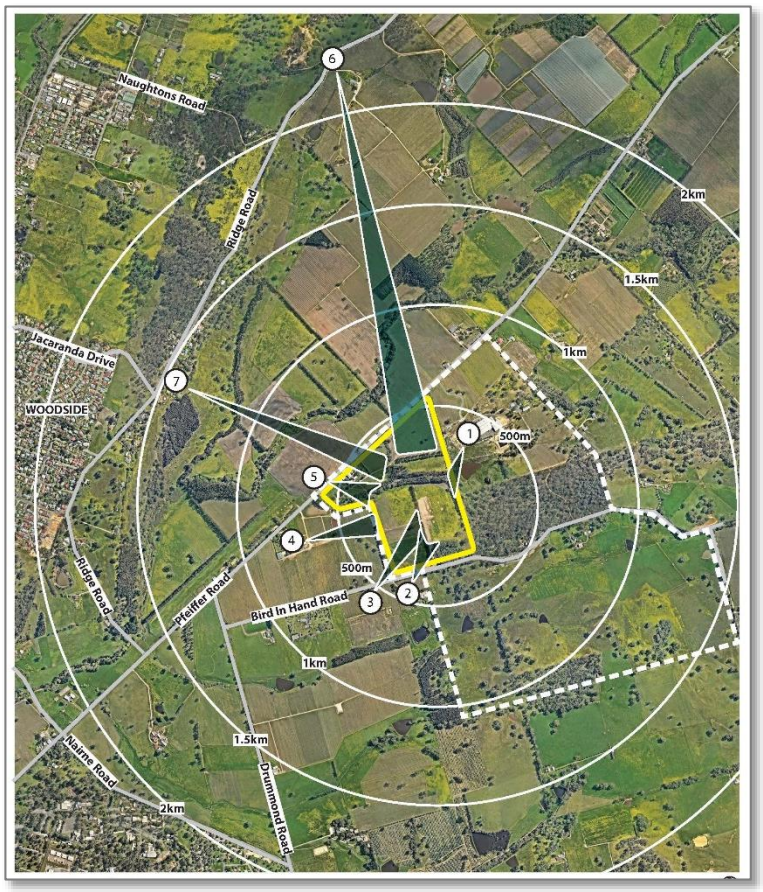
CHAPTER 9
VISUAL AMENITY



BIRD IN HAND GOLD PROJECT
MINING LEASE PROPOSAL

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All maps presented in this chapter are in GDA94 / MGA zone 54 (EPSG: 28354) unless otherwise stated.

9 VISUAL AMENITY

Terramin engaged Oxigen Landscape Architects (Oxigen) to prepare a Strategic Visual Amenity Plan (SVAP) for the Bird in Hand Gold Project (the 'Project' or 'BIHGP'). The purpose of the SVAP is to identify the visual effects of the proposed mining operations. Oxigen was required to adopt a strategic approach addressing the proposed site operations, minimisation of the overall visual impact of the mine and integration within the existing broader Onkaparinga Valley landscape. Visual impact has been of great concern to the local community, and the CSIRO community workshops identified the *natural environment (rolling hills) and aesthetics* to be of great importance. The overall objective of the site design has been to ensure the form, contrasting aspects and reflective aspects of the project are visually softened to blend in with the surrounding landscape in order to reduce or remove any perceived impacts to the region's overall amenity.

The SVAP and this chapter:

1. Examines the existing landscape character through photographic survey of key locations and analysis of the properties context within the Onkaparinga Valley.
2. Identifies objectives for enhancing the visual amenity of the property.
3. Identifies techniques to strategically address the visual impact of future mining establishment and operations.
4. Specifies actions in the implementation of the strategy.
5. Illustrates the visual effects of earthworks and associated landscape remediation techniques from key viewpoints within the surrounding locality.

The SVAP for the Project is included in Appendix G1.

9.1 APPLICABLE LEGISLATION AND STANDARDS

The relevant legislation in relation to landscape and visual amenity at the proposed mine site is the Mining Act and *Mining Regulations 2011* (SA). Specifically, Regulation 30(1)(d) requires a set of mine rehabilitation outcomes that address external visual amenity. There is no other specific legislation in South Australia which confers visual amenity accountability to a landholder.

Further information regarding the requirements and relevance of the legislation is provided in Chapter 4.

The Adelaide Hills Council Development Plan outline the following requirements:

Objective 58: The continued availability of metallic, industrial and construction minerals by preventing development likely to inhibit their exploitation.

> *"The minerals of greatest significance are those used for building and construction. South Australia has a scarcity of natural timbers for building construction, and is therefore particularly dependent on resources of clay and shale for brick manufacture, and sand and stone for concrete and mortar aggregate. Equally important are materials such as filling sand and quarry products used in road building and general construction. Transport costs of these bulky low-value products rise rapidly as the distance increases between the workings and the point of consumption, with a consequent increase in price to the consumer."*

Gold and silver, being metallic, are acknowledged as being available for exploitation in the Mount Lofty Ranges.

Objective 59: The protection of the landscape from undue damage from quarrying and similar extractive and associated manufacturing industries.

> *"New mining operations in the south Mount Lofty Ranges should be confined to areas not readily visible from the Adelaide Plain.*
>
> *It is not in the best interests of the community that land should be left derelict following the extraction of minerals, and wherever possible steps should be taken to reclaim the land and put it to a suitable use."*

Objective 60: The siting and management of quarrying and similar extractive and associated manufacturing industries so that minimum damage is caused to the landscape.

> *"The permanent effect of mining operations on the appearance of the landscape and water front areas should be considered before operations begin, and the suitability of alternative sites investigated.*
>
> *After workings are finished undesirable structures should be removed, quarry faces beautified by landscaping, or the natural cover of the land restored. In some cases the redevelopment of some areas to other uses should be considered."*

The objectives above are considered to apply Council-wide and therefore not limited to land zoned specifically Extractive Industry (EIn).

9.2 ASSESSMENT METHOD

The SVAP reviews the visual impact of the proposed project from identified locations within the surrounding region and provides recommendations for future mitigation techniques based on the proposed project infrastructure.

Visual amenity is considered for proposed works within the proposed Mining Lease (ML) (proposed Project site) rather than the whole of the ML area. It is assumed works outside the property boundary are either temporary or underground and therefore have a negligible effect on visual amenity.

Viewpoints were identified from the surrounding public roadways, residences and places of business where views to the project site are visible. These viewpoints are shown in Figure 9-13.

Oxigen (2017) considered views of the project site from private residences in conjunction with Terramin environmental staff and the owners or tenants of individual properties. Views were identified with owners or tenants based on the relative level of visual exposure to the operations site and the locations frequency of use.

A photographic survey was undertaken to record viewpoints and assist in determining the visual impact of the proposed project in construction and operation on the adjacent landscape.

A desktop study reviewed the extent of potential views from residences, businesses and roadways within an approximate 2 km radius of the proposed site. The proposed operations area is on a north facing hill side, naturally screened from views by the existing landforms from the southern and south-eastern sides of the property.

The photographic survey was undertaken on the 2nd and 3rd of March 2017. Photographs were taken in full daylight in horizontal (landscape) format. Key viewpoints were identified from public roadways, businesses and residential dwellings. The photographic viewpoints were taken to provide an image capture equivalent to perception of the range of focal lengths of the human eye.

Images were geographically tagged by Global Positioning Satellite (GPS) to provide a precise location for each viewpoint and to allow for future locating and comparison. Elevation was recorded and is expressed in metres as a height above mean sea level, expressed as metres AHD (Australian Height Datum).

