of closed, multiple-choice questions, and one open question, where respondents could openly express their opinion. The following guidelines for designing survey questions (McLafferty, 2016) were adopted:

- Keep it simple;

- Define terms clearly;
- Use the simplest possible wording; and
- Avoid:
 - Long, complex questions;
 - Two or more questions in one;
 - Jargon;
 - Biased or emotionally charged terms; and
 - Negative words.

Participants were invited to complete the survey from mid-July 2021. The survey was open indefinitely to give adequate opportunity for Hera Mine staff to provide their opinions outside the conventional working week.

Sampling

Purposive sampling was adopted for the online survey. The “purposive sampling technique, also called judgment sampling, is the deliberate choice of an informant due to the qualities the informant possesses. It is a non-random technique that does not need underlying theories or a set number of informants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience”. (Tongco, 2007).

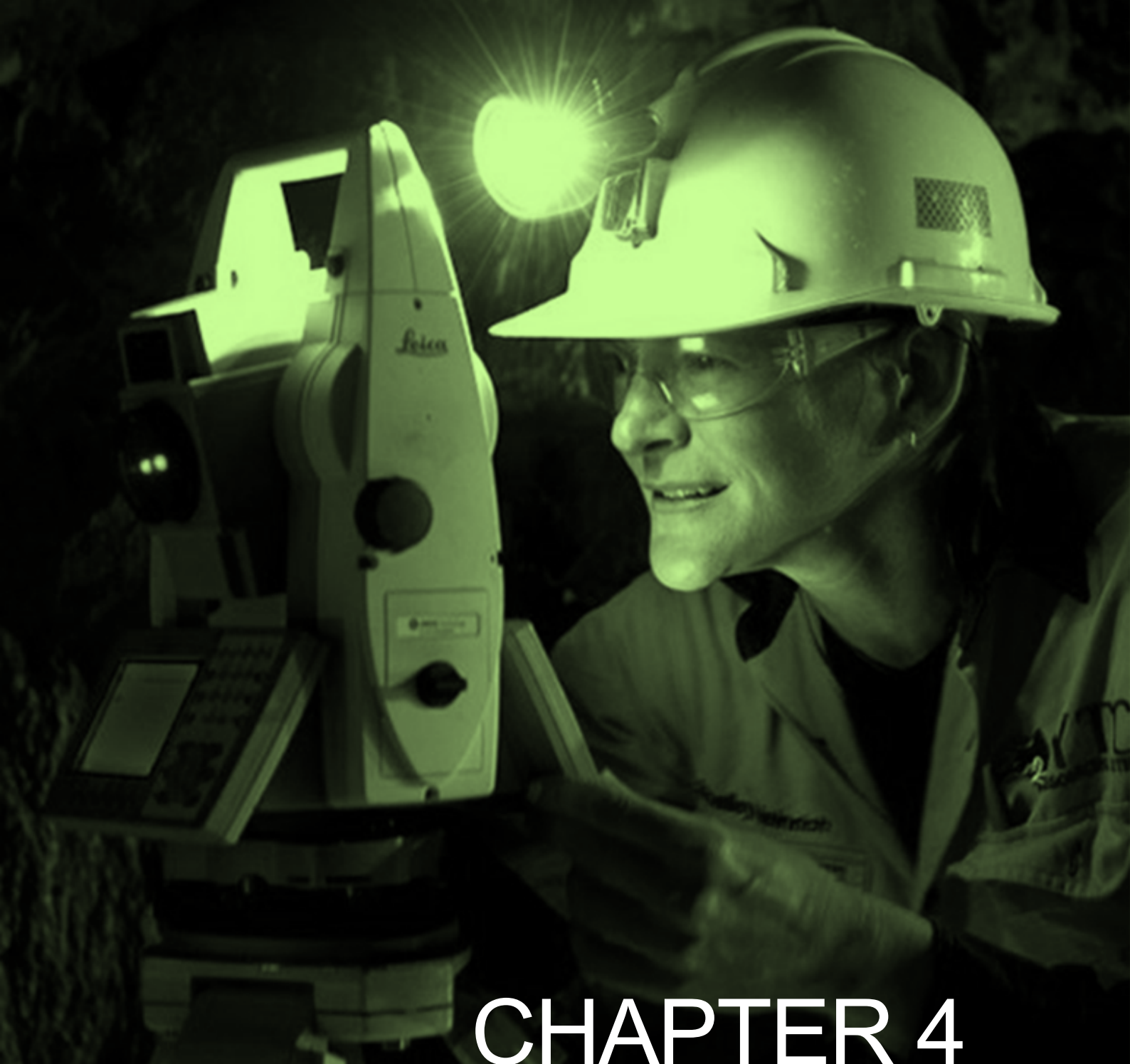
The aim of the survey was to obtain feedback from a specific population sub-group, that sub-group being the Hera Mine FIFO/DIDO staff. The purposive sampling technique was considered ideal to serve this aim.

3.2.4 Data limitations

A data limitation relates to the online community values survey. Despite the repeated invitations and participant recruitment attempts described in Section 3.1.5, only a small number of responses were obtained (this outcome is discussed further in Chapter 6). This could be interpreted as a limitation or an indication of the level of interest in the community in relation to the survey.

Strong survey participation was preferred and would have provided additional data for use in the SIA. The same can be said for the participation in the second community information session, this is described further in the next chapter.

An additional data limitation relates to COVID-19 restrictions which made teleconferencing the only feasible means for conducting the semi-structured interviews during the SIA Phase 2. Although adequate data was obtained, there is a possibility that face-to-face interviews may have yielded more thorough feedback about the Project from participants.



CHAPTER 4

SIA STAKEHOLDER
ENGAGEMENT

4 STAKEHOLDER ENGAGEMENT

4.1 Stakeholder identification

A stakeholder is a group, individual or organisation that is interested in, affected by, or has the capacity to influence a project (Brereton, 2005). Figure 4.1 contains a general list of people and organisations that are likely to be stakeholders in most projects. This list was valuable for providing a starting point for the Project stakeholder analysis. There will, however, always be locally-specific groups and circumstances that influence the local cultural context (Vanclay, 2015).

The locally-specific stakeholders are known to Hera Resources courtesy of their long-term local presence and relationships derived from Hera Mine and Peak Gold Mine. As part of scoping the SIA, a high-level stakeholder analysis was undertaken first by leveraging the knowledge held by Hera Resources staff in attendance at the scoping meeting.

Following the meeting, a desktop analysis of information provided by the Project team and online sources was completed to identify other stakeholders potentially interested in the Project. Semi-structured interview participants also nominated some Project stakeholders known to them. The Project stakeholder list is in the stakeholder analysis (see section 4.3).

Residents	• In the affected area • Immediate neighbours
People in host communities	• Those that relocate as a result of a planned resettlement or through their own migration • People in communities near construction workers or other immigrants will be located
Other communities	• More distant residents whose livelihoods may be affected as a result of the project • Communities near associated works such as irrigation channels, quarries, roads, railways and transmission line corridors
Project employees	• Construction workers and their families
Indigenous people	• Non-resident Indigenous or other land-connected peoples who may have spiritual attachment to the land/river
Non-government organisations (NGOs)	• Local, national and international NGOs (e.g., conservationists) interested in ecological or heritage values that may be influenced by a project
Other stakeholders	• Developer and associated contractors, regulatory agencies, local regional and national governments, funding or development agencies

Figure 4.1 Stakeholders likely to be involved with extractive industry projects

Source: Vanclay (2015)

4.2 Stakeholder engagement methods

4.2.1 Community hotline and email address

The community hotline and email address were established for the EIS and provided a means for stakeholders to contact the Project team. The SIA contacts were included in all communications distributed for the Project and they are listed on its dedicated webpage (see below).

It was acknowledged in SIA phase 1 that not all Project stakeholders (including two vulnerable residents identified by Hera Resources staff and semi-structured interview participants) may not have access to an internet connection and/or a device to access internet services. For these stakeholders other communication methods outlined below were adopted. The vulnerable residents were contacted and provided Project information via their known contacts.

4.2.2 Project website

The Project webpage (<https://www.aureliametals.com/projects/federation/federation-project>) was established at the start of the SIA Phase 1 and updated as the Project progressed through the EIS. The webpage is the main source of information for the Project.

Information on the webpage includes a Project description, a design animation, community consultation details, a link to the online community values survey and Site layout maps.

SIA contact details are provided on the webpage and community feedback is invited.

4.2.3 Email campaign

Three email messages to the Project stakeholder database were sent throughout the course of the SIA. The messages were used to distribute communications such as the EIS community updates and details of community information sessions. Links to the Project webpage and online surveys were also distributed via these email messages. SIA contact details were included in each email.

4.2.4 Community information sessions

Prior to the start of the SIA, Hera Resources held a community information session in December 2020 at the Nymagee Community Hall. The session was designed to provide information about and discuss:

- Modification 6 to Hera Resources Project Approval;
- Hera Mine accommodation village expansion; and
- Preliminary details of the Project.

Around 16 people attended the session. Hera Resources received questions about current operations at Hera Mine, planned exploration and planning that was underway for the Project. The community was generally very supportive of Hera Mine and Aurelia. There were some general questions raised about traffic, noise and water (not dissimilar to those reflected in the SIA). Some of the questions raised at this session related to future operations at Hera Mine and the Project. Some of the Project related questions were unable to be answered given the Project was in its infancy.

During the SIA, community information sessions were held during March 2021 (SIA Phase 1), in September 2021 (SIA Phase 2) and October 2021. The first session was held in Nymagee Community Hall and attracted approximately 20 stakeholders. The second and third sessions

were held via teleconference due to COVID-19 restrictions. Seven stakeholders registered for the online sessions however only three stakeholders participated in them. Subsequent unsuccessful attempts were made to reschedule a session for the individuals that originally registered but did not attend.

The sessions provided an opportunity for stakeholders to meet the Project team, provide feedback, and raise any queries or issues. Issues raised in the first session were used as inputs to the scoping tool.

In addition to sending invitations to the sessions via email blast, advertisements for the sessions were placed in the *Cobar Weekly* and *Nyngan Observer* newspapers for two consecutive weeks in the lead up to the respective sessions. The advertisement for the SIA Phase 2 session offered an alternate means for the session, for those people that did not have access to an internet connection.

4.2.5 Project newsletters

Two Project newsletters were distributed to the stakeholder database during the SIA. They provided the community with EIS progress updates, links to surveys and the Project website, details about the community information sessions and Project contact details.

Project newsletters were distributed via email and hard copies were also placed at local venues in Nymagee.

4.3 Stakeholder analysis

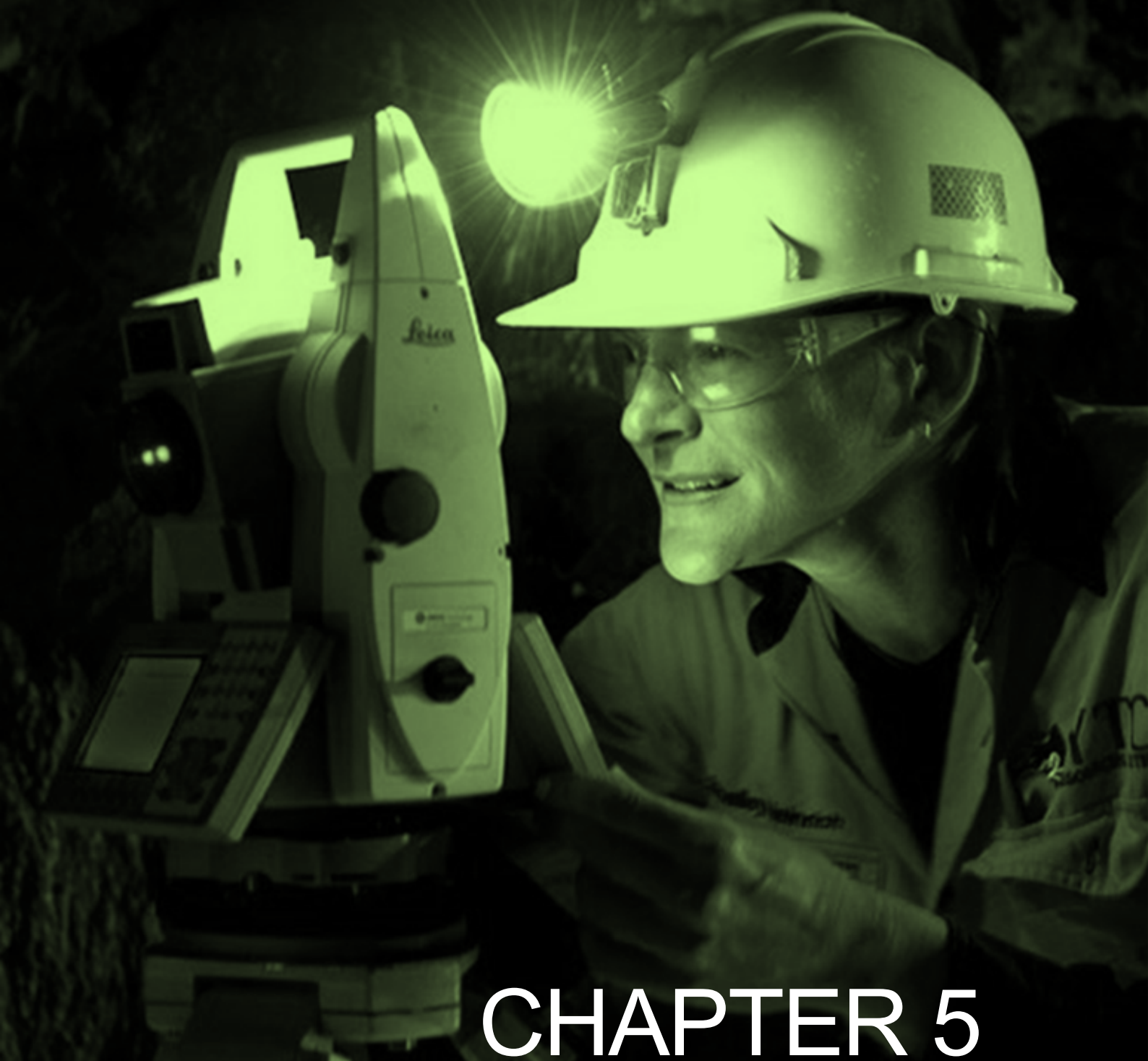
Results of the Project stakeholder analysis conducted in SIA Phase 1 are in Table 4.1. The issues of interest and engagement tools catering for each stakeholder group is shown. The predicted level of involvement and interest is also show for each stakeholder group.

