

# CHAPTER 5

## STAKEHOLDER CONSULTATION



## BIRD IN HAND GOLD PROJECT

### MINING LEASE APPLICATION



## COPYRIGHT

Copyright © Terramin Exploration Proprietary Limited and Terramin Australia Limited, 2019.

All rights reserved

This document and any related documentation is protected by copyright owned by Terramin Exploration Proprietary Limited and Terramin Australia Limited. The content of this document and any related documentation may only be copied and distributed for the purposes outlined in section 35A of the *Mining Act, 1971* (SA) and only otherwise with the prior written consent of Terramin Exploration Proprietary Limited and Terramin Australia Limited.

## DISCLAIMER

A declaration has been made on behalf of Terramin Exploration Proprietary Limited and Terramin Australia Limited by its Chief Executive Officer that he has taken reasonable steps to review the information contained in this document and to ensure its accuracy as at 31<sup>st</sup> May 2019.

Subject to that declaration:

- (a) in writing this document, Terramin Exploration Proprietary Limited and Terramin Australia Limited have relied on information provided by specialist consultants, government agencies, and other third parties. Terramin Exploration Proprietary Limited and Terramin Australia Limited have reviewed all information to the best of their ability but do not take responsibility for its accuracy or completeness; and
- (b) this document has been prepared for information purposes only and, to the full extent permitted by law, Terramin Exploration Proprietary Limited and Terramin Australia Limited, in respect of all persons other than the relevant government departments, makes no representation and gives no warranty or undertaking, express or implied, in respect to the information contained herein, and does not accept responsibility and is not liable for any loss or liability whatsoever arising as a result of any person acting or refraining from acting on any information contained within it.

Document Control

This Document is a controlled document. The Document Controller holds the Master electronic copy.

Master Document Information			
Document Number	File Path	Format	Last Modified
BIHMLP_V2	O:\Technical\Bird In Hand\Regulatory\DSD\ML Application\BIHMLP_V2	PDF	18/6/2019

If you become aware of any changes or corrections that are required please photocopy this page and the relevant page(s) requiring changes, note the corrections, and email them to the Document Controller:

Document Controller:

Terramin Exploration Pty Ltd

Unit 7 / 202-208 Glen Osmond Road

Fullarton, South Australia 5063

Tel: 08 8213 1415

email: [info@terramin.com.au](mailto:info@terramin.com.au)

Distribution Electronic Copies (Body and Appendices)

Document Number	Issued To	Format	Date
BIHMLP_Draft_V1	DEM	Adobe	18/12/2017
BIHMLP_V2	DEM (45 copies)	PDF	21/6/2019
BIHMLP_V2	DEM (5 copies)	Hard Copy	21/6/2019

Contents

Figures .....	3
Tables.....	4
5 Stakeholder Consultation .....	5
5.1 Applicable Legislation and Standards .....	5
5.2 Engagement and Consultation Approach .....	5
5.2.1 Engagement Approach .....	5
5.2.2 Tailoring Engagement .....	6
5.3 Stakeholders .....	7
5.3.1 Engagement and Information Collecting Tools and Activities .....	10
5.3.2 Consultation Inputs.....	11
5.4 Engagement program .....	12
5.4.1 Community Information Sessions/Public Meetings.....	13
5.4.2 Focus groups .....	15
5.4.3 Community Consultative Committees .....	16
5.4.4 Technical Workshops.....	19
5.4.5 One on One contact.....	19
5.4.6 Meetings with other groups .....	22
5.4.7 Questions and Answers (Q and As) .....	23
5.4.8 Questionnaires/Surveys.....	23
5.4.9 Ongoing Consultation .....	25
5.5 Stakeholder Engagement Activity Summary .....	25
5.6 Identifying and Managing Concerns, Benefits and Issues .....	29
5.6.1 Issues identification .....	29
5.6.2 Concerns Raised.....	30
5.6.3 Benefits Raised.....	31
5.6.4 Stakeholder Benefits and Issues Register.....	32
5.7 Outcome Development.....	56
5.8 Conclusion .....	66

## FIGURES

Figure 5-1   Spectrum of Engagement .....	6
Figure 5-2   CEP development cycle and outcome development .....	12
Figure 5-3   Stakeholder Consultation Inputs .....	12



Figure 5-4 | Examples Invitation Community Meetings..... 13  
Figure 5-5 | Community OPEN Day 28 May 2017 ..... 14  
Figure 5-6 | Example Posters water Management (May 2017) and visual amenity (September 2017)..... 14  
Figure 5-7 | Contact by Stakeholder Grouping ..... 20  
Figure 5-8 | Direct contact with Terramin by mode ..... 20  
Figure 5-9 | Direct Contact with Terramin by Issue raised (Issues Groupings) ..... 21

## TABLES

Table 5-1 | Stakeholder Groupings..... 7  
Table 5-2 | Stakeholder classification..... 8  
Table 5-3 | Engagement level..... 8  
Table 5-4 | Stakeholder engagement levels..... 9  
Table 5-5 | Stakeholder Engagement Tools and Activities..... 10  
Table 5-6 | WCCC Meeting schedule, themes and attendance..... 17  
Table 5-7 | Stakeholder Engagement Activity Summary ..... 25  
Table 5-8 | Issues categorisation 2017..... 30  
Table 5-9 | Stakeholder Benefits and Issue Register..... 32  
Table 5-10 | Outcomes, community feedback, Terramin responses and Final Draft Outcome ..... 56

## 5 STAKEHOLDER CONSULTATION

This chapter describes the requirements for and the steps taken to identify, liaise, document, communicate and engage with stakeholders associated with the proposed Mining Lease (ML) for the Bird in Hand Gold Project (BIHGP). It provides a definition of Stakeholders relating to the Project, the methods of engagement and consultation, the engagement program and how aspects of the project were presented to the community to assist in understanding expectations and develop outcomes.

This chapter has been prepared by D4G Pty Ltd (Design for Growth) to independently provide an overview of stakeholder consultation and engagement.

### 5.1 APPLICABLE LEGISLATION AND STANDARDS

The relevant legislation regarding the social environment and the proposed Project emanates from the Mining Act 1971 (SA), and the associated determination developed for the Project by the Department of the Premier and Cabinet – *Determination for a Mining Proposal for the BIHGP*, and was released in the South Australian Government Gazette on the 5<sup>th</sup> April 2017.

There is no specific legislation or standards relevant to social impacts, however, Terramin’s assessment methods are driven largely by best practice guidelines, which are explained in more detail below in 5.2 Engagement and Consultation Approach.

### 5.2 ENGAGEMENT AND CONSULTATION APPROACH

The Community Engagement Plan (CEP) largely drives Terramin’s community engagement. The legislative context for the CEP is described below:

Stakeholder consultation in relation to mining projects in South Australia is controlled by the Mining Act 1971 (SA) and the associated Mining Regulations 2011, regulated by the Department for State Development.

The Community Engagement Plan has been included in Appendix C1.

#### 5.2.1 ENGAGEMENT APPROACH

Terramin aims to build enduring relationships with our neighbours that are built on mutual respect, active partnership and long-term commitment.

Terramin has considered the approaches that could be considered to engage with stakeholders and will draw on a spectrum, which includes opportunities to;

INFORM	Provide balanced and objective information to assist understanding of issues, alternatives, opportunities and solutions; to those stakeholders who prefer information only.
CONSULT	Obtain stakeholder feedback on issues, alternatives, opportunities and solutions, with those stakeholders who want their opinions heard.
INVOLVE	Engagement with stakeholders who may have a higher level of expertise or insight on an issue and want to provide feedback, alternatives, opportunities and solutions.
COLLABORATE	A higher level of engagement, which establishes partnerships with stakeholders to develop alternatives and the identification of preferred solutions.

**EMPOWER** The highest level of community decision making, where decisions of the public are implemented. A key example of this is a ballot. Empowerment is not an outcome of community engagement in this project but is an integral stage of the engagement continuum.

The Terramin approach has also drawn on and been informed by;

- DPC Guidelines
- Ministerial determinations
- South Australian government framework: “Better Together”:
- South Australian Chamber of Mines and Energy Code of Practice for Community and Stakeholder Engagement
- Good Practice guides and guidance

Terramin recognises that a key element of the South Australian government approach to community engagement is “Better Together”:

1. we know why we are engaging and we communicate this clearly
2. we know who to engage
3. we know the background and history
4. we begin early
5. we are genuine
6. we are creative, relevant and engaging.

### 5.2.2 TAILORING ENGAGEMENT

Terramin tailors our engagement to meet the expectations of stakeholders. The level of engagement will consider and reflect the stakeholder group’s level of interest.

Terramin notes that with increasing levels of engagement the community can and does have greater impact.

Figure 5-1, below adopted from The City of Burlington Community Engagement Charter<sup>1</sup> encapsulates the work of IAP<sup>2</sup> (International Association for Public Participation) spectrum of public participation.

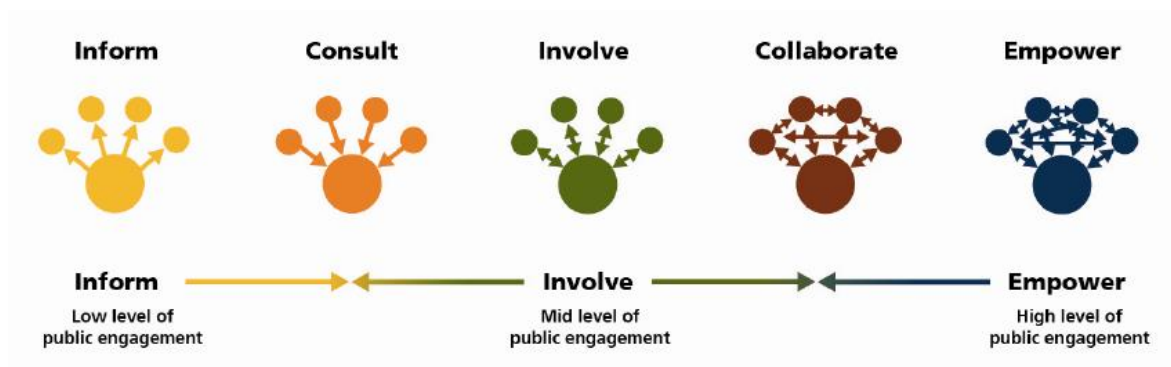


FIGURE 5-1 | SPECTRUM OF ENGAGEMENT

<sup>1</sup> [https://www.burlington.ca/en/your-city/resources/get\\_involved/approved\\_charter\\_april\\_8\\_2013.pdf](https://www.burlington.ca/en/your-city/resources/get_involved/approved_charter_april_8_2013.pdf)

### 5.3 STAKEHOLDERS

Stakeholders are broadly defined as groups or individuals that can be reasonably expected to be affected by the Project’s activities, or whose actions can reasonably be expected to affect the Project’s ability to successfully implement its strategies and achieve its objectives.

An internal stakeholder analysis was completed to provide the basis for consultation for the Project and included the identification of all stakeholders to date.

The stakeholder mapping process for this phase in the Project lifecycle identified 13 stakeholder groups as having an interest in, or influence on, the Project. The SACOME Code of Practice defines stakeholders as:

Individuals or groups with an interest in a proposal or project. Stakeholders may be directly or indirectly affected by the proposal or project. (SACOME 2012).

The stakeholder groupings have been reviewed throughout the engagement process. In particular, during the public meetings to establish the Woodside Community Consultative Committee (WCCC), focus Groups and Drop-In Days and community event, individuals and organisations described their relationship to the project. No additional groupings have come to light during these engagements.

The identified stakeholder groups are detailed in Table 5-1

**TABLE 5-1 | STAKEHOLDER GROUPINGS**

Stakeholder Group	Description
Immediate Landowners	There are eleven (11) landowners who abut or are within the mining lease.
Regional Landowners	Landowners within the region who perceive a potential tension with mining on their reputation, market positioning, amenity and/or land use.
Local Communities	Local communities/townships who are potentially impacted by the project, particularly Woodside, Inverbrackie and Strathalbyn.
Catchment groundwater users	Landowners who hold the appropriate licensing and water allocation and have an interest in the quality and quantity of groundwater.
Visitors to the Region	Those visiting the area for a day or short term stay at holiday accommodation. Peak bodies who represent visitors to the region SATC and Adelaide Hills Tourism.
Local Government	Proximal local council (Adelaide Hills; Alexandrina; and Mt Barker) with a particular focus on local roads, planning, economic development and approvals.
Regulators	Agencies including DEM, EPA, DPTI, SA Water, SA Power Networks, SafeWork SA and DEW with direct regulatory roles.
Local Agencies	Stakeholders who play a role in regional development, education, training, emergency services and law enforcement. (ie: RDA; Woodside CFS; St John Ambulance)
Elected Members	Elected members (Federal seat of Mayo, State seat of Kavel (Woodside) and Heysen (Strathalbyn))
(Local) Interest Groups	Informal groups representing members with a common interest ie: Inverbrackie Groundwater Focus Group; Inverbrackie/Mitchell Creek Catchment Group, local Landcare groups, including New Springs and Northern Bremer Landcare groups and Biodiversity and Conservation groups including; the Nature Conservation Society of SA, Upper Torrens Landcare Group
Local business	Businesses which operate in Woodside and the Adelaide Hills region, including tourism operators.



Stakeholder Group	Description
Media	State and Industry media and local media particularly; The Advertiser; The (Mt Barker) Courier; (The Adelaide Hills) Weekender Herald, PowerFM; ABC 891 and 5MU.
Industry; Lobby Groups	Groups with formal structure to represent potentially impacted members ie: SACOME, AusIMM, NRM; Adelaide Hills Tourism and SA Wine Industry Assoc.
Internal Stakeholders	Investors, shareholders, employees and project contractors.

It was envisaged that the WCCC membership would have a broad representation and include the majority of the stakeholder groups as shown in Table 5-1. The stakeholder groups not represented are the members of government, industry bodies and media.

For the purpose of stakeholder classification, primary stakeholders were defined as those who have the potential to be impacted by the Project and secondary stakeholders are those with an interest/influence in the Project. Stakeholders have been allocated across four levels to differentiate between high and low levels of potential impact and high and low levels of interest/influence as below in Table 5-2.

TABLE 5-2 | STAKEHOLDER CLASSIFICATION

Level 1:	Level 2:	Level 3:	Level 4:
<b>Primary Stakeholders</b> high impact/interest with high levels of influence	<b>Secondary Stakeholders</b> low impact/interest with high levels of influence	<b>Primary Stakeholders</b> high impact/interest with low levels of interest	<b>Secondary Stakeholder</b> low impact/interest with low levels of interest

Applying this approach to stakeholder groupings, the levels of engagement required is determined (qualitative). This is subject to change as the project progresses.

The engagement levels are presented below in Table 5-3.

TABLE 5-3 | ENGAGEMENT LEVEL

Inform:	Consult:	Involve:	Collaborate:
Provide balanced and objective information to assist understanding of issues, alternatives, opportunities and solutions.	To obtain stakeholder feedback on issues, alternatives, opportunities and solutions.	To work directly with stakeholders to ensure issues, opportunities are understood and solutions considered.	To establish partnerships with stakeholders to develop alternatives and the identification of preferred solutions.

Through assessing the stakeholder classification and the required engagement level, the most appropriate engagement strategy is identified. The engagement strategies are based on the identified stakeholder type and engagement level. Stakeholder engagement levels are shown in Table 4.

TABLE 5-4 | STAKEHOLDER ENGAGEMENT LEVELS

Stakeholder Group	Description	Level Engagement
Immediate Landowners	There are eleven (11) landowners who abut or are within the mining lease.	High
Regional Landowners	Landowners within the region who perceive a potential tension with mining on their reputation, market positioning, amenity and/or land use.	High
Local Communities	Local communities/townships who are potentially impacted by the project, particularly Woodside, Inverbrackie and Strathalbyn.	High
Catchment groundwater users	Landowners who hold the appropriate licensing and water allocation and have an interest in the quality and quantity of groundwater.	High
Visitors to the Region	Those visiting the area for a day or short term stay at holiday accommodation. Peak bodies who represent visitors to the region SATC and Adelaide Hills Tourism.	Medium
Local Government	Proximal local council (Adelaide Hills; Alexandrina; and Mt Barker) with a particular focus on local roads, planning, economic development and approvals.	High
Regulators	Agencies including DEM, EPA, DPTI, SA Water, SA Power Networks, SafeWork SA and DEW with direct regulatory roles.	High
Local Agencies	Stakeholders who play a role in regional development, education, training, emergency services and law enforcement. (ie: RDA; Woodside CFS; St John Ambulance)	High
Elected Members	Elected members (Federal seat of Mayo, State seat of Kavel)	Medium
(Local) Interest Groups	Informal groups representing members with common interest ie: Inverbrackie Groundwater Focus Group; Inverbrackie/Mitchell Creek Catchment Group, local Landcare groups, including New Springs and Northern Bremer Landcare groups and Biodiversity and Conservation groups including; the Nature Conservation Society of SA, Upper Torrens Landcare Group	High
Local business	Businesses which operate in Woodside and the Adelaide Hills region, including tourism operators.	High
Media	State and Industry media and local media particularly; The Advertiser; The (Mt Barker) Courier; (The Adelaide Hills) Weekender Herald, PowerFM; ABC 891 and 5MU.	High
Industry ; Lobby Groups	Groups with formal structure to represent potentially impacted members ie: SACOME, AusIMM, NRM; Adelaide Hills Tourism and SA Wine Industry Assoc.	High
Internal Stakeholders	Investors, shareholders, employees and project contractors.	High

### 5.3.1 ENGAGEMENT AND INFORMATION COLLECTING TOOLS AND ACTIVITIES

In line with the approach described above, a range of engagement tools and activities have been utilised to communicate and engage with stakeholders, as shown in Table 5-5.

TABLE 5-5 | STAKEHOLDER ENGAGEMENT TOOLS AND ACTIVITIES

Engagement Activity	Description	Approach
Advertising	Advertising will promote key events, including WCCC meetings and invite participation.	Inform
Articles	Articles, press releases and press briefings to inform on key issues, specific events and programs and invite feedback.	Inform
Brochures: discussion papers	Terramin communicate the progress of the project and advertise events via newsletters, the website and newspaper advertisements.	Inform
Community information sessions (inc. Open Days)	This format of community events can include; Town Hall Meetings, Drop-In Days and Listening Posts to provide access to specialist information and opportunities for interactive Q and A forums, which may be attended by expert consultants.	Inform Consult Involve
(Woodside) Community Consultative Committee	A formal committee established to allow for regular discussion between Terramin and the community about the Project. Whilst not a decision-making body, it is a forum for the community to present and resolve issues and be regularly informed about the project.	Inform Consult Involve Collaborate
Correspondence (inc. emails)	Terramin receive and respond to enquiries from stakeholders in writing. Terramin maintains a stakeholder database and uses emails to address specific groups of stakeholders on issues of interest. A dedicated email address has been established for the BIHGP – <a href="mailto:bih@terramin.com.au">bih@terramin.com.au</a>	Inform
Focus Groups (inc. technical workshops)	Focus groups and workshops facilitate conversations and range of opinions on a particular topic/issue.	Inform Consult Involve
Newsletters; Community Updates	Newsletters include project updates and FAQs. Newsletters are delivered via Australia Post and included at community locations (ie: library, community noticeboards and shops).	Inform
One on one meetings	Meetings held between the company and individuals from the community to discuss aspects of the project.	Inform Consult
Public Submissions	Written correspondence received from the community (usually addressed to government) following the announcement of a project or a release of information.	Inform Involve
Questionnaires/surveys	Online or paper based questionnaire-requesting feedback on a specific issue or project.	Inform Consult
Site tours	Tours of the BIHGP may be held to provide an understanding of the size and layout of the project.	Inform Involve
Speaking Engagements	On invitation Terramin staff are available to present and speak about the project development and operations to conferences, the community and business groups.	Inform Involve
Sponsorship & Community partnerships Stronger Communities	Collaborations between Terramin and the community to enable a shared goal. Terramin is committed to the establishment of a formal sponsorship program (during operation) which provides a transparent method for community support initiatives.	Inform Involve
Social media	Terramin utilise LinkedIn to provide regular information to the investor community regarding latest ASX updates.	Inform
Community Comments Phone Line	A dedicated 24 hour phone number is available for interested parties to be able to contact Terramin - +61 8 8536 8010.	Inform Involve

Engagement Activity	Description	Approach
Website	Online resource for communities to access information about the project at any time. FAQs, discussion papers, presentations and approval documentation are published online at <a href="http://www.terramin.com.au">www.terramin.com.au</a>	Inform
Q and As	Terramin has compiled all questions received via all the methods above, and consolidated responses into a set of Questions and Answers, which are available on the website.	Inform Involve

### 5.3.2 CONSULTATION INPUTS

In addition to Terramin’s engagement process, the company has been providing the community and stakeholders with information on when and how they are able to engage formally with the review of Terramin’s Mining Lease Application (MLA).

At the Community Drop-In-Days (28 and 29 May 2017, 25 September 2017 and 28 and 29 April 2019) one of the Posters detailed ‘Project Progression’ identified the stages at which the community can provide formal input to the regulators. A complete set of posters is available on the Terramin website – Community - Bird in Hand Community page. The April 2019 poster set is included in Appendix C3.

Internally Terramin acknowledge that the community input should and does influence the development and design of the project and therefore the preparation and lodgement of the MLA. Terramin continue to utilise Community Engagement Plan processes to gather information and feedback from the local community and stakeholders, as identified above in Table 5-1, in order to inform the proposed outcomes for the BIHGP. Proposed outcomes are project objectives developed in consultation with community input through the consultation program

Information gathered is used to develop outcomes, which are then tested with identified stakeholders through further engagement. This process is iterative, as it includes reporting on engagement and experiences, reviewing new information from the recent consultation, and using it to review and update the CEP and the proposed outcomes. This process also ensures that the proposed outcomes are reflective of the general feedback and information gathered. Outcomes which include community perspectives provide a platform for the company to deliver on community expectations.

#### CASE EXAMPLE

Water has been an ongoing focus for the WCCC, the broader community and the Terramin team. As a consequence of the Managed Aquifer Recharge testing and community engagement with the WCCC and Interest Groups Terramin have adjusted the Water Management Outcome Statement from:

*No contamination of natural water drainage systems, streams and rivers, groundwater, land and soils occurs either on or off site resulting from mine ore, waste material or from mining activities*

to;

*No adverse impact to the supply of water caused by the mining operators to existing users and water dependant ecosystems*

This reflects clearer and more precise statement which meets community expectations.