More detail on the SVAP methodology has been included in Appendix G1.

9.3 EXISTING ENVIRONMENT

This section provides an overview of the existing environment within the proposed ML in relation to visual amenity. Topography, vegetation coverage and landscape types are detailed. An overview of existing viewpoints of the proposed project area (Goldwyn) is also discussed.

9.3.1 EXISTING AMENITY

The amenity of any area is largely subjective, and will mean different things to different people. Community workshops, hosted by the CSIRO, explored the topics related to current attitudes regarding the amenity and wellbeing of the area, and why community members chose to live in the region. Reasons included:

- Quiet, calm, less stress than living in Adelaide
- Clean air, natural environment (rolling hills), aesthetics
- Country town but short commute to city
- Minimal heavy vehicle traffic (farm traffic goes largely unnoticed or is seasonal)
- Long-term family connections
- Sense of community spirit, welcoming & caring, old fashioned, safe
- Good mix of business, diversity of options
- Everything is close i.e. medical, vets, good schools, sport/recreation, work/jobs
- Weekend sports and family friendly events (always something on).

The proposed project seeks to expand upon and contribute to these identified topics, including visual amenity. The Project aims to fit in with the existing landscape, and work within the existing environmental conditions.

The CSIRO Community Workshops to Inform Survey Design Report has been included in Appendix C6.

9.3.2 TOPOGRAPHY

The ML is located in the Adelaide Hills, specifically the Mount Lofty Ranges subregion. Located approximately 400m above sea level, the topography of the Adelaide Hills generates a wide range of microclimates, however, the region is generally cooler and moister than the plains of Adelaide and the coastal regions. The area is predominantly cleared agricultural land of either pasture or intensive horticulture with limited remnant vegetation. The cleared paddocks are covered in pastoral grasses and host scattered paddock Eucalypt trees. The area within and surrounding the Project is undulating, with topography ranging from the highs of up to 470 m AHD, to the valley which often host small ephemeral drainage lines which join the Inverbrackie Creek at approximately 380 m AHD.

Soil depth is variable due to topography, which ranges from steep slopes to undulating hills, resulting in shallow stony soils on the top of hills and deep peat-like clays at the bottom of hills.

The ML is distinctly divided into two sub-catchments, one located on the southern side of Bird in Hand Road, the other to the north of Bird in Hand Road. The drainage line on the northern section of the ML continues under Pfeiffer Road and fuses with Inverbrackie Creek approximately 300m east of the ML.

The Interim Biogeographic Regionalisation of Australia (IBRA) establishes a hierarchy of ecosystem classification for which physical, climatic and biological characteristics are described (Department for Environment and Heritage 2009). The Project site falls within the Kanmantoo IBRA Bioregion, Fleurieu IBRA Sub-region and Eden Valley IBRA Association. More discussion on IBRA association characteristics is provided in Chapter 19: Vegetation and weeds.

FIGURE 9-1 | ML4113 TOPOGRAPHIC AND LANDSCAPE FEATURES

FIGURE 9-2 | SOUTH OF THE PROPOSED ML LOOKING NORTH

FIGURE 9-3 | SOUTH OF BIRD IN HAND ROAD WITHIN THE PROPOSED ML LOOKING WEST

9.3.2.1 GOLDWYN TOPOGRAPHY

The Goldwyn property sits within the proposed ML shown in Figure 9-1. The proposed Project infrastructure sits predominantly within the 36 Ha property. The BIH Project area and has an elevation of approximately 385 to 440 m AHD. The eastern portion (Southern creek catchment) shown in Figure 9-4, drains directly into the creek, while the western portion (Western site catchment) currently drains into the adjacent property. The highest land point is located with the south-eastern corner of the site, with an elevation of approximately 440 m AHD.

A ridge line passes through the section of the property to the north of the creek. This divides this region into the Pfeiffer Road catchment that drains northward towards Pfeiffer Road, and the Northern creek catchment, which drains southward into the ephemeral creek that passes through the site.

The existing ephemeral creek traverses the northern portion of the site from the east to the west at approximate elevations of 405 to 385 m AHD. Within Project site the creek is bounded by established vegetation, with only two discrete cleared areas where crossings have been formed. At the upstream end, beyond the eastern property boundary of the site, the watercourse is interrupted by an existing on-stream water storage (farm dam) located on the Petaluma property. The watercourse continues under Pfeiffer Road and ultimately discharges into Inverbrackie Creek, located west of the subject site.

There are two catchments upstream from the proposed Project site. The largest of these and the main contributing catchment (Upstream creek catchment) is shown in Figure 9-4 and drains into the creek that passes through the site. On the site's eastern boundary there is an existing channel that directs runoff from the adjacent Petaluma winery site into the creek. The smaller catchment (Bird in Hand Road catchment) drains through the south western corner of the site and then passes through the adjacent property.