Table 4.1 Stakeholder analysis

Stakeholders	Issues of interest	Engagement tools implemented	Level of involvement/engagement	Level of interest
Road users - Main roads proposed for haulage (e.g., Burthong Road) or local / state roads used by Project staff/suppliers - Pedestrians - Cyclists - Livestock	- Road safety - Travel delays from increased traffic - Pavement condition	- Community hotline and email address - Project website - Community information sessions - Online survey	Inform/consult	High
Government authorities - DPIE – Major Projects - Crown Lands - Environment Protection Authority (EPA) - Heritage NSW – Aboriginal Culture - CSC - Bogan Shire Council - Transport for NSW (TfNSW) - DPIE Water - DPIE Resource Regulator (RR) - Mining Exploration and Geoscience - DPIE RR – Rehabilitation and Security Panel (RASP)	- Local road and traffic impacts - Community investments - Community complaints - Managing local business disruptions - Groundwater impacts - Biodiversity	- Meetings with representatives of the relevant Government departments - Community hotline and email address - Project website	Inform Consult Involve Collaborate Empower	Moderate

Stakeholders	Issues of interest	Engagement tools implemented	Level of involvement/engagement	Level of interest
- Biodiversity Conservation & Science (BCS) - Department of Agriculture, Water and Environment				
Emergency services - Police - Fire Brigade - Ambulance - State Emergency Services - Rural Fire Services	- Traffic and road impacts (access to site and traffic volumes) - Injuries to the public or staff - Service capacity	- Community hotline and email address - Project website - Project updates	Inform/consult	Low
Utility providers Ausgrid	- Service disruption - Business reputations	- Community hotline and email address - Project website - Project updates	Inform/consult	Low
Property owners and residents - Nymagee - Residents along haulage routes - Vulnerable elderly residents - Financially vulnerable residents	- Local road and traffic impacts (including potential cumulative impacts) - Road user safety - Construction impacts (noise, dust, vibration, land clearing and biodiversity, privacy) - Delivery and storage of supplies and equipment - Long-term operational impacts (traffic volumes and condition of local roads, noise, dust, and groundwater) - Compliance with planning approval - Project staff behaviour	- Community hotline and email address - Project website - Email campaign - Project updates - Interviews with stakeholders and property owners - Community information sessions - Online survey	Inform Consult Involve Collaborate Empower	High

Stakeholders	Issues of interest	Engagement tools implemented	Level of involvement/engagement	Level of interest
	Visual amenity			
Local businesses - Nicholson's of Nymagee - Four Corners Farm Stay - Nymagee Metropolitan Hotel - Pybar - Kenmore Station - Wimagee Station	- Business/operational disruptions - Revenue - Access for deliveries - Local road and traffic impacts (delays, diversions). - Operational environmental impacts (e.g., noise, dust, vibration) - Contract opportunities	- Community hotline and email address - Project website - Email campaign - Project updates - Interviews with stakeholders and property owners - Community information sessions - Online survey	Inform Consult Involve Collaborate Empower	High
Aboriginal organisations and stakeholders - Elaine Ohlsen (Native Title Claimant) - Cobar Local Area Land Council - Ngiyampaa Nation representatives - Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan Native Title Claimants - Mark Saddler Cultural Awareness, School & Tour Programs, Bundyi Cultural Tours, Cultural Awareness	- Cultural heritage disturbance - Interference with traditional land - Employment for Indigenous people	- Community hotline and email address - Project website - Email campaign - Project updates - Interviews with stakeholders and property owners - Community information sessions - Online survey - Aboriginal Focus Group Meetings (AFGMs)	Inform/consult	Moderate
Media - Cobar Weekly - Nyngan Observer	Any issues of community concern	- Community hotline and email address - Project website - Project updates - Community information sessions	Inform	Low



CHAPTER 5

EXISTING SOCIAL BASELINE

5 EXISTING SOCIAL BASELINE

This chapter contains the social baseline developed for the Project. The baseline is the nominated set of social indicators for communities potentially affected by the Project. It provides a point of comparison; it can be used as reference data against which to measure the impacts of the Project as it develops, and/or to determine the adequacy or otherwise of existing facilities (Vanclay, 2015).

Refer to Section 3.2.1 for the methodology used to develop the baseline and Chapter 2 for the regional context of the baseline. As described in Section 3.2.1, the Cobar LGA is the primary scale used for the baseline in this Chapter. Other scales adopted below are identified in each case.

The first section of this chapter provides the local Nymagee suburb context. The second section provides the baseline for the Project.

5.1 Local context - Nymagee

Nymagee is a small regional town in NSW, within the Cobar LGA. It was shown in the 2016 Census (at the State Suburb scale) to support a population of approximately 100 people. Nymagee is located approximately 618 km north west of Sydney, 130 km south west of Nyngan, 98 km south-east of Cobar and 15 km north of the Site. Nymagee falls within the Shire of Cobar, the State government area of Barwon and the Federal government area of Parkes.

Nymagee township is located at the intersection of Milford Street and Hartwood Street. The town contains a police station, sports oval, community hall and library and Rural Fire Service station. Nymagee airport is located approximately 1 km to the north-west, and the racecourse is located on Rosevale Road on the northern outskirts of the town. The area is dominated by agricultural land uses and native semi-arid woodland.

The Project falls within the Cobar Peneplain Bioregion (OEH, 2014) and is characterised by native vegetation that is subject to grazing and contains several non-perennial watercourses and tributaries. The Project is located at an elevation of approximately 320 m above sea level (AMSL). Topography rises gradually in an easterly direction and contains a prominent peak (380 m AMSL) immediately east of the Project.

The Project's western boundary abuts Burthong Road and shares the southern boundary with the Balowra State Conservation Area.

5.1.1 Population

Community snapshot

Nymagee is a town within the Cobar LGA and has a small population of approximately 100 people at the State Suburb scale (ABS, 2016), of which 54% were male and 46% were female. The median age is 48 years and the number of people per household was 2.3.

Population projections

To understand population projections for Nymagee suburb, the 2019 population projections produced by the NSW DPIE (2021) for Cobar LGA is used below to determine the trend. Figure 5.1 shows that the population of the Cobar LGA is expected to decrease over the period 2016 – 2041. To extrapolate for the Nymagee State Suburb, the population of this area is likely to remain constant or decrease in line with the data for Cobar LGA.

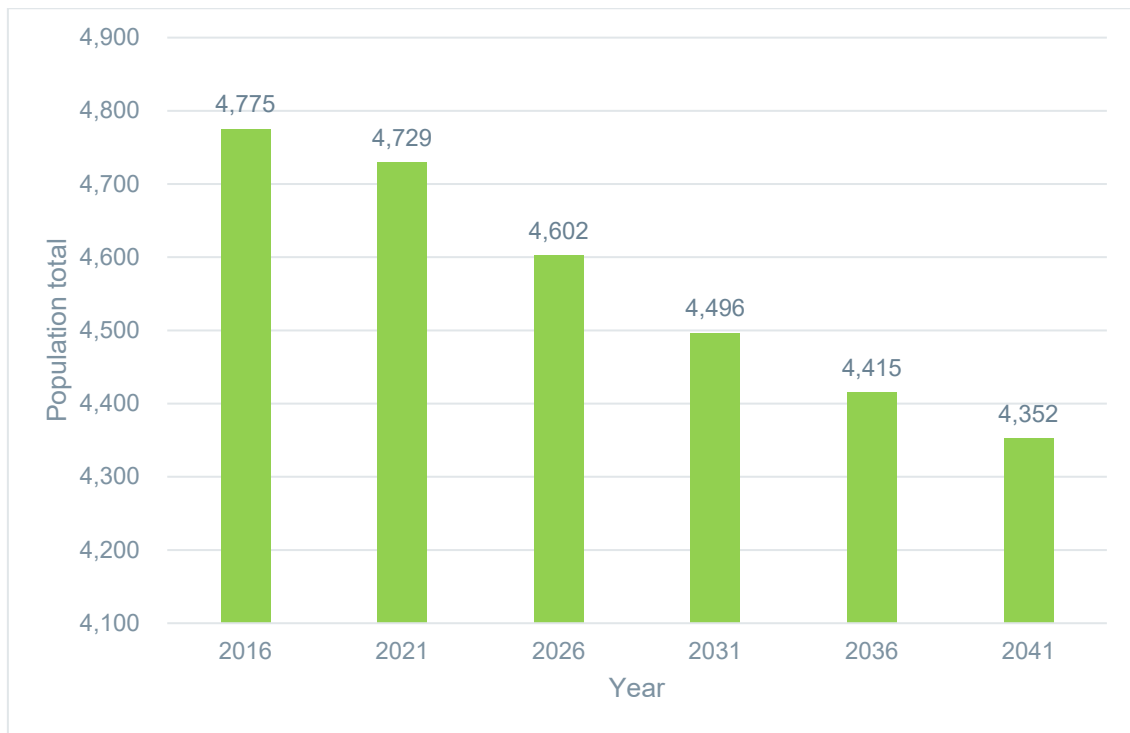


Figure 5.1 Graph showing projected population totals for Cobar LGA

The trend of declining population in the Cobar LGA contrasts the trends for NSW which are projected to increase by 36.7% by 2041 (NSW DPIE, 2021). The birth rate across Western NSW Local Health District (LHD) of 2.11 is above the Australian replacement rate of 2.10 (respectively (NSW Health, 2020) and as such the declining population is likely primarily a result of migration out of the regional area (Kanaris, 2021). This migration could be influenced by people seeking education or work opportunities not readily available in regional communities and enhanced access to community, social and health services (Dickinson & Evans, 2021).

The Total Fertility Rate (TFR), or the average number of children a female would bear during her lifetime for the years 2017 to 2019 for Western NSW were 1.66, 1.62 and 1.59

The SIA community engagement results conveyed that a declining population is a concern of some residents in the Nymagee suburb. The concern relates to the profitability of local businesses, provision of social services (i.e., ability to attract and retain suitable professional staff) and the sustainability of social infrastructure and community organisations. One interview participant observed a dwindling number of school children in Cobar schools:

“Our kids are high-school and primary school aged kids. The numbers in the high-school and primary school are going down and down and down”. (Nymagee resident and business owner).

Indigenous populations

The Ngiyampaa people traditionally occupy the area towards the centre of the Cobar Penneplain Bioregion to the south-west of Cobar. Ngiyampaa people also group themselves according to their home country so that the Pilaarrkiyalu (Belah Tree People), Nhiilyikiyalu (Nelia Tree People) and Karulkiyalu (Stone Country People) all occupy different areas of the Ngiyampaa language group within and around the bioregion (DPIE, 2021).

According to the 2016 Census data, the Aboriginal and Torres strait islander population of the Nymagee State Suburb is small at 16 people (ABS, 2016).

Place of birth

91 of the Nymagee State Suburb residents' parents were born in Australia, with 9 community members not providing this detail and only 3 acknowledging that their mothers had been born in England (ABS, 2016).

Multi-culturalism

During the peak copper mining period in Nymagee, the town supported a population of approximately 2200, half of which were Chinese. However, when the mine closed in 1917, most of these residents moved out (CSC 2021).

With reference to the 2016 census, the community's ancestry could generally be divided into Australian, English, Irish and Scottish heritage. The community does contain French, German and Welsh heritage, but in smaller numbers (ABS, 2016).

5.2 Social baseline – Cobar LGA

5.2.1 Population

The 2016 census shows Cobar Shire having a resident population of 4,969, which was reduced from 2006. The 2016 census outlined the following population statistics of Cobar Shire:

- 51.5% males and 48.5% females with a median age of 36 years;
- 62% are aged between 18 and 64 years;
- 36% of residents are currently renting;
- There were 2,313 dwellings in the Shire; and
- 46% of the population was earning an average weekly household income of \$1,000 per week or more.

According to the ABS (2016), Cobar's population has been reasonably steady for the past ten years (Cobar Shire Council, 2013). However, anecdotal evidence derived from consultation with residents suggests that the population of Cobar is in decline and school student numbers have similarly reduced annually in recent years.

5.2.2 Socio-economic characteristics

The socio-economic characteristics of Cobar are in Table 5.1.

Table 5.1 Cobar socio-economic characteristics

Characteristic	Description
Lifestyle	Cobar is friendly and welcoming. It offers a range of cultural and sporting activities for residents. The town boasts excellent sporting facilities including a golf course, bowling clubs, Olympic swimming pool complex and skate park. It has a Youth and Fitness Centre including squash courts, gym, sauna, basketball stadium, dance area and drop-in centre. There are regular market days in town. The Arts Council supports a strong cultural community program.
Housing	Cobar has a range of housing options. The average cost to rent a house is \$270 per week while the median sale price to buy is \$300,000 for a four-bedroom home. Cobar also has well-established commercial and industrial sectors with serviced blocks available.
Employment	Cobar's main industries are agriculture and mining. There is a strong industrial network in Cobar including tradespeople, equipment hire and labour force. The health and government sector also offers strong employment in Cobar, including administration personnel and professionals.

Characteristic	Description
Education	There are several education providers in Cobar ranging from early childhood to further education for adults. St John's Catholic Primary School is run through Catholic Education while the Cobar Public School and Cobar High School offer government education. There are many options for parents of young children including the Far West Family Day Care, Kubby House Child Care Centre, Cobar Preschool and Ngalli Preschool. After-school care is available through Cobar Outside of School Hours (COOSH) and the local TAFE campus offers a range of subjects.
Services	Cobar Community Health Centre operates five days a week offering services including mental health and child health support. Cobar Primary Health Care Centre operates with a minimum of three general practitioners and a wide range of allied health care professionals, including a private doctor's practice. There is an excellent range of allied health services including radiography, podiatry, mental health services, specialist eye care and physiotherapy. Cobar District Hospital is a 29-bed acute care hospital with emergency department.
Events	Cobar is host to a wide range of events during the year including the Miners Rescue Challenge, Cobar Races, Festival of the Miners Ghost, Grey Mardi Gras, Cobar Show, Australia Day celebrations, Christmas parade and annual Seniors and Youth Week events. Local activities include: ▪ Cobar Heritage Walk ▪ Cobar Miner's Heritage Park ▪ Fort Bourke Hill Lookout and New Cobar Open Cut Gold Mine ▪ Mt Grenfell Historic Site and National Park ▪ The Great Cobar Heritage Centre ▪ The Old Reservoir and Devil's Rock.

Source: Regional Development Australia Orana (2021)

5.2.3 Employment and industry

Mining (32%) is overwhelmingly the top industry of employment in the Cobar LGA. In 2016 the Agriculture, Forestry and Fishing industry was the second largest employment industry, accounting for 12% of employment in the LGA.

According to 2016 ABS data, the unemployment rate (looking for work) in the Cobar LGA which includes the township of Nymagee is 6.9% and total rate of people not in the labour force is 11.9% (ABS, 2016). The NSW unemployment rate during the 2016 census was also 6.9% and 11% of the population above the age of 15 were not active in the workforce.

Through consultation conducted during the scoping study, it was determined that some residents of the Nymagee suburb are directly employed by the existing Hera Mine.

5.2.4 Income

The median weekly personal income for people aged 15 years and over in Cobar LGA was \$706 (ABS, 2016). This data is broken down further in Table 5.2.

The NSW median weekly earnings are lower compared with the Cobar LGA population (ABS, 2021). Table 5.2 shows this is true for individuals, families and households. These measurements are likely associated with mining which is the largest employer in the Cobar LGA (Dickinson & Evans, 2021).

Table 5.2 Weekly income

Median weekly income of people aged 15+ years	Cobar LGA	NSW
Personal	\$706	\$664
Family	\$1,923	\$1,780

Median weekly income of people aged 15+ years	Cobar LGA	NSW
Household	\$1,495	\$1,486

5.2.5 Education

Of the people aged 15 years and over in Cobar LGA, 10.4% reported having completed Year 12 as their highest level of educational attainment, 20.8% had completed a Certificate III or IV and 4.8% had completed an Advanced Diploma or Diploma.

Table 5.3 Level of highest educational attainment

Level of highest educational attainment people aged 15+ years	Cobar (A)	%	New South Wales	%
Bachelor Degree level and above	325	9.0	1,424,716	23.4
Advanced Diploma and Diploma level	175	4.8	543,142	8.9
Certificate level IV	100	2.8	167,947	2.8
Certificate level III	650	18.0	730,498	12.0
Year 12	377	10.4	930,654	15.3
Year 11	171	4.7	203,574	3.3
Year 10	639	17.7	702,178	11.5
Certificate level II	5	0.1	4,849	0.1
Certificate level I	0	0.0	625	0.0
Year 9 or below	452	12.5	513,209	8.4
No educational attainment	13	0.4	54,870	0.9
Not stated	639	17.7	627,465	10.3

5.2.6 Socio-economic index

Socio Economic Indexes for Areas (SEIFA) is a suite of indexes that have been created by the ABS from social and economic Census information (ABS, 2016). Each index ranks geographic areas across Australia in terms of their relative socio-economic advantage and disadvantage.

The Index of Relative Socioeconomic Disadvantage (IRSD) is a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within the Cobar Shire. This index includes only measures of relative disadvantage; a low SEIFA score indicates relatively greater disadvantage in general. For example, an area could have a low score if there are (among other things) many households with low income, many people with no qualifications, or many people in low skill occupations. Conversely, a high SEIFA score indicates a relative lack of disadvantage in general.

The SEIFA score for Nymagee in 2016 was 922 (Table 5.4), which ranks in the first quintile and can be described as a relatively disadvantaged area when considering access to material and social resources and the ability to participate in society.

Table 5.4 The Index of Relative Socioeconomic Disadvantage (IRSD)

IRSD	Nymagee
Score	922
Quintile	1
Percentile	19

5.3 Existing social infrastructure

Social infrastructure refers to facilities and services that enhance the social capacity of communities and may include infrastructure related to health, housing, youth, aged care, leisure, community safety facilities and road safety (Franks, 2012).