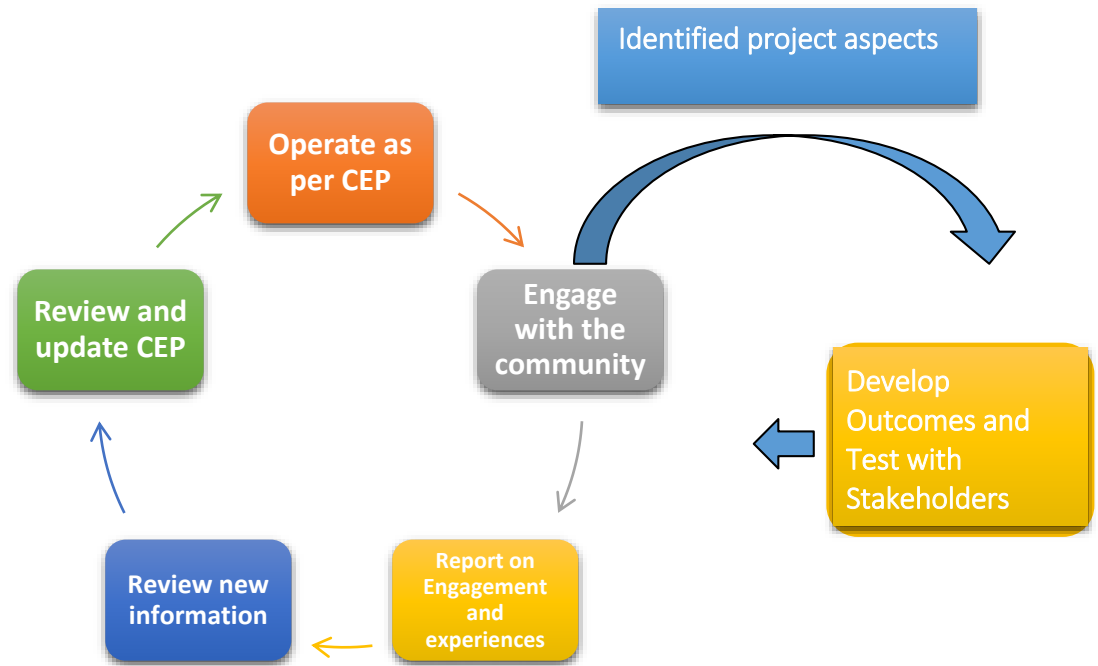


FIGURE 5-2 | CEP DEVELOPMENT CYCLE AND OUTCOME DEVELOPMENT

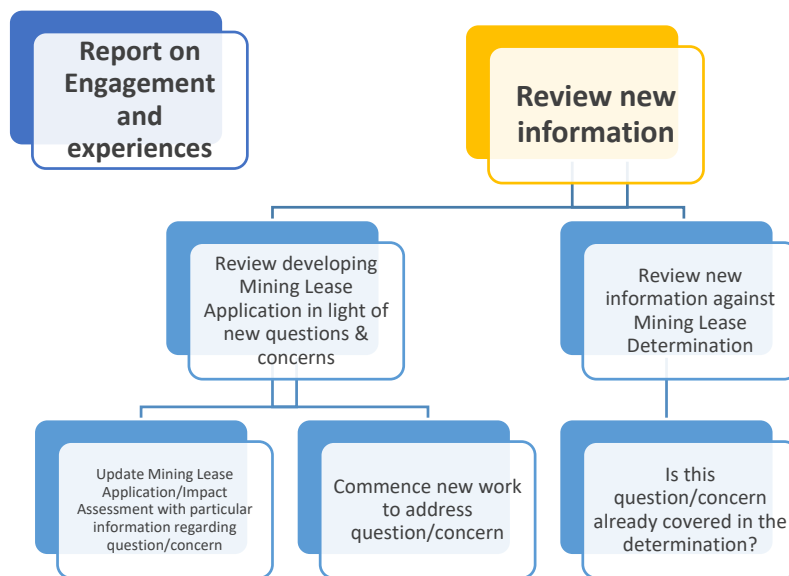


FIGURE 5-3 | STAKEHOLDER CONSULTATION INPUTS

## 5.4 ENGAGEMENT PROGRAM

The effective implementation of an engagement program has been a focus for Terramin since 2013. Terramin’s approach aims to build enduring relationships with neighbours that are built on mutual respect, active partnership and long-term commitment.

Terramin drew on the spectrum of Inform, Consult, Involve, Collaborate and Empower, which is underpinned by community development principles, DPC guidelines, ministerial determinations, government frameworks and policies, SACOME guidelines, and best practice guidance to develop its approach.

#### 5.4.1 COMMUNITY INFORMATION SESSIONS/PUBLIC MEETINGS

Terramin recognises that stakeholders will have ongoing questions regarding the proposed mining lease. Terramin have held a number of open or public/community/town hall meetings including;

- Town Hall meeting September 2016,
- Community Drop In days May and September 2017 and
- ‘Listening Post’ community meetings in April 2019.

Each of these meetings have been held in the Woodside Institute Hall, a well-known and easily accessible venue.

All community meetings and WCCC meetings (which include a public gallery) were advertised in the local media, newsletters and email information sent to stakeholders.



FIGURE 5-4 | EXAMPLES INVITATION COMMUNITY MEETINGS

For the Community Drop in Days, large format posters and electronic displays were designed to provide information on key aspects of the project. In addition to Terramin staff, subject technical experts attended to answer questions from community members who attended.

A set of posters from the Community Open Day in April 2019 is included in Appendix C3.

##### 5.4.1.1 COMMUNITY OPEN DAY MAY 28,29 2017

Held at the Woodside Town Hall, from 10am to 3pm on Sunday May 28 and, from 10am to 8pm on Monday May 29, 2017. At least 89 people attended the open days and were able to speak to Terramin staff and key experts. This included consultants who have prepared the modelling and information on which the mine design and (yet to be lodged) Mining Lease Proposal (MLP) have been based. The attendance profile reflected similar numbers at previously held community meetings and focus groups.



FIGURE 5-5 | COMMUNITY OPEN DAY 28 MAY 2017

Attendees were invited to leave feedback on the feedback forms and staff and consultants also maintained records of the themes of conversations they had. These issues and the responses provided were summarised.

### Water Management

No contamination of natural water drainage systems, streams and rivers, groundwater, land and soils occurs either on or off site resulting from mine ore, waste material or from mining activities

#### Ground Water

The existing environment's prime aquifer system is a Fractured Rock Aquifer which comprises of several rock types, namely the Tully Hill Formation, Brighton Limestone (Marble), Tarcovna Silstones, Cox Sandstone and the Kiamantoo Formation to the east of the catchment.

The aquifer is capable of supplying groundwater at rates of 140 Litres per second to several operational bores and provides water to springs in Inverbrackie Creek, with a salinity of less than 1500 mg/L.

Salinity increases up to 4000 mg/L, to the east, in the less productive and older Kiamantoo Formation.

#### Groundwater Management

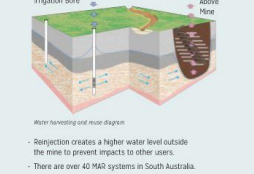
The Bird in Hand Gold Project is located near the boundary of the Eastern (EMLR) and Western ML Lofly Ranges (WMLR), where there is a natural groundwater divide between the two catchments.

In the EMLR, groundwater salinities are slightly higher (up to 3,500 mg/L) than the groundwater salinities around the Bird in Hand Gold Project and the Inverbrackie Creek sub-catchment typically less than 1500 mg/L.

Grouting the mine is expected to reduce inflows by 70% to 90%. This will maintain groundwater levels in private bores and keeps the groundwater divide between the Western and Eastern ML Lofly Ranges.

Groundwater modelling showed that by the last year of underground mining, baseflows to the Inverbrackie Creek will be maintained throughout the mine life if managed aquifer recharge (MAR) is adopted with grouting the mine to reduce inflows by 70% to 90% into the mine voids.

The risk of saline water migration was evaluated by solute transport modelling, which showed with MAR, where groundwater inflows are managed, no saline groundwater intrusion occurred thereby preserving the groundwater quality of the Inverbrackie Creek Subcatchment in the Western Mount Lofly Ranges.

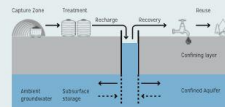


Water harvesting and reuse at mine site

- Rejection creates a higher water level outside the mine to prevent impacts to other users.
- There are over 40 MAR systems in South Australia.

Terramin commissioned a groundwater study in 2015 which began with a review of all current, historical and anecdotal information relating to the regional groundwater system. This was followed by a groundwater and bore census in co-operation with 37 local landowners.

Groundwater modelling shows that groundwater level impacts to private wells will be reduced by grouting ahead of development and eliminated by groundwater rejection to offset drawdown around the mine.

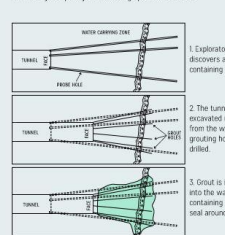


Managed Aquifer Recharge (MAR) diagram

#### Grouting

Projects such as road and rail tunnels through mountains, dam walls and underground mining tunnels all need an effective and safe method for managing inflows of ground water that occurs naturally within the rock. Rock grouting is the filling of existing cracks or voids in the rock using cement. The cement used in this process is the same general purpose, locally sourced cement used commonly throughout the building and construction industries.

This method has been successfully used at the Ernest Henry Mine in QLD where they adequately controlled high pressure inflows.



Tunnel grouting to protect from groundwater inflow

### Visual Amenity

The form, contrasting aspects and reflective aspects of mining structures are visually softened to blend in with the surrounding landscape

#### Viewpoint



#### Petaluma Winery

Visible Elements

- Ore silo
- Silo conveyor
- Loading shed



#### Artwine Cellar Door

Visible Elements

- Mine Water Dam
- Maintenance track
- Revegetation



#### Bird In Hand Winery

Visible Elements

- Ore silo
- Stormwater Dam
- Revegetation



FIGURE 5-6 | EXAMPLE POSTERS WATER MANAGEMENT (MAY 2017) AND VISUAL AMENITY (SEPTEMBER 2017)

#### 5.4.1.2 COMMUNITY OPEN DAY 25 SEPTEMBER 2017

This was a follow-up to the May 2017 drop-in-days, held at the Woodside Town Hall on Monday 25th September, the day was intended to present progression and design-planning of the project which would be documented in the (yet to be lodged) Mine Lease Proposal (MLP).

The drop-in day was marketed and promoted at the Focus Groups held in August, the WCCC meetings in August and in the local media:

(Adelaide) Weekend Herald

Along The Grapevine

Mt Barker Courier

The attendance profile was lower than numbers at previously held community meetings and focus groups.

Terramin are committed to continuous improvement and engagement with the community, and are approaching other venues in the community to ensure the posters and information about the proposed mine specifications and operations are readily available and accessible.

Attendees were invited to leave feedback as outlined above.

A copy of the most current Community Information Posters is included in Appendix C3.

#### 5.4.1.3 COMMUNITY DROP-IN DAY 28 AND 29 APRIL 2019

As part of Terramin's commitment to engage with all stakeholders, it was decided to offer an additional opportunity for comment on the 'Outcome Statements' and content of the MLA Chapters prior to the MLA being finalised and lodged with the Department.

The drop-in days were advertised in the local paper, community notice boards and in the (April) newsletter which is delivered to all residences within postcode 5244, and included as an insert in all local papers.

A copy of the most current Community Information Posters is included in Appendix C3 and a report on the final Drop-In Days is presented in Appendix C9.

To ensure the broadest possible options for community feedback, the Terramin team also developed an online survey which provided all newsletter recipients an opportunity to review each poster and comment on their impression and understanding and directly note their reaction to the outcome statements.

A copy of this survey is included at Appendix C8. Results are summarised.

#### 5.4.2 FOCUS GROUPS

In order to ensure that a broad range of perspectives were fed into the project, and that particular aspects were addressed, Terramin held a range of Focus Groups in August 2017. The focus groups allowed for informal and frank discussion amongst invitees who included planning bodies, commercial interests, strategic thinkers and decision makers.

Generally attendance at the focus groups was between 10 -15 people. Each person was invited because of their expertise or their ability to represent a peak body or collective stakeholder interest. Each focus group began with a presentation of the proposed project by Terramin. Where appropriate a presentation on the technical aspect of the project relevant to the discussion.

There have been four focus groups,

- Economic Development;
- Traffic;
- Woodside Local Business; and
- Noise and Vibration.



### 5.4.3 COMMUNITY CONSULTATIVE COMMITTEES

#### 5.4.3.1 WOODSIDE COMMUNITY CONSULTATIVE COMMITTEE (WCCC)

Terramin has committed to a process, which is moving from a Terramin led engagement process to a community-based approach facilitated by the WCCC and the Independent Chair. The WCCC also allows for other stakeholders like government agencies to present. Typically a Community Consultative Committee can be a forum which receives feedback from, a broad cross section of the community on matters of common interest.

In March 2017, a steering group was formed with representation from the Inverbrackie Groundwater Focus Group, Woodside Commerce Association, Adelaide Hills Council and Terramin to oversee the appointment of an Interim Chair. The group selected an interim independent chair to facilitate the process to establish the WCCC.

Terramin hosted an Information Session on the role and responsibilities of a Community Consultative Committee (22<sup>nd</sup> May 2017) and actively invited members of the community to nominate to participate as a member of the committee.

A seven-member governance sub-committee was identified, with responsibility for drafting and reviewing the Terms of Reference, which would be considered and adopted by all members. The Terms of Reference (ToR) were adopted by the WCCC at their meeting, 13<sup>th</sup> September 2017. The ToR sets out the objectives, expected outcomes, operation and reporting mechanism for the committee. The WCCC will;

- facilitate open communication;
- create a forum to raise issues - acting as a “structured” communication link between Terramin, the community and other stakeholders;
- provide an opportunity to influence operations - assisting in identifying and addressing local issues and concerns relating to the Project and its neighbours;
- provide an effective vehicle to communicate important information regarding BIHGP operations;
- be aware of and support the management of the Community Issues;
- identify opportunities to partner with Terramin on community projects; and
- exist for the life of the project.

The governance subcommittee selected an ongoing Independent Chair, who was formally appointed at the WCCC meeting on the 13<sup>th</sup> September 2017.

#### 5.4.3.2 WOODSIDE COMMUNITY CONSULTATIVE COMMITTEE (WCCC) MEMBERSHIP

Eighteen nominations were initially received at time of the Establishment Meeting (5<sup>th</sup> June 2017). Shortly after at the first Public Meeting ( 3<sup>rd</sup> July 2017) a number of other nominations had been receiving bringing the total to twenty-eight nominations. Nineteen (interim) members completed a Declaration form. Several of these members notified resignation of their membership, by the October 2017 meeting. As at April 2019, there are thirteen members of the WCCC.

The WCCC have met at regular intervals (roughly monthly) and will continue to meet throughout the project development, construction, operations and closure phases.

Terramin recognises the importance of stakeholder engagement to the sustainable development of its business and the role that community consultative committee can play as a vehicle for two-way communication between all stakeholders.

Since August 2017, the WCCC has met monthly and has been considering each topic area, with a focus on ensuring all issues and concerns are captured, management plans are shared and the proposed outcome statements reflect community input. A summary of meetings and key agenda items is included in Table 5-6, WCCC Meeting Schedule Themes and Attendance.

In July 2017, in response to high levels of interest, a special Technical Water Consultative meeting was held under the general auspice of the WCCC process. Around 60 people attended.

The WCCC has undertaken a methodical Issue identification and verification process to assure themselves they have captured and are aware of all community concerns. Consideration was then given to the Outcome Statements developed by Terramin including the measurements and assessments applied to each of these. Implicit within this process was a consideration of Risk.

The WCCC maintained an Action List and summary table of Issues and Concerns, detailing when each matter was reviewed by the WCCC and material presented by Terramin and/or their expert advisors.

Terramin staff and or their consultants contribute technical information and reports to guide and inform WCCC discussion.

Issues Papers on specific requested aspects were prepared for the group. These issues papers have been included in C5.

All meetings are publicly advertised and open for anyone interested to attend. From late 2017 to May 2019, gallery attendance has been modest.

TABLE 5-6 | WCCC MEETING SCHEDULE, THEMES AND ATTENDANCE

DATE	AGENDA THEMES	ATTENDANCE		
		Committee	Public Gallery	Terramin
17.04.19	Project update Amenity Groundwater	10 of 13	10**+ *inc. 5 Govt reps #1 MP +2 Terramin advisors	
20.02.19	Project update Amenity Vegetation and Weeds Closure	11 of 14	4**+ *inc. 2 Govt reps #MP representative +AHC representative	5
12.12.18	Project update Review of WCCC issues and actions Air Quality Review Section 128 application- context and process	8 of 16	4** *inc. 3 Govt reps #MP representative	4

DATE	AGENDA THEMES	ATTENDANCE		
		Committee	Public Gallery	Terramin
21.11.18	Review WCCC membership Regulatory framework, timing public consultation Project Update – MAR testing Geohazards and Geochemistry	8 of 16	3*# *inc. 2 Govt reps #MP representative	4
24.10.18	Project update – EPEPR and CSIRO Project progress	7 of 15	3*# *inc. 2 Govt reps #MP representative	4
3.10.18	SCCC Presentation by Chair and members Traffic Work Shift patterns during operation	9 of 16	7*# *inc. 3 Govt reps #4 SCCC member	4
1.08.18	Site contamination Soil and land quality Visual amenity	9 of 17	4*# *inc. 3 Govt reps #MP representative	6
06.06.18	Traffic Vibration and Noise Woodside Goldfields History	11 of 18	2*# *inc. 1 Govt rep #MP representative	4
9.05.18	Contingency and insurance Protection and Outcomes statements Additional information Economic Impact Assessment	11 of 18	8*## *inc. 4 Govt reps #MP representative +technical expert	7
11.04.18	Community Engagement Plan Overview CSIRO brief Mine closure information brief	9 of 18	4*## *inc. Govt rep # local MP +technical expert	5
21.03.18	BIHGP Economic Impact report (with peer review) Summary or all outcomes & measurable criteria	10 of 18	9*## *inc. 3 Govt reps # local MP	6
21.02.18	Traffic, Emergency Response & Air Quality	12 of 18	5* *inc. 3 Govt reps	5
30.01.18	Vibration, Noise & Hydrology (water)	9 of 18	8*## *inc. 4 Govt reps # 2 local MP	7
06.12.17	Groundwater Surface water Hydrology (CDM Smith) responses	15 of 18	3* *inc 3 Govt reps	7
08.11.17	Inverbrackie Creek Catchment Group reports tabled- (Hydrology & Economic Contribution) Noise, Economic Impact	15 of 18	4*# *inc 3Govt reps # local MP	5
11.10.17	General project overview (introduction) Provision of Questions and Answers (2 sets)	15 of 18	6* *inc 3 Govt reps	4
13.09.17	Adoption Terms of Reference			

#### 5.4.3.3 STRATHALBYN COMMUNITY CONSULTATIVE COMMITTEE

The Strathalbyn Community Consultative Committee (SCCC) is independently chaired and currently meets quarterly. The current Terms of Reference were adopted in October 2015.

Terramin introduced the BIHGP to the SCCC in 2014, a project overview and update has been provided to the SCCC at each meeting since. The Project was often referenced in the meetings prior to 2017 however any progress on the Project approval was held back until the Angas PEPR and Mine Closure plan was updated and approved. In May 2017, the SCCC were invited to establish a working group/steering group to engage in the Project and stay informed on the progress of the MPL. On the 16<sup>th</sup> of August 2017 PEPR No. PEPR2017/007 for the Angas Zinc Mine (ML 6229) was approved. The SCCC were provided an update and detailed Project description relative to utilising the Angas processing plant to treat the Project ore. It was suggested that the Project would be authorised via a Miscellaneous Purposes Licence (MPL) and that a specific PEPR was required to cover the environmental impact associated with the change in use of the Angas facility.

On the 29<sup>th</sup> August 2017, the SCCC were updated on the status of proposed project and implications for the processing plant at Angas. Terramin, on request by the SCCC attended the Strathalbyn Show with information, posters and job prospects and also opened a pop-up shopfront in the Strathalbyn main street on the 12<sup>th</sup> October to display aspects of the project that will occur in the Strathalbyn community. The shopfront day was advertised in the local in the two editions prior to the day along with posters. Attendance was also promoted by the SCCC members.

During 2018 and 2019, the SCCC are updated at each meeting on the status of both the MPL and the ML. No new issues have been raised through this process.

The WCCC members invited members of the SCCC to attend a meeting to discuss their experience of working with Terramin on the Angas Mine project. This occurred on 3 October 2018. The SCCC members noted that, that Terramin *“was very responsive to the people concerned and would go out and talk with people, address their concerns and put measures in place and even changed the times of blasting”*<sup>2</sup>

This view that Terramin creates an opportunity for stakeholders to meet and work with Regulators and the company was also reinforced by the Regulators representative, J Martin who commented, *“the SCCC and the mining regulator have worked together. It’s been an incredibly positive process with everyone learning to work with groups with the government participating rather than taking ownership”*<sup>3</sup>.

#### 5.4.4 TECHNICAL WORKSHOPS

To promote more detailed consideration of topics important to the community and the Project, Terramin has hosted a number of technical workshops. The format of the workshops involved technical briefings by subject matter presented by expert advisors, and providing the opportunity for questions and discussions with Terramin staff and advisers.

#### 5.4.5 ONE ON ONE CONTACT

Terramin has conducted informal consultation with residents and agricultural landholders within, and in the immediate vicinity of the Mineral Claim (MC). Since December 2013, this

---

<sup>2</sup> WCCC Minutes 3 October 2018.

<sup>3</sup> WCCC Minutes 3 October 2018

has involved regular contact through the period to 2019 whilst participating in Terramin’s regional groundwater quality census.

All landholders, including viticulturists and major agricultural landholders, receive newsletters and correspondence updating them of Terramin’s progress with the project, and preliminary results of environmental research undertaken to date. Since mid-2016, these newsletters have been distributed to local residents in postcode 5244.

All immediate landholders have been invited to community meetings and technical workshops and are invited to voice their concerns throughout the presentations.