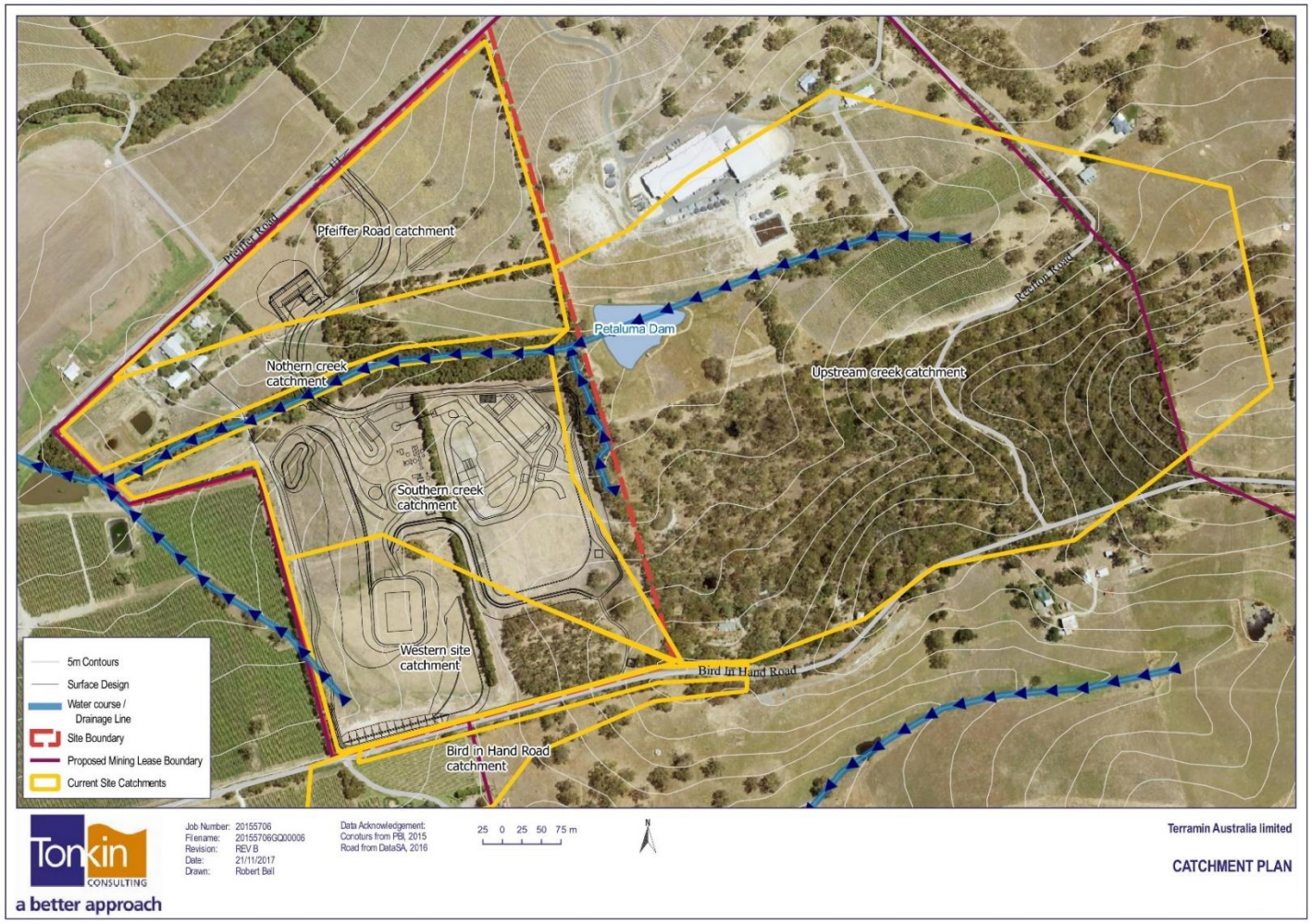


FIGURE 9-4 | CATCHMENTS IN AND SURROUNDING GOLDWYN

FIGURE 9-5 | OVERLOOKING THE WESTERN SITE CATCHMENT

FIGURE 9-6 | OVERLOOKING PFEIFFER ROAD CATCHMENT

9.3.2.2 REMAINDER OF PROPOSED ML

Topography within the north-east corner of the ML, where Petaluma Winery is situated, includes contributions to the upstream creek catchment, which reports to the Goldwyn Creek, as well as drainage onto Pfeiffer Road from the northern paddocks/vineyards, as shown in Figure 9-1 and Figure 9-4.

The southern side of Bird in Hand Road includes a prominent valley, located between two ridges, with a peak elevation 455 m AHD near Bird in Hand Road, and the valley dipping to between 420 m AHD and 405 m AHD, before rising again further south to between 475 m AHD in the east, and 430 m AHD in the west – shown in Figure 9-1. This valley creates two distinct ephemeral drainage lines which join within the ML before continuing west and joining the Inverbrackie Creek approximately 1.7 km further west of the proposed ML.

Within the ML, the southern side of Bird in Hand Road is entirely used for beef cattle grazing, including the riparian areas. There includes four stock dams, most of which are within the drainage line to maximise run off potential for stock dams.

Two other small catchment zones exist, a small portion of the ML drains to the south west of the ML, to another ephemeral drainage line, which also joins the Inverbrackie Creek to the west of the ML, and a small portion to the south east of the ML which drains to another ephemeral drainage line, which ultimately joins the Dawesley Creek further south. None of Terramin's proposed activities have the potential to impact either of these two smaller catchment zones.

FIGURE 9-7 | OVERLOOKING THE SOUTHERN SIDE OF THE PROPOSED ML

9.3.3 VEGETATION COVERAGE

The proposed area of disturbance for the BIH Project is contained within the Goldwyn property. This property has been cleared extensively over the preceding century, and has been used for mining, potato farming, as a dairy, and in the preceding couple of decades, as a cattle grazing property – shown in Figure 9-8.

The ML falls primarily within the Adelaide and Mount Lofty Ranges (AMLR) Natural Resources Management (NRM) Region (approximately 164 ha, 84%) and is also partially intersected by the South Australian Murray-Darling Basin (SAMDB) NRM Region (approximately 31.9 ha, 16%).

Broad-scale clearance has removed a large proportion of native vegetation within the AMLR Region, with approximately 14% of the pre-European native vegetation cover remaining (AMLR NRMB 2008). Isolated areas of remnant native vegetation are predominantly surrounded by agricultural land (AMLR NRMB 2008).

FIGURE 9-8 | PREVIOUSLY DISTURBED LAND WITHIN GOLDWYN (INFRASTRUCTURE SITE)

9.3.3.1 NATIVE VEGETATION HERITAGE AGREEMENT AREA

The most significant vegetation area within the ML includes a Native Heritage Agreement Vegetation Associations (application no: 2011/1019/473), which covers approximately 13.8 ha, in the centre of the ML, shown in Figure 9-10. The application resulted in a site survey by the Native Vegetation Council (NVC) in 2012, which included a Biodiversity Assessment following the Bushland Rapid Assessment Technique (BushRAT).

In summary, the application area includes a diversity of habitats and vegetation types, including rocky outcrops and dense sclerophyll shrubs (Association 1) grading through to Red Gum grassy woodland (Association 3). This block was identified as significant for conservation owing to the intact native understory present within the Red Gum grassy woodlands and specifically two species of orchid with national and/or State ratings (Stiff White Spider Orchid *(Caladenia rigida)* listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) and Behr's Cowslip Orchid (*Diuris behrii*), listed as vulnerable under the National Parks and Wildlife Act 1972 (SA) (NPW Act). The woodlands dominated by Blue Gum *(Eucalyptus leucoxylon ssp. leucoxylon)* and Red Gum *(Eucalyptus camaldulensis ssp.)* provides suitable habitat for bird species considered to be declining in the Mount Lofty Ranges region, including the Crested Shriketit (*Falcunculus frontatus)* and the Diamond Firetail *(Stagonopleura guttata)*. 53 native species were recorded during the NVC early winter field inspection and a further 6 species were identified through historic records as part of the application.

The Native Vegetation Heritage Agreement area is also defined as a Eucalyptus leucoxylon ssp. woodland having a low potential as being a groundwater dependent ecosystem, as defined by the Groundwater Dependent Ecosystems Atlas (Australian Government: Bureau of Meteorology, 2017).

The Heritage Agreement Vegetation Associations (application no: 2011/1019/473) is located in Appendix R4.