The social infrastructure in the social locality will provide a reference point against which social impacts may be measured if the Project proceeds. Such impacts can take the form of a decrease in the quantity, diversity, or capacity of the existing social infrastructure, courtesy of demand from an expanded workforce and their relatives relocating to an area.

Conversely, an influx of staff and their families, or changes to the footprint of a project may stimulate new social attributes of the communities, bolster organisational capacities and contribute to the supply of services.

The following key social infrastructure was identified, which underpin the social wellbeing of the population:

- Nymagee Racecourse;
- Nymagee Hotel;
- Brigade Station;
- Nymagee Police Station; and
- Nymagee Park.

The locations of social infrastructure are shown in Figure 5.2.

5.4 Community values

Despite a low number of community values survey participants (n=3), one participant indicated that mining was a positive feature of the social locality, being a key driver of socio-economic well-being.

A second response implied that environmental attributes of the social locality are a strongly held value. Watercourses and groundwater were highlighted as being important to people around the Project.

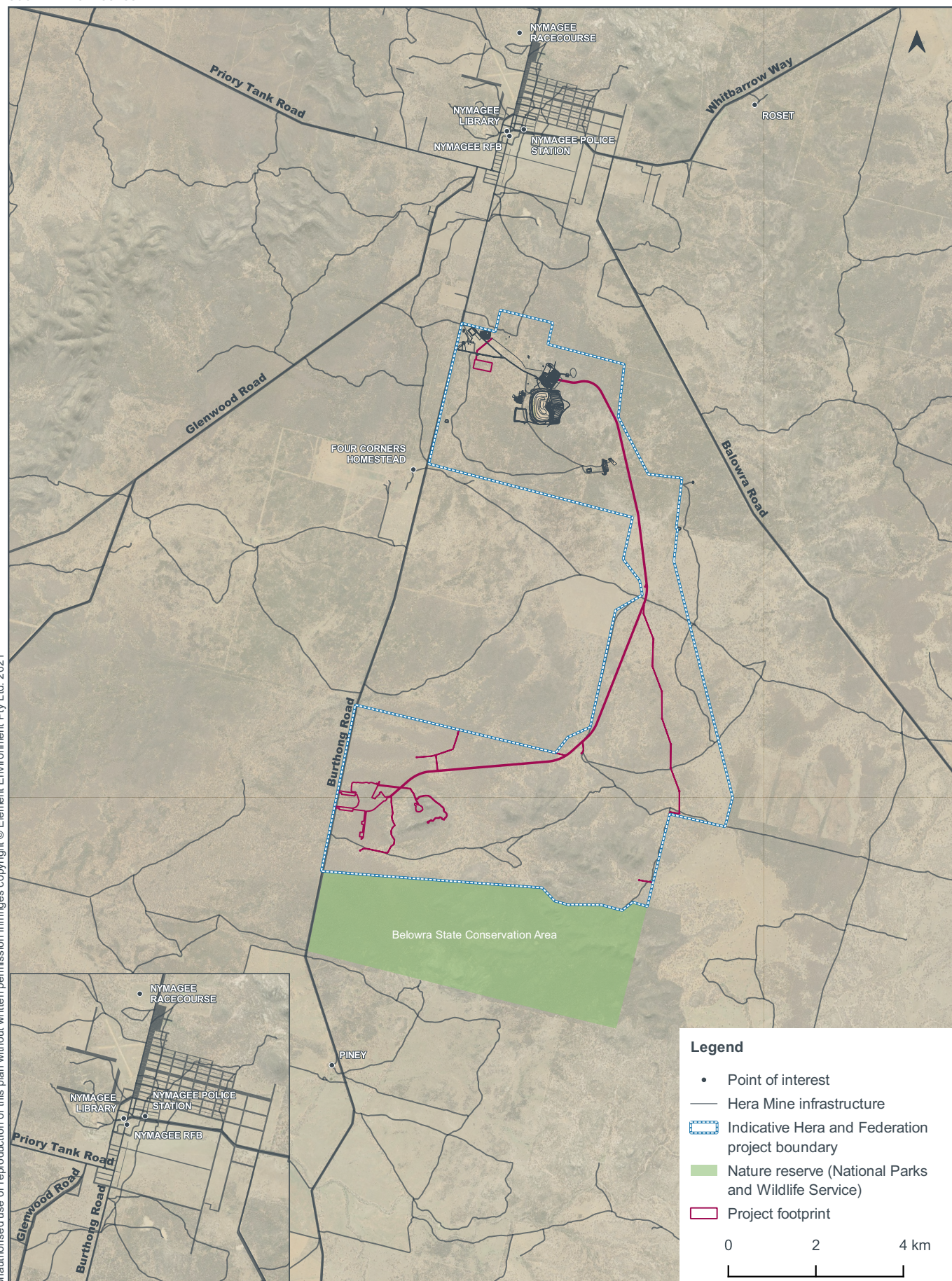
In addition, one participant lamented the decline of the population since the foundation of Nymagee, coinciding with the start of mining in the area. The survey response implied that mining attracts population and business to the area and that this is a positive value in the community. Conversely, the survey response could be implying that resident workforces (a feature of historic mines) are more valued than non-resident workforces which are more synonymous with modern day mines in the Cobar LGA.

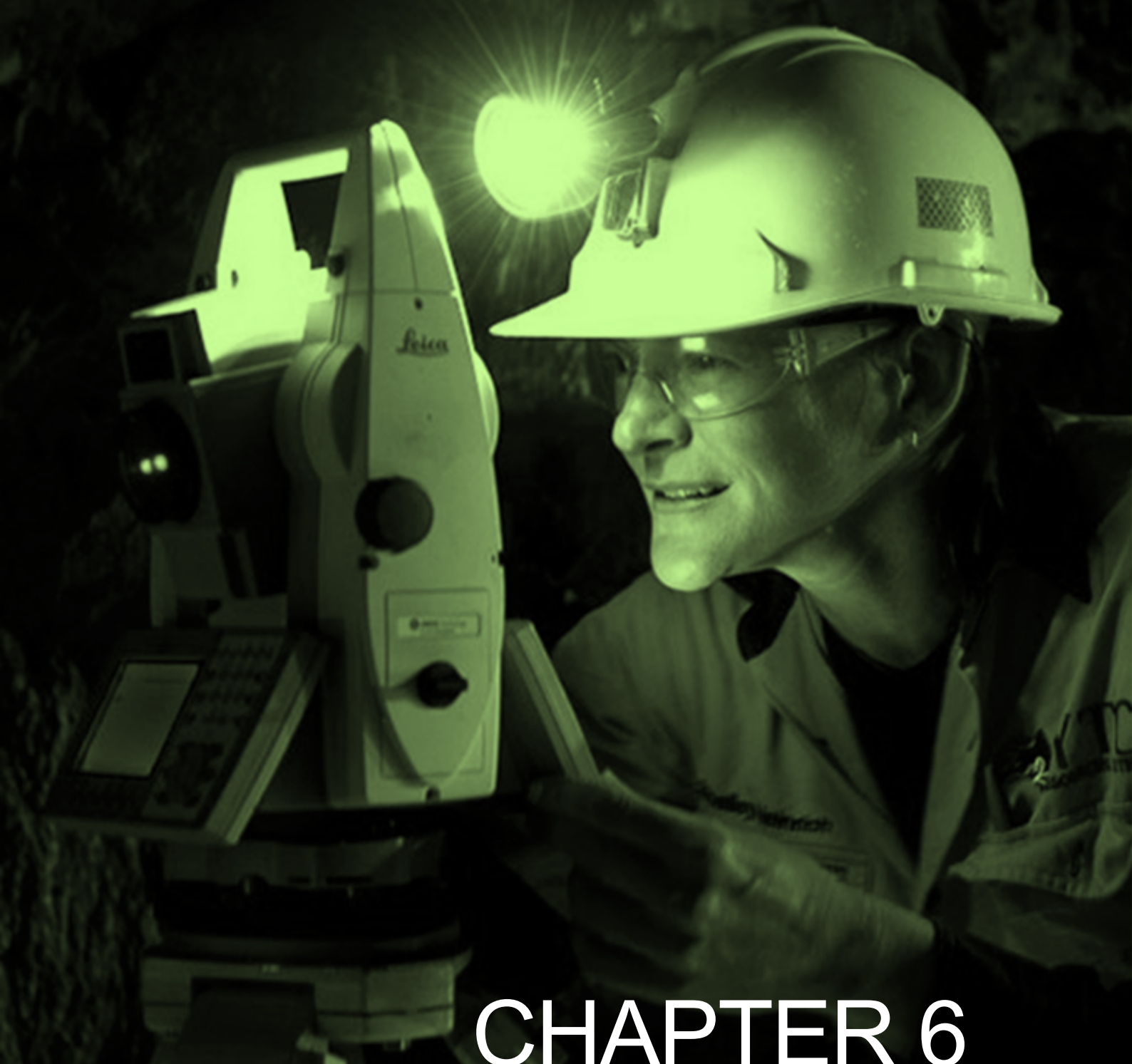
Participants nominated the following potential challenges for the social locality:

- Water shortage;
- Attracting skilled people to work in the mining industry;
- Lack of people in the area on properties; and
- Keeping revenue generated in the area.

Figure 5.2
Social Infrastructure

Hera Resources Federation Project
SOCIAL IMPACT ASSESSMENT





CHAPTER 6

ASSESSMENT AND
PREDICTION OF SOCIAL
IMPACTS

6 ASSESSMENT OF SOCIAL IMPACTS

The aim of this chapter is to:

1. Present a summary of the SIA Phase 1 (scoping) findings and the social matters that were identified for further investigation in the SIA; and
2. Present the findings of the Phase 2 SIA and undertake the further assessment of those matters referred to above.

6.1 SIA Phase 1 assessment

The SIA Phase 1 identified a range of potential positive and negative Project impacts for further investigation in the SIA Phase 2. Table 6.1 lists these impacts and the methods selected to investigate them.

For further details of each potential impact, see SLR (2021).

Table 6.1 Potential Project impacts identified in SIA Phase 1 for further investigation

Social impact category (and predicted impact to people)	Level of assessment (adapted from scoping tool)	Aspect outline	Assessment methodology
Positive impacts			
Community (Community cohesion)	Standard	Hera Mine contributes financially to Nymagee town by maintaining or resealing roads (e.g., Whitbarrow Way), public facilities such as the tennis courts and providing breakfast at the accommodation village on ANZAC day. Hera Resources contributes \$20K-\$50K per annum on average to community projects such as yarning circles, the Miner's Memorial and gifts for the local Christmas party. Hera Resources has in the past provided in-kind support to the local Country Women's Association (CWA) and flower show. If the Project does not proceed, there would be less financial and in-kind support available to the community.	ECA Semi-structured interviews with residents and business owners in the social locality
Livelihood (Peoples capacity to sustain themselves - business and employment)	Standard	Hera Mine staff provide custom to the Nymagee pub, which provides economic benefit to the proprietor and community cohesion given the venue acts as a drawcard for visitors and a host of cultural events. This pub also has 12 rooms that accommodates staff when the Hera Mine is short of accommodation. If the Project is to proceed, the hotel expects to garner more business by	Semi-structured interviews with residents and business owners in the social locality

way of sales at the pub, poker machines and accommodation.

Residents also expect to benefit from the Project by either gaining direct employment or providing contracting services to the Project.

Some Nymagee residents suggest that the supply of raw water from on-farm dam water storages to the Project would generate positive social impact. It would allow farmers to generate an income stream (not available currently) by selling this resource. Residents commented that such an income stream could offset revenue losses that might occur from other factors (e.g., environmental or commercial constraints in relation to family farming operations).

Health and well-being (Physical and mental health)	Standard	Some Nymagee residents suggested the Project would create a positive social impact on physical and mental health in the area. The Project would create a larger population in the area and subsequently, a higher volume of vehicles operating on the local road network which is comparatively remote compared to elsewhere in the Cobar LGA. People stranded on private roads (through vehicle breakdown for example) would be more likely to be recognised and obtain assistance if the Project proceeds, by virtue of the larger volume of 'passers-by' being in the area. Similarly, a degree of comfort and mental health benefits would arise knowledge that because of the Project, 'more people are around'.	Community values survey Semi-structured interviews with residents and business owners in the social locality
Cultural (Employment of Aboriginal people)	Standard	If the Project were to proceed, it would create an opportunity to realise positive social impacts in relation to a potential LALC/Hera Resources partnership. This opportunity would not exist without the Project. The LALC indicated its interest in forming a partnership with Hera Resources and supporting development of a Reconciliation Action Plan.	Semi-structured interviews with LALC representatives AFGM
Negative impacts			
Way of life (How people play)	Standard	With FIFO and DIDO staff not living in Nymagee, the community will not experience a way of life benefit that Project employees might otherwise contribute; however, it was	Dialogue with Hera Resources about rostering and FIFO / DIDO policy Desktop research

		recognised that Nymagee cannot support a mining workforce.	Semi-structured interviews
Accessibility (How people access and use infrastructure)	Not relevant (see section 6.2.2 for justification)	Telecommunications (e.g. mobile phone and internet) are poor in the area at present and increased demand from Project workers could potentially exacerbate the issue. This accessibility issue was raised as a precaution during SIA Phase 1 for further investigation. It was subsequently evaluated to be immaterial to the SIA, due to the new proposed telecommunications infrastructure proposed for the Project.	N/A
Accessibility (Services and facilities)	Standard	The community's water supply (currently boreholes) may not be sustainable. The concern relates to both water availability and contamination, and how it may be impacted by the Project's requirement for this resource. This accessibility issue was raised as a precaution during SIA Phase 1 for further investigation.	Review of technical study commissioned for the EIS (e.g., hydrogeology study)
Culture (Connection to country, land and waterways, places and buildings)	Standard	The Cobar LALC suggested that there are potentially scar trees and important cultural areas near the Project. There is potential disconnection to country if the Cobar LALC cannot assess bore site area to check for artefacts before drilling.	Review of technical study commissioned for the EIS (e.g., cultural heritage study)
Health and wellbeing (Physical and mental health)	Standard	The community is concerned about dust generated by the tailings storage facility at Hera Mine, Run of Mine (ROM) operations and the movement of heavy vehicles on unsealed roads (i.e. Burthong Road) which could be used by Project vehicles. Dust has the potential to create health concerns (e.g. deposition of dust on rooftops used to harvest rainwater) and mental stress that could be exacerbated by the Project.	Review of technical studies commissioned for the EIS (e.g., air quality study, traffic impact assessment, and human health risk assessment) Semi-structured interviews and dialogue between Hera Resources and property owners Community values survey
Surroundings (Public safety and security)	Standard	Speeding heavy vehicles have been experienced on the local roads, which could impact the safety of other motorists or pedestrians. This impact could increase with additional heavy vehicle movements.	Review of technical study commissioned for the EIS (e.g., traffic impact assessment)
Surroundings (noise and vibration)	Standard	Impacts from blasting operations at Hera Mine have been experienced and noted in existing community consultation documentation.	Review of technical study commissioned for the EIS (e.g., noise and vibration study)
Livelihood (Distributive equity of impacts and benefits)	Detailed	Any short-term increase in workers (i.e. during the construction phase), and the extension of the period of operations (i.e. the operational workforce numbers shift from mining at Hera Mine to mining at	Semi-structured interviews with service providers

		the Federation Site) has the potential for a disproportionate burden to be placed on medical (or other) services in Cobar.	
Decision-making systems (Access to complaint, remedy and grievance mechanisms)	Standard	Additional direct engagement with Hera Resources representatives is desired by the community.	Dialogue with Hera Resources staff

6.2 SIA Phase 2 assessment

In this section the SIA Phase 2 assessment assumes the Project will implement no mitigation or enhancement measures. However, a range of these measures are proposed for implementation. The measures are identified in Chapter 7 and have the effect of improving the non-enhanced positive or reducing unmitigated negative social impact significance of the impacts identified in this chapter.

The evaluation of the predicted social impacts is made according to technical supplement associated with the Guideline (DPIE, 2021). For each predicted impact in Table 6.1, the evaluation considers the impact likelihood and magnitude. Social impact categories from the Guideline that are omitted from the discussion below are considered immaterial to the SIA.