Terramin has recorded 697 contact threads with the following characteristics:

FIGURE 5-7 | CONTACT BY STAKEHOLDER GROUPING

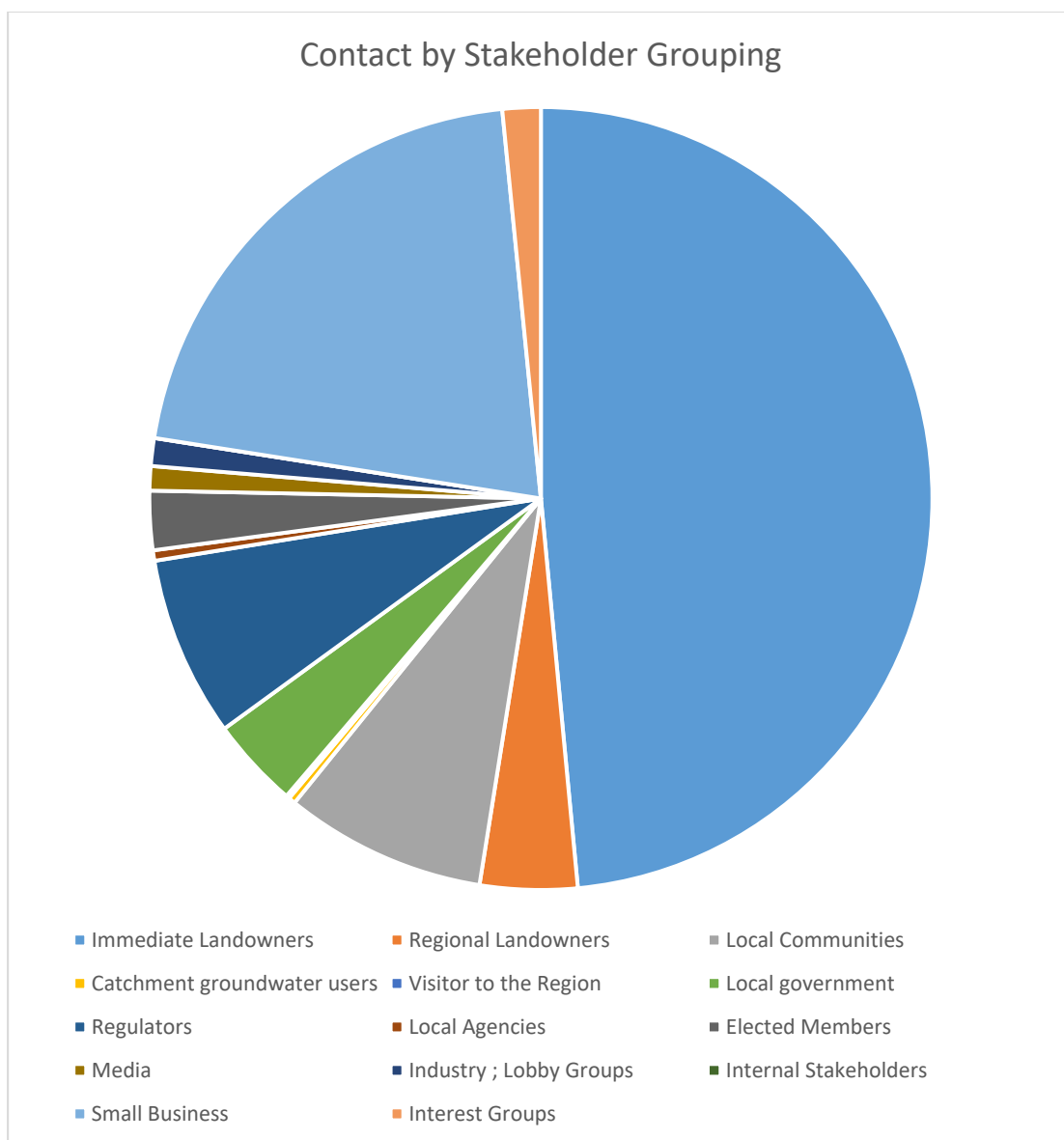


FIGURE 5-8 | DIRECT CONTACT WITH TERRAMIN BY MODE

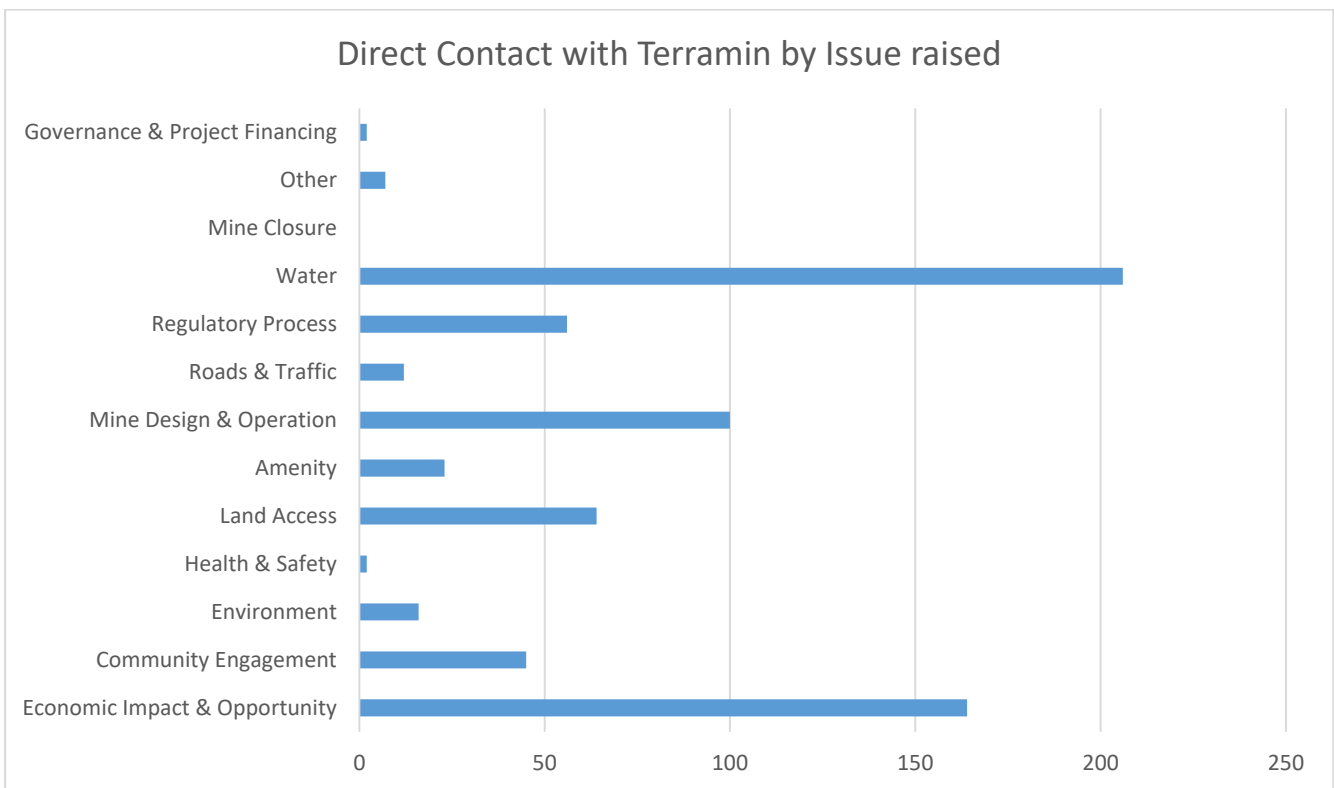
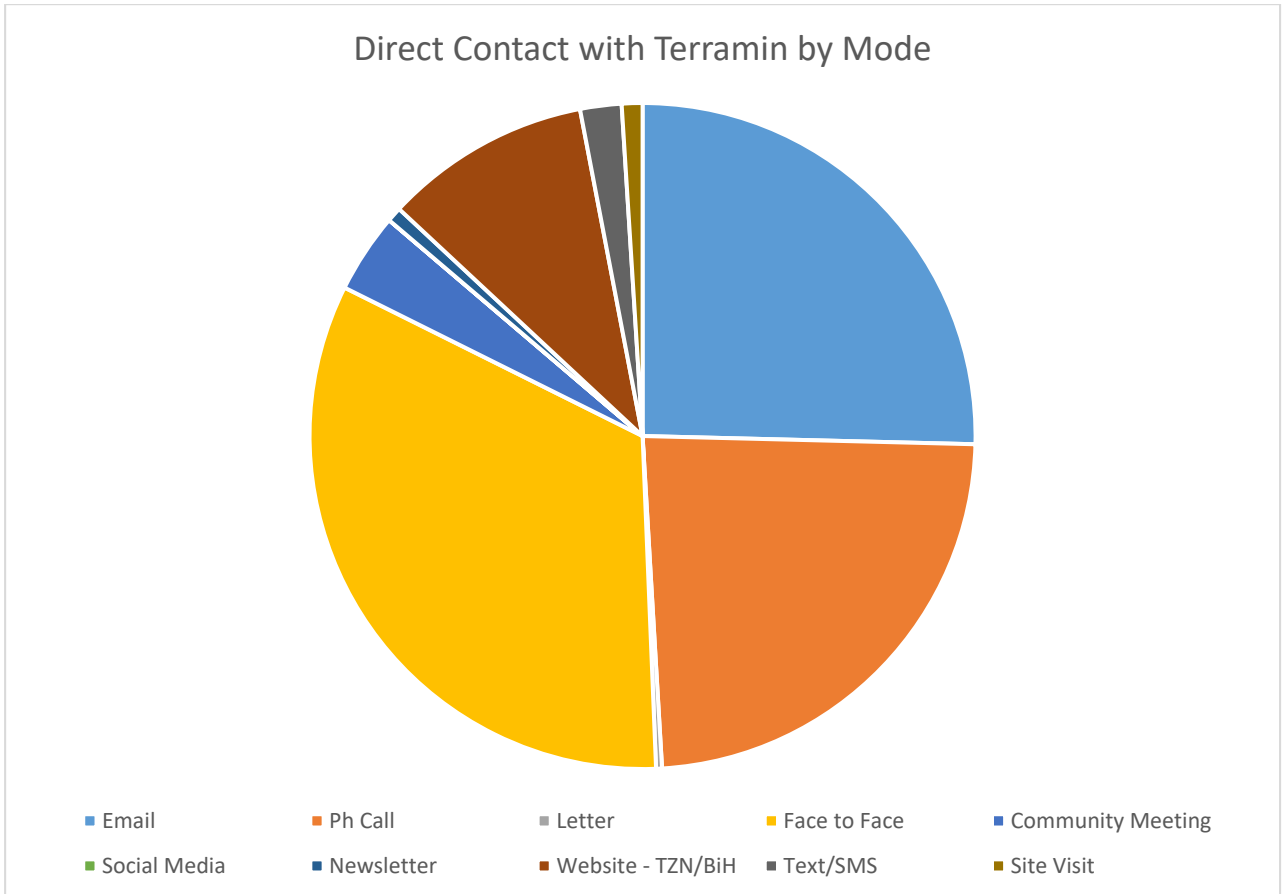


FIGURE 5-9 | DIRECT CONTACT WITH TERRAMIN BY ISSUE RAISED (ISSUES GROUPINGS)

## 5.4.6 MEETINGS WITH OTHER GROUPS

### 5.4.6.1 (LOCAL) INTEREST GROUP MEETINGS

Terramin has built and maintains a strong relationship with local interest groups, particularly those interested in water and land-use. Terramin distributes the newsletters to members and welcomes invitations to speak at meetings. All questions of the company and plans associated with the Project have been recorded and answers provided are listed on the company website.

#### 5.4.6.1.1 INVERBRACKIE GROUNDWATER FOCUS GROUP MEETINGS

Between 2014 – 2015, Terramin facilitated four (4) information sessions with members of the Inverbrackie Groundwater Focus Group (IGFG) and invited guests. IGFG is an informal group of interested people and includes local community, landholders, local councillors and MPs, and local Landcare members. The focus of these meetings has been primarily on groundwater, however, other environmental concerns have also been raised and discussed.

This group was disbanded late in 2017 after being satisfied by the science and data presented by Terramin via the group's Chair.

#### 5.4.6.1.2 INVERBRACKIE CREEK CATCHMENT GROUP

Is an incorporated body, registered in South Australia whose members, represent 'land care' and 'water management issues' associated with the Inverbrackie Creek. The group offers comment on broader issues of relevance within the State, for example providing letters of support (ie: <http://yplandowners.com.au/letters-of-support-from-sa-groups-for-yp-farmers-forum/>).

This group typically comments on matters of interest in writing via the WCCC. Terramin responds to these issues via the WCCC.

### 5.4.6.2 LOCAL GOVERNMENT

There are three (3) local councils, (Adelaide Hills; Alexandrina; and Mt Barker) who have an interest in the Project. Terramin has engaged with each of these Councils independently, primarily on issues associated with transport. Further details are included in Table 5-7 | Stakeholder Engagement Activity Summary.

Terramin engaged with the Adelaide Hills Council early in the Project, providing an initial project overview in March 2014. Updates and newsletters have been provided to the council with the intention of continuing a positive relationship with them. Understanding and aligning with the Councils expectation is crucial in ensuring a successful development application process.

### 5.4.6.3 REGULATORS

The South Australian Government will continue to be an important element of the Project. Since 2015, Terramin have been in regular contact with Regulators, including the Department of the Premier and Cabinet (DPC) 2014 -2018, and Department for Energy and Mining (DEM) since 2018, the Department for the Environment, Water and Natural Resources (DEWNR) (2014 – 2018) and the Department for Environment and Water (2018) and the Environment Protection Authority (EPA). Each department has provided feedback and approved programs for the drilling of water bores and exploration drill holes; and conduct pump testing of the installed bores and/or been involved in approvals for the Land Access agreements and the Mineral Claim and Miscellaneous Purposes licenses.

The Department of Planning, Transport and Infrastructure (DPTI) were consulted in regard to the haulage and transport component of the Project and provided feedback on the suitability of route and requirements for investigation and proposals.

Each of these departments are essential in the approval process of the overall Project and Terramin welcome the input of, and feedback from department personnel.

In April 2014, Terramin introduced the project to a joint meeting hosted by DPC, which involved EPA and DENWR representatives, to broadly discuss the project in the context of resource development within the Adelaide Hills.

In August 2016 Terramin was advised of the appointment of a DPC (now referred to as DEM) Case Manager for the project, and began meeting regularly on matters relating to the preparation of the Mining Lease Application.

Terramin have engaged with the Federal Government, to comply with the relevant federal legislation, and in particular any requirements under the *Environmental Protection and Biodiversity Conservation Act 2004* (Commonwealth) (EPBC Act).

#### 5.4.6.4 LOCAL BUSINESS

Terramin have engaged with the Woodside Commerce Association providing an initial project overview to members, in August 2014. An update was provided along with Terramin's community newsletters, to share information on the potential benefits of the project to Woodside and the wider community.

Terramin also worked with the Woodside Commerce Association and the Adelaide Hills Business Centre to promote the Local Business focus group, held in August 2017.

#### 5.4.7 QUESTIONS AND ANSWERS (Q AND AS)

Terramin has compiled all questions received, via all the methods above, and compiled these into a Questions and Answers (Q and A) paper. The paper has been provided to the community through the website and in handouts to the WCCC.

The Q and A is updated as new information becomes available or changes are made to the project design. Therefore the Q and As are current at the time of release, but may be superseded by future iterations.

The Q and A provided to the WCCC is included in Appendix C4.

#### 5.4.8 QUESTIONNAIRES/SURVEYS

##### 5.4.8.1 COMMUNITY PERCEPTIONS SURVEY (CSIRO)

Early in 2016, Terramin engaged with CSIRO to conduct a community perceptions survey to elicit the local community perceptions of Terramin's proposed underground gold project, at the Bird In Hand site. CSIRO, Terramin and The Innovations Connections Scheme jointly funded the survey. The survey has been approved by CSIRO's Social Science Human Research Ethics Committee (088/16).

The project has two distinct phases;

##### 5.4.8.1.1 PHASE 1:

Community workshops. Representatives of relevant community groups, near neighbours and the wider community, were invited to participate in a 2-hour workshop to explore community



functioning and wellbeing, and to delve into specific issues and aspirations associated with the proposed underground gold mine development.

A series of five community workshops were run over three days in late October 2016. (Wednesday 26 October – Friday 28 October 2016)

A report on phase 1 was presented to Terramin and a summation presented to the WCCC on the 11 April 2018. The report has been included in Appendix C6.

#### 5.4.8.1.2 PHASE 2:

Community Surveys (aka Pulse Surveys). A representative sample of community members will be invited to:

1. Complete a 20-30 minute ‘anchor survey’ answering questions about the local community and how the positive and negative aspects of living with the proposed underground gold mine might affect the local community.

The Anchor Survey was undertaken between, 15 December 2016 – 12 March 2017.

2. Complete a number of brief (5 minute) ‘pulse surveys’. This short survey asks about similar issues to the first survey to monitor if community opinions change over time.

Phase 2, forms an integral part of the engagement process.

To date (April 2019) seven pulse surveys have been completed, these were conducted from;

Pulse 1 = 31 March 2017 – 30 April 2017

Pulse 2 = 2 July 2017 – 30 July 2017

Pulse 3 = 2 October 2017 – 31 October 2017

Pulse 4 = 11 December 2017 – 14 January 2018

#### **The Hills Local Voices**

Pulse 5 = 24 June 2018 - 31 July 2018

Pulse 6 = 4 October 2018 – 31 October 2018

Pulse 7 = 13 January 2019 – 13 February 2019

An eighth and final pulse survey is scheduled for the 15 April – 15 May 2019.

Early in 2016, Terramin engaged CSIRO to conduct a community perceptions survey to elicit the local Groundwater Users Perceptions Survey

A perceptions (voluntary) survey regarding local concerns about the project was conducted at the second information session with the IGFG, in July 2014 to capture the attendees’ perspective on;

1. What is your interest in the area?
2. Do you have any questions or concerns regarding the Project?
3. Do you have any other comments you would like to add?

The purpose of the survey was the early identification of the Project social values and which of those were of particular importance to the local community and landholders in the vicinity of the Project. Approximately 50% of attendees participated in the survey.

A report on the initial survey results as well as at the end of pulse 4 has been included in Appendix C7.

#### 5.4.9 ONGOING CONSULTATION

In addition to meetings, information sessions and participation in local events, Terramin will continue to regularly communicate with the community through newsletters, targeted letter drops, information in local papers and other media, and participation in meetings of local community and government organisations. This will be outlined in the Community Engagement Plan which will be reviewed and updated throughout the life of the project.

#### 5.5 STAKEHOLDER ENGAGEMENT ACITIVTY SUMMARY

The following table summarises the range of Community Engagement Activities since 2014 (this does not include contacts with individuals, which are recorded in the Community Engagement Register).

TABLE 5-7 | STAKEHOLDER ENGAGEMENT ACTIVITY SUMMARY

Date	Audience	Engagement Activity	Matters Discussed
17 April 2019	WCCC & Community	WCCC Meeting	Project update Amenity Groundwater
20 February 2019	WCCC & Community	WCCC Meeting	Project update Amenity Vegetation and Weeds Closure
12 December 2018	WCCC & Community	WCCC Meeting	Project update Review of WCCC issues and actions Air Quality Review Section 128 application- context and process
21 November 2018	WCCC & Community	WCCC Meeting	Review WCCC membership Regulatory framework, timing public consultation Project Update – MAR testing Geohazards and Geochemistry
29 October – 1 November 2018	Industry Regulators	IMARC Conference	Conference paper and introduction to Terramin SA Gold Strategy
24 October 2018	WCCC & Community	WCCC Meeting	Project update – EPEPR and CSIRO Project progress
3 October 2018	WCCC & Community	WCCC Meeting	Traffic Work Shift patterns during operation
October 2018	Industry Investors	121 Mining _ London	Introduction to Terramin
29-31 August 2018	Industry	Africa Down Under Conference	Introduction to Terramin

Date	Audience	Engagement Activity	Matters Discussed
1 August 2018	WCCC & Community	WCCC Meeting	Site contamination Soil and land quality Visual amenity
August 2018	5244 mail drop and mailing list	Newsletter #6 (4pages)	Introduction CEO; Site Plan; Employment opportunity; Fast Facts; Update water testing
25 July 2018	Dan Cregan MP State Member - Kavel	Office Visit	Update and Project briefing
10 July 2018	Dan Van Holst Pellekaan MP- Minister for Energy & Mining	Office Visit	Update and Project briefing
July 2018	Industry Investors	121 Mining – Hong Kong	Introduction to Terramin
July 2018	Industry Regulators	SAREIC Conference	Conference paper and introduction to Terramin SA Gold Strategy
6 June 2018	WCCC & Community	WCCC Meeting	Traffic Vibration & Noise Woodside goldfields history
9 May 2018	WCCC & Community	WCCC Meeting	Contingency & insurance Protection & outcome statements BIHGP Economic Impact report
11 April 2018	WCCC & Community	WCCC Meeting	Community Engagement Plan overview CSIRO brief Mine closure brief
21 March 2018	WCCC & Community	WCCC Meeting	Review outcomes & measurements BIHGP Economic Impact report
21 February 2018	WCCC & Community	WCCC Meeting	Traffic, emergency response, Air quality
30 January 2018	WCCC & Community	WCCC Meeting	Vibration, Noise, Hydrology
6 December 2017	WCCC & Community	WCCC Meeting	Water, Noise
8 November 2017	WCCC & Community	WCCC Meeting	Project update MLA submission timeline, Noise, Economic Impact
11 October 2017	WCCC & Community	WCCC Meeting	Project Update including site plan; visual amenity; roads & traffic and water
22 September 2017	Neighbour Vineyards	Meeting	Update on project, reflect concerns, issues and potential impact on adjoining vineyards.
20 September 2017	Rebekha Sharkie MP	Office Visit	Update and Project briefing and site visit
13 September 2017	WCCC	WCCC Meeting	Appoint Independent Chair & Secretariat Adopt Terms of Reference Set meeting schedule
September 2017	5244 mail drop and mailing list	Newsletter #5 (6pages)	WCCC update; Scout planting activity; Regulatory process; Focus groups review; Fast Facts; Student support

Date	Audience	Engagement Activity	Matters Discussed
30 August 2017	Immediate Neighbours; SA Water	Focus Group – Noise & Vibration	Review of proposed mine operations and resultant noise and vibration analysis; consideration of impacts and opportunities.
23 August 2017	Local Business; Local Government	Focus Group – Local Business	Review of the project in the context of local business impact and supply chain opportunity.
16 August 2017	Local Govt; Industry; Peak Bodies; Immediate Neighbours	Focus Group – Traffic	Review of proposed traffic routes and operational standards; consideration of impacts and opportunities.
15 August 2017	WCCC Sub-committee	Reference Group review	WCCC Terms of Reference
8 August 2017	WCCC Sub-committee	Reference Group review	WCCC Terms of Reference
1 August 2017	Local Govt; State Govt; Peak Bodies	Focus Group – Regional & Economic Development	Review of the key strategic projects and proposed project in the context of economic development impact and opportunity.
3 July 2017	WCCC Community	WCCC Meeting Technical Workshop (Water)	Presentations by DPC and Terramin Update on water
20 June 2017	Mt Barker District Council	Briefing (Facilitated by Tonkin)	Project transport logistics and route options
6 June 2017	Adelaide Hills Council	Briefing (Facilitated by Tonkin)	Project transport logistics and route options
5 June 2017	DPTI	Briefing (Facilitated by Tonkin)	Project transport logistics and route options
5 June 2017	Alexandrina Council	Briefing (Facilitated by Tonkin)	Project transport logistics and route options
5 June 2017	Community	Formation Meeting – Woodside CCC	Meeting of all the applicants to the WCCC, facilitated by the Interim Chair.
28.29 May 2017	Community	Drop-In Days	Meet the Experts (Technical Information) on Project
24 May 2017	DPC, Assets & Infrastructure	Briefing	Visual Amenity; Site Design; Transport & Roads; formal invitation to Drop-In -Days
22 May 2017	Community	Information Session - Woodside CCC	Discussion on (Draft) Terms of Reference Invitation to lodge EOI
18 May 2017	Community	Strathalbyn CCC	Briefing on the Project Invitation to form a Reference Group for Strathalbyn as part of project
9 May 2017	Consult Australia	Breakfast Briefing	Terramin guest speaker – project update (mining and community engagement)
April 2017	5244 mail drop and mailing list	Mail-Out; Letter from CEO	Invitation to Drop-In Day and WCCC Information Session