FIGURE 9-9 | LOCATION OF NATIVE VEGETATION HERITAGE AGREEMENT AREA WITHIN THE PROPOSED MINING LEASE

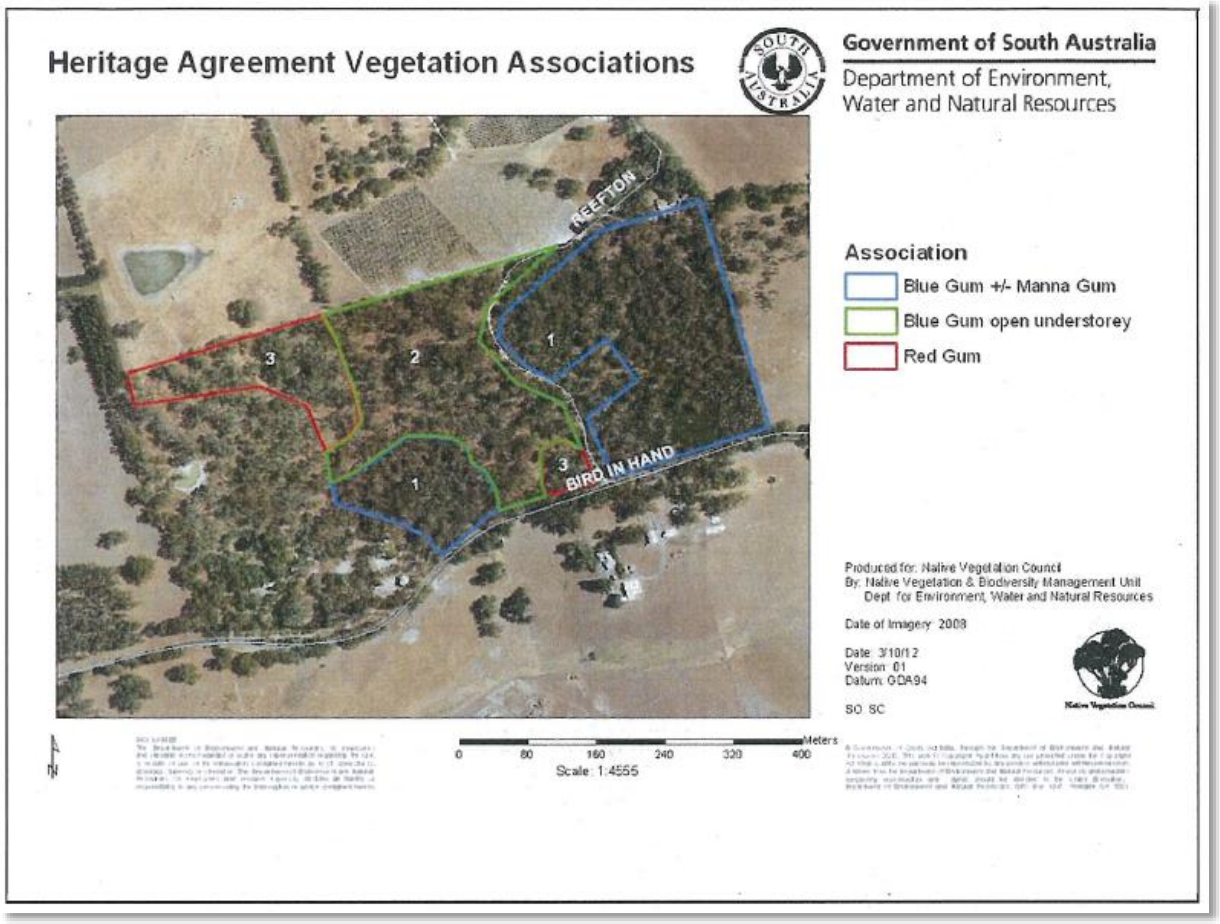


FIGURE 9-10 | VEGETATION HERITAGE AGREEMENT VEGETATION ASSOCIATIONS

9.3.4 LANDSCAPE TYPES / LAND USE

The majority of the surrounding land is currently used for either livestock grazing pasture, agriculture or horticulture (generally planted vineyards). Extensive irrigation in the catchment is predominantly for horticulture and viticulture while less intensive irrigation is associated with dairy farming and grazing (NRM: Adelaide and Mt Lofty Ranges, 2013). Irrigation of orchards, grapevines and pasture increased substantially in the Central Hills region in the preceding 20 years, with the inclusion of apples, strawberries and vineyards in the Inverbrackie Creek sub-catchment. The Western Mount Lofty Ranges Water Allocation Plan regulates all groundwater abstraction within the Inverbrackie Creek sub-catchment.

Between the 2000-01 and 2005-06 Agricultural Censuses, the area of agricultural use decreased by 8%, or 2,971Ha. The Adelaide Hills experienced an increase in agricultural land holdings over this period, with a 22% increase of agricultural establishments (Adelaide Hills Council, 2011). This reflects the changing nature of the Adelaide Hills, with an increasing pattern of agricultural land fragmentation, as a result sub-divisions and urban developments.

Table 9-1 describes land use within the 195.9 ha ML, including approximate hectare and percentage values.

TABLE 9-1 | LANDUSE WITHIN THE PROPOSED ML

No.	Land Use Description (Tertiary)	Land Use Description (Primary)	Area (ha)	Area (%)
1.	Grazing modified pastures	Production from dryland and irrigated agriculture and plantations	117.03	59.74
2.	Irrigated sown grasses	Production from dryland and irrigated agriculture and plantations	39.12	19.97
3.	Residual native cover	Conservation and Natural Environments	29.87	15.25
4.	Irrigated perennial vine fruits	Production from dryland and irrigated agriculture and plantations	5.17	2.64
5.	Roads	Intensive uses	3.65	1.86
6.	Water storage – intensive use/farm dams	Water	0.79	0.4
7.	Residential	Intensive uses	0.27	0.14
		TOTAL	195.9	100

9.3.5 EXISTING AMENITIES WITHIN AND SURROUNDING THE PROPOSED ML

Currently, there are four residential houses which are located within the ML, of which three are occupied, and the remaining house is owned by Terramin within the Goldwyn property, identified in Figure 9-12.

The recently constructed Petaluma Winery and cellar door is within the proposed ML. The Bird in Hand Winery, vineyard and cellar door, both adjoin the western boundary of the ML. A third cellar door, Artwine, is in close proximity to the north-east of the ML. Pasture both within and surrounding Goldwyn and the ML is used predominantly for beef cattle, as well as medium to large scale viticultural holdings, as shown in Figure 9-11 and Figure 9-12. The property on the north-western side of Bird in Hand Road (Lot 9 and Lot 21) is owned by the Adelaide Polo Club and the land, previously part of a potato growing/dairy has now been converted into sporting fields and associated facilities. Adjoining the Polo club land to the south is a privately owned airstrip used for both fixed and rotary winged aircraft.

The eastern fringe of the township of Woodside is located approximately 1.2 km from the western most point of the ML. Woodside amenities include a police station, medical centre, library and a recreation centre which includes a football oval, netball and tennis courts, bowls club and swimming pool. The Woodside army barracks are located approximately 1.5 km to the south-west of the ML at Inverbrackie. The location of Woodside is shown in Figure 9-13. Terramin purchased Lot 10, a freehold property between Pfeiffer Road and Bird in Hand Road, known as Goldwyn. Goldwyn is shown below in Figure 9-11.

More detailed information regarding specific infrastructure, proximity and exemption zones (s. 9 of the Mining Act) is included in Chapter 21 – Land Tenure.