6.2.1 Assessment of non-enhanced positive impacts

Community (community cohesion)

The ECA method was applied to assess this predicted positive social impact. The ECA results supported the SIA Phase 1 finding that the Project would positively impact community cohesion in the social locality if it proceeds. The three discourses identified in the CSC business papers and analysed for the SIA are:

1. Peak Gold Mine is a possible donor and funding solution;
2. Peak Gold Mine is a valued community partner; and
3. Hera Resources is a funding partner.

The discourses indicate positive community sentiment, evident over a period of three years, about the role that Peak Gold Mines and Hera Resources (both subsidiaries of Aurelia) play in fostering community cohesion. The discourses imply that Peak Gold Mines and Hera Resources are important financial and in-kind donors to community programs and initiatives in the social locality. Examples of the discourses and donations made by Peak Gold Mines and Hera Resources are in Table 6.2. Appendix C contains the full ECA protocol.

Table 6.2 ECA discourses

Discourses and sources of discourses (i.e. business paper extracts)
Discourse 1: Peak Gold Mine is a possible donor and funding solution
“The extension to the Lilliane Brady Village which was budgeted (\$90,000) to be completed in 2013/2014 but was not commenced, will not require to be carried over as it is anticipated that the ‘Pink Ladies’ assisted by Peak Gold Mine will fund the project”
“The establishment of a Miners Memorial in the Great Cobar Heritage Park has been a long-aspired community project...To assist in the development of architectural plans, two architecture students from Central Queensland University (CQU) were flown to Cobar to meet with the committee and to attain an understanding of design aspirations and constraints. The flights were funded by CQU, accommodation by Peak Gold Mines and the students volunteered their time”.

Discourses and sources of discourses (i.e. business paper extracts)

Discourse 2: Peak Gold Mine is a valued community partner

"Peak Gold Mines Pty Ltd are prepared to give Lot 73 DP 755649 to Cobar Shire Council at a minimal cost as community good will, to the community of Cobar Shire...Further, Peak Gold Mines Pty Ltd is prepared to allow, if required by Council, a transfer by easement for access to the Lot 73 DP755649 across Lot 2 DP1019612. This is subject to final corporate approval within Peak Gold Mines Pty Ltd"

"The following is the relevant Action out of the Youth Development Plan: Support the Skate Park Committee to master plan the site and facility and to raise funds to bring the project to fruition. The project is also listed in the Community enhancement Plan for Cobar Shire, which Council adopts each year.

Following support for the project from Newgold (Peak Gold Mine), Council sought funding through Round 3 of the Australian Government's Regional Development Australia Fund (RDAF) and was successfully awarded a \$200,000 grant. This was made possible through a \$95,000 commitment from Newgold (Peak Gold Mine) and \$20,000 of Council funds, as well as in-kind contributions from both parties".

Council did not have adequate funds at this stage to undertake a skate park project but were rather going to seek grant funds to do the project. To assist with this, Peak Gold Mine generously gave Council \$75,000 to use as seed funding, or if grant funds were not forthcoming, to look at what could be built for that money. Peak Gold Mine later put forward a further \$20,000 for the project, taking their total cash contribution to \$95,000.

Using this support for the project, Council sought funding through Round 3 of the Australian Government's Regional Development Australia Fund (RDAF) and was successfully awarded a \$200,000 grant. This was made possible through the commitment from Peak Gold Mine and \$20,000 of Council funds, as well as in-kind contributions from both parties.

Peak Gold Mines has continued to work with Council to bring this project to fruition within budget through a broad range of in-kind donations and time.

This is a true partnership project and demonstrates what is possible when Council works with major business, the community and other levels of government on a project that has been identified as a priority by the community. Given the high level of commitment, both financial and in-kind by Peak Gold Mine to this project, it is reasonable to offer them exposure and acknowledgement for their contribution to the project through the naming rights of the park".

Discourse 3: Hera Resources is a funding partner

"Name of Committee: Nymagee and Hera VPA Committee

Purpose: To provide Cobar Shire Council with recommendations on projects to be funded from the VPA funds.

Membership: Two Community members appointed by the Nymagee Progress Association, one representative from Hera Resources Pty Ltd and one representative appointed by Cobar Shire Council".

Results of the semi-structured interviews were also relied upon to further assess the positive community cohesion impacts predicted to arise if the Project proceeds. The positive impact of financial donations made by Hera Resources, and the revenue for local businesses created by Hera Resources staff was evident in the interview transcripts:

"If it wasn't for the mines, while the drought was on, then our little pub would have closed".

"I'd hate to think about what would happen to our little pub if the mine wasn't here".

"It would be minor [influence on business in Hermidale], but you start taking all those minor things away from your business and it would still be a lot to us, if the mine shut and the new one didn't open". (Hermidale resident and business owner)

~

"Yes, that's it an urn [and bain-marie]. We were in the old hall and of course we had to sell that, so we had to sell all our equipment. We were down to three working members, so we couldn't afford the upkeep of the hall so we sold that. And then the money that we got from that, we put some into the [Hermidale] community hall where we are, and the other money went to the sports ground committee". (CWA Hermidale representative)

From the perspective of the Hermidale business owner and resident, community cohesion in the social locality was also improved by the Whitbarrow Way upgrade. Hera Resources made a financial contribution to the road seal which provided benefits to residents and the postage service:

“Some of the farmers who live that way, out there and you know, they never thought in half a million years they’d have bitumen to their mailbox. And it’s good because before that road was bitumen, if it rained for a week on end, then people wouldn’t get their mail...They are wonderful things in these little towns, just the things they do, the little things that people don’t realise. Just the bitumen road itself is just amazing for those people out there”. (Hermidale resident and business owner)

Following an evaluation of the ECA and semi-structured interview results, the Project is expected to yield a positive community cohesion impact in the social locality if it proceeds. Based on the results, it is logical to suggest that if the Project does not proceed, there would be less financial and in-kind support available to the community. Subsequently, without enhancement, it is predicted that the Project would have a high positive impact significance (almost certain to occur, with a moderate magnitude) for community cohesion in the social locality if it receives planning approval.

Livelihood (people’s capacity to sustain themselves)

Semi-structured interviews were relied upon to further investigate the predicted positive impact of the Project on the livelihoods of people in the social locality. Commentary of the interview participants made it clear that the capacity of people to sustain themselves would be positively influenced if the Project proceeds.

Business owners and residents in both Nymagee and Hermidale described positive business revenue derived from the Hera Mine workforce (note this workforce would transition to the Project if it becomes operational):

“If Hera Mine never opened out there, then I very much doubt that road [Whitbarrow Way] would have been bitumened [sic]... and since that road has been bitumened [sic], we get so many more travellers coming through with their caravans. So we get a lot of business from that, you know, we get caravaners for the night, they pull in and a car comes in... so it’s an extra revenue for us”. (Hermidale business owner).

~

“Yes definitely, sales, poker machines, and accommodation. Plus the chance that [the Project would] extend that bitumen out towards Federation along Burthong Road, that would be a bonus...we get more caravans [visiting Nymagee] now”. (Nymagee Business owner)

~

“It (Hera Mine) is an integral part of our business. It is probably 60% of our business relies on this place. We’ve definitely got a fair interest in it and how well it goes. If Hera Mine wasn’t here obviously our business would be a lot smaller or be a bit different to how it is now”. (Nymagee resident and business owner)

It is noteworthy that the above business owners are describing business revenue which would disburse to employees of the businesses in the form of wages. So multiple families would be benefactors of any incoming revenue derived from the Project, acknowledging that the Project would extend the economic activity associated with Hera Mine when it ceases operations.

Aside from businesses, interview participants described similar livelihood benefits for individuals. For example, local farmers were identified as potential beneficiaries who rely on employment at local mines to offset lost farming income:

“So these mines in this little community, they’re a great thing. The farmers, you know, they’ve been through drought and everything else. And I know here in Hermidale there is a majority [of people] that have farms and work in the mines”. (Hermidale business owner)

A final interview comment relates to the potential positive influence that the Project would have on property values in Nymagee. The interview participant described an increase in the value of residential property in Nymagee as a result of the township being a short distance from Hera Mine and the Federation Site. By this scenario, there is an additional positive livelihood impact predicted to arise from the Project if it proceeds:

“Even the value of houses have gone up in the area, and land prices...Nymagee is the highest valued increasing land in the Shire, because of the blocks around town that have been going ahead, so that might be a positive”. (Nymagee resident)

The qualitative information collected and evaluated in SIA Phase 2 supports the prediction that the Project would create a positive livelihood impact for people residing in the social locality. It is evident from the interview commentary that positive impacts would apply to businesses employing a number of people, and individuals who are farmers by their primary occupation. On this basis and acknowledging the proposed workforce transition from Hera Mine to the Project, it is predicted that if the Project proceeds, it would have very high positive impact significance (almost certain to occur, with a major magnitude) on the capacity of people in the social locality to sustain themselves through business and employment.

Health and wellbeing (physical and mental)

SIA interview commentary cited the mining industry as being positive for bringing people to the Cobar LGA and the social locality. Speaking in general terms, interview participants described how mining projects ensure that there is a stronger presence of people in some regional areas. Mining projects increase the level of activity in their social locality, whether this be via vehicle movements, goods and services transactions, or people visiting the mining sites. It was suggested that in turn, health and wellbeing benefits are felt by the community.

In the context of the Project, interview participants referred to the positive social impact that these mining related activities would have on physical and mental health. It was suggested that the Project would enable a mental health benefit by giving the local population some confidence that someone ‘would be around’ in the event of an emergency on otherwise less utilised roads. This would also translate to a physical health benefit in the event of physical harm. The statements below support this view:

“It [the Project] would be a positive. If you got to Cobar on any of those dirt roads there is always a vehicle poking around. Whereas if you went out there before [Hera Mine was established], you could get a flat tyre there and be stuck for hours. Now they’ve always got a mine vehicle with radio. There is someone around all the time for anyone”.

“If there is somebody like a paramedic at the mine, could they be utilised [during an emergency] in the community if need be”. (Nymagee resident and business owner)

In the following statement the idea of more people ‘being around’ was also evident in an interview with a Hermidale resident. The resident described a degree of comfort knowing that the mining created some activity that was positive for the town.

"The town [Hermidale] is busy, I've lived in Hermidale all my life...the town is busy, the town never sleeps...it's from all the mining industry, the trains from Cobar and my brother's trucks coming and going" (Hermidale resident and business owner).

Results of the community values survey similarly supported the view that the Project would create a positive impact for health and wellbeing. A lack of people on properties in the area was described by one respondent as a challenge that Nymagee people are facing or would face in future. In addition, most survey respondents stated that both Hera Mine and the Project would yield positive impacts for "health and well-being – including physical and mental health especially for people vulnerable to social exclusion or substantial change, psychological stress resulting from financial or other pressures, and changes to public health overall".

One survey respondent stated that he was unsure or required more information in relation to the predicted influence of the Project on health and wellbeing. Nil survey respondents stated an expectation that the Project would yield negative impacts in this regard.

Considering the interview and survey results, it is predicted that the Project would create a positive impact on health and wellbeing in the social locality if it proceeds. The impact would have high significance being likely to occur, with moderate magnitude.

Cultural (employment of Aboriginal people)

A potential positive Project impact for the employment prospects of Aboriginal people was identified in the interviews with Aboriginal stakeholders. Using ABS (2016) data, Chapter 5 described that mining is a sector that male residents rely upon for employment. It also described that Aboriginal people have a relatively small population size in the social locality.

Aboriginal employment would be an attractive feature of any SSD in the social locality for the local Aboriginal or indeed non-Aboriginal people. In relation to the Project, Cobar LALC representatives expressed an interest in seeing traineeships established as part of the Project:

"So would some of those [employment] opportunities be traineeships? Because of course a lot of those positions are people who would have other qualifications. Is there an opportunity for people to gain some qualifications?" (Cobar LALC Representative]

A dedicated Project Aboriginal employment strategy was identified by Aboriginal stakeholders at the AFGM as an additional positive impact opportunity.

Aside from employment and training during Project operations, a Cobar LALC representative highlighted a potential Aboriginal employment opportunity that would exist post-operations, if the Project proceeds:

"So some sort of compensation other than employment and training. It might be that local people are employed in the rehabilitation process afterwards, and are consulted about native plants and bush tucker, and what to put back there". (Cobar LALC representative)

In relation to Project Aboriginal employment opportunities, Hera Resources confirmed it would adopt the same model as the one used for its existing operations in the Cobar LGA. Hera Resources is an equal opportunity employer and would support Aboriginal Project employment on this basis. Hera Resources confirmed that a dedicated Aboriginal employment strategy (including Aboriginal traineeships) is not currently being considered for the Project, but may be considered in the future.

In relation to post-operation Aboriginal employment, Hera Resources would pursue the involvement of the Aboriginal community. This would apply to the ongoing management of

Aboriginal sites in and nearby to the Hera Mine and Federation Mine (if approved) for years to come.

Using interview results and AFGM outcomes, the Project's potential positive impact on Aboriginal employment was predicted to be small. If the Project proceeds, it is estimated that the significance of any positive Aboriginal employment impact would be low (possible with minimal magnitude).

6.2.2 Assessment of unmitigated negative impacts

Way of life (how people play)

A potential negative way of life impact for people in the social locality was identified as being a possible consequence of the Project. FIFO and DIDO staff that would be associated with the Project were described by some research participants as being a driver of this negative impact. The basis of this prediction is that FIFO and DIDO staff would stay at the Hera Mine accommodation village during their shifts and return home afterwards, without contributing fully to community (e.g., sporting and cultural events). The statement made by a Nymagee resident and business owner describes the issue:

"In terms of putting more people in town or in sporting groups. The money is really good, but you know, we need people. The local cricket and local tennis groups, they are struggling for numbers all the time. And most of the guys that work here obviously camp here and go back to their own place. We'd benefit from people being involved in sporting and community groups". (Nymagee resident and business owner)

At the same time, the same stakeholder and others acknowledged that accommodation options in Nymagee would be inadequate to support the Project workforce and their families and that the Hera Mine accommodation village would be the most sensible accommodation option. For example:

"You can't expect these people to want to actually live here in Nymagee. Nymagee doesn't offer much [for families]. Cobar offers a bit more". (Nymagee resident and business owner)

~

"Well I suppose you'd have to support it [the Hera Mine accommodation village as the preferred accommodation for Project FIFO and DIDO staff] because otherwise they've got to drive an hour, an hour and a half each way from where they've come to stay. And with the bitumen road, well there's no problems there, and with early shifts, going to work early in the morning well you've got all the kangaroos and what not and if they have an accident well, they could lose their lives. So, I think, from that point from the families of the people working there, they're probably better that they're at a camp and they don't have to drive so far". (Hermidale CWA representative)

The evaluation of this predicted Project impact considered the place of residence of the existing Hera Mine staff (see Table 6.3) and the also the proposed transition of staff from Hera Mine to the Project (recall that from early 2024, it is anticipated that the Hera Mine operational workforce numbers would be transitioned from Hera Mine operations to operate the Project). Both factors are relevant as they influence the extent of DIDO and FIFO travel.

Data in Table 6.3 indicates that around 15% of Hera Mine staff live in the social locality. Approximately half the workforce lives either in the social locality or around a two-hour drive from Nymagee. For the 15% that live in the social locality, it is likely that they would contribute to the local way of life rather than being entirely disconnected from it. Furthermore, it is plausible that some of the 50% of individuals that live either in the social locality or around a two-hour drive from

Nymagee would have some kind of involvement in the way of life which characterises the social locality. For example, this may be via social networks maintained by Hera Mine staff, children participating in social activities in Cobar, or families participating in Cobar community events. It is expected that the Hera Mine workforce residency pattern would apply to the Project if it proceeded. On this basis it is predicted that the degree of change brought by the Project would not be substantial.

Table 6.3 – Hera Mine staff place of residence

	Reside in the social locality	Reside approx. two-hours drive from Nymagee	Reside > two-hours drive from Nymagee
<i>Number of staff</i>	51	123	171
<i>Percentage of Hera Mine staff</i>	14.7	35.6	49.5

The results of a FIFO/DIDO study commissioned by CSC was also relied upon to evaluate the potential way of life Project impact. The study by Balmoral Group Australia (2021) aimed to explore and develop responsive strategies to the change in the shift arrangements of the active mines in the Cobar region, that enabled a transition of the working population to a FIFO/DIDO model of employment.