Date	Audience	Engagement Activity	Matters Discussed
28 April 2017	Tom Kenyon MP	Site Visit	Scheduled visits and project update
13 April 2017	DPC	Briefing	Update Ministerial Determination
20 Dec 2016	Adelaide Hills Wine Growers Assoc.	Member Briefing	Project update and presentation
Dec 2016	Rebekha Sharkie MP	Site Visit	Project briefing and site visit
8 Dec 2016	Immediate Neighbours	Technical Workshop	Blasting & Geo-Technical Workshop and Presentation
8 Dec 2016	Industry	SA Exploration & Mining Conference	Project briefing & presentation
20 Oct 2016	Community	Technical Workshop	Groundwater Technical Workshop
3 Oct 2016	Community	Display at Strathalbyn Show	Project update, listening post for community questions.
22 Sept 2016	Community	Public Meeting	Project Update Slides available on Terramin website
1 Sept 2016	DPC	Presentation	Update on progress – Development of Community Engagement Plan
2 August 2016	DPC	Briefing	Heads Department briefing and discussion MLA lodgement process
August 2016	5244 mail drop and mailing list	Newsletter #4 (4pages)	Exploration & mineral claim; School – nesting box project; update statutory process
28 July 2016	SACOME	Industry Briefing	Breakfast presentation and project update
9 June 2016	Mark Goldsworthy	One-on-One Meeting	Local Member - Project update
March 2016	5244 mail drop and mailing list	Newsletter #3 (4Pages)	Update groundwater monitoring; environmental studies; grouting method explained
17 March 2016	IGFG, landholders proximal to project footprint and others invited by IGFG	Community Information Session (Woodside)	Project update. Flora/fauna results. Outlined key project issues, bore drilling and pump test results, bore census details, introduced concept of GW model and how it is used for design and management
August 2015	Woodside Commerce Association	Presentation	Briefing on project and local purchasing policy
14 April 2015	Adelaide Hills Council	Presentation to elected members and council management	Information about recent exploration works, groundwater investigations, environmental baseline works, annual budgets and community economic benefits
17 March 2015	DPC	Briefing	Groundwater – project update

Date	Audience	Engagement Activity	Matters Discussed
March 2015	IGFG; landholders; Woodside business	Newsletter #2 (4pages)	Water modelling; environment impact and update
3 Nov 2014	Ian Hunter MP, Kevin McGuiness	One-on-One Meeting	Project update
24 Oct 2014	DPC, DEWNR	Briefing	Project update; presentation
7 Oct 2014	IGFG, landholders proximal to project footprint and others invited by IGFG	Community Information Session (Charleston)	Update on “pump test” (draft) results Brief update on flora/fauna (draft) results.
August 2014	Business Owners	Woodside Commerce Association	Project briefing
1 July 2014	IGFG and landholders proximal to project footprint	Community Information Session (Woodside)	Project outline (conceptual); matters re: groundwater; “pump testing” and flora/fauna survey.
June 2014	IGFG proximal landholders; Woodside business	Newsletter #1(4pages)	Project outline; no processing Woodside; economic benefits to local business; planned works.
8 May 2014	DPC, DEWNR	One-on-One Meeting	Meeting with Govt hydro-geologists to discuss Hydrogeology requirements
1 April 2014	Inverbrackie Groundwater Focus Group (IGFG)	Workshop; focus group Woodside	Introduction to company and proposed project. Informed of proposed bore drilling program to commence in July to understand groundwater.
1 April 2014	DPC, EPA, DEWNR	One-on-One Meeting	Project update
March 2014	Adelaide Hills Council	Presentation to elected members and council management	General Manager (GM) introduced company to council staff and elected members and briefly updated them on proposed project. Focus on approvals required, operating compliance limits and potential haulage routes
March 2014	IGFG proximal landholders; Woodside business	Fast Fact Sheet (2 pages)	Project outline and approach to planned groundwater investigations.
November 2013	Woodside Commerce Association	Workshop; focus group Woodside business owners group	Project introduction, outline, approvals required, economic benefits, local spend policy, etc.

## 5.6 IDENTIFYING AND MANAGING CONCERNS, BENEFITS AND ISSUES

The following sections consider particular stakeholder groupings and strategies specific to their needs. Terramin’s focus is to continue an open relationship with all stakeholders throughout the entire life of the Project.

### 5.6.1 ISSUES IDENTIFICATION

Throughout the engagement process Terramin has kept record of issues and concerns raised by the community.

All formal and informal contact with the community is recorded. This provides Terramin staff information relating to issues and concerns the community has.

Issues from the register are thematically grouped into areas of focus to enable clear and precise communication with stakeholders, input into the project design and the development of management strategies. Table 5-8 reflects the issues groupings as at December 2017.

TABLE 5-8 | ISSUES CATEGORISATION 2017

Issue/Interest	Description
Amenity	Issues relating to amenity and vista (particularly impact of the project on the look and feel aspects of place), includes impact of noise; vibration; and lighting.
Community Engagement	Issues relating to access to information, transparency, two-way communication and responsiveness.
Economic Impact & Opportunity	Issues related to economic opportunities locally and across the region. (supply chain access; local procurement and employment).  Including issues related to branding messages ie: 'Clean – Green' and 'Adelaide's Food Bowl'.
Environment	Issues relating to air quality, flora, fauna, erosion, waste, chemical contamination and rehabilitation (during exploration; construction; operations and closure).
Governance & Project Financing	Issues related to company and project financing.
Health & Safety	Issues associated with mine operation, particularly air quality; contaminants, public health.
Land Access	Issues related to land access.
Mine closure	Issues regarding end land use and rehabilitation.
Mine Design & Operation	Issues regarding design (i.e.: conveyors vs. trucks) and operation i.e.: blasting and vibration, dust, lighting and noise.
Regulatory Process	Issues relating to project approvals, monitoring and reporting, including heritage.
Roads & Traffic	Issues related to road network; traffic movement and routes; transport and road safety.
Water	Issues relating to groundwater, runoff, hydrology, and water quality and impact on water licenses.

### 5.6.2 CONCERNS RAISED

Locally, concerns have been raised primarily about the potential environmental impacts (almost entirely related to water, 30%) and the consequent economic impact on near business (24%) of the mine construction and operation.

In regard to water, concerns were raised about possible impacts to and on groundwater, water quality and impact on water licences.

Other issues and concerns have included the potential impacts of noise, vibration, dust and the impact on visual amenity from an operating mine (3%). This includes design of the project (i.e.: conveyors vs. trucks) and operational impacts i.e.: blasting and vibration, dust, lighting and noise (14%). Other concerns included community safety, and increased road traffic.

Concerns were raised regarding the perceived environmental and operating impacts of the project, which could lead to a major economic impact to nearby businesses. Some community members felt that the approval of the mine could threaten the areas perceived attributes, including its 'clean and green' reputation, pending application for World Heritage listing, aesthetic and general lifestyle. Terramin respect this position and have incorporated design aspects to integrate the project within the existing landscape. More information on economic impact and opportunities are presented in Chapter 24.

### 5.6.3 BENEFITS RAISED

Potential benefits identified through consultation included increased local employment, opportunities for local businesses and tourism, increased economic sustainability of Woodside, additional state revenues, environmental improvements through tree planting and improved land management.

Water resource mapping and utilisation data provided by Terramin was seen as a very positive contribution by local land owners.





5.6.4 STAKEHOLDER BENEFITS AND ISSUES REGISTER

TABLE 5-9 | STAKEHOLDER BENEFITS AND ISSUE REGISTER

5.6.4.1 AMENITY	
<p><i>Issues relating to amenity and vista (particularly impact of the project on the look and feel aspects of place), includes impact of noise; vibration; and lighting.</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>Terramin including has completed a number of technical assessments;</p> <ul style="list-style-type: none"> <li>• A comprehensive air quality baseline assessment including recording dust levels at four unique locations within the vicinity of the Bird In Hand property (Appendix N2). A subsequent air quality impact assessment (Appendix N3) was completed which assessed against all nearby sensitive receptors, including residential, commercial and agricultural receptors. The EPA and DPTI have been engaged regarding the method of investigation and presented results as they arise.</li> <li>• A comprehensive visual impact assessment including modeling of impacts on vista of the proposed development from six viewpoints, has been undertaken that addresses potential impacts and issues raised by stakeholders (Appendix G1). Design changes have been made based on these impressions and discussions with near neighbours.</li> <li>• Comprehensive technical studies of noise impacts have been undertaken, including the deployment of five remote standalone noise loggers for two one-week long periods in September-October 2014, repeated in February-April 2015, March 2016 and then again in April 2018 (Appendix O3). The assessment considered this data and presented construction and operation commitments to limit impact of noise on the community, well below EPA requirements. Terramin have proposed noise limits which are below the EPA requirements.</li> </ul> <p>In particular one-on-one engagement is being undertaken with landowners to manage and minimise the potential impact of noise to their lifestyle and businesses.</p> <p>Terramin provides focused information on amenity issues;</p> <ul style="list-style-type: none"> <li>• Community newsletters</li> <li>• Community drop in days,               <ul style="list-style-type: none"> <li>○ Poster Series May 2017 – (2)(6)(9)</li> <li>○ Poster Series September 2017 – (2)(6)(11)(16)(17)</li> <li>○ Poster Series April 2019 – (4)(6)(7)(8)(19)</li> </ul> </li> </ul>
ISSUES	TERRAMIN RESPONSE
<p>Amenity, reputation and character of the Woodside area</p> <p>Positive aspects are seen as:</p> <p style="padding-left: 40px;">Creation of local opportunities for the café, hotel and supermarket etc.)</p>	<p>Stakeholder feedback has been incorporated into the design of the project in an iterative way, from 2014. Terramin has incorporated design modifications and management and control strategies in response to stakeholder feedback.</p> <p>Terramin responses</p> <ul style="list-style-type: none"> <li>• Terramin employees will be sourced as locally as possible</li> <li>• Terramin is committed to a buy local policy and has demonstrated the value of this during the Angas Mine operations at Strathalbyn</li> </ul>



<p>Concerns are:</p> <ul style="list-style-type: none"> <li>- Changes to the identity and lifestyle of the local community</li> <li>- Negative amenity impacts on local communities as a result of dust, noise, light spill, blasting All the impact will be felt by the local community with benefits going to the company. How will the proposed mining lease impact on local accommodation availability Impact on local accommodation availability Vibration limits and how vibrations affect near neighbour</li> </ul>	<ul style="list-style-type: none"> <li>• The mine site has been designed to minimise the footprint, and to have negligible visual impact for neighbours or from local vantage points</li> <li>• Terramin is investing in environmental improvements through tree planting, land management, water management and amenity improvements (e.g. Revegetation to provide habitat corridors, a maze planted with local schools).</li> <li>• Terramin has engaged with local authorities to determine the level of impact (if any) on education, housing health and community services. It is not considered that there will be any material impact on these services.</li> <li>• Terramin have proposed noise limits which are below the EPA requirements.</li> </ul>
<ul style="list-style-type: none"> <li>- Visibility of mine site and operational activity (including the integrated mullock landform)</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin has been working with Oxigen to visually represent to neighbours and the broader community the vista during construction, operations and closure.</li> </ul>
<ul style="list-style-type: none"> <li>- What is the distinction between acceptable and allowable levels of dust as defined by the EPA</li> </ul>	<ul style="list-style-type: none"> <li>• The regulator will set dust limits and monitoring requirements based on the EPA's air quality requirements to prevent any detriment to the environment. The EPA has been in attendance at numerous WCCC meetings and has been available to answer community questions about regulations and how the Act is interpreted.</li> <li>• Dust will be controlled by reducing dust generating areas, where possible roads will be sealed on the site and where dust is likely utilise dust suppression (sprinklers) on any unsealed areas and on the Integrated Mullock Landform. Other dust management strategies include hydro mulching and revegetating areas to reduce dust from the site as well as impacts of wind erosion.</li> <li>• Trucks transporting ore from site will be covered and operate on sealed roads limiting ability to generate dust. Terramin propose to work with 'good neighbour practice' and institute a reduced speed limit for drivers particularly on Pfeiffer Road (produced reduction to 60km/hr from 80km/hr regulated, pending approval from the state government and advice from the relevant authorities).</li> <li>• Trigger Action Response Planning to consider time lines for response when dust matters are raised by the community.</li> </ul>
<ul style="list-style-type: none"> <li>- Impacts of mine closure on local community, and the possibility of being left with long term environmental problems</li> <li>- How long could Terramin take to action the closure plan</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin is developing a closure plan that focuses on leaving a positive legacy that can be leveraged by the local community to create ongoing opportunities following mine closure. This includes developing the site into a commercial agricultural enterprise and retaining native vegetation plantings.</li> <li>• The closure plan is part of the MLA the community can influence uses post mine operation.</li> </ul>



<ul style="list-style-type: none"> <li>- Frequency of blasting</li> <li>- What is the level of charge weight for each blast</li> </ul>	<ul style="list-style-type: none"> <li>• Australian blasting compliance limits AS 2670.2-1990 are amongst the most stringent in the world. Both ground vibration and air overpressure limits are based on human comfort criteria, and come from Australian Standard AS2187.2 “Explosives – Storage, transport and use Part 2: Use of explosives”. Blast times will occur twice daily. The timing of a single blast will take less than 5 seconds. Overall blasting will take less than 60 seconds per day through operations, typically at the start and end of shifts, depending on how many headings are fired. The explosive use is expected to be unperceivable to most, if not all, of the neighbours. Terramin commits to:             <ul style="list-style-type: none"> <li>○ Ground Vibration – Not to exceed 5mm/second for 95% of occasions, with an upper limit of 10mm/s</li> <li>○ Air Overpressure – Not to exceed 115dB(L) for 95% of occasions, with an upper limit of 120dB(L)</li> </ul> </li> <li>• Blasting will occur twice daily to meet the required advance rate to access the ore body and then produce the required production rates. The timing of a single heading blast will take less than 5 seconds. Overall blasting will take less than 60 seconds per day, actual period will depend on how many headings are fired.</li> <li>• At the WCCC meeting (6/6/18) Terramin advised charge weight may vary each blast, particularly during construction. During operation there would be twice daily blasts, likely at shift change.</li> <li>• Charge weights for site preparation must comply with from Australian Standard AS2187.2 “Explosives – Storage, transport and use Part 2: Use of explosives” and are drafted to be between 10am and 6pm when people are less likely to be home.</li> </ul>
<ul style="list-style-type: none"> <li>- Constant noise in quiet environment</li> <li>- Where are baseline noise levels taken and how accurate are these and who monitors?</li> <li>- Reverse noises from machinery and vehicles</li> <li>- Noise created when loading the trucks</li> </ul>	<ul style="list-style-type: none"> <li>• The proposed project has been designed, incorporating stakeholder views, so that impacts on lifestyle, amenity and reputation of the region are minimal, for example noise level will be set 5 dB(A) below the regulatory limit applied to the area for rural industry, early warning systems for noise will be instituted at the lower level associated with rural living. Terramin has committed to operating hours and activities which recognise neighbour amenity</li> <li>• Terramin commissioned a Noise Impact Assessment and has represented information to the community (on posters and in the Q and A) at each Community Drop In Day.</li> <li>• Terramin will implement an early warning system which would signal an alert when volumes of 10dB below EPA limit are reached.</li> <li>• Terramin will have a hotline (phone) for alerts and reports regarding noise.</li> </ul>
<ul style="list-style-type: none"> <li>- Light spill from mine site at night, particularly the extent of flood lighting</li> </ul>	<p>Light spill will be managed by designing external lighting to comply with AS 4282-1997 ‘Control of the obtrusive effects of outdoor lighting’. Terramin to engage a lighting audit (as used at Strathalbyn) to assess usage and make recommendations on design alternates. The topography of the site and landscape amenity bunding also limits the vast majority of potential light spill.</p>
<p>5.6.4.2 COMMUNITY ENGAGEMENT</p>	
<p><i>Issues relating to access to information, transparency, two-way communication and responsiveness.</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>A technical report akin to a Social Impact Assessment has been commissioned to understand and addresses the concerns and maximise the benefits raised by stakeholders. Terramin has been proactively involved with the community to ensure they have multiple ways to connect with Terramin and understand the proposed project. This has specifically included;</p> <ul style="list-style-type: none"> <li>• Feedback forms provided at all community engagements,</li> </ul>



	<ul style="list-style-type: none"> <li>• Community Feedback Form available on company website: <a href="http://www.terramin.com.au">www.terramin.com.au</a>,</li> <li>• Collating questions asked at meetings and providing responses</li> <li>• Community newsletters June 2014; March 2016; September 2017,</li> <li>• Community drop in days,             <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (12)(14)</li> <li>○ Poster Series September 2017 – (15)(19)</li> <li>○ Poster series April 2019 – (20)</li> </ul> </li> </ul> <p>Online evaluation and comment opportunity online with April 2019 Community Drop-In Day (available from 27 -31 April 2019)</p>
ISSUES	TERRAMIN RESPONSE
<ul style="list-style-type: none"> <li>– Terramin committed to establishing a consultative mechanism for the community to both receive information and to feedback concerns and questions. This led to the creation of the Woodside community Consultative Committee (WCCC)</li> <li>– The following questions were raised regarding the WCCC</li> <li>– What is the WCCC?</li> <li>– How is an independent Chairperson appointed?</li> <li>– How are members of the WCCC selected?</li> <li>– What authority does the WCCC have?</li> </ul>	<p>Terramin has collated questions received through all the Stakeholder Engagement avenues. This allowed Terramin to provide back to the community a consolidated set of Questions and Answers on topics that had been raised with the company.</p> <p>The Woodside Community Consultative Committee (WCCC) is a forum for the local community members who have an interest in the BIHGP or feel they may be affected.</p> <p>A Selection Committee of community representatives initially appointed the interim chair. The WCCC confirmed the appointment of an ongoing Chair in September 2017.</p> <p>Terramin called for Expressions of Interest, in May 2017. The interim chair, coordinated the process of bringing together these nominees and drafting a Terms of Reference with nominees. All nominees to the WCCC were accepted as members</p> <p>The WCCC is an advisory body. Although the WCCC has no legal authority, Terramin sees the WCCC’s engagement as an important avenue to promote the best possible outcomes for the community.</p> <p>An ongoing independent chair was appointed on the 13<sup>th</sup> September 2017. The WCC has met regularly throughout the development of the project and the preparation of ML documentation.</p>
<ul style="list-style-type: none"> <li>– Independence of the CSIRO work: Terramin were asked by community members about CSIRO’s survey program, and whether it was independent.</li> </ul>	<p>The CSIRO project is only partly funded by Terramin. Other contributors include Innovations Connections Scheme, an initiative of the Department of Industry, Innovation and Science, and CSIRO. The project is coordinated independently from Terramin. This study has been approved by CSIRO’s Social Science Human Research Ethics Committee (088/16).</p>

5.6.4.3 ECONOMIC IMPACT & OPPORTUNITY	
<p><i>Issues related to economic opportunities locally and across the region. (supply chain access; local procurement and employment). Including issues related to branding messages ie: 'Clean – Green' and 'Adelaide's Food Bowl'.</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>A comprehensive Economic Impact Assessment (EIA) has been undertaken to understand the potential economic benefits and impacts of the proposed project (included in Appendix W1). This report has been peer-reviewed and will be released to the community after receipt of the review. In addition FABAL Operations were commissioned (June 2017) to undertake an Agricultural Impact Assessment (Appendix U1) for the proposed BIHGP (BIH Project).</p> <p>In addition, the community (Inverbrackie Catchment Group) commissioned Econsearch, to 'estimate the economic contribution (gross regional product/gross state product, household income and jobs) of existing land use in the Inverbrackie District.' This report was considered in understanding the contribution of regional businesses as part of the Economic Impact Report.</p> <p>Terramin facilitated a focus group with local business to consider the economic benefits and impacts of the proposed project. Further stakeholder participation with a focus on economic impacts, has been facilitated with poster presentations at Drop In Days, details in community newsletters, discussion at the WCCC and one on one meetings with neighbours and businesses (including winemakers).</p> <p>Engagement activities have included;</p> <ul style="list-style-type: none"> <li>• WCCC meetings</li> <li>• Community Presentations: <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (14)</li> <li>○ Poster Series September 2017 – (19)</li> <li>○ Poster series April 2019 – (21)</li> </ul> </li> <li>• Focus Group: <ul style="list-style-type: none"> <li>○ Economic Impact &amp; Opportunity 2 August 2017</li> </ul> </li> <li>• Local Business 23 August 2017</li> </ul>
ISSUES	TERRAMIN RESPONSE
<ul style="list-style-type: none"> <li>– Positive aspects are seen as:</li> <li>– Local procurement opportunities leading to improved sustainability of local businesses</li> <li>– Creation of local employment opportunities</li> <li>– Employment and training opportunities for young people</li> <li>– Increased local economic activity due to the project (eg customers for the café, hotel and supermarket etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin is seeking to understand both the positive and negative aspects of the mine through engagement with stakeholders, and work related to a peer reviewed Economic Impact Assessment of our Project (peer review included in Appendix W2).</li> <li>• Up to 140 direct jobs will be created in Woodside and Strathalbyn. This includes restoring 40 jobs at the Strathalbyn Processing Facility.</li> <li>• Terramin will advertise locally and online for employment opportunities as they arise as the project progresses.</li> <li>• Terramin has introduced an Expression of Interest process for local business to be a supplier (refer website).</li> <li>• Scoping Study 2018 results: <ul style="list-style-type: none"> <li>○ Start-up capital cost estimate ~ \$34M<sup>4</sup> <ul style="list-style-type: none"> <li>▪ Surface includes: offices, workshops, road construction, water treatment plant and MAR infrastructure, ore storage infrastructure, fuel storage, etc.</li> </ul> </li> </ul> </li> </ul>