FIGURE 9-11 | PROJECT SITE WITHIN ML SHOWING GOLDWYN (YELLOW DASH) AND NEIGHBOURING PROPERTIES

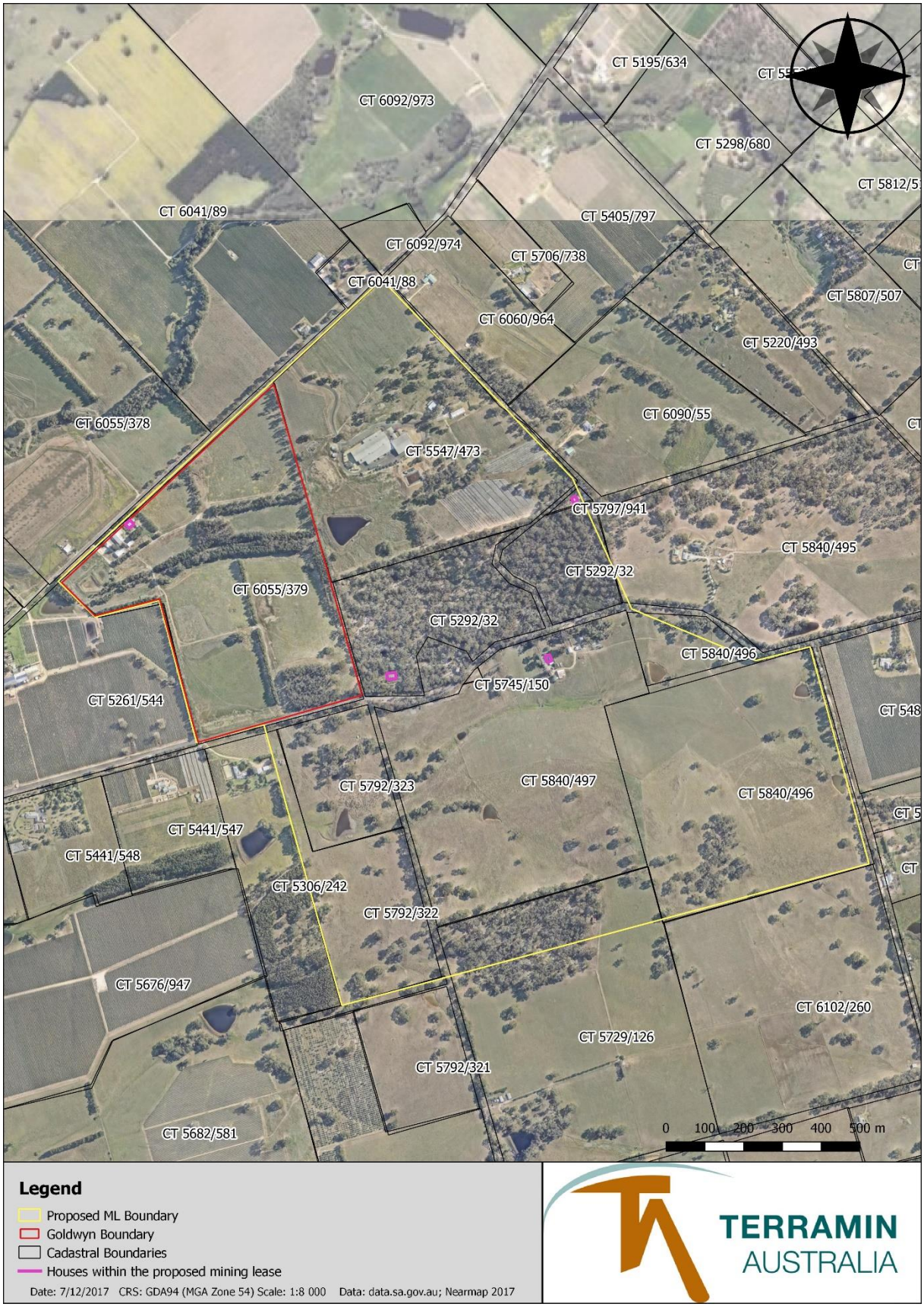


FIGURE 9-12 | HOUSES LOCATION WITH THE PROPOSED ML

9.3.6 Existing Viewpoints of the Proposed Project Area

The surrounding hills and valley topography limit external views of the project site. There are no land based locations identified where a view of the entire site is possible. Views are predominantly scattered and partially obscured by existing vegetation and/or topography.

Of the residences neighbouring the ML, the residence located at 86 Bird in Hand Road overlooks the proposed operational area. Other select views are possible from viewpoints within 2 km of the proposed project site. A polo clubhouse is proposed on the northern side of the Inverbrackie Creek but at the time of writing is yet to be constructed. The polo clubhouse is unlikely to have views of the Project site owing to topography.

Of the neighbouring businesses, the Bird in Hand Winery cellar door and the Artwine cellar door both have partial views of the western side of the proposed Project site (see Figure 9-14).

The Bird in Hand Winery cellar door exit pathway faces the project site with existing vines in the foreground and a row of existing boundary trees providing mid-level screening, while existing trees within the Artwine carpark perimeter and Bird In Hand Road verge provide partial north eastern screening towards the project site. Both cellar doors predominantly face north. All viewpoints of the proposed Project site have been included in the SVAP provided in Appendix G1.

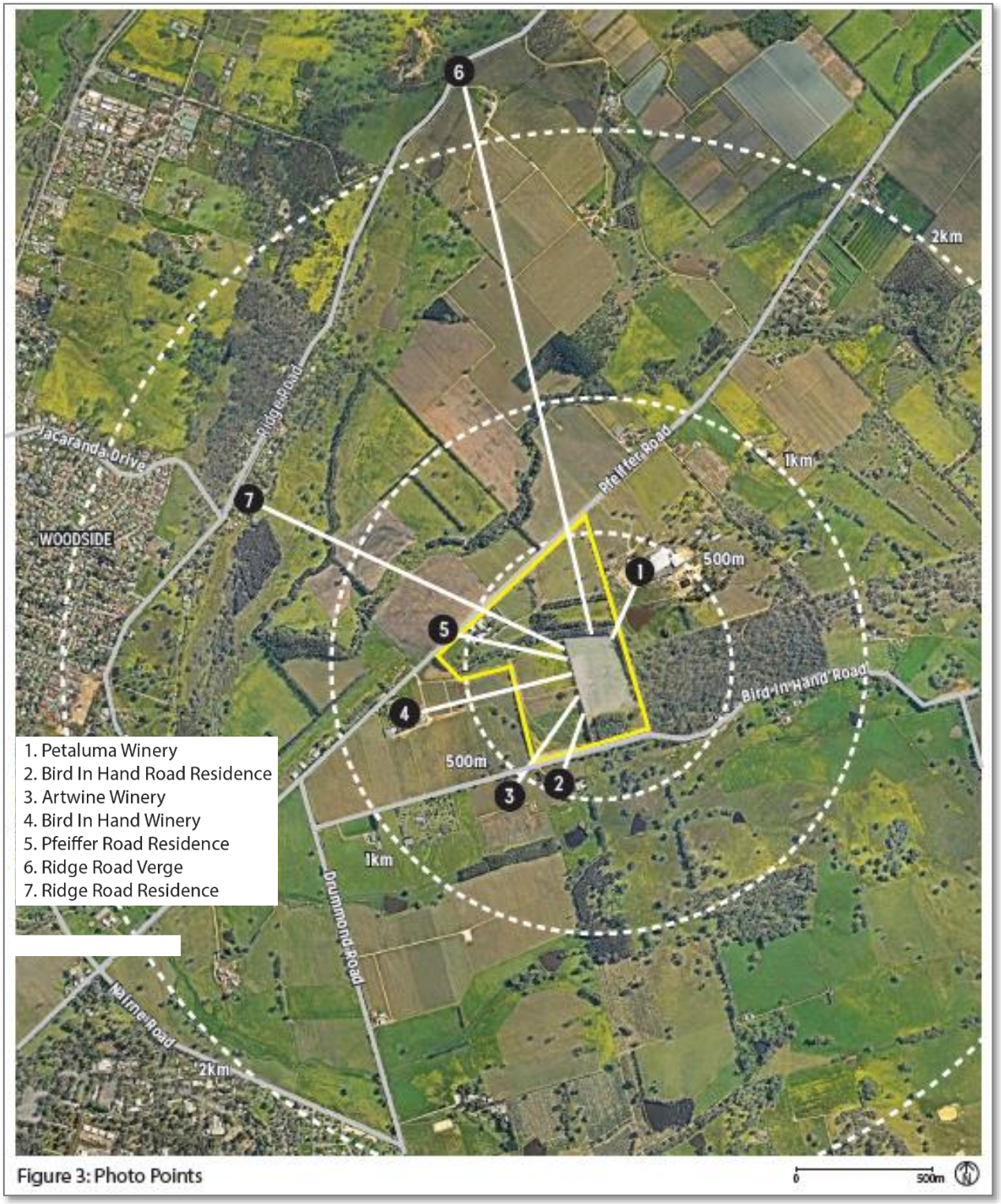


FIGURE 9-13 | PHOTO POINTS (OXIGEN, 2017)

9.4 SENSITIVE RECEPTORS

Sensitive receptors were identified from the surrounding public roadways and places of business where views to the project site are visible.