The study found that participation in sport, school enrolments and the availability of skilled and unskilled labour in the Cobar LGA illustrates a decline in population, or certainly a change since 2018 which is 6 years after the change to a 7-day – 12-hour roster at all the major mines in Cobar. Importantly, the study asserts that:

- The FIFO/DIDO phenomenon is industry wide;
- Embracing FIFO/DIDO workers is a strategy that should be adopted in the Cobar LGA; and
- CSC has the responsibility to pursue the strategy. It needs to embrace FIFO/DIDO workers, welcome them into the community to help promote Cobar Shire as an attractive place to live and work.

The study also “identified that that there are potentially 400 unoccupied private dwellings in Cobar. There were only eight available for rent (Domain March 7, 2021), and 40 houses for sale (Domain, March 7, 2021). Many of these properties are in a state of disrepair and are not overly attractive to new residents” (Balmoral Group Australia, 2021, p.17). Hera Resources is conscious of this situation and recognises that housing stock in the social locality would be insufficient for its Hera Mine and Project workforce. It is a valid concern that any move away from a FIFO/DIDO model and the Hera Mine accommodation village would potentially result in the Project workforce being unable to find suitable accommodation.

A low social impact significance (unlikely and minor magnitude) is the outcome of the way of life impact evaluation. This outcome does not dismiss the idea that the FIFO/DIDO employment model influences the way of life. The outcome recognises that the FIFO/DIDO employment model proposed for the Project does negatively impact way of life in the social locality. However, the overriding consideration is that a workforce transition from Hera Mine to the Project would not exacerbate the situation that currently exists in the social locality. This is because there would be similar numbers of FIFO/DIDO workers for the Hera Mine and the Project. Should the Project proceed, the existing Hera Mine workforce numbers would be relied upon and on that basis, it is predicted that the Project would introduce little to no change to the local way of life.

Accessibility (how people access and use infrastructure)

SIA Phase 1 identified access to telecommunications services (i.e. mobile phone reception) as an issue in the Nymagee area. Some community members raised concerns that the telecommunication network near the Federation Site is poor. It was predicted that an influx of additional mine workers required to service the Project would weaken mobile phone and internet connections locally.

During SIA Phase 2 the Project design was refined to incorporate a telecommunications service that would be dedicated to Project workforce. Subsequently, the accessibility (how people access and use infrastructure) social impact category has been 'designed out' of the Project and is evaluated as being immaterial to the SIA.

Accessibility (services and facilities)

A Groundwater Impact Assessment (GIA) (GHD, 2021) of the Project was commissioned for the EIS. The GIA results were relied upon for the evaluation of issues raised by the community at the first community information session. The issues raised included the ground water availability and contamination, and how these characteristics would be impacted by the Project's water requirements.

A summary of the GIA results relevant people in the social locality is as follows:

- There is no evidence of either a perched shallow aquifer or any alluvial aquifers in the vicinity of the Project, Hera Mine and proposed bore field. The shallow colluvium has been dry throughout exploration drilling and bores that are in the paleochannel near Federation that were installed as part of the Project were also dry;
- Registered groundwater use in the vicinity of Federation is low. The majority (19) of registered bores identified within 20 km of Federation and Hera Mine (total of 34) were bores associated with operations at Hera Mine. This does not include the Nymagee Town Bore. The Nymagee Town Bore is an unregistered bore located in the township of Nymagee, approximately 5 km north of Hera Mine;
- There are 6 landholder / private bores within the groundwater model domain. Of these bores, modelled drawdown at four is less than 2 m under proposed and approved conditions. Of the other two bores, the maximum modelled drawdown at one bore is approximately 3.5 m under approved conditions and approximately 4 m under proposed conditions at the other bore.
- Predicted Project impacts are within the minimal impact considerations, except for modelled impacts on two landholder bores. Make good provisions would apply at these bores.
- It is considered unlikely that there are any Groundwater Dependent Ecosystems (GDEs) in the vicinity of the Federation Site due to the deep-water table. There are no GDEs within or near the Project that are classified as 'high priority' listed in the relevant NSW Government water sharing plan;
- The depth to water table varies from 45 m to 90 m below ground level, which is well below the expected depth of any root systems;
- The hydrogeological model predicts that the Project would result in drawdown of the water table of 1 m up to 8 km to the west and 10.5 km to the east of the Project. Some of the drawdown to the east of the Project is attributable to the proposed production bores;
- For the 14 years of mining associated with the Project, the dewatering would result in the potential exposure of acid generating geological materials. The dewatering of mine workings, however, would also result in a sink or depression forming in the regional water table, and therefore there is a tendency for acid / metalliferous drainage being collected or its movement hydraulically controlled and managed by the dewatering operations; and

- Post-closure contours indicates that modelled groundwater levels will have recovered to within 2 m of pre-mining groundwater levels within approximately 65 years of the end of mining associated with the Project.

The potential unmitigated impact of the Project on groundwater accessibility is considered to be medium (likely to occur and a minor magnitude). The significance of the impact recognises the GIA results and the small number of landholders that would be affected. The GIA make good recommendations and other potential impact mitigation measures are considered in Chapter 7.

Culture (connection to country)

Results of semi-structured interviews, an Aboriginal Cultural Heritage Assessment and Archaeological Survey (AREA, 2021) were used to evaluate the potential cultural impacts of the Project. The cultural heritage assessment and survey report, in conjunction with interview commentary, identified the apprehension of Condobolin LALC representatives toward mining projects in general.

According to LALC representatives, the local Indigenous community's connection to country is deeply rooted in the conservation of significant sites as described by the following statements:

"So, you're talking to the Aboriginal Land Council here and our role is to protect those sites. Every time that there's a mine, there is more destruction of our land and what we have left to pass on to future generations" (Condobolin LALC Representative)

"You can't restore it back to the way it was. It's an impossible thing to do so once you've blasted it and dug it up. It's gone forever." (Condobolin LALC Representative)

Condobolin LALC and Cobar LALC representatives also expressed distrust in the NSW Government oversight of the EIS evaluation process.

Semi-structured interviews identified the cultural heritage survey as being the main concern applicable to the Project. Condobolin LALC representatives encouraged a thorough survey to appropriately address the concern:

"That area needs to be surveyed, not a desktop survey. Not what's previously recorded, [a survey] on foot." (Condobolin LALC representative)

As part of Project cultural heritage surveys, heritage consultants and members of the Aboriginal community including the Condobolin LALC, and Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan Native Title Claimants surveyed the Project site and its surrounds. Twenty-eight Aboriginal sites were recorded during the archaeological / cultural heritage surveys. All sites except for a scar tree within the southeast portion of the proposed solar farm are outside the proposed impact footprint for the Project.

Following an initial survey, Registered Aboriginal Parties (RAPs) including representatives of the Condobolin LALC and native title claimants attended an AFGM in early September 2021. In relation to the survey, Aboriginal stakeholders referred to the need for a repeat survey of the proposed telecommunications tower site with LALC representatives present. This was agreed by the Project team and the survey was undertaken in mid-September. No material cultural issues were identified during the survey (refer to AREA [2021] for survey results) and the AFGM meeting participants raised no other issues material to the SIA that are not addressed elsewhere in this report.

The evaluation of this social impact acknowledges the above comments made by LALC representatives refer to mining projects generally, not specifically to the Project. It is clear that long-term (if not permanent) negative Aboriginal cultural impacts arise from mining projects in the

LALC area. As a subset of the mining industry, the Project is considered to contribute to, but not be the exclusive driver of this scenario in the LALC.

The evaluation also acknowledges that the survey and identification of Aboriginal sites met the expectations of the Aboriginal representatives who were present at the AFGM.

Without mitigation measures in place during construction and operation of the Project, there remains a potential for negative cultural impacts for the Aboriginal community. The unmitigated Project impact on Culture (connection to country) is predicted to be of high significance (possible and major magnitude).

Health and wellbeing (physical and mental health)

A small number of Nymagee residents cited health and wellbeing (physical and mental health) issues as being a potential negative impact of the Project. It was predicted that the cause of this impact could be potential dust from Project operations including heavy vehicles travelling on the unsealed Burthong Road. A Human Health Risk Assessment (HHRA) commissioned for the Project concluded that all risks to human health are considered negligible including inhalation risks (exposure to PM₁₀ and PM_{2.5} derived from the Project) and multi-pathway exposures (EnRiskS, 2021).

To further investigate and evaluate these potential impacts, semi-structured interview results and the results of an air quality assessment (ERM Australia Pacific, 2021) carried out for the Project were considered.

The air quality assessment concluded that there are no predicted exceedances of the NSW Environmental Protection Authority (NSW EPA) impact assessment criteria for any of the annual average parameters at sensitive receiver locations (refer to Figure 2.6 for these locations). For 24-hour average PM_{2.5}¹, there are no predicted exceedances at sensitive receiver locations of the NSW EPA impact assessment criteria. For 24-hour average PM₁₀², there is one predicted exceedance of the NSW EPA impact assessment criteria, experienced at all sensitive receiver locations. This exceedance is due to background concentrations already exceeding the criteria. There are no additional exceedances at sensitive receiver locations of the 24-hour average PM₁₀ criterion caused by Project contributions. The air quality assessment has adopted the proposed sealing of Burthong Road in the prediction of air quality impacts.

Comments on this topic made by two interview participants varied. One resident at a sensitive receiver location predicted dust would be an issue for physical and mental health. If the Project proceeds, its ROM pad and a higher volume of traffic on the unsealed Burthong Road were predicted to create the issues. The deposition of dust on solar panels and on the roof rainwater catchment were identified as a concern. The HHRA found that predicted water concentrations in rainwater tanks are all well below drinking water guidelines (EnRiskS, 2021). The perceived negative air-quality effects on visiting family members also created anxiety for the resident. The same resident confirmed that she had not seen dust monitoring results from a Hera Mine dust monitoring program or made a request for the same.

In Hermidale, one community member perceived dust impacts to be less of a concern. Hera Mine operations were used as an example:

“There might have been a bit of dust although I think normally if it’s really bad then they put a water truck across it”. (CWA Hermidale representative)

The SIA must recognise the quantitative air quality assessment (refer ERM Australia Pacific) which concludes that the Project would not exceed the relevant NSW air quality guidelines at any

¹ Airborne particulate matter with an aerodynamic diameter of less than 2.5 µm

² Airborne particulate matter with an aerodynamic diameter of less than 10 µm

sensitive receivers. The exception is the 24-hour average PM10 measurement where an exceedance is expected, but this is due to existing (background) conditions. Furthermore, the SIA must recognise the HRRRA which concluded that all risks to human health due to dust from the Project are considered negligible (EnRiskS, 2021). The SIA must also recognise the issues raised by people in the social locality, and that those concerns are held by a small number of people and not widespread. On this basis the Project's predicted health and wellbeing impact is determined to have a medium social impact significance ranking (possible and moderate magnitude).

Surroundings (public safety and security)

Semi-structured interview and the Projects Road Transport Assessment (RTA) (The Transport Planning Partnership, 2021) results were used to evaluate the predicted negative impact the Project would have on public safety and security.

Interview participants from Hermidale made it clear that the community have concerns about the current and potential future volume of heavy vehicles passing through Hermidale where a new park is being developed. The local community is concerned with the number of trucks and the speed at which they pass through the town centre:

"The concern of the local community is that if the kids are playing and they happen to run out there and trucks are driving in the area if the little kids run out, they haven't got sufficient time to pull up". (Local CWA representative)

~

"The trucks kind of hoon around the corner because they don't have to stop. I just worry because there will be quite a few kids there who will be crossing the road when the park is done". (Hermidale Business Owner)

The intersection of concern is at the corner of Hermidale Nymagee Street and Nyngan Street in Hermidale. The community is aware that the issue relates to a range of industries and traffic types (i.e., not only mine traffic, and not exclusively heavy vehicles associated with Hera Mine) with concern for local children in the area:

"[Trucks are] not just mine trucks we are talking about, we have a lot of general freight that goes the back way down to Melbourne now". (Hermidale Business Owner)

The RTA substantiates the statements that the intersection is a common route for heavy vehicles and shows that Nymagee Road at that time carried an average of 1,025 vehicles per day, of which approximately 211 (20.6 %) were heavy vehicles. In contrast, Kidman Way is a popular road from Griffith to Bourke intersecting the town of Cobar and only carries an average of 13.9% heavy vehicles (The Transport Planning Partnership, 2021).

Traffic volumes aside, the design of the intersection and the adequacy of road signage is described as an issue. A Hermidale CWA representative is critical that there is no stop at the intersection to control traffic. However, the representative recognises road signage is the responsibility of the relevant authority as opposed to heavy vehicle operators:

"Council [has been asked] to put in a stop sign to slow them down, but so far the wheels of the cogs have gone a bit slow". (Hermidale CWA Representative)

The RTA conducted for the Project concludes that the existing road network and traffic patterns can accommodate the Project generated traffic changes in the region while maintaining sufficient safety and efficiency of the road network. It also states that:

- On a day-to-day basis outside of the shift changeover days, the Project construction workforce is expected to generate very few vehicle trips on the wider road network beyond those trips between the accommodation village and the Federation Site; and

- On a day-to-day basis outside of the shift changeover days, the Project operational workforce is expected to generate very few vehicle trips on the road network; and
- On roster changeover days, the operational workers would arrive at and depart from the accommodation camp principally travelling by private car, like the existing workforce at Hera Mine.

The RTA recommends intersection designs for the Federation Site access road and Burthong Road, and upgrades for the intersections of Hera Mine heavy vehicle access road and Burthong Road, Priory Tank Road and Burthong Road, and Kidman Way and Priory Tank Road.

Acknowledging both the RTA results and the community feedback obtained in the SIA Phase 2, the Project is predicted to have a medium social impact significance (possible likelihood and minor magnitude) on surroundings (public safety and security), specifically at the Hermidale intersection. Mitigation measures to improve this rating are identified in Chapter 7.

Surroundings (noise and vibration)

A precautionary approach adopted during SIA Phase 1 led to a further investigation of the Project's potential negative impact on surroundings (noise and vibration). Results of the Project's Noise and Vibration Impact Assessment (NVIA) (Muller Acoustic Consulting, 2021) and semi-structured interviews were used to evaluate potential construction, operational and road noise impacts at receivers associated with the Project. These investigations did not indicate that the expansion of current operations would expose local stakeholders to noise and vibration disturbances in excess of the adopted noise and vibration criteria. Similarly, an HRRRA found that the potential for noise levels that would result in adverse health impacts during the day, evening or night is considered to be negligible (EnRiskS, 2021).

During semi-structured interviews, commentary from Hermidale and Nymagee interview participants focussed on mine operations other than blasting and did not identify noise and vibration impacts associated with the Nymagee Mine (in caretaker mode) or Hera Mine being a concern.

"When I was at the community hall, we didn't hear anything". (CWA Hermidale representative)

~

"The only thing we hear is the ROM pad at night (talking about the mine in Nymagee currently in caretaker mode)...but it honestly doesn't worry us".

"You've got a few extra trucks coming through town, the ore truck or concentrate trucks. That's supposed to be eight a day. It wouldn't matter if it was 50 a day. It's not a drama". (Nymagee resident and business owner)

It is not expected that the Project would exacerbate the above observations.

The NVIA assessed the potential influence of establishment and construction of new infrastructure and operational noise emissions associated with mining operations informed by the Noise Policy for Industry (NPI) released in October 2017 by the NSW EPA. There were seven potentially sensitive receivers near the Project which were assessed for noise and vibration susceptibility. These receivers include the town of Nymagee and six residential properties.

The results of the predictive modelling from the NVIA demonstrate that noise emissions from the operation of the Federation Project, including processing and haulage operations at the Hera Mine would satisfy adopted noise criteria at all residential receivers during calm and adverse meteorological conditions.

The NVIA found that the influence of traffic noise on nearby receivers is expected to remain below the assessment criteria. Blast noise emissions are predicted to be below the Australian and New Zealand Environment Council (ANZEC) blasting guidelines. Predicted noise levels during the construction phase are expected to satisfy the relevant noise management levels at all receiver locations.

This assessment demonstrated that noise levels are predicted to meet relevant noise criteria under the relevant guidelines.

Based on the NVIA and semi-structured interview results, noise and vibration-related issues are not predicted to negatively influence people in the social locality. Therefore, the Project's noise and vibration impact on people is expected to be medium (possible with moderate magnitude).