<sup>4</sup> Exclusive of working capital and sustaining capital



<ul style="list-style-type: none"> <li>- Concerns are:</li> <li>- possible delayed investment by existing business due to uncertainty/concern around the proposed mine</li> <li>- impacts on existing businesses and job losses (“The risks to business and jobs are real, BiH – 40 jobs; Petaluma – 40 jobs”)</li> <li>- Jobs and business opportunities going to Strathalbyn not Woodside</li> <li>- Impact on tourism, decreased visitation</li> <li>- Impact of the mine on land value and property prices</li> <li>- Level of spend in SA and the local area</li> <li>- Loss of ‘clean and green’ image,</li> <li>- Application for World Heritage listing has Council applied for a listing?</li> <li>- Tourism and the wine industry can’t co-exist with mining</li> <li>- Will there be a local purchasing policy?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Tenders from local civil and construction companies</li> <li>▪ Underground includes: escape routes, equipment, ventilation and decline access</li> <li>▪ Concrete suppliers, cable, piping, steel mesh, hardware, safety equip.</li> <li>○ Life of Mine Sustaining capital cost ~ \$66M             <ul style="list-style-type: none"> <li>▪ Ongoing capital costs associated with developing the mine and production of gold ore to concentrate</li> </ul> </li> <li>○ Operating cost ~ \$30M per annum</li> <li>• There isn’t any evidence of property prices being affected. Our experience with the Angas Mine at Strathalbyn is that the employment generated by the mine has had a positive (increase) effect on property and rental prices. Properties continue to be sold and bought around Bird in Hand over the preceding 5 year period with the mine proposed.</li> <li>• Terramin were advised by the chair of the Adelaide Hills Tourism Board, in March 2018 that noise, dust, traffic and lighting could have an impact on tourism in the region. Terramin have designed noise, dust, traffic and lighting to address each of these concerns to remove or significantly reduce the potential for impact on tourism associated with these aspects, through both control (design) and management strategies.</li> </ul>
<p>5.6.4.4 ENVIRONMENT</p>	
<p><i>Issues relating to air quality, flora, fauna, erosion, waste, chemical contamination and rehabilitation (during exploration; construction; operations and closure).</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>A range of technical studies (flora and fauna survey, Appendix Q1, stygofauna survey, Appendix Q3, bushland condition monitoring Appendix R1, and Surface Water Quality Investigation, Appendix I1, Groundwater Assessment for the Native Vegetation Heritage Agreement Area, Appendix R5) of flora and fauna values have been undertaken to address potential impacts and issues raised by stakeholders.</p> <p>The community has been actively involved with projects on site to ensure the environment (built and natural) is considered and managed during the project.</p> <p>All efforts have been recorded and discussed including;</p> <ul style="list-style-type: none"> <li>• Community newsletters, March 2016, July 2016, September 2017</li> <li>• Community drop in days,             <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (12)</li> <li>○ Poster Series September 2017 – (18)</li> <li>○ Poster series April 2019 – (19)</li> </ul> </li> </ul>
<p>ISSUES</p>	<p>TERRAMIN RESPONSE</p>
<ul style="list-style-type: none"> <li>- How will animals react to noise and vibration</li> </ul>	<ul style="list-style-type: none"> <li>• Once construction is complete the noise from site will be within the rural industry noise range, the same as other activities in the region. It is unlikely that animals will have any adverse reactions or be at an increased risk of harm during the construction or project operation noise.</li> </ul>



<ul style="list-style-type: none"> <li>– What is the risk to wildlife during construction</li> <li>– Impact on all animals (livestock, alpaca, domestic animals) should be considered not just native fauna</li> <li>– Will there be more weeds because of the trucks coming out of the mine?</li> <li>– How will you look after the rare orchid species</li> </ul>	<ul style="list-style-type: none"> <li>• Trucks coming out of the mine during operation will not carry any weeds or seeds. Ore haulage trucks will not be travelling off of sealed roads and any vehicle that does will be washed down prior to leaving site.</li> <li>• Rare orchid species have been identified in the neighbouring heritage listed woodland. A minimum 30m buffer zone has been established around the naïve vegetation heritage agreements area. No disturbance to the existing native woodland is planned and ongoing monitoring will be undertaken to ensure that no detriment to the existing endemic native vegetation caused by mining activities occurs.</li> <li>• In 2018 Terramin began a collaborative project with the Botanic Gardens to collect Orchard seed and support propagation of rare species (also reported community newsletter April 2019)</li> </ul>
<ul style="list-style-type: none"> <li>– Is the waste rock acid forming? Won't it leach and destroy the environment</li> <li>– What is the possibility of the mullock heap leaching toxic chemical into ground and/or surface water ?</li> </ul>	<ul style="list-style-type: none"> <li>• The geology of the Project site is such that there is limited acid forming rocks. The geology includes carbonate rock (limestones) which are predominantly acid consuming. The rocks are very different to those found at Brukunga and Angas – different geological formations. Assessment included in Appendix M2.</li> <li>• Terramin have undertaken testing of the chemical composition of waste rock and have provided test results and reports to the WCCC. The report was hosted online for members of WCCC and public to view.</li> </ul>
<ul style="list-style-type: none"> <li>– What plant species are you using for the re-vegetation</li> <li>– How will you stop weeds (ie: windmill grass and blackberries) coming onto farms?</li> <li>– Why have you planted so many trees?</li> <li>– Isn't planting all the trees a fire risk?</li> <li>– As trees grow isn't this an increased fire risk ?</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin has a detailed biodiversity management plan that covers bushfire management, as well as weeds, pests, erosion, biodiversity, riparian health, etc.</li> <li>• Terramin undertake an appropriate weed management strategy within the Goldwyn property.</li> <li>• Over 50,000 native shrubs, trees and sedges have been planted on the site. Terramin has made a commitment that there will be no clearance of the remnant native vegetation woodlands at our proposed project site. The increase of native vegetation is a benefit for the ecosystem and woodland birds, which are rapidly in decline in the local Adelaide Hills and Mount Lofty Ranges region.</li> <li>• Planting of native vegetation poses no greater threat of fire risk than other land uses.</li> <li>• Terramin have a fire management procedure which includes training of personnel in fire management. No unplanned fires are allowed on site as part of mining regulation. Equipment is subject to preventative maintenance programs to ensure they are fit for use and does not pose a fire threat. A water truck and irrigation systems are installed on site should it be needed during bushfire season. The mine's emergency response team would be available to assist during community emergencies.</li> </ul>
<ul style="list-style-type: none"> <li>– What are the levels of lead on the site (above and below ground)?</li> <li>– Will Terramin ensure no chemical is left on site?</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin have undertaken testing of the chemical composition of waste rock and have provided test results and reports to the WCCC.</li> <li>• Terramin has made a number of commitments and defined these in the outcome statements, further detail will be provided in the PEPR.</li> </ul>
<p>5.6.4.5 GOVERNANCE &amp; PROJECT FINANCING</p>	
<p><i>Issues related to company and project financing.</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>At recent community meetings and public forums, issues around the company financial stability and capacity to undertake construction and operation of the proposed project have been raised. Terramin is a publicly listed entity and as such the community can access company annual reports.</p> <p>Terramin has continued to provide information through stock exchange records and specifically on the project in community presentations;</p> <ul style="list-style-type: none"> <li>• Community drop in days, <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (1)</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>○ Poster Series September 2017 – (1)</li> <li>○ Poster series April 2019 – (2)</li> </ul>
ISSUES	TERRAMIN RESPONSE
<p>Concerns are:</p> <ul style="list-style-type: none"> <li>– Company ownership – is this an Australian company, where do profits go? What impact does foreign ownership have on Terramin’s financial capacity to undertake the project?</li> <li>– What is the project viability - if metal prices go down?</li> <li>– What is the impact on business and the community if Terramin fails?</li> <li>– What happens if Terramin or the BiH project are bought out? How will other companies be made to do the right thing? Would really prefer to not have any mining in the Adelaide hills.</li> <li>– What is the compensation for neighbouring businesses if they are negatively affected?</li> <li>– What are Terramin’s long term and future plans in the region?</li> <li>– There should be an independent peer review of TZN modelling</li> <li>– How much investment required to fix up the AZM (Angas Zinc Mine) plant?</li> <li>– What is the estimated operating cost of the BIHGP?</li> <li>– Will BiH Mine Life be extended?</li> <li>– Will mining expand at BiH and will all the old gold areas in the District be mined if the gold price goes up</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin Australia is an Adelaide based company, publicly listed and registered in Australia. An overwhelming majority (70%) of its shares are held by Australian individuals, businesses and super funds. It is not uncommon for a board not to have a majority of non-independent directors. All directors act in the best interest of the company and its shareholders. Terramin has taken the view that developing the Project as 100% owned by Terramin is in the best interest of the company and the Adelaide Hills Communities.</li> <li>• Terramin’s aim is to develop the Project and bring benefits to the Adelaide Hills community and (where possible) improve the environment.</li> <li>• The Project is based on a very high grade gold deposit and will have low operational costs per ounce produced. The mine will be profitable at current gold prices and can sustain production in a low gold price environment. Profits are managed by a board of directors and may be reinvested into its projects or returned to shareholders. Terramin is also working overseas and the value that is generated on those projects will be coming into Australia.</li> <li>• The need to comply with the law is not limited to Terramin. Any mining company must comply with the laws that protect the environment, people and businesses. The mining lease conditions will be well regulated, and any mining company has to follow them once they are in place. The environmental regulations and conditions do not change once a mining lease is approved. Mining is already occurring in the Adelaide hills and has been since shortly after colonisation, there are 61 operating mines or quarries within 20 km of BiH.</li> <li>• Terramin keep a register of upgrade and modifications to the Angas Processing Facility. It is estimated to be approximately \$3 million.</li> <li>• The knowledge gained on the environmental aspects of the Project will remain with the mining lease, the government and the community regardless of who is there.</li> <li>• All the studies and modelling undertaken thus far do not show any negative impact on surrounding businesses.</li> <li>• If an accident was to happen which is caused by or results from the activities of the company and this has an impact on a neighbouring business:</li> <li>• Terramin would take all necessary measures to remediate and reduce the effects of such accident;</li> <li>• The mining regulator would likely take a number of measures, imposing requirements on Terramin to take actions and achieve certain outcomes. This may take the form (for instance) of an Environmental Directive or may include suspending or closing the operation.</li> <li>• Terramin has industrial special insurance and public liability insurance which cover the risks of the mining operations – the level of insurance may be a condition of the mining lease. For the Angas Zinc Mine that insurance was set at \$50 million for a risk profile which is more significant than at Bird in Hand because of the processing plant and the tailings dam.</li> <li>• It is unlikely that a business will suffer a loss resulting from mining activities, but if this occurs an effected party has all civil remedy rights to seek damages as any other business in non-mining context. The Company also has rehabilitation obligations of the mine site. This obligations is secured by a rehabilitation bond set by the mining regulator (DPC). The rehabilitation bond will be allocated prior to construction, of which the value is determined by the DPC and based upon the peak cost associated with rehabilitating the project. The bond is lodged with the government and covers the full cost of rehabilitation of the site, at any stage, hence impacts will be minimal or positive.</li> <li>• The future plans are to mine successfully, safely and with no negative impact to the environment.</li> </ul>





	<ul style="list-style-type: none"> <li>All reports commissioned by Terramin are undertaken by experts in their field who are governed by professional codes of ethics. In certain disciplines reports are peer-reviewed to ensure the works conducted is fit for purpose, before being submitted as part of the MLA and/or released to the community. Subject experts are engaged by Terramin to undertake peer reviews and are selected on the provision they have not undertaken the existing work. These experts assess the work from an expert angle to ensure that the subject represents what they would expect and that it meets the requirements of the Ministerial Determination. Peer reviewers must have strong credibility with regulators, their specific industry (eg hydrological modelling) and with the community. Peer reviewers are independent through their commitment to professional ethics and their reputation within the industry and government. While Terramin must pay for the peer reviews, they do not have influence on the review process.</li> <li>The BiH Gold Project will have an operating expenditure of \$30M per annum.</li> <li>There may be more life in the mine than what is proposed in the Project. Due to reporting requirements of the ASX and the JORC Code, ore Resources can only be reported to 450 metres below surface. Within the Mineral Claim there are three historic mines within 200 metres of the planned mine. Near mine exploration will be undertaken once underground to determine if there is sufficient value in the surrounding geology to support extending the mine. Neighbouring historic mines have been drilled in the past and nothing has been identified to suggest that the mine will be extended. The Bird in Hand gold reef may keep going down (extend to depth) but more drilling is required to confirm this. If there are opportunities that can be accessible from the planned mine within the ML, significant extension of the mine will need to be reviewed and approved through the regulator under the Mining Act. Further approval is gained through an additional application process or an extension can be granted if the proposal is compliant with the initial Mining Lease Conditions. If the extension requires significant changes to the existing operation, community consultation is required as part of the extension approval process.</li> <li>Since modern exploration techniques have been adopted in the Woodside area, the Bird in Hand gold deposit is the only known geological feature that exhibits the tonnes and grade (quantity and quality) to support the development of a modern mine on current information. While the area originally supported 17 mining operations in the 19<sup>th</sup> century, many of those early efforts were shallow, alluvial deposits or chasing narrow veins. These deposits were either mined out in the 1880's or do not have sufficient value to cover the capital investment required to establish a modern mining operation.</li> </ul>
<p>5.6.4.6 HEALTH &amp; SAFETY</p>	
<p><i>Issues associated with mine operation, particularly air quality; contaminants, public health.</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>Matters particularly associated with mine operation and externalities as it affects health and safety of the employees and community public health. As related under amenity, Terramin has undertaken a number of baseline studies to inform the community on ambient noise, air and water quality. These reports have been made available on the Terramin website and specifically referenced in newsletters, at community meetings, drop-in days and at the WCCC.</p>
<p>ISSUES</p>	<p>TERRAMIN RESPONSE</p>
<ul style="list-style-type: none"> <li>– Transport of Explosives</li> <li>– Storage of Explosives</li> </ul>	<ul style="list-style-type: none"> <li>All purchasing, handling, storage, transportation and use of explosives are strictly regulated and must be licenced prior to any of these activities being undertaken. Key legislation governing the use of explosives include but are not limited to: <i>Mining Act 1971 (SA)</i>; <i>Mines and Works Inspection Act 1920(SA)</i>; <i>Explosives Act 1936 (SA)</i> and <i>Explosives Regulations 2011 (SA)</i>; <i>Dangerous Substances Act and Regulations (SA)</i>; AS2187.1-1998 “Explosives – Storage, transport and use: Part1 Storage”; AS2187.2-1998</li> </ul>



	<p>“Explosives – Storage, transport and use: Part2 Use of Explosives”. Explosives can only be purchased from licenced manufacturers and suppliers, and they can only deliver products under licence as well.</p> <ul style="list-style-type: none"> <li>Explosives will be transported as needed via road to the BIH site using approved, specially licenced vehicles. Larger, less frequent deliveries will then be made directly to the site.</li> <li>Initially, explosives will be stored at the licenced magazine facilities at the Angas Zinc Mine site. In the longer term, an underground explosives magazine will be constructed ~50-60m underground to store the required explosives. This facility will require licencing by SafeWork SA prior to it’s use.</li> <li>All aspects of explosives handling and use are subject to random spot checks by SafeWork SA inspectors to ensure compliance. All personnel handling or using explosives must be licenced and all explosives must be accounted for through an auditable system.</li> </ul>
– What if there’s an earthquake?	<ul style="list-style-type: none"> <li>The seismicity of the area has been considered as part of the mine design. Rock conditions and ground stability is the primary design driver for any mine to ensure safety of people, infrastructure and the environment. Earthquakes have been known to occur in the Adelaide Hills and all recorded historic events have been reviewed. The mine design is reviewed by Geotechnical engineers, Appendix M1 to ensure that the planned mine is safe and stable considering the strength of rock, the quality of discontinuities and any seismic activity.</li> </ul>
– What are the risks to public safety, injury or death from unauthorised access ?	<ul style="list-style-type: none"> <li>Terramin will install video surveillance over operational areas of the mine and have appropriate perimeter and internal fencing.</li> </ul>
5.6.4.7 LAND ACCESS	
<i>Issues related to land access.</i>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>Terramin has worked directly with near neighbours and those properties where land access for exploration and data collection has been required. Meetings have primarily been one-one to ensure that the landowner and user is aware of purpose and timing of access. All access is confirmed in accordance with statutory process.</p> <p>The community has asked questions about land access only in the context of perceptions of intrusion on freehold property and future exploration and related activity.</p>
ISSUES	TERRAMIN RESPONSE
<ul style="list-style-type: none"> <li>Does Terramin plan to explore in the whole Woodside area</li> <li>How do you get onto my land</li> <li>What do you pay people to access their property ?</li> <li>Did Terramin acquire exploration tenements over 300 plus historic gold,</li> </ul>	<ul style="list-style-type: none"> <li>Land is only entered by providing the notification required by law and with prior consultation with the landowner for exploration. There must be written approvals from the landowner. Terramin does not delegate or give any authority to anyone to enter someone’s land on its behalf, unless it has been consented to by the landholder.</li> <li>Terramin acquired 5 tenements in addition to the Bird in Hand deposit in the Adelaide Hills. The Mines department records show that a large number of mines and deposit sits within these tenements. An estimated 300 historical deposits and mines lie within the tenements owned by Terramin.</li> </ul>



<p>copper and base mines through its acquisition from Maximus Resources or have they been acquired separately</p> <ul style="list-style-type: none"> <li>- Does the current plan and application to mine include the 'exploration potential' area that extends south east from the identified BiH resource</li> <li>- Extension of the mine life and approvals             <ul style="list-style-type: none"> <li>- would this require a revised application and extension to the current mining time frame</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Decisions regarding compensation will operate within a framework consistent with the market operated conditions. Arrangements to date are negotiated on an individual basis and are appropriately covered by confidentiality standards for the individuals involved.</li> <li>• The proposal to mine the Bird in Hand deposit will be based on the existing defined Resource. If additional ore exists in commercial quantities in the continuation of the deposit, the company would likely mine it and extend the life of mine</li> <li>• An extension of the mine, beyond the initial approval, requires those changes to be presented to the regulator. Any proposed changes are assessed in relation to the mining lease conditions and the Program for Environment Protection and Rehabilitation (PEPR). Further approval could gained through an additional application process or an extension can be granted if the proposal is compliant with the initial Mining Lease Conditions</li> </ul>
<p>5.6.4.8 MINE CLOSURE</p>	
<p><i>Issues regarding end land use and rehabilitation</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>Terramin has had some discussion with near neighbours, and possible post closure uses for the site were explored on community posters in May and September 2017. Closure criteria still to be agreed. Discussion of closure outcome and criteria are timetabled for WCC in early 2018, and a focus group discussion on closure is also planned.</p> <p>The intention is to work with the community on future uses of the property so that the MLA when lodged represents the community wishes. The community has however begun to consider post mine uses and this topic has been a formal part of the discussion during the,</p> <ul style="list-style-type: none"> <li>• community drop in days,             <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (2)(6)</li> <li>○ Poster Series September 2017 – (2)(6)(16)(17)</li> <li>○ Poster series April 2019 – (3)(6)(16)(19)(22)</li> </ul> </li> </ul>
<p>ISSUES</p>	<p>TERRAMIN RESPONSE</p>
<ul style="list-style-type: none"> <li>- Can the whole site become a museum for agriculture and mining when the mine closes</li> <li>- When will Terramin stop mining</li> <li>- What will the farm look like when you stop mining</li> <li>- How will it be rehabilitated?</li> <li>- What certainty is there for rehabilitation funding</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin are planning to return the site to a safe and stable condition that can be used for Agri-business. As part of the ongoing consultation process the company will look to the community for suggestions. The suggestion for a museum could be considered by the community if a party presents a suitable proposal.</li> <li>• Subject to approval Terramin will continue to mine as long as there is sufficient accessible gold that makes a profit at the commodity prices of the time. Terramin is planning to seek a 5 year mine life under this application. If the Project was to be extended, a new approval for the extension under the Mining Act would be required and community consultation would be part of the new approval.</li> <li>• When mining stops the site will look green – approximately half of the property will be revegetated with local native vegetation; there will be an asphalted access road coming off Pfeiffer Road. The portion of the property that has not been revegetated, approximately one third of the property, could be used for primary production. Any infrastructure that will remain will be agreed in the final mine closure plan in consultation with regulators, the community consultative committee and likely future property users. It is proposed that some of the infrastructure will remain with the potential to be used for other business use post mining. The suitability of the mine for storage, mushroom farming and cellaring has been suggested and would make a suitable addition to some of the neighbouring businesses. Terramin, government and community will work together to ensure good environmental outcomes post closure.</li> </ul>