Oxigen (2017) reviewed views of the project site from private residences in conjunction with Terramin environmental staff and the owners or tenants of individual properties. Views were identified with owners or tenants based on the relative level of visual exposure to the operations site and the locations frequency of use.

Sensitive receptors are included in Table 9-2.

TABLE 9-2 | IDENTIFIED SENSITIVE RECEPTORS

Sensitive Receptor	Summary	Impact ID
1. Petaluma	This viewpoint is from an internal Petaluma Winery access road within the winery's storage and operations area.	PIE_9_01 PIE_9_08 PIE_9_15
2. 86 Bird in Hand Road	The property at 86 Bird In Hand Road is in an elevated position and is exposed to views on the southern side of the operations site.	PIE_9_02 PIE_9_09 PIE_9_16
3. Artwine	Existing trees within the Artwine carpark perimeter and Bird In Hand Road verge provide partial north eastern screening towards the operations site.	PIE_9_03 PIE_9_10 PIE_9_18
4. Bird in Hand Winery cellar door	Bird in Hand Winery operate a cellar door and temporary outdoor event space with an eastern view towards the operations site. The cellar door exit pathway faces the operations site.	PIE_9_04 PIE_9_11 PIE_9_17
5. Pfeiffer Road residence	Pfeiffer Road provides limited views of the operations site. Views are restricted to the foreground dairy dams and canopy trees within the creek corridor.	PIE_9_05 PIE_9_12 PIE_9_19
6. Ridge Road roadside	Long range views from the Ridge Road verge are limited due to established roadside vegetation and built form along the south-eastern side of the road.	PIE_9_20 PIE_9_06 PIE_9_13
7. Ridge Road residence	Views of the operations site are possible from select locations within the backyard of 82 Ridge Road.	PIE_9_07 PIE_9_14
8. Surrounding residents and local community	All residents and businesses outlined above as well as the general local community who access this area	PIE_9_21

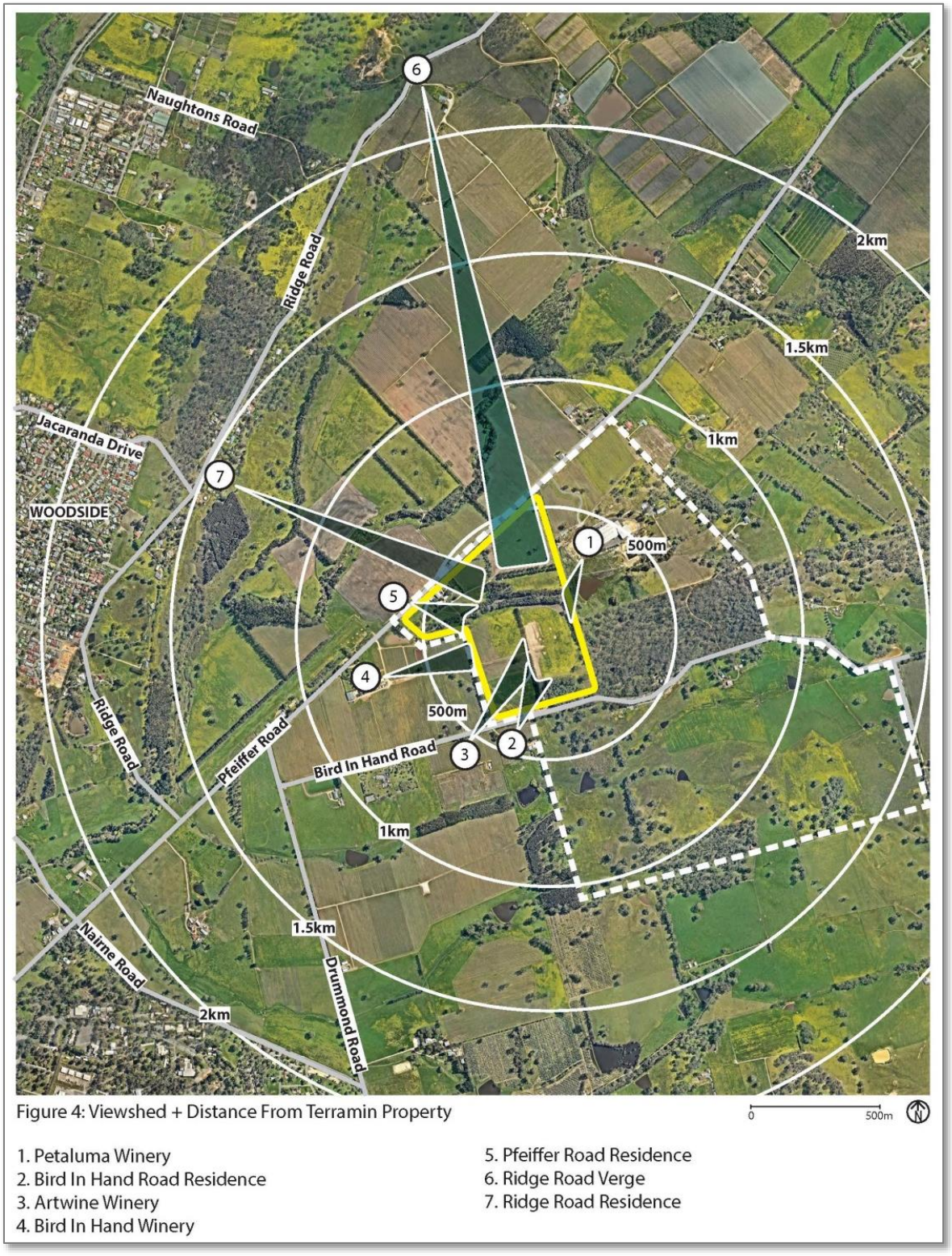


Figure 4: Viewshed + Distance From Terramin Property

1. Petaluma Winery
2. Bird In Hand Road Residence
3. Artwine Winery
4. Bird In Hand Winery
5. Pfeiffer Road Residence
6. Ridge Road Verge
7. Ridge Road Residence

FIGURE 9-14 | VIEWSHED AND DISTANCE FROM THE PROPOSED SITE

9.5 POTENTIALLY IMPACTING EVENTS

There are three predominant potentially impact events regarding visual amenity as identified in the different stages of the Project. Each identified impact event has a range of receptors, as identified above in section 9.4. Potentially impacting events are listed in Table 9-3.