Livelihood (distributive equity of impacts and benefits)

A combination of approaches from semi-structured interviews, media and literature analysis, and the Hera Mine workforce survey were used to evaluate the Project's predicted negative impact of FIFO / DIDO workers on local medical services.

During SIA Phase 1 some research participants had a perception that medical services in Cobar would be less accessible due to the increase of FIFO/DIDO workers in recent years. The study titled *Cobar Surviving and Thriving* (Balmoral Australia Group, 2021) commissioned by CSC investigated this perception. The study involved 18 face-to-face consultation sessions and an online survey that collected data from 400 members of the general community, business owners, FIFO/DIDO workers and people who were previous residents of Cobar. When asked how the infrastructure of Cobar could be improved, some residents indicated removing or reducing the FIFO/DIDO model in mining. Aside from this perception and as described earlier, one of the reports six recommendations was for the town to 'Embrace FIFO and DIDO Workers' to achieve a thriving economy, improved infrastructure, and a strong sense of community.

A local health service manager who has practised for 25 years in the region indicated that staff from mines in the Cobar LGA do not generally influence their service capacity although they do contribute to the local economy. This feedback dispelled the suggestion of negative cumulative mining impacts across the Cobar LGA. The interviewee also comments on improvements to safety measures and practices over recent years which have reduced the incidents of serious accidents in local mines:

"Anything for the economy of Cobar LGA would be fantastic. In regard to services, if we take the current COVID-19 situation out of the mix we very rarely hear from Hera (Mine staff) unless there is a mining accident. Thank God touch wood these have become less and less due to more surveillance and understanding of WHS which is fantastic". (Cobar Health Service Manager)

Commentary and research about the effect of FIFO/DIDO mine staff on medical services in Cobar and Far West NSW was not prevalent in available literature. A desktop search failed to return evidence which suggests that FIFO/DIDO workers are placing an increased strain on regional hospitals.

A survey of the Federation workforce was conducted to understand their use of local medical facilities and services. There were 13 responses to the survey and of these, all workers stated that they visit local health services less than once a year while on site. These responses do not give confidence to the statements that non-local mining employees place a burden on medical services in Cobar.

Data which is available publicly through the Australian Institute of Health and Welfare (AIHW) does not highlight a significant increase in hospital admissions over the past decade for Dubbo Hospital, Cobar Health Clinic and Nyngan Multi-Purpose Service. Cobar Health Clinic and

Nyngan Multi-Purpose Service have seen decreasing admissions as many patients are transferred to larger hospitals in the area which have access to more equipment and specialists, particularly for aged resident (Refer Appendix D for hospital admissions data from AIHW).

This deterioration of available local services in Cobar was affirmed through an interview with a local practitioner. They remarked that many residents struggle to find GP appointments and properly trained medical experts within regional practices:

“The people down there now don’t have the skills to work at the hospital, they are actually just primary care. But if you spoke to some community members at present, they’re finding it difficult to get GP appointments as it is”. (Cobar Health Service Manager)

The qualitative data from AIHW confirms that Cobar Health Clinic and Nyngan Multi-Purpose Service have reduced in load, likely due to transfers to larger hospitals. The data did not indicate that mining operations in the region were responsible for increased admissions to hospitals.

Acknowledging the proposed workforce transition from Hera Mine, publicly available medical service data, and the primary data collected in SIA Phase 2, it is considered unlikely that the Project would create negative accessibility changes to local hospitals and medical services in Cobar. Subsequently, the impact of the Project on Livelihood (distributive equity of impacts) is predicted to be of low significance (unlikely and minimal magnitude).

Decision-making systems (access to complaint, remedy and grievance mechanisms)

Feedback from Project stakeholders suggested that the accessibility of Hera Resources staff and their capacity to respond to issues or information requests could be improved. Some Nymagee residents also suggested that decisions about Hera Mine have in the past been made without a local influence. A dialogue with Hera Resources staff was used to evaluate the potential impact that the Project would yield for decision-making systems.

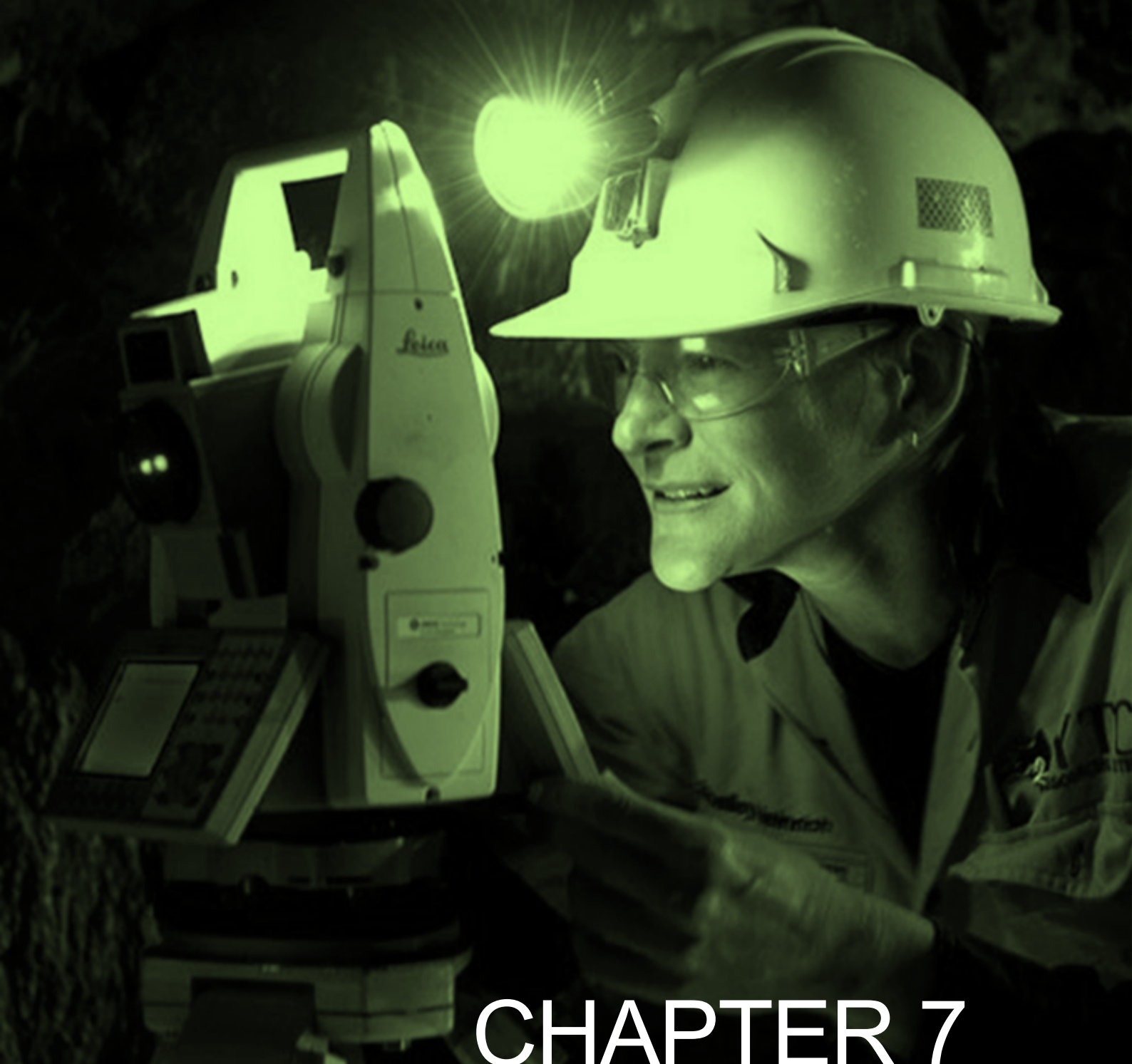
The Hera Mine Environmental Advisor is generally responsible for an interface with Project stakeholders including local residents. The Aurelia Group Manager, Environment, works across several Aurelia operations and is also available to respond to community requests. Hera Resources maintains a contact register which the staff use to record external correspondence, assign actions to Hera Resources staff and monitor the status of such actions. It is acknowledged that Hera Resources does have an existing consultation and complaints procedure.

One challenge that Hera Resources has faced in recent years is turnover of the Hera Mine Environmental Advisor role. Some stakeholders have been unable to identify the Hera Mine Manager following a change of personnel in the role. It is evident that this scenario has influenced accessibility of the Hera Mine Manager to stakeholders.

In relation to community feedback that decisions about Hera Mine are being made without a local influence, this is considered appropriate for a business of the size of Aurelia. It is typical that a mining company may have a corporate office in a major city where business decisions are made. Nevertheless, to improve the issue raised by the community, Aurelia’s General Manager has had a direct conversation with at least one resident who lives near the Site to discuss matters about the Project. This was well received by the resident.

For the purpose of the evaluating the potential impact of the Project on decision-making systems, it is assumed that the circumstances associated with Hera Mine described above would also apply to the Project if it proceeds. On this basis a low social impact significance (unlikely and minor magnitude) is the outcome of the decision-making systems (Appendix F). This outcome acknowledges issues raised by the community about access to Hera Resources decision making and complaint, remedy and grievance mechanisms. However, the overriding consideration is that

the Project would not exacerbate the situation that currently exists in the social locality. This is because no 'new' negative decision-making system or grievance mechanism would be introduced by the Project and it is expected that the current system would not deteriorate substantially, but could rather be improved.



CHAPTER 7

SOCIAL IMPACT
ENHANCEMENT, MITIGATION,
AND RESIDUAL IMPACTS

7 IMPACT ENHANCEMENT, MITIGATION, AND RESIDUAL IMPACTS

This final chapter identifies Project refinements, enhancements of some of the positive social impacts, and mitigation measures for some of the negative social impacts identified in Chapter 6. The impacts are then re-evaluated and residual impacts are predicted. The residual impacts are the predicted outcomes of the Project's SIA.

7.1 Project refinements

During SIA Phase 1, three potential negative social impacts associated with the Project were identified and targeted as Project refinement opportunities by the Project team. These impacts were identified in Table 6.1. Table 7.1 identifies the social impacts and the Project refinement either adopted or still being considered by the Project team.

Table 7.1 Project refinements

Project social impact predicted in SIA Phase 1 impact	Project refinement	Status
Accessibility (How people access and use infrastructure); specifically in relation to the impact the Project was predicted to have on the telecommunications network near Nymagee and mobile reception available to residents	Dedicated Project telecommunications infrastructure would be built for the Project to cater for the Federation workforce. The dedicated connection would eliminate accessibility impacts for Nymagee residents.	Adopted by the Project
Health and wellbeing (Physical and mental health); community concerns about dust generated by the TSF, ROM operations and the movement of heavy vehicles on unsealed roads (i.e. Burthong Road) which could be used by Project vehicles	Most of the material produced by the Project would be transported along Burthong Road for processing at Hera Mine. To mitigate the degradation of this road and predicted social impacts created by dust, the Project team is proposing a top seal of Burthong Road.	Being considered for the Project
Decision-making systems (Access to complaint, remedy and grievance mechanisms): additional direct engagement with Hera Resources representatives is desired by the community	Where required, Aurelia's General Manager would be available for a direct interface with Project stakeholders. An instance of this interface occurred during the SIA when a meeting was held between the General Manager and one Nymagee resident who sought a dialogue with a Project representative.	Adopted by the Project

7.2 Enhancement of positive social impacts

Community (community cohesion)

Chapter 6 provided evidence of Peak Gold Mines and Hera Resources being financial and in-kind donors to community programs and initiatives in the social locality. It is noted that the community would not experience these community cohesion benefits if the Project does not proceed.

There is an opportunity for the Project's positive community cohesion impact to be enhanced. As Hera Resources progresses its Project social planning, creating a social investment strategy (or similar) would formalise the benefits it provides to the community. A strategic approach would enable a review of Hera Resources' current contributions and ensure they align with emerging community needs and priorities of the company. This would strengthen social value already created.

This would be a minor enhancement to the predicted social impact and would not alter the high impact significance (almost certain to occur, with a moderate magnitude).

Health and well-being (physical and mental health)

A positive health and well-being impact of the Project is predicted on the basis that it would give the local population some confidence that someone 'would be around' in the event of an emergency. The same can be said for a physical health benefit in the event of physical harm.

The Project makes an impact on the mindset of the community in this regard, particularly for those residents in more remote areas. There is an opportunity to enhance this positive impact by more deliberately influencing the community mindset through targeted communications and engagement activities. The development of a dedicated Project communications and engagement (C&E) plan would guide such activities. A C&E plan with activities tailored to remote area residents (e.g., letter-drop to advise of staff or Project changes, or annual doorknock to select properties) would enable more regular communication and enhance the mental reassurance the Project provides to those residents.

On the basis that this potential impact enhancement would influence a larger number of people over a more widespread area, the impact would be of high significance (almost certain to occur, with a moderate magnitude).

Cultural (employment of Aboriginal people)

The predicted positive impact that the Project would provide for the employment of Aboriginal people could be enhanced via employment policy/strategy development. Hera Resources is an equal opportunity employer and intend to employ Aboriginal people on the Project should it proceed. This intention could be formalised by developing an Aboriginal employment policy and supporting strategy dedicated to the Project. Representatives from both the Condoblin LALC and Cobar LALC have expressed their interest in the development of such a policy and expressed their desires for a partnership with Hera Resources.

If such an enhancement was implemented, the positive impact is predicted to have a high significance (likely with moderate magnitude).

7.3 Mitigation of negative social impacts

Way of life (how people play)

The influence of FIFO/DIDO workers on reducing the social cohesion in the Project's social locality is predicted to be minimal, as the Project will not introduce a substantial number of new workers to the area.

One option to respond to the community perception about community cohesion would be to adopt a Project employment model favouring a resident workforce. This would entail hiring a majority local workforce and not providing on site accommodation for Project employees.

However, the available data suggests this model would not be viable. The Cobar LGA has 0.9% unemployment and has more jobs available than people to fill them (Balmoral Group Australia,

2021, p.17). An adequate Project workforce based locally is an unrealistic expectation. Furthermore, the notion that employees could be housed in local towns to boost community participation is not feasible as the local infrastructure and housing stock would be insufficient (refer Balmoral Group Australia, 2021). Therefore, an alternate employment model is not considered an option if the Project proceeds and it cannot be relied upon as a mitigation measure.

Accessibility (services and facilities)

The ground water interference is assessed to be within the Level 1 considerations in the NSW Aquifer Interference Policy (AIP). Under this grading, the Project is deemed acceptable to proceed. The recommendations made by the GIA (GHD, 2021) include the continuation of ground water monitoring at Nymagee, Hera Mine and the Project, and the installation of three new ground water monitoring bores prior to the commencement of mining at the Project. Make good provisions would also apply for two privately-owned bores predicted to experience drawdown greater than 2m (but less than 4m).

Following two years of operations, a review of the hydrogeological model predictions would take place. If required, the model would be revised to improve the fit between modelled and observed dewatering at the site.

Aside from the technical mitigation measures identified in the GIA, an additional mitigation measure to lessen the potential social impact would be to communicate groundwater monitoring results to any concerned stakeholders upon their request. This practice may alleviate any perceived risk the Project would have on groundwater accessibility.

With the above mitigation measures in place, it is expected the Project a low impact on groundwater accessibility. It would be unlikely to occur, with a minor impact magnitude.

Culture (connection to country)

Hera Resources has committed to protecting the culturally sensitive sites identified during the cultural heritage survey, in accordance with mitigation measures proposed by the cultural heritage consultant (AREA, 2021).

The Project area has avoided all cultural sites, except one. Hera Resources has agreed to protect this one site (a scar tree) located within the solar farm by erecting a 10 m buffer which would provide protection from potential harm. Another sensitive site is located 1 km west of the work associated with the Project and will not be affected. A further 19 sites are within 100 m of the Project and will require management from Project activities to avoid inadvertent harm. The favoured method for the management of these 19 sites is re-identification with the assistance of a qualified archaeologist and a member of the Aboriginal community. A 10 m buffer would be erected from the base of modified trees or a 5 m buffer around other sensitive sites using standard farm fencing. The remaining 8 Aboriginal sites are further than 100 meters of the Project area.

If any objects of suspected Aboriginal heritage origin are encountered during the proposed works (that haven't previously been identified through surveys), work in the area of the find would cease and an unexpected finds protocols would be implemented.