	<ul style="list-style-type: none"> <li>• BIHGP operational area has a small footprint (approximately 4 hectares). Terramin, government and community will work together to ensure good environmental outcomes post closure. The operational mining plan must have a closure plan. This plan will be further refined closer to mine closure and require approval from the regulator. A rehabilitation bond is paid to government prior to construction to ensure rehabilitation can occur. Upon closure, Terramin undertakes the rehabilitation.</li> <li>• Terramin have undertaken a conceptual mine closure plan taking into account those aspects that have been presented by the community as important. Several alternatives have been discussed, and opportunities for the site are numerous. Terramin's intention is to rehabilitate half the property with native vegetation to align with the Adelaide Hills Council Biodiversity strategy. The remaining portion of the property could be used for numerous applications including commercial agriculture/viticulture, although not all options are under consideration by Terramin.</li> <li>• The intention of mine closure is to return the site to its pre-mine use. The site will have certain infrastructure that would suit many businesses, including a sealed access, workshops and flat work areas. The final land use is yet to be determined, but consultation will occur with the community and stakeholders. The Plan for Environmental Protection and Rehabilitation (PEPR) that the company will have to follow will include a bond to secure the completion of all rehabilitation activity. In order to do this Terramin have to develop a rehabilitation plan and have it approved by government. The government has a specific bond calculator related to the work required for rehabilitation which is used to determine the magnitude of bond required.</li> <li>• The funds (bond) calculated for the plan to be implemented are held in a bank account, prior to mining being permitted. These funds cannot accessed by Terramin until released by the government after rehabilitation has been completed</li> </ul>
<p>5.6.4.9 MINE DESIGN &amp; OPERATION</p>	
<p><i>Issues regarding design (ie: conveyors vs. trucks) and operation ie: blasting and vibration, dust, lighting and noise.</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>Issues are constantly raised by the community at any opportunity, relating to the what, how and when of the project. Terramin has provided numerous opportunities for the community to engage and comment including,</p> <ul style="list-style-type: none"> <li>• Information in newsletters; June 2014, March 2016, September 2017, April 2019</li> <li>• community drop in days, <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (2)(3)(4)(5)(6)(8)(9)</li> <li>○ Poster Series September 2017 – (2)(3)(4)(5)(6)(7)(8)(9)(10)</li> <li>○ Poster Series April 2019 – (3)(2)(5)(7)(8)(10)(11)(12)(13)</li> </ul> </li> </ul>
<p>ISSUES</p>	<p>TERRAMIN RESPONSE</p>
<p>Project Site</p> <ul style="list-style-type: none"> <li>– A simple description of the BIHGP was requested at a number of community meetings</li> <li>– Location of gold deposit</li> <li>– Will the mine be open cut</li> <li>– What is the construction timetable</li> <li>– How will gold be mined</li> </ul>	<ul style="list-style-type: none"> <li>• The concept around re-establishing the Bird in Hand gold mine incorporates community expectations and so has the following project objectives: be a small underground mine with a limited surface footprint resulting in the lowest achievable impact in the region. The Project proposes to access the extension of the gold mineralisation associated with the historic Bird in Hand Gold mine through the construction of a tunnel (decline) utilising conventional underground mining methods. Once at the gold mineralisation the decline will spiral down adjacent to the ore body with accesses every 20 vertical metres. On surface the decline is accessed via an engineered entry (portal) which is excavated into the ground and shored up with steel and concrete. The location of the portal is set by the location of the ore body (which the decline spirals down to), the properties of the rock to be tunnelled through, the relative proximity to residences, public roads and the land owned by Terramin. The portal looks like a tunnel going into the ground. Ore recovered from the mine will be placed into road going trucks and transported to the Angas mine site for processing and storage of any by-products. This provides for the least visual impact and the mine itself will not be visible from the surface. Under these project objectives there will be: <ul style="list-style-type: none"> <li>○ No open cut mine - entrance is a 'drive-in' portal to underground</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>○ No onsite gold processing;</li> <li>○ No use of cyanide;</li> <li>○ No acid leaching;</li> <li>○ No 'fracking' – we are not miners of oil or gas;</li> <li>○ No negative impact on groundwater quality or ability of existing users to access water;</li> <li>○ No health or nuisance dust impacts;</li> <li>○ Expected \$11 million annual spend in local community, including wages;</li> <li>○ Approximately 12 trucks of ore per day to Strathalbyn on existing roads.</li> <li>○ Cemented back-fill of tunnels as part of the mining process; and</li> <li>○ A site-specific Program for Environmental Protection and Rehabilitation (PEPR).</li> <li>● All of our activities are highly regulated by State and Federal laws, regulations and policies. In addition to this, site specific compliance limits will be imposed and enforced by State and Federal agencies.</li> <li>● The gold mineralisation originally outcropped at surface. The historic mine exists of 8 shafts, drives, stopes and adits. The old workings extend to approximately 125 m below ground level (surface) with the last access occurring in the 1930's. The new mining activity will continue mining the mineralisation from approximately 150m below surface to the known depth of ~450 m below surface.</li> <li>● The Bird in Hand Gold Mine will be an underground mine. The Bird in Hand Gold deposit is narrow and dips at approx. 45 degrees to the south east. It was previously mined out to a depth of approximately 110m. In order to recover the gold it is proposed to use underground mining techniques. This will require a 'drive-in' access tunnel from the surface called a decline. There is no above ground head frame or haulage shaft.</li> <li>● It is proposed that the project surface construction will take 12 to 14 months. Underground development will commence within this timeframe, occurring concurrently after approximately 6 months. Underground development will continuing as ore production occurs</li> <li>● The Bird in Hand Gold Mine will be developed utilising conventional drill and blast mining methods. The rock is drilled in a specific pattern to provide for rock to be broken using explosives without damaging the country rock. It is important to design the drilling and explosive charge ensure that the walls of the tunnel are not damaged and cracks do not extend out from the excavation. This ensures efficient mining and superior stability and a safe tunnel. Excavated rock is taken to the surface, mullock is stored for later use in underground for backfilling of voids, rock with gold is taken to Strathalbyn for processing.</li> </ul>
<p>Underground design</p> <ul style="list-style-type: none"> <li>– Grouting technique and process, where is it used</li> <li>– Impact of cement grout change on groundwater flow, bore water quality and quantity</li> </ul>	<ul style="list-style-type: none"> <li>● It is proposed to use grout to control groundwater inflows and protect groundwater quality as part of the mine groundwater management plan.</li> <li>● Grouting techniques for use in civil and mining projects have been developed over the last 120 years to manage groundwater. Projects dealing with large water inflows from subterranean water bodies (aquifers) or surface water bodies (lakes, rivers, seas) are not uncommon. The use of grout has been developed to ensure protection of groundwater quality, engineered structures and prohibiting groundwater inflows. There are numerous types of grouts that are used for various situations. The use of neat, fine silica cement as grout is the typical for pre-excitation, cost effective water control. Silica cement is an environmentally sensitive product used with potable water, the same product that is used to make typical cement rain water tanks used for storage of drinking water. Silica cement is inert and binds water into the solid matrix during the curing process, the use of cement grout will not impact groundwater quality.</li> <li>● The use of grout has many applications associated with groundwater protection and control. Correct use of grout is a safe process that is commonly used in establishing water extraction bores in Australia, the method is so successful that there is a push in the irrigating states of America to legislate the use of grout in all water extraction well construction in order to protect aquifer quality. The Ernest Henry mine is provided as an example of grouting being used to control groundwater inflows at high pressure and flow rates in fractured rock. Ernest Henry mine managed groundwater inflows that had greater volume and higher pressure than those measured at the BIHGP. The</li> </ul>



	<p>main water bearing unit at Ernest Henry is the Gilbert River formation consisting of semi-consolidated, weakly cemented, quartz sand and gravel with a typical thickness of about 5 m, this formation reoccurred over a 300m strike. Eight specific aquifers were identified and 18 separate grouting zones were managed to control mine water inflows. Ernest Henry achieved greater than 97% control of groundwater inflows to a reduced inflow level of less than 2l/s. To ensure that a conservative approach is taken to understand groundwater impacts of the BIHGP on regional groundwater, the scenarios of not using any grout and using grout with a varying effectiveness have been analysed to understand the impact on mine inflows and water users. All investigation work is undertaken to demonstrate protection of groundwater and align with the principles of the Western Mount Lofty Water Allocation Plan.</p> <ul style="list-style-type: none"> <li>• The groundwater flow path is broadly driven by the topography, groundwater flows from the higher to lower areas within the catchment. Grouting around the mine tunnels will not change this and water will flow around the grouted zone. The groundwater fractures near the mine are not directly connected with groundwater fractures that irrigation bores access in the district, this is determined through mapping of the salinity signatures of each bore. The regional bore survey and groundwater study suggests there isn't any irrigation bores in the fractures identified directly above the gold mineralisation – this is demonstrated by regional bore monitoring information, the pump testing and groundwater modelling, the results are included in S. 3.2 of the Groundwater Report (Appendix H1). Variation in salinity and flow rates within the catchment where irrigation bores are located within a fracture, the water is generally “younger”. Younger water has a lower salinity (younger or less aged rainwater recharge water). Where a bore is not within a fracture, the water is saltier as it has a lower flow rate through the tighter pore spaces, and acquires more salts and because of the tighter pores spaces less water, the yield is available within the bore</li> </ul>
<p>Above Ground Design</p> <ul style="list-style-type: none"> <li>– How big will the office buildings really be</li> <li>– Where are the vehicle wash down bays</li> <li>– Why are there bunds indicated on the proposed mine plan in the same areas that have been planted with trees.</li> <li>– What is happening with the overburden.</li> <li>– What is the size of the mullock pile?</li> <li>– What is the likelihood of diesel fumes being emitted from the mine vents – if there are emissions what will be the levels ?</li> <li>– Could the site be self-sustaining</li> </ul>	<ul style="list-style-type: none"> <li>• The site plan has been provided at each Drop In Day (May and September 2017), outbuilding and location of mine site features has considered feedback of the community. Office buildings will not be visible from surrounding properties.</li> <li>• Bunds have been carefully designed to maximize the shielding of views to the proposed operational area. The visibility of the Project from surrounding viewpoints was found to be reduced by the construction of additional bunds. The designed land form was modelling under a number of scenarios and bunds, rather than just vegetation alone, provided benefits for blending in views and reducing noise travel. Trees have been planted prior to the site design being finalised to establish vegetation buffer.</li> <li>• The original planned site for the Integrated Mullock Landform (IML) was moved numerous times after discussion of expectations with a near neighbour (June 2016). The final design location was selected to reduce the visual impact of the IML and move the operational area further away from the neighbours' residence. The mullock pile will be approximately 115, 000m<sup>3</sup> in size (at the maximum point) land will be designed to ensure that it will be no higher than 10m from the existing surface. As the mine progresses the excess mullock brought to the surface and placed on the IML will be returned underground as backfill.</li> <li>• Terramin has discussed with the WCCC, the findings of the AECOM, Air Quality Impact Assessment (report June 2018 – Appendix N3) which has been reviewed by the EPA. Terramin will ensure it maintains air quality standards which ensure mine employees and the community are safe.</li> <li>• Terramin will research using solar panels on site.</li> </ul>
<p>Mine Operations</p> <ul style="list-style-type: none"> <li>– What is the life of the mine</li> <li>– What will be operating hours, is it 24 x 7 - 365 days year.</li> </ul>	<ul style="list-style-type: none"> <li>• The project is based around the known geology. It will take approximately 12 months to tunnel to ore body; approximately 5 years for extraction to a depth of 450m and approximately 12 months once production is finished to rehabilitate the site.</li> <li>• Mining will occur on a 24 hour basis 7 days per week, 365 days per year. Once the mine is established, the majority of work will occur underground and will not be perceivable from surface.</li> <li>• Terramin are still to define shift operating hours for weekday, weekend and evening.</li> </ul>



<ul style="list-style-type: none"> <li>- What will be operating times during Construction and Operation</li> <li>- Will there be conveyor belts; when will they run – how much noise do they make</li> <li>- What impact will mining have on the community power levels</li> <li>- Can the mine operate off solar power</li> </ul>	<ul style="list-style-type: none"> <li>• Conveyor belts are run as required, they are electrically driven and will operate only when a truck unloads ore into the silo. As a truck comes up from underground, the conveyor belt will operate for less than 5 minutes each time. There will be around 12 ore truck movements a day. Noise will be within the EPA noise limits for Rural industry</li> </ul>
<p>Ore Handling</p> <ul style="list-style-type: none"> <li>- How is material (ore) moved into silo</li> <li>- What will happen with ore handling; where is the ore handling</li> </ul>	<ul style="list-style-type: none"> <li>• Ore is removed from the mine in trucks, the truck ejects the ore into a bin that feeds a conveyor that transports the ore into the storage silo.</li> <li>• Ore will be stored within a silo and loaded via an enclosed conveyor system from the silo into the road going trucks.</li> <li>• Ore in the road trucks will be covered prior to leaving site. This system provides for a reduced footprint, less vehicle movement, reduced roads required and better control on environmental issues such as noise and dust.</li> </ul>
<p>Ore Processing</p> <ul style="list-style-type: none"> <li>- Type of gold processing used at Angas</li> <li>- What is the capacity (in litres) of the tailings dams at Angas, near Strathalbyn?</li> <li>- Is there a Tailings dam ?</li> </ul>	<ul style="list-style-type: none"> <li>• All ore produced from the Project will be processed at Terramin’s Angas Processing Facility near Strathalbyn, using the same plant previously used to process lead/zinc ore via flotation method.</li> <li>• Rock is crushed and ground into a slurry in a semi-autogenous grinding (SAG) mill and fed into the flotation circuit as a slurry.</li> <li>• Additives that act very similar to detergents are mixed into the slurry and bubbles created attract gold, along with other valuable metals and bring the metals to the surface. The bubbles are skimmed off when they float to the surface and collected as a concentrate slurry.</li> <li>• The slurry concentrate is dewatered through a thickener and then dried using a filter, producing a sand-like material containing gold and other valuable minerals (including silver and copper).             <ul style="list-style-type: none"> <li>• The concentrate is sold for further refinement offsite.</li> <li>• The material that does not go into the concentrate is called tailings (or the tail). Tails are stored in a purpose built, licenced tailings storage facility (TSF) on site at Angas.</li> <li>• This method of ore processing does not involve the use of cyanide commonly used in the leaching process to extract gold from the ore</li> <li>• There is one tailings dam at Angas (Strathalbyn). The tailings dam is designed to hold a total capacity of 1.1Mm<sup>3</sup> of processed rock material and 155,000m<sup>3</sup> of water (equivalent to an Annual Exceedance Probability (AEP) 1:100,000-72hr rainfall event as prescribed by the Government mining regulators) and has sufficient unused capacity to accommodate the processed material from the BIHGP.</li> <li>• There will be no tailings dam at the Woodside Project site.</li> </ul> </li> </ul>
<p>5.6.4.10 REGULATORY PROCESS</p>	
<p><i>Issues relating to project approvals, monitoring and reporting, including heritage</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>The community often asks about the mining lease application process and timing. Terramin has described the statutory process and provided the steps required to attain mine approval. As the approval process is iterative, specific timing is difficult to provide so estimates have been given where possible and appropriate. In order to provide more clarity the company has liaised with the regulator and invited their participation at community forums and/or the WCCC meetings.</p>



	<p>To date this has included;</p> <ul style="list-style-type: none"> <li>• information in newsletters July 2016</li> <li>• community drop in days,             <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (1)(13)</li> <li>○ Poster Series September 2017 – (16)</li> <li>○ Poster Series April 2019 – (1)(3)(17)</li> </ul> </li> </ul> <p>The regulator provides a framework of the approval process in their publication: MG1 Guidelines for miners: mining approval processes in South Australia Version 2, May 2015 specifically in 3.3: Flowchart of mining proposal approval process</p>
ISSUES	TERRAMIN RESPONSE
<p>Indigenous Engagement:</p> <ul style="list-style-type: none"> <li>– Has there been Consultation with indigenous custodians? Have you done any research about Indigenous Cultural Heritage</li> </ul>	<ul style="list-style-type: none"> <li>• Respect and understanding is the principle of Terramin’s approach regarding Indigenous Australians and Traditional Ownership. Terramin’s community policy commits to open, transparent and engaging dialog with communities, including Indigenous communities. Terramin has not identified Indigenous custodians for the Woodside area but would welcome a meaningful relationship with any Indigenous custodians.</li> <li>• The site of the Project is on freehold land and does not have any pending native title claims in the region. Terramin have established relationship with Indigenous peoples through the work at the Angas mine and aspire to extend this to include the Project.</li> <li>• Terramin commissioned Anthropac to research and write a report into Indigenous Cultural Heritage in the Woodside area and specifically on Mineral Claim 4113 to identify any items of heritage value or indicators of previous Indigenous activity. EBS Heritage also completed a report undertaking a cultural heritage assessment. The reports are attached in appendix S1 and S2</li> </ul>
<p>Approval Process:</p> <ul style="list-style-type: none"> <li>– Timing of Approvals Process?</li> <li>– Role of government and regulators (trust)?</li> <li>– Does Terramin have a special deal with the government?</li> <li>– Has the government given a positive indication?</li> <li>– Is there anything that that we can do to stop the process right now?</li> </ul>	<ul style="list-style-type: none"> <li>• The mining lease application is an iterative process. As certain sections of the project are completed reports are released. A Ministerial Determination specifying the minimal information required in the mining lease application and the level of confidence required has been provided by the regulator.</li> <li>• Lodgement will only occur once the proposal and all required supporting information for the application meets expectations and the requirements of the Ministerial Determination as assessed by the regulator. Once the regulator assesses the application in its entirety they may;             <ul style="list-style-type: none"> <li>• Reject the application, providing a description of why the application does not meet the requirements;</li> <li>• Accept the mining lease application in entirety and set lease conditions prescribing the requirements that the company must comply with; or</li> <li>• Accept the mining lease application with changes which will be reflected in the mining lease conditions.</li> </ul> </li> <li>• There is no set time line or deadline for this process but typically once a Mining Lease proposal is agreed with the regulator it takes on average 6 to 8 months (for review of the Mining Lease application once submitted).</li> <li>• Once granting of a Mining Lease and provision of the mining lease conditions, the company has 21 days to respond to the government mining regulator.</li> <li>• The access to mineral rights is an established process that is legislated through State laws. Mineral value is identified in South Australia’s Strategic Plan for exploration and resource development under the umbrella of the sustainability principle incorporating the triple bottom line notion (includes social, environmental and economic aspects). The states mineral resources are regulated through the Mineral Resources Division of the Department for Energy and Mining (Formerly Premier and Cabinet (DPC)).</li> </ul>





	<ul style="list-style-type: none"> <li>• The mining regulator takes a strong position in regard to approving and regulating mining projects. There is no scope for under the table “deals” to be done with mining companies and the regulator will not approve any project that does not meet the requirements of the law and satisfies the outcomes required to ensure that the project provides a net positive benefit in regards to social, environmental and economic impacts.</li> <li>• A mining project has to undertake a standard process that is very open and transparent, complies with the <i>Mining Act 1971 (SA)</i> and is detailed in the Ministerial Determination 006. In recognition of the existing land uses and businesses around the proposed Project site the regulator developed a specific Ministerial Determination for the project to address the concerns presented by the community. The Determination for a Mining Proposal for the BIHGP can be found on the department’s website: <a href="http://minerals.statedevelopment.sa.gov.au/mining/mineral_projects/Bird_in_Hand_gold_project">http://minerals.statedevelopment.sa.gov.au/mining/mineral_projects/Bird in Hand gold project</a>. Stopping the process would require a legislative and policy change at State level.</li> <li>• Terramin is consulting with the community to better understand the expectations and setting outcome criteria associated with environmental aspects, there are a number of ways to be involved with this process as set out in this document.</li> <li>• The regulatory process includes a statutory public consultation period which provides for people to make comment on the proposed project. Any concerns relating to the project can be submitted to the regulator for consideration in the review process.</li> <li>• Terramin are regularly reviewing the mining lease application schedule in light of new information from our studies, the community, government and our consultants.</li> <li>•</li> </ul>
<p>Lodgement When will you lodge the MLA</p>	<ul style="list-style-type: none"> <li>• Lodgment will only occur once the proposal meets expectations and the requirements of the Ministerial Determination as assessed by the regulator. This is anticipated to be in Q2 2019.</li> </ul>
<p>Regulations</p> <ul style="list-style-type: none"> <li>– What laws protect the environment?</li> <li>– Adelaide Hills supply 60% of Adelaide metropolitan water, when will decisions be made, who by?</li> <li>– Does Terramin have to follow the same rules and laws as all the farmers?</li> <li>– What is the definition of ‘exempt land’ and waivers under the Mining Act (1971)</li> </ul>	<ul style="list-style-type: none"> <li>• Terramin has provided the community and stakeholders with detailed information about the regulatory process. This has included that the environment is protected by the following legislation             <ul style="list-style-type: none"> <li>○ <i>Environment Protection Act 1993 (SA)</i>, including Environmental Protection Regulations 2009 (SA) and Environmental Protection (Water Quality) Policy 2003 (SA);</li> <li>○ <i>Native Vegetation Act 1991 (SA)</i>,</li> <li>○ <i>Natural Resources Management Act 2004 (SA)</i></li> <li>○ <i>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act Cth)</i>.</li> <li>○ <i>Mining Act 1971 (SA)</i>;</li> <li>○ <i>MinesandWorksInspectionAct 1920(SA)</i>;</li> <li>○ <i>National Parks and Wildlife Act 1972 (SA)</i>;</li> <li>○ <i>Aboriginal Heritage Act 1988 (SA)</i>;</li> <li>○ <i>Western Mount Lofty Ranges Water Allocation Plan 2014 (SA)</i>;</li> </ul> </li> <li>• Part of the mine approval process is a Program for Environmental Protection and Rehabilitation (PEPR), which will outline the ‘rules’ of the mine derived from the Mining Lease conditions. The PEPR states how components of the mine will be measured, what limits are in place and how the results should be reported to the government regulators.</li> <li>• Compliance against these rules is analysed quarterly with the government regulators and the Consultative Community Committee, and annually in significant detail to the government regulators.</li> <li>• Terramin must meet the same, or better, standards as neighbouring landowners and all those required under the laws listed above.</li> <li>• Exempt Land is outlined under section 9 in the Mining Act 1971.</li> </ul>



<p>Bond</p> <p>– What’s a Bond, in a mining context?</p>	<ul style="list-style-type: none"> <li>• The SA Government requires that a bond be lodged to cover the full cost of rehabilitation, at any stage of mining, before mining begins.</li> <li>• The value of the bond covers the full rehabilitation of the site and monitoring to substantiate the closure outcomes to the standard defined in the mine closure plan. The value of the bond is calculated by the company through South Australia’ specific bond calculator as agreed with the regulator.</li> </ul>
<p>Peer Reviews</p> <p>– Who does the ‘peer review’, who pays them; how independent are they?</p>	<ul style="list-style-type: none"> <li>• Peer reviews are undertaken by subject experts independent to those engaged by the company to provide expert analysis and advice. A peer reviewer looks at the work from an expert angle to ensure that the data collection, analysis, modelling and recommendations are undertaken to satisfy the standard as required by the Professional code of ethics and that the information and conclusion represent achievable outcomes to satisfy the requirements set out in the Ministerial Determination.</li> <li>• Peer reviewers are professionals in the field of the specific topic. They must have strong credibility with regulators, their specific industry (e.g. hydrological modelling) and with the community. Peer reviewers are independent through their commitment to professional ethics and their reputation within the industry and government.</li> <li>• Terramin pays for peer reviews as set out in the Ministerial Determination.</li> </ul>
<p>5.6.4.11 ROADS AND TRAFFIC</p>	
<p><i>Issues related to road network; traffic movement and routes; transport and road safety</i></p>	<p>HOW HAS ENGAGEMENT OCCURRED</p> <p>A comprehensive technical study, including gathering traffic data (during 2014 and 2015) was undertaken to understand traffic volumes and to assist the design of haulage routes. A civil engineering consultant was used to assist in the analysis of the traffic volumes and suitability of roads and infrastructure between the mine site and processing facility.</p> <p>Traffic data along a number of possible transport routes has been presented to Local Government across the three council areas and with DPTI (Department of Planning, Transport and Infrastructure). Their input has been used to determine the best solution for the route design.</p> <p>To date the key findings of this technical study and preferred route has been provided to stakeholders via:</p> <ul style="list-style-type: none"> <li>• one-on-one meetings with neighbours,</li> <li>• a focus group (16 August 2017),</li> <li>• community information sessions, drop in days             <ul style="list-style-type: none"> <li>○ Poster Series May 2017 - (7)</li> <li>○ Poster Series September 2017 – (9)</li> <li>○ Poster Series April 2019 – (14)</li> </ul> </li> </ul>
<p>ISSUES</p>	<p>TERRAMIN RESPONSE</p>
<p>Route, entry points and movements</p> <p>– What is the proposed route?</p> <p>– Will trucks be on Bird in Hand Road?</p>	<ul style="list-style-type: none"> <li>• Terramin has worked in collaboration with local council planners and the Department of Planning, Transport and Infrastructure to determine the appropriate traffic route from Woodside to Strathalbyn.</li> <li>• It is proposed that access to the mine will be off of Pfeiffer Road and the ore will be transported to the Angas processing facility along the existing road network. As a result of the consultation undertaken it is likely that the route will be along Pfeiffer Rd to the Nairne Rd and onto the Freeway via the Bald Hill interchange, then onto Callington Rd at Callington which goes past the Angas site. The final route</li> </ul>