TABLE 9-3 | IDENTIFIED POTENTIALLY IMPACTING EVENTS

Potentially Impacting Events	Mine Life Phase	Source	Potential Pathway	Sensitive Receptors	Confirmation of S-P-R	Impact ID
Clearance of vegetation on Goldwyn results in reduced visual amenity for surrounding viewpoint (Petaluma)	Construction	Vegetation clearance	Ground disturbing activity (GDA)	Petaluma winery	Yes	PIE_9_01
Clearance of vegetation on Goldwyn results in reduced visual amenity for surrounding viewpoint (86 Bird in Hand Road)	Construction	Vegetation clearance	Ground disturbing activity (GDA)	86 Bird in Hand Road	Yes	PIE_9_02
Clearance of vegetation on Goldwyn results in reduced visual amenity for surrounding viewpoint (Artwine)	Construction	Vegetation clearance	Ground disturbing activity (GDA)	Artwine	Yes	PIE_9_03
Clearance of vegetation on Goldwyn results in reduced visual amenity for surrounding viewpoint (Bird in Hand Winery)	Construction	Vegetation clearance	Ground disturbing activity (GDA)	Bird in Hand Winery	Yes	PIE_9_04
Clearance of vegetation on Goldwyn results in reduced visual amenity for surrounding viewpoint (Pfeiffer Road Residence)	Construction	Vegetation clearance	Ground disturbing activity (GDA)	Pfeiffer Road Residence	No	PIE_9_05
Clearance of vegetation on Goldwyn results in reduced visual amenity for surrounding viewpoint (Ridge Road roadside)	Construction	Vegetation clearance	Ground disturbing activity (GDA)	Ridge Road roadside	No	PIE_9_06

Potentially Impacting Events	Mine Life Phase	Source	Potential Pathway	Sensitive Receptors	Confirmation of S-P-R	Impact ID
Clearance of vegetation on Goldwyn results in reduced visual amenity for surrounding viewpoint (Ridge Road residence)	Construction	Vegetation clearance	Ground disturbing activity (GDA)	Ridge Road Residence	Yes	PIE_9_07
Change in view results in reduced visual amenity for surrounding viewpoint (Petaluma)	Operations, Closure	Altered landscape	Ground disturbing activity (GDA)	Petaluma winery	Yes	PIE_9_08
Change in view results in reduced visual amenity for surrounding viewpoint (86 Bird in Hand Road)	Operations, Closure	Altered landscape	Ground disturbing activity (GDA)	86 Bird in Hand Road	Yes	PIE_9_09
Change in view results in reduced visual amenity for surrounding viewpoint (Artwine)	Operations, Closure	Altered landscape	Ground disturbing activity (GDA)	Artwine	Yes	PIE_9_10
Change in view results in reduced visual amenity for surrounding viewpoint (Bird in Hand Winery)	Operations, Closure	Altered landscape	Ground disturbing activity (GDA)	Bird in Hand Winery	Yes	PIE_9_11
Change in view results in reduced visual amenity for surrounding viewpoint (Pfeiffer Road Residence)	Operations, Closure	Altered landscape	Ground disturbing activity (GDA)	Pfeiffer Road Residence	No	PIE_9_12
Change in view results in reduced visual amenity for surrounding viewpoint (Ridge Road roadside)	Operations, Closure	Altered landscape	Ground disturbing activity (GDA)	Ridge Road roadside	No	PIE_9_13
Change in view results in reduced visual amenity for surrounding viewpoint (Ridge Road Residence)	Operations, Closure	Altered landscape	Ground disturbing activity (GDA)	Ridge Road Residence	Yes	PIE_9_14
Failure to fulfil closure requirements results in unsightly landform post-closure	Post-closure	Altered landscape	Ground disturbing activity (GDA)	Petaluma winery	No	PIE_9_15
Failure to fulfil closure requirements results in unsightly landform post-closure	Post-closure	Altered landscape	Ground disturbing activity (GDA)	86 Bird in Hand Road	No	PIE_9_16

Potentially Impacting Events	Mine Life Phase	Source	Potential Pathway	Sensitive Receptors	Confirmation of S-P-R	Impact ID
Failure to fulfil closure requirements results in unsightly landform post-closure	Post-closure	Altered landscape	Ground disturbing activity (GDA)	Bird in Hand Winery	No	PIE_9_17
Failure to fulfil closure requirements results in unsightly landform post-closure	Post-closure	Altered landscape	Ground disturbing activity (GDA)	Artwine	No	PIE_9_18
Failure to fulfil closure requirements results in unsightly landform post-closure	Post-closure	Altered landscape	Ground disturbing activity (GDA)	Pfeiffer Road Residence	No	PIE_9_19
Failure to fulfil closure requirements results in unsightly landform post-closure	Post-closure	Altered landscape	Ground disturbing activity (GDA)	Ridge Road Residence	No	PIE_9_20
External lighting results in nuisance to surrounding residents and local community	Operations, Closure	External lighting	Viewpoints	Surrounding residents and local community	Yes	PIE_9_21

9.6 CONTROL MEASURES TO PROTECT VISUAL AMENITY

9.6.1 DESIGN AND MANAGEMENT MEASURES

The following external factors affect the extent to which the mine construction and operations impact visually on the landscape:

- Landform and proportion;
- Colours and materials;
- Vegetation type and density; and
- Built structures.

The site has been specifically designed with these elements at the forefront in order to create a Project that integrates within the existing broader Onkaparinga Valley landscape and of which the form, contrasting aspects and reflective aspects of mining structures are visually softened to blend in with the surrounding landscape.

During construction, temporary screening will be utilised with patterned shadecloth to reduce the impact of disturbed soil, especially on the western and southern sides of the Project site.

Visual impact objectives which have been designed to include:

Objective 1 - Landform

Integrate new landforms with the natural ridgelines and contouring of the adjacent hills. Screen temporary and dynamic stockpiles with a perimeter landscaped bund.

- Landforms resulting from mining operations including the landscape bunds and Integrated Mullock Landform (IML) are proposed to reflect the softer, undulating profiles of the adjacent Onkaparinga Valley.
- Planted earth bund heights are proposed to be follow the fall of the adjacent natural contours and grades - Figure 9-15.
- Ridge lines are proposed to vary in height to avoid unnatural straight lines, steep slopes and flat horizontal crests.
- Batters are proposed to be planted to reduce the contrast of disturbed surfaces.
- The IML is proposed to be shaped to continue the adjacent natural spur and be fully planted to match the adjacent native eucalypt cluster.

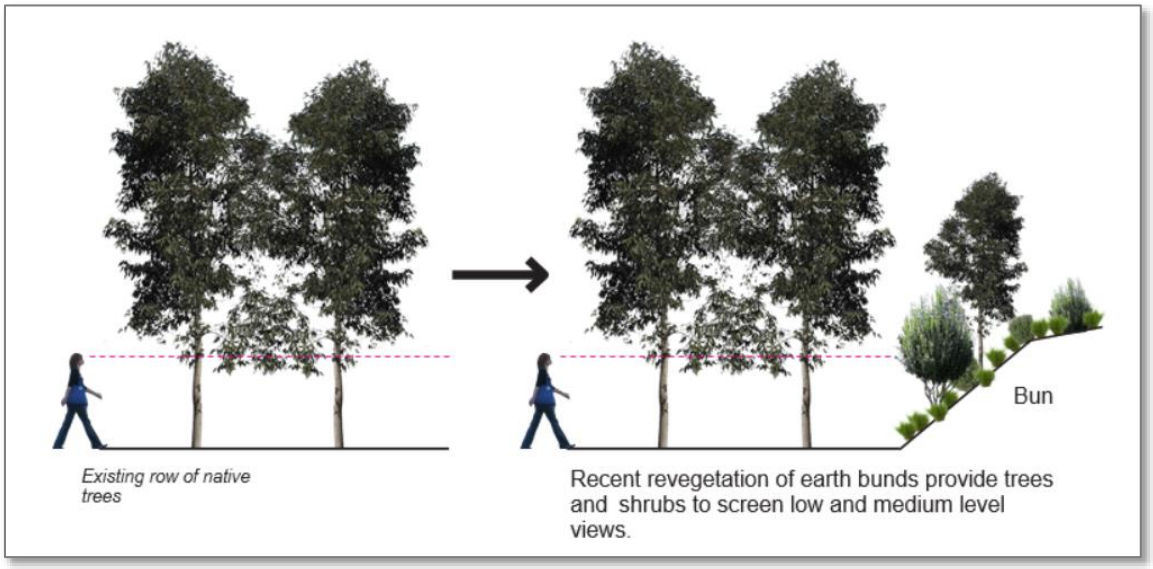


FIGURE 9-15 | EARTH BUNDS (OXIGEN, 2017)

Objective 2 – Colour, materials and lighting

Soften contrasting and reflective surfaces to blend with the natural site colour palette.