A rehabilitation strategy has been prepared for the Project which would, at the completion of the Project, provide measures to rehabilitate the land subject to mining activities to a similar land suitability and use as existing pre-mining.

If the above precautions are practiced, the Project is predicted to have a medium impact significance (possible with a magnitude reduced to moderate).

Health and wellbeing (physical and mental health)

Dust control measures that would apply to the Project are described by ERM Australia Pacific (2021) and include the:

- Use of additional water application, if required, on active unsealed haul roads;
- Use of additional water sprays, if required, on activities such as loading, unloading, front end loader operations, stockpiles and pads, tailings storage facility; and
- Use of a seal on Burthong Road.

Implementation of these mitigation measures would substantially reduce the potential negative physical health and well-being impacts, specifically for the sensitive receivers in the social locality.

An additional mitigation measure exists in the form of Project communications. ERM Australia Pacific (2021) states that a Project dust monitoring regime would be carried out during Project operations. The concentrations and deposition levels recorded by the monitors would be reported annually as part of an annual review. The annual review would be distributed to NSW Government agencies and regulators and made available on Aurelia's website.

To assist with transparency of the monitoring program and to address any anxiety held by residents in the social locality, Hera Resources could volunteer monitoring results to the nearest sensitive receivers on a more regular basis. This would be most valuable to the sensitive receiver known to Hera Resources who is most interested in the Project's potential health and well-being impacts related to dust.

On the basis the above mitigation measures are implemented, it is predicted that the Project's negative dust related impacts on health and well-being would be of a low significance (unlikely, minor magnitude).

Surroundings (public safety and security)

The Project's RTA (The Transport Planning Partnership, 2021) recommends a range of mitigation measures that would reduce its potential negative traffic impacts. Of the identified mitigation measures, the following would alleviate the predicted Project impact to surroundings (public safety and security):

1. Drivers of heavy vehicles associated with the Project would be bound by a Driver's Code of Conduct, consistent with that at Hera Mine, including behavioural expectations for regular drivers associated with the Project. The code of conduct should emphasise the sensitivity of some Hermidale residents, specifically in relation to the Nymagee Street and Nyngan Street intersection and heavy vehicles travelling past the public park. Extra driver caution could be encouraged at these locations.
2. A Traffic Management Plan (TMP) be prepared in consultation with Cobar Shire Council and Bogan Shire Council to address the use of public roads by Project traffic. The dialogue with Councils could be used to re-iterate the concerns of the community in relation to the adequacy of signage at the intersection and the community's preference for a stop sign.
3. Hera Resources investigate opportunities for use of higher capacity vehicles for haulage of ore, tailings and/or concentrates, which would reduce the number of Project-generated trips on the public road network.
4. Upgrade intersections and install signage as recommended in the RTA.

If the TMP and Drivers Code of Conduct emphasising traffic concerns in Hermidale were developed, and the potential reduction of Project-generated heavy vehicle volumes was realised, the significance of the social impact would be reduced to low (unlikely and minor magnitude).

Surroundings (noise and vibration)

The NVIA by Muller Acoustic Consulting (2021) concluded that the Project's noise emissions are predicted to remain below the EPA maximum noise trigger levels. If the Project proceeds, the NVIA recommended that a noise management plan be considered for the Project and that noise monitoring be conducted to confirm the predictions from the NVIA..

In Chapter 6 an evaluation of the unmitigated Project noise impacts was determined to be low (unlikely and minor magnitude). If the above mitigation measures recommended in the NVIA are applied to the Project, then the Project's noise impacts would be forecast as low (unlikely and of minor magnitude).

Decision-making systems (access to complaint, remedy and grievance mechanisms)

The development of a dedicated Project communications and engagement (C&E) plan was proposed as a mitigation measure to address predicted negative health and well-being impacts. The same C&E plan would serve as a mitigation measure for predicted decision-making systems impacts. For example, a dedicated C&E strategy created for the Project could:

- Create a plan for Aurelia's corporate staff to be more visible in the social locality, thereby addressing the desire of some Nymagee residents to have better access to the staff. One activity to satisfy this desire could be an annual community drop-in session held in Nymagee with Aurelia staff in attendance.
- Enable a review of the existing Hera Mine and complaints procedure and provide an opportunity for it to be adopted by the Project, should it proceed. This procedure would be reliable in the event of Project staff turnover, and it would provide communication channels for Project breaches, grievances and non-compliance.
- Include a plan to maintain the Project website after the conclusion of the EIS and provide contact details for the Hera Mine and the Project staff member responsible for receiving and responding to community feedback. At present contact details for a locally based person are not listed on the Hera Mine or Project webpage.
- Create a plan to diligently maintain the Project stakeholder database and notify stakeholders when senior staff changes are made.
- Formalise a plan to make the Aurelia General Manager available to the Project's near neighbours upon request.

If a dedicated Project C&E plan was developed which catered to the above issues, then the Project's predicted negative impacts on decision-making systems would be reduced. On this basis the impact significance would be considered low (unlikely and minimal).

7.5 Summary of social impacts

7.5.1 Impacts of not proceeding with the Project

Businesses in the social locality would lose revenue. For example, the Nymagee hotel would lose business by way of reduced food and beverage sales, poker machine profit and accommodation revenue. A Nymagee based business which services Hera Mine would also lose a substantial amount of its business. Hera Mine currently accounts for around 60% of its revenue.

Individuals would lose employment. For example, the Nymagee based business which services Hera Mine employs up to 25 people with the majority residing in the social locality. In addition, approximately 50 staff employed directly by Hera Resources would be not have ongoing employment once Hera Mine reaches the end of its life. In addition, the key mine contractors at Hera Mine would need to seek contracts for their workers at other mines, potentially not within the region. Families of these individuals would logically be affected as household income ceases. It is assumed many would not find alternate employment in the Cobar LGA and this could force families to leave the area in search of alternate income. Such a scenario would exacerbate the population decline already evident in the Cobar LGA.

Peak Gold Mines and Hera Resources have made substantial financial and in-kind donations to community programs and initiatives in the social locality over many years. Examples include but are not limited to the Miners Memorial and skate park in Cobar, and equipment donated to the Nymagee Community Hall and Hermidale CWA. If the Project does not proceed, Hera Mine would cease providing these donations and people in the social locality would not yield the associated ongoing community cohesion benefits.

7.5.2 Impacts of proceeding with the Project

Table 7.2 describes the predicted social impacts of the Project (see Appendix E).

Table 7.2 Social impacts summary

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
Predicted positive impacts								
Financial and in-kind donors to community programs and initiatives in the social locality	Community (community cohesion)	Nymagee residents, businesses and community groups Hermidale residents, businesses and community groups CSC and constituents	almost certain / moderate	high	construction and operation	Developing a social investment strategy (or similar) would formalise the benefits Hera Resources provides to the community	almost certain / moderate	high
Maintained revenue for businesses, and income for individuals and families employed by the Project. Also increased equity for property owners	Livelihood (People's capacity to sustain themselves – business and employment)	Project employees residing in the social locality Nymagee and Hermidale property owners	almost certain / major	very high	construction and operation	none suggested	almost certain / major	very high

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
Mental health benefits by giving people reassurance that people 'would be around' in the event of an emergency on quiet rural roads	Health and well-being (Physical and mental)	Residents in remote areas	likely / moderate	high	construction and operation	Developing a dedicated Project C&E plan would provide a means to give regular reminders to the community about the presence of people in remote areas near the Project	almost certain / moderate	high
Employment opportunity for Aboriginal people	Cultural (Employment of Aboriginal people)	Individual Aboriginal people LALCs	possible / minimal	low	construction, operation and rehabilitation	Developing a dedicated Aboriginal employment policy and supporting strategy	likely / moderate	high
Predicted negative impacts								
Employees of the mine do not actively participate and contribute to the community	Way of life	Residents and community groups Businesses owners in local community centres	unlikely / minor	low	construction and operation	none suggested	unlikely / minor	low
Groundwater accessibility and contamination	Accessibility (Services and facilities)	Property owners surrounding the Project who use groundwater	likely / minor	medium	operation	Implement measures in GIA and communicate groundwater monitoring to residents upon their request	unlikely / minor	low

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
Interference with culturally significant sites and/or mining leading to long-term changes to country, causing a loss of connection to country for local Aboriginal people	Culture (Connection to country, land and waterways)	Aboriginal people in the social locality and future generations Condoblin LALC	possible / major	high	construction and operation	Identified significant sites would be avoided and / or protected in accordance with the measures described by AREA (2021) A rehabilitation strategy has been prepared for the Project which would, at the completion of the Project, provide measures to rehabilitate the land subject to mining activities to a similar land use and suitability as existed pre-mining.	possible / moderate	medium
Dust generated by the TSF, ROM operations and the movement of heavy vehicles on unsealed roads which could be used by Project vehicles	Health and wellbeing (Physical and mental health)	Sensitive receivers	possible / moderate	medium	operation	Dust impacts would be mitigated via the measures described by ERM Australia Pacific (2021), including the seal of Burthong Road Regularly (e.g., quarterly) volunteer monitoring results to	unlikely / minor	low

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
						the nearest sensitive receivers		
The current and potential future volume of heavy vehicles passing through Hermidale where a new park is being developed. Also the number of trucks and the speed at which they pass through the Nymagee Road and Nyngan Street intersection)	Surroundings (Public safety and security)	Hermidale residents and business owners Park users including young children	possible / minor	medium	operation	Development of a TMP and Drivers Code of Conduct emphasising traffic concerns in Hermidale Realisation of the potential reduction of Project-generated heavy vehicle volumes	Unlikely / minor	low
Noise and vibration impacts during Project construction and operations (including blasting) (precautionary)	Surroundings (Noise and vibration)	Sensitive receivers	possible / moderate	medium	operation	Implement measures in NVIA (refer Muller Acoustic Consulting, 2021)	unlikely / minor	low

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
A perception that medical services in Cobar would be less accessible due to the increase of FIFO/DIDO workers employed by the Project	Livelihood (Distributive equity of impacts and benefits)	Residents in the Cobar LGA	unlikely / minimal	low	operation	None suggested	unlikely / minimal	low
Accessibility of Hera Resources staff to the Nymagee community, and their capacity to respond to issues or information requests could be improved	Decision-making systems (Access to complaint, remedy and grievance mechanisms)	Nymagee residents	unlikely / minor	low	construction and operation	A dedicated Project C&E plan responding to the issues raised by some people in Nymagee	unlikely / minimal	low

7.6 Impact monitoring and management

The practical arrangements for monitoring and managing social impacts can be integrated into the overarching environmental management systems.

Environmental management plans applicable to both the construction and operation of the Project would be developed and would provide a framework for social impact management and monitoring. The management plans would provide a mechanism to manage social issues identified by the SIA and nominated in Table 7.2 relating to:

- Groundwater contamination and accessibility;
- Protection of significant Aboriginal cultural sites;
- Dust generated by the Project;
- Project related traffic; and
- Noise and vibrations generated by the Project.

In addition to the environmental management plans, the C&E plan recommended for the Project would provide a program for the ongoing analysis of social risks and opportunities arising from the Project, including timing and frequency of reviews. This could include a regular analysis of complaints to see if there are any emerging issues relating to the Project, formal and informal feedback from the community, consultation through the Hera Mine CCC (which will incorporate the Federation Project) and any technical monitoring outcomes.

Under the responsibility of the Project Environmental Advisor, the C&E plan would also describe communications and engagement related to:

- Make good agreements, as required, for the two bores owned by the landholders where drawdown is predicted to be greater than 2m; and
- Provision of ground water and dust monitoring results to sensitive receivers upon request.

7.7 SIA recommendations and conclusion

Table 7.2 summarises the predicted social impacts for the Project (unmitigated and mitigated, positive and negative).

The Project is predicted to have positive impacts to livelihoods of individuals, the cohesion of communities (principally Nymagee and Hermitdale), the mental health of regional landholders, and the employment of Aboriginal people if the suggested enhancements described in Table 7.2 are realised. Importantly, the impacts are predicted to be high (or very high in the case of livelihood [people's capacity to sustain themselves – business and employment]) and would accrue to people in the social locality.

A significant aspect of the Project is that from early 2024, it is anticipated that all activities would be related to the Project operations. The operational workforce numbers would be transitioned from Hera Mine operations to Federation Project operations. This would ensure ongoing employment for people in the social locality and sustain the income for their households. This employment and income would terminate if the Project does not proceed.

The SIA has identified a range of predicted negative Project impacts to people in the social locality including:

- Way of life, in terms of the impact that a Project FIFO / DIDO workforce might make to community organisations, events, and the social fabric of the social locality;
- Aboriginal Culture, on the basis that the Project would be a subset of the mining industry that is considered by the LALC to create a long-term (if not permanent) disconnection to country;

- Health and well-being, surroundings (safety and security), and accessibility, respectively in relation to dust impacts, traffic movements in Hermidale, and groundwater impacts for landholders near the Project;
- Distributive equity of impacts for medical service providers in Cobar visited by FIFO / DIDO workers; and
- Decision-making systems and the access that Nymagee residents have to Aurelia or Project staff.

On the assumption that all negative impact mitigation measures identified by the SIA would be implemented by the Project, the predicted negative impacts were all evaluated to be of low significance or in the case of connection to culture of medium significance, and therefore do not overshadow the predicted positive social impacts.

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9 APPENDIX A – SOCIAL IMPACT CATEGORIES

Linear projects

Linear projects such as rail lines, roadways or utility services are typically narrow but long, like that illustrated in **Figure 7**. Analysis should consider the broader area as well as key precincts or areas that will experience a higher level of impact. Surveys of people in a wider region may inform an understanding of their ways of life and livelihoods (e.g. travel times and employment) and present a broad representation across a larger social locality.

- **livelihoods**, including people's capacity to sustain themselves through employment or business
- **decision-making systems**, including the extent to which people can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms.

Some projects may have impacts in all these categories, but others may only have a few. For example, an influx of workers could affect both 'way of life' and 'community'. Neatly categorising impacts is not as important as identifying and assessing them. The categories simply provide prompts to consider possible social impacts.

Consider how benefits and impacts are distributed differently between different social groups, and each group's capacity to respond to these. This includes impacts on Aboriginal communities, with consideration of livelihood and wellbeing of Aboriginal communities as well as cultural impacts. Depending on the project, it may be necessary to consider and assess reasonable and justified fears and concerns held by the community in relation to any of the above categories. The focus should be on their logical basis, not merely their number.

When assessing the nature and scale of social impacts, consider the project's:

- location, including whether it will be densely or sparsely populated, or whether it will be contained within one council boundary or several
- layout and design (e.g. whether it will be linear or contained within a discrete site)
- social locality
- proposed construction and operation methods, and expected duration of each method
- local and regional context including dependency on or proximity to other State significant projects or other forms of industry.