<p>– Pfeiffer road access, have slip lanes been considered and alternate entry points?</p> <p>Impact on Roads and Safety</p> <p>– More trucks will make the roads less safe, particularly at school drop off and pickup?</p> <p>– What will be the impact on Road quality i.e. pot holes?</p> <p>– Has safety of cyclists been considered ?</p> <p>Volume of traffic</p> <p>– Number of trucks and times of operating</p> <p>– How many trucks? When will they be on the road, is there increased truck traffic (all year; not seasonal)?</p> <p>– What will be truck movement on Nairn- Pfeiffer Rd; particularly the Nairne T-Junction?</p> <p>Road conditions and infrastructure</p> <p>– Has Terramin has lobbied any government body as to upgrading local road infrastructure?</p> <p>– Impact on long term integrity of public road network, particularly decline under Bird in Hand Rd and backfill of this section.</p> <p>– Will there be upgrades to the intersections at Hand/Pfeiffer Rd; Pfeiffer/South Ridge Road or Nairne intersections ? Will Terramin or the council pay for these ?</p>	<p>is yet to be approved with consideration to load limits and time restrictions however the transport proposal fits within the existing limits on the roads to be used.</p> <ul style="list-style-type: none"> <li>• The estimated total distance from the Project location to the processing facility is 50km.</li> <li>• Trucks are already using Bird in Hand Rd, as there are many residences and businesses that use the road for access. It is not proposed to use the Bird in Hand Rd for trucks associated with the Project.</li> <li>• Three potential routes were assessed for existing conditions, safety and suitability by independent traffic experts.</li> <li>• There will be an emergency access gate off of Bird in Hand Road in case of emergency vehicles or the front access is unusable for any reason. An example of this would be a bushfire. Since the Bird in Hand Road cuts across the Mineral Claim and Mining Lease, occasional access to and via Bird in Hand Road by company employees and contractors and their vehicles will be required as part of the ongoing environmental monitoring, engagement with neighbours, and possible exploration work. This traffic will be kept to a strictly as needs basis</li> <li>• There will be an extra 24 haulage truck trips per day along Pfeiffer Road, representing 12 return loads of ore. In addition, there will be employee movements, both work and private vehicles. To put this into perspective, there are currently on average 153<sup>1</sup> ridged and articulated trucks and over 900<sup>1</sup> cars travelling along Pfeiffer Road daily. Terramin’s proposed increase in traffic is not considered a significant change to the existing traffic levels.</li> <li>• Trucks used for transporting the ore to the processing plant are selected on the existing limits on the route. As a result a General Purpose Vehicle (GPV) has been selected. A GPV can access any property for delivery or removal of products and is less than 19m in length. It is proposed to use a GPV in the form of a Truck and Dog trailer to transport the ore. The tonnage of trucks is dependent on the permitted weight on Pfeiffer Rd, and weight restrictions will be complied with.</li> <li>• The trucks used will be standard covered road going trucks similar to those used by other industries in the area, including bulk product delivery trucks (grapes, fertilisers, chemicals, fuel), livestock moving and quarries. Current proposed trucking management strategies take into account times of higher traffic and school drop-off and pick-up.</li> <li>• It has been requested that ore truck speed limits are reduced to 60km/hr along Pfeiffer Road.</li> <li>• It is proposed that ore truck movements do NOT occur between • 6am - 9am Monday - Friday (commuter and school) • 3pm – 4.30pm Monday - Friday (school) • 10pm – 6am (overnight). Intend to establish a Good Neighbour Policy – to negotiate reduced trucking during community events</li> <li>• Approximately 12 trucks of ore per day will be required to meet the production target of the project. 12 return ore trucks = 24 movements (to Angas = 1 movement and return to Bird in Hand = 1 movement). i.e. it could be 3 trucks undertaking 4 return trips (8 movements each ) or 6 trucks undertaking 2 return trips each (12 movements each) These trucks will be using the intersection at the Nairne T-junction. Terramin has not lobbied any government for local infrastructure upgrade. Terramin have had discussions with DPTI, Adelaide Hills Council, Mount Barker District Council and Alexandrina Council regarding the proposed haulage options and transport route.</li> <li>• Terramin do have a plan to backfill the decline/entry to the tunnel and remove the cement plant and silo.</li> <li>• Terramin have been liasing with DPTI and Council on route alternatives and road capacity.</li> </ul>
<p>5.6.4.12 WATER</p>	
<p>HOW HAS ENGAGEMENT OCCURRED</p>	



<p><i>Issues relating to groundwater runoff, hydrology, and water quality and impact on water licenses</i></p>	<p>A comprehensive technical study, including gathering data since 2014, has been undertaken to understand groundwater systems and quality to assist the design of the proposed mine. This data assists Terramin to address potential impacts and issues raised by stakeholders.</p> <p>State Government experts (DEWNR) have been engaged regarding the method of investigation and presented results as they arise.</p> <p>The key findings of this technical study have been provided to stakeholders through the project including:</p> <ul style="list-style-type: none"> <li>• meetings with the Local Interest Groups,</li> <li>• one-on-one meetings with neighbours,</li> <li>• focus groups/workshops</li> <li>• one-on-one meetings with neighbours,</li> <li>• community information sessions, drop in days             <ul style="list-style-type: none"> <li>○ Poster Series May 2017 – (10)(11)</li> <li>○ Poster Series September 2017 – (15)(16)</li> <li>○ Poster Series April 2019 – (16)(17)(18)</li> </ul> </li> <li>• WCCC presentations, and</li> <li>• Reports and documents area available on Terramin’s website or provided one on one.</li> </ul>
<p>ISSUES</p>	<p>TERRAMIN RESPONSE</p>
<p>Water has been a major focus on stakeholder engagement:</p> <p>Water Risks</p> <ul style="list-style-type: none"> <li>– Risk damage to the aquifer, damage all business</li> <li>– Potential impact on Adelaide’s water supply?</li> <li>– Is additional water required – will Terramin trade or buy water?</li> <li>– If water table /levels drop will impact swimming pool and other community amenity?</li> <li>– Will blasting cause fractures and drain away all the groundwater?</li> <li>– How does drilling affect the groundwater quality?</li> <li>– How can you guarantee there’s no dewatering?</li> <li>– If mining opens up a fracture what will happen to the water?</li> </ul>	<ul style="list-style-type: none"> <li>• The Ministerial Determination specifies that the mining project must comply with the principles of the Water Allocation Plan (WAP). Compliance with the WAP ensures the protection of; the aquifers, the quality of the groundwater, existing water user’s ability to access groundwater and groundwater dependent ecosystems. The Project water management objective is to minimise the effect mining has on groundwater and the surrounding environment.</li> <li>• In order to be able to propose suitable management methods the company first required a comprehensive understanding of the geology, hydrogeology, permeability of host rocks, types of aquifers and the interaction of groundwater on a regional basis. A specialist hydrogeological company Australian Groundwater Technology (AGT) was commissioned to lead the investigation to provide for a comprehensive understanding of the groundwater interaction with the proposed Project with the intention of satisfying the WAP principles.</li> <li>• Terramin completed over 5 years of (water) data collection, which included monitoring:             <ul style="list-style-type: none"> <li>○ on-site bores (11 existing and 5 new investigation);</li> <li>○ off-site bores (34 private);</li> <li>○ Groundwater levels (50 routinely monitored); and</li> <li>○ Groundwater quality (53 sampled for chemical analysis).</li> </ul> </li> <li>• Over 70 local and regional bores have been documented through the process.</li> <li>• A groundwater model was developed and calibrated with the collected data from pump tests, regional irrigation and historical records. The model was used to test and understand the impact of the proposed mine and assist in developing management methods.</li> <li>• The model was used to understand the likely impacts for analysing hazards in the risk assessments. Outcomes are based upon credible worst case scenarios. After studying similar operations and receiving advice from groundwater experts and specialists specifically on mine water management and the Project’s specific requirements it is proposed that groundwater will be managed with three objectives: avoiding the groundwater, sealing the ground to keep water out and returning water back into the ground.</li> </ul>



<ul style="list-style-type: none"> <li>– I’ve heard that mining in the 1880 and 1890’s dewatered the region, will this happen again?</li> <li>– What groundwater risk-mitigation plans are developed, or being developed, by Terramin?</li> <li>– Why do you need a water recharge process if the grouting system is effective?</li> </ul>	<p>This is done through the mine design, the use of sealing methods (grouting) and returning any intersected water back into the ground via managed aquifer recharge (MAR). All groundwater will remain in the ground or be reverted back into the ground outside of purchased allocation.</p> <ul style="list-style-type: none"> <li>• Primarily the groundwater investigation identified that the majority of the groundwater in the Inverbrackie catchment is confined to defined fracture rock aquifers along fault zones and the country rock is of low permeability. The main aquifer that was intersected during the historic mining activity is known as the hanging wall fault sitting above the ore zone. Every time a shaft was sunk the hanging wall aquifer was intersected before reaching the gold. The proposed mine avoids this aquifer by developing the decline access in the footwall sequence. As these faults are well defined, rock grouting can be used to seal up the area around the mine tunnel to prevent water from entering the mine.</li> <li>• Groundwater management technology has greatly advanced across the globe for use in both mining and civil (tunnelling and underground excavations) and micro-cement based grouting is environmentally safe and has strong stabilising effect around the immediate excavation zone. The grouting products are also used in manufacturing cement water storage vessels as well as those used to repair cracked tanks and line/case water bores.</li> <li>• Grouting techniques have been used in civil and mining projects to manage groundwater and protect aquifers for 130 years. Deep mine, high pressure grouting techniques have been developed in South Africa and Europe to control groundwater both for pre-emptive and emergency applications. In Australia, an established mine, Ernest Henry has utilised grouting to consolidate and seal the host rock to prevent and reduce groundwater inflows. The techniques used by Ernest Henry are proposed for use in the Project to seal the mine.</li> <li>• Terramin do not have an extensive use for groundwater in the Project. Terramin have a water allocation and will buy any other water required for Project consumption.</li> <li>• Through the application of groundwater management techniques the Projects activity will not affect existing users ability to access groundwater through their allocations. It is intended that all groundwater will remain in the ground or be returned back into the ground through MAR outside of purchased allocation.</li> <li>• MAR is a commonly used water management method used to protect aquifers and prevents draw down of water levels. More about MAR can be found on the Department of Environment, Water and Natural Resources’ website.</li> <li>• Applying the proposed water management solutions it is unlikely that water levels will be significantly impacted in the surrounding area. To ensure that the water management techniques are working as intended a series of water monitoring bores will be installed between existing users and the mine to measure water levels and quality. These results will be reviewed by the regulator to ensure compliance.</li> <li>• Adequate capacity must be built into the system to manage a credible worst case scenario, and for this reason, the water management system is designed with excess capacity. When analysing the management solutions a conservative approach is taken with proven management techniques proposed with lower than achievable outcomes applied. E.g. Groundwater inflow management achieved at Ernest Henry is measured at 92%, the grout application peer review, Appendix H5 suggests that 90% is achievable for the Project, the water inflows have been estimated at sealing being 70% effective.</li> <li>• In addition to the conservative estimate of groundwater inflows the mine water management system is designed to handle double the expected inflows. This allows for adequate infrastructure to be in place if higher inflows are encountered while ensuring the protection of the supply and quality of groundwater for all sensitive receptors (existing users and water dependent ecosystems).</li> </ul>
<p>Water Plans and Models</p>	<ul style="list-style-type: none"> <li>• Terramin and all water users must comply with the Mount Lofty Regional Water Allocation Plan (WAP).</li> </ul>



<ul style="list-style-type: none"> <li>- Water Allocation plan – will you be compliant with it in terms of water allocation?</li> <li>- Water allocation plans – what will happen if Terramin produce more water than the plan allows (like twice the water)?</li> <li>- Why isn't it a Class 3 groundwater Model?</li> <li>- Water allocations, buying water, buy back?</li> <li>- Who will be able to trade water and at what costs?</li> </ul>	<ul style="list-style-type: none"> <li>• Protecting groundwater, water flows and quality are critical to the community and businesses surrounding the project. Terramin have committed to protecting the groundwater and have developed a water management plan based on a thorough understanding of the regional hydrology. Terramin can only take and use the volume of water they are licensed to extract. It is intended to return all other groundwater back to the ground through managed aquifer recharge.</li> <li>• A class 3 groundwater model, under the guidelines requires the aquifer(s) to be 'pump tested' or 'stressed' for 50% time period of the proposed project impact, this equates to pumping the aquifer for 2.5 years. Expert opinion is that it will be less intrusive to the aquifer to recalibrate the groundwater model during the first half of the mining project rather than pump test for 2.5 years prior to mining. In essence use the first half of mining to recalibrate the model to achieve a Class 3 model.</li> <li>• Terramin have met with the regulators in the DPC and DEWNR, to commence discussions regarding a water neutral position as outlined above. The Company presented the project and have been advised that a section 128 authorisation under the NRM Act will be required for the project.</li> <li>• Terramin will operate within established water trading processes. Arrangements relating to individuals agreements are commercial and confidential in nature.</li> <li>• Proposal: Water removed by the mining operation is returned to the system at same or better quality (via MAR) to prevent impacts on existing users and water dependent ecosystems. This must be demonstrated through a comprehensive groundwater monitoring system which is publically reported on.</li> <li>• Proposal: All other water required for the Project will be sources via:             <ul style="list-style-type: none"> <li>○ Water trading system</li> <li>○ SA Water</li> <li>○ Mains</li> <li>○ Rainwater</li> </ul> </li> </ul>
<p>Water Management</p> <ul style="list-style-type: none"> <li>- What is Terramin's approach to Water Management?</li> <li>- Groundwater risk-mitigation plans developed, or being developed, by Terramin?</li> <li>- Impact of grouting on water flows, quality</li> <li>- What does re-injection mean, where will water actually go?</li> <li>- What is the proposed location of groundwater testing in Woodside and the Onkaparinga Valley?</li> <li>- Location of re-injection bores go?</li> <li>- How many depressurisation bores will there be and when will they be used?</li> <li>- Lack of groundwater pump testing in summer?</li> </ul>	<ul style="list-style-type: none"> <li>• As described above Terramin must manage the Project within the objectives of with the Mount Lofty Regional Water Allocation Plan. Terramin is committed to ensuring there is no impact to the supply of quality of groundwater as a result of our mining activities to existing user or water dependent ecosystems.</li> <li>• Baseline assessment or 'benchmarking' has been undertaken by the companies environmental scientists and consultants to understand and measure the existing condition of groundwater in the region. This involves meeting local landholders and working with them to evaluate and test flora and fauna, habitat health, understand environmental conditions and communities including woodlands, bores, dams, creeks and springs. In relation to the regional hydrology this work includes:             <ul style="list-style-type: none"> <li>○ Groundwater monitoring on-site (11 existing bores and 5 new investigation bores);</li> <li>○ Routine groundwater monitoring off-site (34 private bores);</li> <li>○ Groundwater levels (50 routinely monitored); Groundwater quality (53 sampled for chemical analysis);</li> <li>○ Bore census (&gt;95% of wells within Inverbrackie Creek sub-catchment surveyed to date and ongoing); Exact location and height of bores (GPS);                 <ul style="list-style-type: none"> <li>▪ Bore status confirmed (&gt;72 bores surveyed to date); and monitoring water quality in Inverbrackie Creek.</li> </ul> </li> </ul> </li> <li>• The Bird in Hand water census is the most comprehensive study ever undertaken of the region's water qualities from small creeks and dams to aquifers hundreds of metres underground.</li> <li>• As part of the licensing process, baseline data and a report has been provided to government and is publicly available on the Terramin website. We will continue to provide all specific data to landholders who are involved in the ground and surface water study. To become involved, just call or email one of our team members (contact details on the Terramin website).</li> </ul>



<ul style="list-style-type: none"> <li>- What is current water quality?</li> <li>- Exactly what will be happening with water?</li> <li>- Will the cone of depression suck water from my bore?</li> <li>- How do you propose to ensure that the quality of our water and those of the better bores in the catchment is not impacted negatively by recharge?</li> <li>- How much water will pump from the mine?</li> <li>- What happens if Terramin encounters water when developing the underground?</li> </ul>	<ul style="list-style-type: none"> <li>• If the Project is approved, this monitoring and measuring will continue and the government regulators will assign specific measuring and monitoring requirements to ensure compliance within the law, licencing conditions and project specific lease conditions. If testing shows any unacceptable change then the government regulators have the power to stop operations and direct actions required.</li> <li>• Terramin currently reports quarterly to the general public, government regulators and Strathalbyn Community Consultative Committee on environmental compliance, it is suggested that this will be the same for the proposed Project for the Woodside community.</li> <li>• Leading environmental indicators (or early warning systems) are set to detect any changes to ensure that unusual occurrences are investigated and no environmental impact occurs.</li> <li>• In order to test whether the proposed management techniques will be sufficient to satisfy the objectives of the WAP sensitivity analysis, is undertaken. This is a type of “what if” analysis where parameters within the model are varied to extreme levels to determine the modelled impact. Mitigation methods are designed to prevent these extreme outcomes and management solutions have upscaling ability to deal with unplanned emergency situations. At a practical level Project management solutions include multiple layers of control around the water inflow prevention and management plans are developed to manage unexpected events and situations, should they occur.</li> <li>• It is proposed to use MAR to return any intersected groundwater back into the ground outside of water purchased through an allocation. One key component of a MAR system is to ensure that the water returning to the ground is of the same quality as that of the receiving environment. Water will be sampled and tested prior to reinjection to ensure it meets this requirement.</li> <li>• There are 8 reinjection bores planned. We expect to use 8 reinjection bores at any one time, to ensure both irrigation bores in the district and the environment are protected. Planned to be placed in a radial ring around the mine underground workings, within the mining lease boundary. The bores will be put into fractured rock aquifer, not the clay layers that occur in certain areas.</li> <li>• At this stage there could be two depressurisation bores (based on current groundwater modelling)</li> <li>• The TDS varies in the region as a result of bore location and use, typically the TDS is approximately 900 mg/L</li> <li>• The Department (Environment and Water) advised it was not necessary to redo the pump testing of the same bores in summer as rock permeability doesn’t change with the seasons.</li> <li>• The groundwater will be managed by grouting, managed aquifer recharge and the plan is to not use groundwater for site use (e.g. dust suppression, drill cooling) that doesn’t have an allocation for this purpose.</li> <li>• Managed aquifer recharge (MAR) is used to protect aquifers from depletion and water level drawdown. The MAR reinjection system is designed to return water back into the ground and in doing so develops a higher pressure zone. This has two impacts, firstly it prevents water from flowing into the area of lower pressure created by the mine and secondly it recharges the aquifer and supports the groundwater level.</li> <li>• Sensitivity analysis, has been undertaken using the groundwater model to understand the impact of mining on the water table. Varying the value of the aquifer parameters like rock permeability provides an understanding of possible extreme impacts and provides an understanding of the required management practices to ensure compliance with the objectives of the WAP. At a practical level during mining Terramin will put multiple layers of control around the water inflow prevention and groundwater management to provide options to ensure compliance.</li> <li>• The groundwater model has been used to predict likely water inflows with the expected water management requirements. It has been predicted from the modelling that the plausible worst case scenario produces 15 litres per second (l/s) over the 5.5 year period (peak annual average). This is based on the strategies of avoiding the main aquifers, grouting around openings that intersect</li> </ul>
--	--



	<p>fractures and that grouting is only 70% effective. The water management systems proposed suggest a higher level of effectiveness and inflows of 5l/s (peak annual average).</p> <ul style="list-style-type: none"> <li>• The first stage of the mine design is to understand the geotechnical conditions of the host rocks. Part of this is the identification of faults and fractures which are structures that have the potential to carry water. Typically in the solid host rock the permeability (water flow through rock) is low ` 2.5 l/s. Where water bearing structures have been identified the mine plan will include the required water management techniques, like pre-excavation grouting, that needs to be applied. In order to ensure that water bearing structures are identified before the mine intercepts them, pre-excavation drilling will be undertaken. If water is identified in the drilling, where no water was expected, the mine plan can be changed to include the additional water management work. If, for an unforeseen reason, groundwater is not identified prior to excavating and a water bearing structure is encountered then post excavation grouting will be used to stop the inflow of water.</li> </ul>
<p>Other Water Issues:</p> <ul style="list-style-type: none"> <li>– What compensation might there be if the water from my dam dries up?</li> <li>– What if all your systems fail?</li> <li>– What are the implications of being a ‘Water Shed Protection Zone’?</li> <li>– Will Terramin abide by these regulations?</li> </ul>	<ul style="list-style-type: none"> <li>• Groundwater will be monitored around the mine site for quality and level. The management practices proposed will maintain the groundwater in compliance with the WAP. If the monitoring shows variation from the predicted model the management systems will be reviewed to ensure they are achieving the results expected. The monitoring system will provide a measurable component to determine if there is any impact on other users in the area. The regulator will have the power to shut down the mining operation before any detrimental impacts (drying up of dams as a result of mining) occur.</li> <li>• The water management systems are developed to ensure the protection of the groundwater and the neighbouring existing users. To ensure that unforeseen situations can be managed the water management systems are designed with back up provisions and redundancy. In the worst case scenario where all of the management systems fail, the mine will fill up with water and be incorporated into the regional aquifer just as the historical working have been for the last 128 years.</li> <li>• The groundwater will be managed by mine design, grouting, managed aquifer recharge (MAR) and the plan is to not use groundwater for site use (e.g. dust suppression, drill cooling) that doesn’t have an allocation for this purpose. We will use water from our water allocation and buy water (from water trading or SA Water for instance) for site consumption as/when required.</li> <li>• With regards to closure, the groundwater level within the mine voids and in the immediate vicinity returns to pre-existing level within approximately two years post-mining operations. The quality will not change. Groundwater monitoring post mining will demonstrate this.</li> <li>• In this ‘Water Shed Protection Zone’ all water users must comply with the principles of the Mount Lofty Regional Water Allocation Plan.</li> <li>• The company must comply with all relevant laws relating to the operation. In addition to the legislated laws, the mine will have Mining Lease conditions specific to the operation that provide for additional protection of the environment. The mine will be regulated against those conditions.</li> <li>• Decisions regarding compensation will operate within a framework consistent with the market conditions for water transfers and other licenses, and where relating to individual arrangements will be necessarily confidential. If necessary, compensation arrangements may be further defined during the PEPR process.</li> </ul>



## 5.7 OUTCOME DEVELOPMENT

The following table outlines the developed outcome, the community feedback and the response from Terramin.

Table 5-10 has been developed with the WCCC, where outcomes have been proposed from Terramin’s understanding of community expectations, then presented to the Committee at meetings and the broader public through drop-in days and the committee has continually workshopped the outcome and provided expectations around the specific aspects of the BIHGP. The table includes Terramin’s responses to the expectations, or why some expectations can or cannot be met.

**TABLE 5-10 | OUTCOMES, COMMUNITY FEEDBACK, TERRAMIN RESPONSES AND FINAL DRAFT OUTCOME**

Company Drafted Outcome	Community Expectation/Comment (WCCC)	Response from Terramin	Updated Draft Outcome
<b>Public Safety</b>			
No adverse impacts to public health as a result of any contaminated material from land disturbed by mining activities.	No acid draining or contamination from leaching or mining activity, concerns regarding the mullock heap noted.  The IML will need to be managed for any AMD or NMD. There should be zero possibility of any leaching of contaminated material into the ground and surface water.	Terramin to provide additional data (AMD – Acid and Metalliferous Drainage assessment) when available through mine life.	No adverse impacts to public health as a result of any contaminated material from land disturbed by mining activities.  No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and water dependant ecosystems.  No adverse impacts to soil quality or quantity on surrounding land caused by mining activities.
Ensure that no damage occurs to third party infrastructure and no injuries/deaths result from the collapse of the underground workings	Concerns also raised about damage above ground to surrounding property	Agree. Geotechnical mine design has safety as top priority.	No impact to third party infrastructure caused by mining activities.
No public health impacts to local residents from dust generated by construction, mining or closure activities.	Terramin will remain within and below EPA standards	Terramin will use control and management strategies to manage dust and monitor against EPA guidelines.	No public health impacts to the public from dust generated by construction, mining or closure activities.
No public injuries or deaths as a result of fires originating in the proposed mining lease that could have been reasonably prevented.	- Bushfires are catastrophic and the Project is located in a high-danger bushfire area - Fires are prevented in every way possible	Terramin agree. Have implemented an appropriate plan to maintain property amenity so it does not pose an increased risk.	No public injuries or fatalities as a result of fires originating in the proposed mining lease that could have been reasonably prevented.

	<ul style="list-style-type: none"> <li>- Concern raised about the level of vegetation planted and fire risk</li> </ul>		
No public injuries and/or deaths resulting from unauthorised entry to the operating site	<ul style="list-style-type: none"> <li>- The site is fenced appropriately and the site entrance designed so children cannot wander in</li> </ul>	Agree. Terramin has also commitment to installing appropriate security cameras during operation to safely monitor the site in addition to security fencing.	No public injuries or fatalities as a result of unauthorised access to the mining lease that could have been reasonably prevented.
No fly rock outside exclusion zone of blast	<ul style="list-style-type: none"> <li>- Flyrock is contained within Goldwyn at all times</li> </ul>	Agree. To be included in Blast Management Plan.	No adverse impact on public health or amenity from air overpressure, flyrock and vibration caused by blasting.
No adverse impact on public health or amenity from vibration or air-overpressure caused by blasting.	<ul style="list-style-type: none"> <li>- Vibration does not impact local landholders quality of life or amenity</li> <li>- Concern about charge weight for each blast</li> </ul>	<p>Agree, designed to meet human comfort standard, not building/commercial.</p> <p>Each blast must meet the outcome and draft measureable criteria which are based on human comfort and Australian standards</p>	No adverse impact on public health or amenity from air overpressure, flyrock and vibration caused by blasting.
<b>Traffic</b>			
No unauthorised damage to public infrastructure as a result of mining operations.	<ul style="list-style-type: none"> <li>- Mining trucks do not damage the road</li> <li>- Number of traffic movements are of concern</li> </ul>	Terramin will work with DPTI and the local council to ensure road infrastructure meets community needs and expectations. Safety is the top priority.	No impact to third party infrastructure caused by mining activities
No traffic accidents occur involving the public and mine traffic that could have been reasonably prevented	<ul style="list-style-type: none"> <li>- Size of the trucks isn't as important as how they are managed in regards to safety</li> <li>- The speed limit on Pfeiffer Road should be reviewed as there are many businesses and recreation activities along Pfeiffer Road</li> <li>- Concerns regarding hours of operation. Avoid school drop off/pick up times</li> <li>-</li> </ul>	<p>Terramin will assess a variety of truck models and capacity to ensure movements address safety, mine operational requirements, efficiency and community expectations.</p> <p>Terramin will introduce a good neighbour policy with recommended speed restriction of 60km/hr along Pfeiffer Rd.</p> <p>Haulage times to avoid school drop off/pick up times</p>	No traffic accidents occur involving the public and mine traffic that could have been reasonably prevented
<b>Visual amenity</b>			
The form, contrasting aspects and reflective aspects of mining structures are visually softened to blend in with the surrounding landscape.	<ul style="list-style-type: none"> <li>- Immediate neighbours do not want to see mining infrastructure</li> <li>- The project needs to blend in with agricultural surroundings</li> <li>- Green roofing preference</li> </ul>	Where possible Terramin will investigate design characteristics which limit visual impact on the surroundings. This includes continual design refinement	<p>No impact to visual amenity caused by use of colour and/or materials of built structures related to mining activities</p> <p>No impact to visual amenity caused by the clearance of</p>

		and engagement with landscape architects.  Construction colours reflective of existing environment advised in Strategic Visual Amenity Plan	boundary vegetation within CT/6055/379
No nuisance or loss of amenity to any person beyond the operating site caused by external lighting	- Do not want excessive outdoor lighting overnight	Terramin will undertake a lighting audit (as used at Strathalbyn) to assess usage and make recommendations on design alternates. The topography of the site and landscape amenity bunding also limits the vast majority of potential light spill	No public nuisance or loss of amenity caused by external lighting from mining activities
Designated rehabilitation sites are established self-sustaining systems.	Concern that trees grow and drop limbs and the operating site will be seen	Terramin will continue to develop and maintain revegetation sites to be established self-sustaining systems to continue in post-mine closure. Landscape amenity bunds will also be vegetated and screen operations.	Designated rehabilitation sites are established self-sustaining systems.
<b>Groundwater</b>			
No adverse impact to the supply or quality of water by the mining operations to existing users and water dependant ecosystems	- No negative impact to groundwater sources to existing users - How would company deal with unusual (massive) flows of water	The groundwater management system has been developed to meet the objectives of the region's water allocation plan and not impact existing users and/or water dependent ecosystems supply or quality.  Probe drilling is the primary method to prevent the occurrence of massive flows of water.	No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and water dependant ecosystems
Compliance with s128 authorisation and DEW drainage permits	- Reinjection should not adversely impact salinity levels - Legality of water licencing and MAR - Quality of water must not be impacted	Terramin has undertaken extensive MAR testing to provide both the company, DEM, DEW and the community confidence in the groundwater management systems proposed and all stakeholders are well informed.	No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and water dependant ecosystems
Critical infrastructure has backup power supply to ensure no impacts to existing groundwater users	- No impact to existing power supply to local residents - Backup infrastructure to ensure water infrastructure continues to operate	Onsite design to include backup generators for critical infrastructure.  Power supply for site to be upgraded through construction (existing line).  Monitoring program once developed to include water	No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and water dependant ecosystems

	- Monitoring of water levels and quality in new and existing bores	levels and quality in existing bores	
<b>Surface water</b>			
No adverse impact to the supply or quality of water by the mining operations to existing users and water dependant ecosystems	- Variation in wording to No adverse impact to the supply or quality of water caused by the mining operations to existing users and water dependant ecosystems	Terramin accepts the recommendation of the WCCC and community and has varied the outcome statement. "Caused" included.	No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and water dependant ecosystems
No contamination of natural water drainage systems, streams and rivers, groundwater, land and soils occurs either on or off site	- Systems need to be adequate to manage and cater for adverse weather events - Run off from internal roads needs to be managed onto Pfeiffer Road	Stormwater concept design has this as a key objective.  Terramin to consolidate and replace outcome with two others for simplicity:  <i>No adverse impact to the supply or quality of water by the mining operations to existing users and water dependant ecosystems and No adverse impacts on soil quality or quantity within the mining lease that could compromise the post mining land use</i>  AND  <i>No adverse impacts to soil quality or quantity on surrounding land caused by mining activities</i>	No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and water dependant ecosystems  No adverse impacts to soil quality or quantity on surrounding land caused by mining activities
<b>Land and soil quality</b>			
No adverse impacts on soil quality or quantity within the mining lease that could compromise the post mining land use	- Community expectation is that this also applies to land in the immediate vicinity	Outcome added to capture recommendation	No adverse impacts to soil quality or quantity on surrounding land caused by mining activities  AND  No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use
Stabilise disturbed areas and prevent sediment from leaving the site	- Runoff as a result of major rain and weather events should be managed - Need to include "mining activities" - Concerned that in a catastrophic event huge amount of material would be lost - Must include surrounding properties	Outcome redeveloped to:  <i>No adverse impacts on soil quality or quantity within the mining lease that could compromise the post mining land use and No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use</i>	No adverse impacts to soil quality or quantity on surrounding land caused by mining activities  AND  No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use

All land on the mining lease affected by mining and associated activities is rehabilitated to achieve the agreed post mining land use.	- If there is a site contamination event, there needs to be a plan to fix it up with the government and then cleaned up as soon as possible	No comment	All land on the mining lease affected by mining and associated activities is rehabilitated to achieve the agreed post mining land use.
<b>Geochemistry and Geohazards</b>			
Ensure that no damage occurs to third party infrastructure and no injuries/deaths result from the collapse of the underground workings	- Concerns also raised about damage above ground to surrounding property	Agree. Geotechnical mine design has safety as top priority.	No impact to third party infrastructure caused by mining activities.
<b>Site contamination</b>			
No adverse impacts on soil quality or quantity within the mining lease that could compromise the post mining land use	- Further distinction on above ground versus below ground contamination - If there is a site contamination event, there needs to be a plan to fix it up with the government and then cleaned up as soon as possible - Need to ensure no possibility of a contamination event. - Clarify type of contamination event	Contamination outcomes captured through separate outcomes addressing separate aspects.	No adverse impacts to soil quality or quantity on surrounding land caused by mining activities  AND No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use
No adverse impacts to public health as a result of any contaminated material from land disturbed by mining activities.	- Further information on reporting requirements - The IML will need to be managed for any AMD or NMD. There should be zero possibility of any leaching of contaminated material into the ground and surface water. - If there is a site contamination event, there needs to be a plan to fix it up with the government and then cleaned up as soon as possible	Terramin to provide additional data (AMD – Acid and Metalliferous Drainage assessment) when available through mine life.	No adverse impacts to soil quality or quantity on surrounding land caused by mining activities  AND No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use
<b>Air Quality</b>			
No permanent loss of abundance, condition or diversity of native vegetation (as defined by Native Vegetation Act 1991) on or off the lease during construction, operation and post mine completion through;  • clearance,	- Some concern regarding EPA limits and the level of dust community find acceptable	Terramin have good understanding of background dust concentrations from data collected from 2014 to 2019. While the location of Goldwyn may experience more dust, this is generally not the case for surrounding properties (as shown in	"No permanent loss of abundance, condition or diversity of native vegetation (as defined by Native Vegetation Act 1991) on or off the lease caused by mining activities through;  - Clearance

<ul style="list-style-type: none"> <li>dust/contaminant deposition,</li> <li>fire,</li> <li>reduction in water supply, or</li> <li>other damage,</li> </ul> <p>unless prior approval under Native Vegetation Act 1991 and Native Vegetation Regulations 2017 is obtained.</p>		<p>predictive conservative dust modelling).</p> <p>Terramin are committed to ensuring bio-diversity is maintained and that flora and fauna populations are not adversely affected.</p> <p>Terramin support a variety of activities to ensure this is the case as reported in community newsletters.</p>	<ul style="list-style-type: none"> <li>dust/contamination depositions</li> <li>fire</li> <li>reduction in water supply, or</li> <li>other damage</li> </ul> <p>unless otherwise approved under Native Vegetation Act 1991 and Native Vegetation Regulations 2017 is obtained"</p>
<p>No loss of productivity on properties surrounding the mining lease from dust generated by construction, mining or closure activities.</p>	<p>Some concern regarding EPA limits and the level of dust community find acceptable</p> <p>Concern regarding dust and viticultural production.</p>	<p>Agree – Terramin dust control and management strategies have been incorporated to manage potential dust sources.</p> <p>Agricultural impact assessment outlined certain chemicals not to be used onsite and Terramin have undertaken these commitments as management strategies.</p>	<p>No loss of productivity on properties surrounding the mining lease from dust generated by construction, mining or closure activities.</p>
<p>No nuisance impacts to local residents from dust generated by construction, mining or closure activities.</p>	<p>Some concern regarding EPA limits and the level of dust community find acceptable</p>	<p>Agree – Terramin dust control and management strategies have been incorporated to manage potential dust sources.</p>	<p>No public nuisance impacts to local residents from dust generated by construction, mining or closure activities.</p>
<b>Noise</b>			
<p>No public nuisance impacts from construction, operation and closure activities from noise emanating from the operating site</p>	<ul style="list-style-type: none"> <li>No increase in background noise levels</li> <li>Reasonable increase in background noise levels</li> <li>Constancy of noise is an issue</li> <li>Hours of operation need to reflect residential and commercial needs</li> </ul>	<p>Proposed measurement criteria takes this into account as far as is reasonable, and is proposed below EPA rural industry zoning levels. Creates lower draft OMC and LIC.</p>	<p>No public nuisance impacts from mining activities from noise caused by mining activities</p>
<b>Air Overpressure and Vibration</b>			
<p>No adverse impact on public health or amenity from vibration or air-overpressure caused by blasting.</p>	<ul style="list-style-type: none"> <li>Vibration does not impact local landholders quality of life or amenity</li> <li>Concern about charge weight for each blast</li> </ul> <p>Impact on animals should be considered</p>	<p>MLP considers impact on animals and includes information.</p>	<p>No adverse impact on public health or amenity from air overpressure, flyrock and vibration caused by blasting.</p> <p>No fauna injuries or deaths (excluding pests) caused by mining activities that could reasonably have been prevented, due to construction, operation and closure activities</p>

No native fauna injuries or deaths caused by mining activities that could reasonably have been prevented, due to construction, operation and closure activities	- This standard should extend to all animals including livestock, horses and domestic animals.	Updated draft outcome to include all animals excluding pests	No fauna injuries or deaths (excluding pests) caused by mining activities that could reasonably have been prevented, due to construction, operation and closure activities
<b>Fauna and Pests</b>			
No introduction of new species of declared weeds or pests (including feral animals), nor sustained increase in abundance of existing declared weed or pest species on the mining lease caused by mining activities	Concern over increasing levels of feral animals	Agreed – Biodiversity Management Plan for the site has been developed which includes Weed and Pest Management Plan	No introduction of new species of declared weeds, plant pathogens or pests (including feral animals), nor sustained increase in abundance of existing declared weed or pest species on the mining lease caused by mining activities
No native fauna injuries or deaths caused by mining activities that could reasonably have been prevented, due to construction, operation and closure activities	This standard should extend to all animals including livestock, horses and domestic animals.	Updated draft outcome to include all animals excluding pests	No fauna injuries or deaths (excluding pests) caused by mining activities that could reasonably have been prevented, due to construction, operation and closure activities
<b>Vegetation and Weeds</b>			
Designated rehabilitation sites are established self-sustaining systems.	Concern that trees grow and drop limbs and the operating site will be seen	Terramin will continue to develop and maintain revegetation sites to be established self-sustaining systems to continue in post-mine closure. Landscape amenity bunds will also be vegetated and screen operations.	Designated rehabilitation sites are established self-sustaining systems.
No permanent loss of abundance, condition or diversity of native vegetation (as defined by Native Vegetation Act 1991) on or off the lease during construction, operation and post mine completion through; <ul style="list-style-type: none"> <li>• clearance,</li> <li>• dust/contaminant deposition,</li> <li>• fire,</li> <li>• reduction in water supply, or</li> <li>• other damage,</li> </ul> unless prior approval under Native Vegetation Act 1991 and Native Vegetation Regulations 2017 is obtained.	- Some concern regarding EPA limits and the level of dust community find acceptable	Terramin have good understanding of background dust concentrations from data collected from 2014 to 2019. While the location of Goldwyn may experience more dust, this is generally not the case for surrounding properties (as shown in predictive conservative dust modelling).  Terramin are committed to ensuring bio-diversity is maintained and that flora and fauna populations are not adversely affected.  Terramin support a variety of activities to ensure this is the case as reported in community newsletters.	"No permanent loss of abundance, condition or diversity of native vegetation (as defined by Native Vegetation Act 1991) on or off the lease caused by mining activities through; <ul style="list-style-type: none"> <li>- Clearance</li> <li>- dust/contamination depositions</li> <li>- fire</li> <li>- reduction in water supply, or</li> <li>- other damage</li> </ul> unless otherwise approved under Native Vegetation Act 1991 and Native Vegetation Regulations 2017 is obtained"

No adverse impacts on soil quality or quantity within the mining lease that could compromise the post mining land use.	Community expectation is that this also applies to land in the immediate vicinity	Outcome added to capture recommendation	No adverse impacts to soil quality or quantity on surrounding land caused by mining activities  AND No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use
No introduction of new species of declared weeds or pests (including feral animals), or sustained increase in abundance of existing declared weed or pest species on the mining lease.	Concern regarding fire risk and vegetation, phalaris and feral animals	Agreed – Biodiversity Management Plan for the site has been developed which includes Weed and Pest Management Plan and fire management strategies	No introduction of new species of declared weeds, plant pathogens or pests (including feral animals), nor sustained increase in abundance of existing declared weed or pest species on the mining lease caused by mining activities
<b>Heritage</b>			
No disturbance to Aboriginal heritage sites, objects or remains, unless prior approval is obtained from the relevant minister, pursuant to the Aboriginal Heritage Act.	No comment	Terramin will implement an Unusual Finds Protocol, as well as induct employees on Aboriginal Heritage responsibilities.  No native title or significant sites identified	No disturbance to Aboriginal heritage sites, objects or remains, unless prior approval is obtained from the relevant minister, pursuant to the Aboriginal Heritage Act 1988.
No disturbance to non-Aboriginal heritage sites or objects, unless prior approval is obtained from the relevant minister, pursuant to the Heritage Places Act.	Protection of heritage mining sites	Buffer zones applied and outcome to protect heritage sites	No disturbance to non-Aboriginal heritage sites or objects, unless prior approval is obtained from the relevant minister, pursuant to the Heritage Places Act 1993.
<b>Land Tenure</b>			
All land has the appropriate waivers as defined by the Mining Act 1971 prior to construction and/or operations.	Exempt land should not be negotiable	Terramin have made the footprint as small as possible and all on Terrami owned land (outside of MAR bores). Will apply the <i>Mining Act 1971</i> to all land as necessary	Process outlined in Mining Act 1971 (SA). Draft outcome and measurement criteria removed.
<b>Closure</b>			
Ensure the site is left in a stable, non-polluting state indefinitely	Concern regarding how long site may be left until closure completed	Closure process is part of any MLA process and community to be involved in recommending final post closure land use	No adverse impacts to public health as a result of any contaminated material from land disturbed by mining activities.  No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and



			<p>water dependant ecosystems.</p> <p>No adverse impacts to soil quality or quantity on surrounding land caused by mining activities.</p> <p>No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use</p>
Stabilise disturbed areas and prevent sediment from leaving the site	Community expectation is that this also applies to land in the immediate vicinity	Outcome added to capture recommendation	<p>No adverse impacts to soil quality or quantity on surrounding land caused by mining activities</p> <p>AND</p> <p>No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use</p>
No adverse impacts on soil quality within the mining lease that could compromise the post mining land use	Community expectation is that this also applies to land in the immediate vicinity	Outcome added to capture recommendation	<p>No adverse impacts to soil quality or quantity on surrounding land caused by mining activities</p> <p>AND</p> <p>No adverse impacts to soil quality or quantity within the mining lease caused by mining activities that could compromise the post mining land use</p>
Ensure all underground voids are filled to the extent that subsidence cannot occur at any time after mine closure.	Concerns also raised about damage above ground to surrounding property	<p>Agree. Geotechnical mine design has safety as top priority.</p> <p>End fo mining geotechnical audit proposed</p>	<p>No public injuries or fatalities as a result of mining activities.</p> <p>No impact to third party infrastructure caused by mining activities</p>
Ensure that no damage occurs to third party infrastructure and no injuries/ deaths result from collapse of the underground workings.	Concerns also raised about damage above ground to surrounding property	<p>Agree. Geotechnical mine design has safety as top priority.</p> <p>End fo mining geotechnical audit proposed</p>	<p>No public injuries or fatalities as a result of mining activities.</p> <p>No impact to third party infrastructure caused by mining activities</p>
Ensure that, in constructing and operating the lease, and	Add in "as a result of mining operation", "could have	Have taken into account suggestions where possible. Measurement criteria can	No public injuries or fatalities as a result of unauthorised access to the

post mine closure, that there are no public injuries/deaths resulting from unauthorized entry to the mine site	been reasonably prevented”, “due to inadequate systems”	target systems. Fencing, cameras proposed. Closure should have landholder liability transferred over.	mining lease that could have been reasonably prevented.
Ensure that upon mine closure, the decline under Bird in Hand Road is to be backfilled in a manner to ensure the long term integrity of the public road structure	Concerns also raised about damage above ground to surrounding property	Agree. Geotechnical mine design has safety as top priority.  End fo mining geotechnical audit proposed	No impact to third party infrastructure caused by mining activities
No adverse impact to the supply or quality of water by the mining operations to existing users and water dependent ecosystems	-No negative impact to groundwater sources to existing users	The groundwater management system has been developed to meet the objectives of the region’s water allocation plan and not impact existing users and/or water dependent ecosystems supply or quality, including after the mine has closed	No adverse impact to the quantity or quality of water caused by the mining activities to existing and future licenced users and water dependant ecosystems
No permanent loss of abundance, condition or diversity of native vegetation (as defined by Native Vegetation Act 1991) on or off the lease during construction, operation and post mine completion through; <ul style="list-style-type: none"> <li>• clearance,</li> <li>• dust/contaminant deposition,</li> <li>• fire,</li> <li>• reduction in water supply, or</li> <li>• other damage,</li> </ul> unless prior approval under Native Vegetation Act 1991 and Native Vegetation Regulations 2017 is obtained.	- Some concern regarding EPA limits and the level of dust community find acceptable	Terramin have good understanding of background dust concentrations from data collected from 2014 to 2019. While the location of Goldwyn may experience more dust, this is generally not the case for surrounding properties (as shown in predictive conservative dust modelling).  Terramin are committed to ensuring bio-diversity is maintained and that flora and fauna populations are not adversely affected.  Terramin support a variety of activities to ensure this is the case as reported in community newsletters.  Long term vegetation monitoring to track progress over time through to closure	"No permanent loss of abundance, condition or diversity of native vegetation (as defined by Native Vegetation Act 1991) on or off the lease caused by mining activities through; <ul style="list-style-type: none"> <li>- Clearance</li> <li>- dust/contamination depositions</li> <li>- fire</li> <li>- reduction in water supply, or</li> <li>- other damage</li> </ul> unless otherwise approved under Native Vegetation Act 1991 and Native Vegetation Regulations 2017 is obtained"
The form, contrasting aspects and reflective aspects of mining structures are visually softened to blend in with the surrounding landscape.	Do not want excessive outdoor lighting overnight	Terramin will undertake a lighting audit (as used at Strathalbyn) to assess usage and make recommendations on design alternates. The topography of the site and landscape amenity bunding	No public nuisance or loss of amenity caused by external lighting from mining activities

		also limits the vast majority of potential light spill	
The Lessee must ensure that upon mine closure, all plant and equipment (unless otherwise agreed with the Chief Inspector or Mines) is removed from the site	No comment	No comment	No comment

## 5.8 CONCLUSION

Terramin is committed to developing the proposed mining lease in a manner that generates maximum benefit for the local, regional and broader South Australian community.

The information gathered through an inclusive stakeholder engagement process has been incorporated into the design of the proposed mine. This is reflected in the impact assessment process, including the development of the project outcomes.

The specific design and mitigation measures to address the issues raised are outlined in the relevant chapters and actions will be included in the Program for Environment Protection and Rehabilitation (PEPR).

If the mine is approved this consultation and engagement will continue - listening to community concerns and issues and ensuring these are incorporated into the development of the PEPR.

Terramin will continue to actively engage with stakeholders, during the Government’s public consultation process and at all stages of the project.