4.3 Categorising impacts

Use the following categories to identify likely social impacts:

- **way of life**, including how people live, how they get around, how they work, how they play, and how they interact each day
- **community**, including composition, cohesion, character, how the community functions, resilience, and people's sense of place
- **accessibility**, including how people access and use infrastructure, services and facilities, whether provided by a public, private, or not-for-profit organisation
- **culture**, both Aboriginal and non-Aboriginal, including shared beliefs, customs, practices, obligations, values and stories, and connections to Country, land, waterways, places and buildings
- **health and wellbeing**, including physical and mental health especially for people vulnerable to social exclusion or substantial change, psychological stress resulting from financial or other pressures, access to open space and effects on public health
- **surroundings**, including ecosystem services such as shade, pollution control, erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity

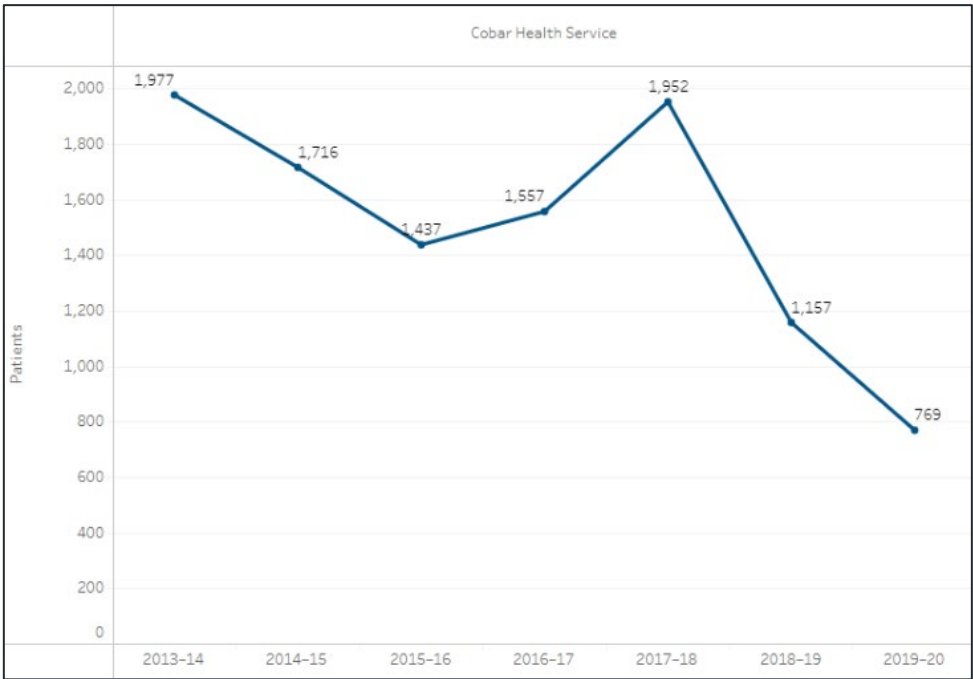
	Culture	Aboriginal and non-aboriginal Shared beliefs, customs, values and stories								
		Connection to country, land and waterways, places and buildings	The potential for cultural heritage impacts	Yes	Yes	Yes	The Project would require vegetation clearing for the proposed mining operations and subsequently, there is the potential that culturally significant features could be impacted. The LALC representative also noted that there is the potential for a disconnect between the Aboriginal community and land if Aboriginal heritage inspections of new water bore sites, to determine the presence of artefacts, are not commissioned.	Aboriginal Cultural Heritage R	Yes - fully	Desktop integration
		Employment of Aboriginal people at the mine		Yes	Yes	Yes	Further issues important to the Aboriginal community relate to the perception that there are insufficient numbers of Aboriginal people employed at the mine. With the focus on FIFO and DIDO work forces, the potential exclusion of this cultural group could adversely impact community cohesion.	No	No	Detailed
		other - please specify								
	Health and wellbeing	Physical and mental health	Potential air-quality impacts to residences	Yes	Yes	No	The community is concerned about dust generated by the tailings dam, Run of Mine (ROM) operations and the movement of heavy vehicles on unsealed roads (i.e. Burthong Road + MR419) which could be used by Federation Mine vehicles. Dust has the potential to create a health concern and also mental stress that could be exacerbated by the Project.	Air quality impact assessm	Yes - fully	Desktop integration
		Psychological stress from financial or other pressures				No				
		Changes to public health				No				
		other - please specify				No				
	Surroundings	Ecosystem services such as shade				No				
		Pollution control				No				
		erosion control				No				
		Public safety and security	Potential road safety impacts	Yes	Yes	Yes	Speeding heavy vehicles have been experienced on the local roads, which could impact the safety of other motorists or pedestrians. This impact could increase with additional heavy vehicle movements	Yes	Yes - fully	Desktop integration
		Access to and use of the natural and built environemnt								
		Aesthetic value and amenity				No				
		other - please specify	The potential for noise and vibration impacts from the Project	Yes	Yes	Yes	Vibration from blasting operations has been experienced and noted in existing community consultation documentation	se and vibration impact asse	Yes - fully	Desktop integration
Livelihood	Experience of personal breach or disadvantage				No					
	Distributive equity of impacts and benefits	Potential impact on service providers in Cobar	Yes	Yes	Yes	Any short-term increase in workers (i.e. during the construction phase), and the extension of the period of operations (i.e. the operational workforce numbers shift from mining at Hera Mine to mining at the Federation Site) has the potential for a disproportionate burden to be placed on medical (or other) services in Cobar	No	No	Detailed	
	other - please specify									
	Decision-making systems	Procedural fairness				No				
informed decision-making is experienced					No					
Meaningfully influence decisions					No					
Access to complaint, remedy and grievance mechanism		Potential impact on ability of the community to communicate with Project staff	Yes	Yes	Yes	Additional direct engagement with Hera Resources representatives is desired by the community	No		Detailed	
other - please specify				No						

11 APPENDIX C – ECA PROTOCOL

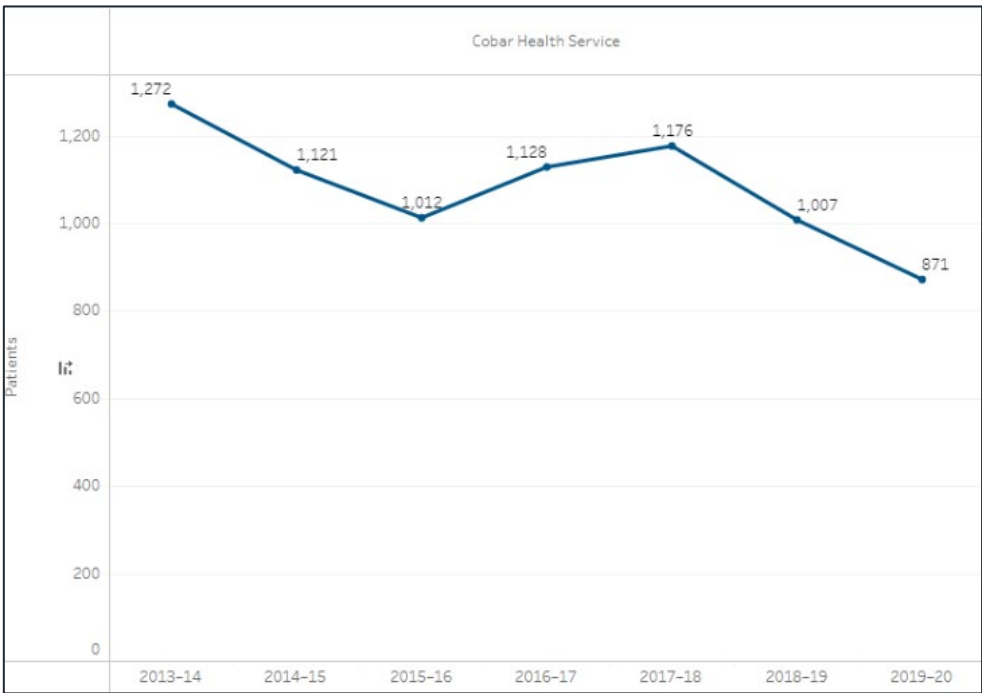
TABLE A								
Case No.	Search string	Publication	Date of article	Section	Frame	Theme	Discourse	Notes
1	Aurelia, Hera, Peak, Federation	CSC Business paper	27/02/2014	Stock/Cattle Truck Wash Bay	1	1	1	
2	Aurelia, Hera, Peak, Federation	CSC Business paper	28/08/2014	Budget items required to be carried over	1	1	1	
3	Aurelia, Hera, Peak, Federation	CSC Business paper	28/08/2014	New Cobar water treatment plant – selection of site	1	2	2	
4	Aurelia, Hera, Peak, Federation	CSC Business paper	28/08/2014	Approval of design for Cobar Skate Park	1	2	2	
5	Aurelia, Hera, Peak, Federation	CSC Business paper	28/08/2014	COBAR TRUCK WASH INDEPENDENT REVIEW	1	1	1	
6	Aurelia, Hera, Peak, Federation	CSC Business paper	25/09/2014	NAMING OF THE NEW COBAR SKATE PARK	1	1	2	
7	Aurelia, Hera, Peak, Federation	CSC Business paper	23/10/2014	REVISION OF COMMUNITY ENHANCEMENT PROGRAM	1	1	1	
8	Aurelia, Hera, Peak, Federation	CSC Business paper	27/11/2014	Development application Peak Gold Mine	DQ			
9	Aurelia, Hera, Peak, Federation	CSC Business paper	11/12/2014	Cobar Miners Memorial	2	1	1	
10	Aurelia, Hera, Peak, Federation	CSC Business paper	10/12/2015	PROPOSAL TO FUND GARAGE CONVERSION AT COBAR	1	1	2	
11	Aurelia, Hera, Peak, Federation	CSC Business paper	26/05/2015	PRIMARY HEALTH CARE CENTRE	1	1	2	
12	Aurelia, Hera, Peak, Federation	CSC Business paper	26/05/2015	Third quarterly review of annual operational plan	DQ			
13	Aurelia, Hera, Peak, Federation	CSC Business paper	25/08/2016	CLASSIFICATION OF LAND PURCHASED FROM PEAK				
14	Aurelia, Hera, Peak, Federation	CSC Business paper	24/11/2016	GOLD FOR THE SITE OF THE NEW WATER TREATMENT PLANT				
15	Aurelia, Hera, Peak, Federation	CSC Business paper	8/12/2016	VOLUNTARY PLANNING AGREEMENT – AURELIA (HERA) RESO	3	2	3	
16	Aurelia, Hera, Peak, Federation	CSC Business paper	23/02/2017	INTERNAL AUDIT COMMITTEE	DQ			
17	Aurelia, Hera, Peak, Federation	CSC Business paper	24/08/2017	Peak Gold Mine	3	3	2	
18	Aurelia, Hera, Peak, Federation	CSC Business paper	28/06/2018	Miners Memorial	2	1	2	
19	Aurelia, Hera, Peak, Federation	CSC Business paper	23/08/2018	Gravel Re-sheeting and Causeways	DQ			
20	Aurelia, Hera, Peak, Federation	CSC Business paper	28/02/2019	COUNCIL COMMITTEES/ DELEGATES FOR HERA MINE	DQ			
21	Aurelia, Hera, Peak, Federation	CSC Business paper	28/02/2019	COMMUNITY CONSULTATIVE COMMITTEE				
22	Aurelia, Hera, Peak, Federation	CSC Business paper	23/05/2019	Proposed Capital Works Program 2018/2019	DQ			
23	Aurelia, Hera, Peak, Federation	CSC Business paper	22/08/2019	NOTION OF MOTION – GREAT COBAR PROJECT – AURELIA	DQ			
24	Aurelia, Hera, Peak, Federation	CSC Business paper	26/03/2020	METALS				
25	Aurelia, Hera, Peak, Federation	CSC Business paper	23/07/2020	LTD FOR PROPOSED MINERAL EXPLORATION ACTIVITIES				
				GREAT COBAR PROJECT – REVIEW OF ENVIRONMENTAL FACT	DQ			
				DEVELOPMENT APPROVALS: 16 APRIL 2019 – 14 MAY 2019	DQ			
				NOTICE OF MOTION – REQUESTS FOR ADDITIONAL WATER	DQ			
				STORAGE				
				NEW COBAR COMPLEX COMMUNITY CONSULTATIVE COMMIT	DQ			
				COBAR WATER BOARD WATER ACCESS AGREEMENT	DQ			
TABLE B								
Frames		Themes		Discourses				
1	Community infrastructure need	1	Funding required for community infrastructure or social project	1	Peak Gold Mine is a possible donor and funding solution			
2	Social project need	2	Property required for community infrastructure	2	Peak Gold Mine is a valued community partner			
3	Community planning processes	3	Positive relationship with Council	3	Hera Resources is a funding partner			

12 APPENDIX D – HOSPITAL ADMISSIONS

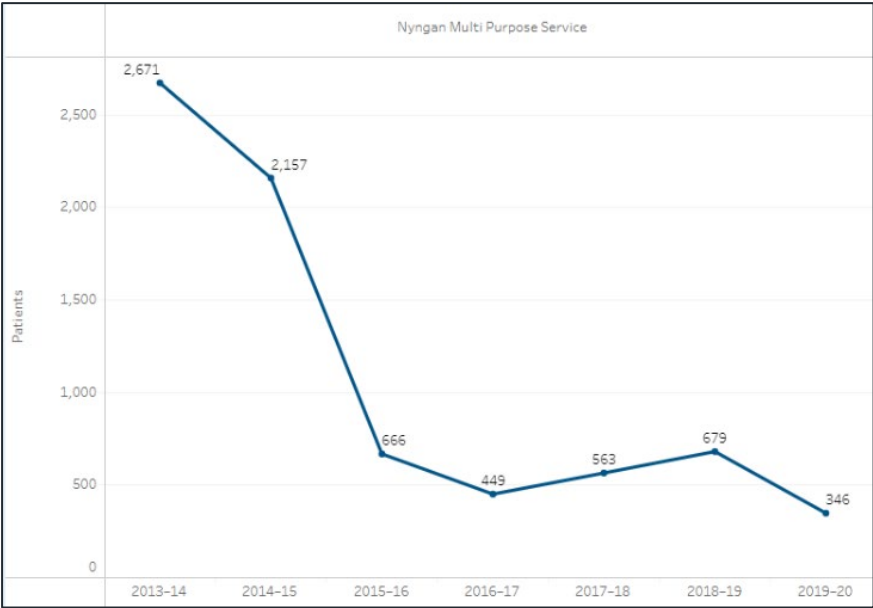
Non urgent admissions to Cobar Health Clinic



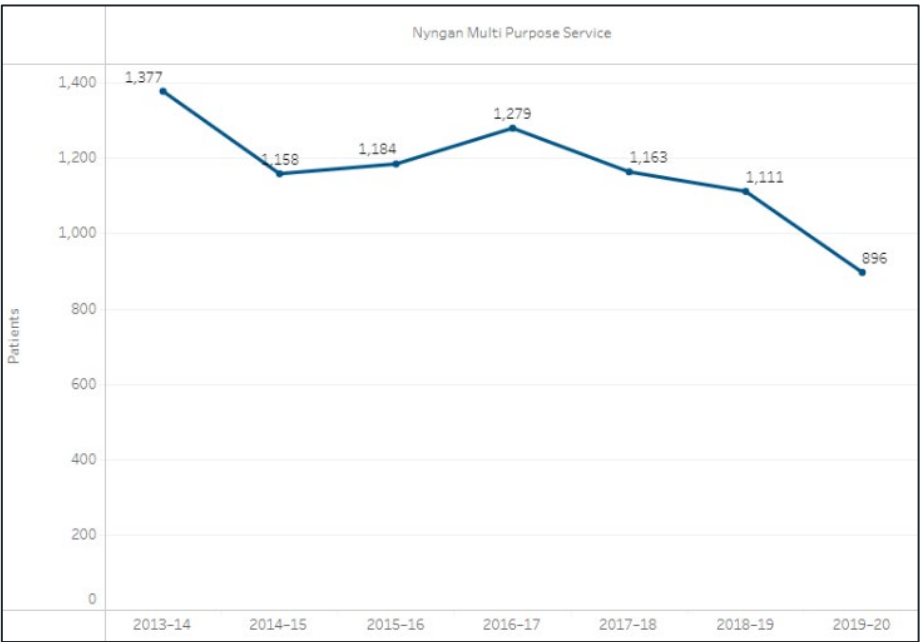
Semi Urgent admissions to Cobar Health Clinic



Non urgent admissions to Nyngan Multi-Purpose Service



Semi urgent admissions to Nyngan Multi-Purpose Service



13 APPENDIX E – DEFINING MAGNITUDE LEVELS AND LIKELIHOOD FOR SOCIAL IMPACTS

Magnitude level	Meaning
Transformational	Substantial change experienced in community wellbeing, livelihood, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community.
Major	Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area.
Moderate	Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people.
Minor	Mild deterioration/improvement, for a reasonably short time, for a small number of people who are generally adaptable and not vulnerable.
Minimal	Little noticeable change experienced by people in the locality.

Likelihood level	Meaning
Almost certain	Definite or almost definitely expected (e.g. has happened on similar projects)
Likely	High probability
Possible	Medium probability
Unlikely	Low probability
Very unlikely	Improbable or remote probability

Magnitude level					
	1	2	3	4	5
Likelihood level	Minimal	Minor	Moderate	Major	Transformational
A Almost certain	Low	Medium	High	Very High	Very High
B Likely	Low	Medium	High	High	Very High
C Possible	Low	Medium	Medium	High	High
D Unlikely	Low	Low	Medium	Medium	High
E Very unlikely	Low	Low	Low	Medium	Medium

Source: (DPIE, 2021)



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