- Contrasting colours of new landforms are proposed to be visually softened with planting or surface colour spray to integrate with the surrounding landscape and adjacent vegetated hill crests - Figure 9-16.
- Artificially applied colours are proposed to be utilised to reduce the visual impact of contrasting landscape surfaces where vegetation is not able to be quickly established or maintained.

- Materials for building cladding are proposed to be selected for non-reflective surfaces and which do not detract from the amenity and character of the area. Material colours are proposed to blend in with the natural surrounding environment.
- Preferred colours are proposed to generally be of natural tones of browns, greens and greys.
- All lighting to be in accordance with AS4282 – 'Control of the obtrusive effects of outdoor lighting' to reduce the potential for nuisance to surrounding residences and businesses at nighttime.

Rolling Hills and Valley

Vineyard Colours *Colour Palette*

Building materials

FIGURE 9-16 | PROPOSED BUILDING AND VEGETATION COLOURS (OXIGEN, 2017)

Objective 3 - Vegetation

Integrate new planting to expand existing native tree cover within the site, perimeter and adjacent water courses.

- Strategic planting with upper, middle and lower story vegetation will improve visual amenity and increase the habitat and biodiversity value of the property.
- Trees are proposed to be planted in same species clusters to improve integration with the surrounding existing tree cover and provide links to the adjacent Native Vegetation Heritage Agreement area.
- Early works planting of areas outside the operations area are providing new screening potential and allow establishment growth ahead of the construction phase.
- Ongoing maintenance and weed control will maintain a high quality landscape.

Objective 4 - Built structures

Screen visually prominent structures with landform, vegetation or built structures.

- Prominent built structures are proposed to be screened from view by a landscape bund and associated surface vegetation.
- Tall structures unable to screened like the run of mine (ROM) silo and loading structure are proposed to be sited to minimise views from surrounding areas.
- Fixed or mobile screens may be utilised within the operations area to reduce the impact of light spill due to night time vehicle movements.

9.6.1.1 PROPOSED VEGETATION

A native plant palette is proposed to improve biodiversity and ensure the highest chance of success within the local environmental conditions. A mix of trees, shrubs, ground covers and grasses are proposed to assist in screening the operations area and provide a vegetation link to the adjacent heritage agreement area.

A list of proposed plant species (both terrestrial and aquatic) is included in Appendix G1.

The primary vegetation design measures to reduce the impact associated with visual amenity are to reduce the footprint of the site, and prevent unnecessary clearance of existing vegetation, which provides established overstorey screening. As small as reasonably practical operating footprint is achievable with the following objectives:

- No processing facility or tailings facility located onsite;
- IML reduced considerably due to proposed location and shape (cut into hillside landform);
- Operating area requires no clearance of native vegetation owing to previous agricultural clearance;
- No clearance of significant trees (Figure 9-17); and
- Limited clearance of agroforestry trees (0.24 Ha of the 5.43 Ha planted) (Figure 9-17).

Topsoil placement included in design of landscape and amenity bunding, and then in during rehabilitation, as well as irrigation and hare fencing to reduce potential for revegetation failure. Species selection has been entirely chosen based on local endemic species to maximise vegetation success on local soil and climatic conditions.

FIGURE 9-17 | LOCATION OF AGROFORESTRY TREES AND PROPOSED HARVEST

9.6.1.2 LANDSCAPE TECHNIQUES

The following landscape techniques are proposed to mitigate the visual impacts arising from mine operations and assist with the management of the mine's development:

1. Surface spray;

2. Direct seeding and tubestock revegetation;
3. Strategic Planting; and
4. Landscape Maintenance.

9.6.1.2.1 TECHNIQUE 1. SURFACE SPRAY

- A bio-degradable green surface spray is proposed for temporary or short term surfaces that are subject to ongoing changes or activity as part of mine operations.
- The surface spray reduces the potential glare and contrast with adjacent surface colours.
- The surface spray can remain visible for up to 12 months depending on site and environmental conditions.
- The spray technique enables application in difficult to reach areas including top of batters and areas too steep to be safely planted and maintained.
- The spray mix may also incorporate dust suppression additives, soil binders and hydromulching mixes.
- Successful hydromulching reduces the need to reapply the spray establishing grass and/or groundcovers.

9.6.1.2.2 TECHNIQUE 2. DIRECT SEEDING & TUBESTOCK REVEGETATION

- Direct seeding is proposed to establish vegetation on relatively flat areas by sowing seed directly into prepared site soils. Direct seeded plants often have healthier, stronger and deeper root systems as they develop in the site soils instead of within a container or pot.
- Direct seeding often produces random plant locations and is suited to a mix of native revegetation species including shrubs, grasses and ground covers.
- Tubestock planting is proposed on newly shaped and stabilised landforms within a layer of site won topsoil. Ripping of subgrades improves drainage and allow ease of manual planting.
- Existing planted areas may be enhanced with targeted spot and row planting to develop an understorey canopy to screen ground level mine activity.
- Planting is recommended to be undertaken in same species clusters to integrate with the surrounding open woodland landscape and avoid a forestry planted appearance.
- Planting is proposed for additional screening around the property perimeter, mine operations buildings, car parking and office facilities.
- Select tubestock species are recommended to be protected by the use of tree guards to minimise damage from rabbits and weed control spray drift.
- Planting is proposed to occur as soon as possible following the finalisation of landforms and at the right time of year to make use of seasonal rain and soil moisture.
- Use of temporary irrigation (utilising reclaimed site water) is proposed to enable planting and establishment during spring and summer.
- Local provenance plant stocks are sourced from a native plant nursery to ensure plants are conditioned for the soils and environment of the property.

9.6.1.2.3 TECHNIQUE 3. STRATEGIC PLANTING

Planting is proposed in select locations to screen infrastructure from adjacent properties and screen dynamic elements including vehicle movements and the integrated land form.

9.6.1.2.3.1 TERRAMIN BOUNDARY PERIMETER

- Strategic planting is proposed to provide natural screening of internal security fencing and site facilities. New planting reinforces the existing property vegetation and provides upper, lower and middle storey vegetation to screen views.
- A landscape buffer is offset from the site boundary to preserve vegetation within a defined

corridor for ease of maintenance and land management.

- Where possible, all new perimeter fencing is internally off-set from the property boundary to allow for the consistent creation of a planted screening zone.

9.6.1.2.3.2 SCREENING BUILDINGS & OPERATIONS AREA

- New tree and shrub planting is proposed to screen views of buildings and facilities. Species are proposed to be selected for growth rate, crown density and robustness within the local environment.
- Advanced plant stocks may be used in some areas to provide an immediate visual effect.

9.6.1.2.3.3 CAR PARK& ADMINISTRATION OFFICE

- Advanced canopy trees (45 Litre minimum.) are proposed for car parking areas and the administration office surrounds to soften the extent of surrounding hardstand and to provide shade amenity for users.

9.6.1.2.3.4 EARTH BUNDS

- The proposed earth bunds retain site-won material and provide opportunities to improve biodiversity through the establishment of new planting associations. Bund alignments direct water towards collection dams for reuse.

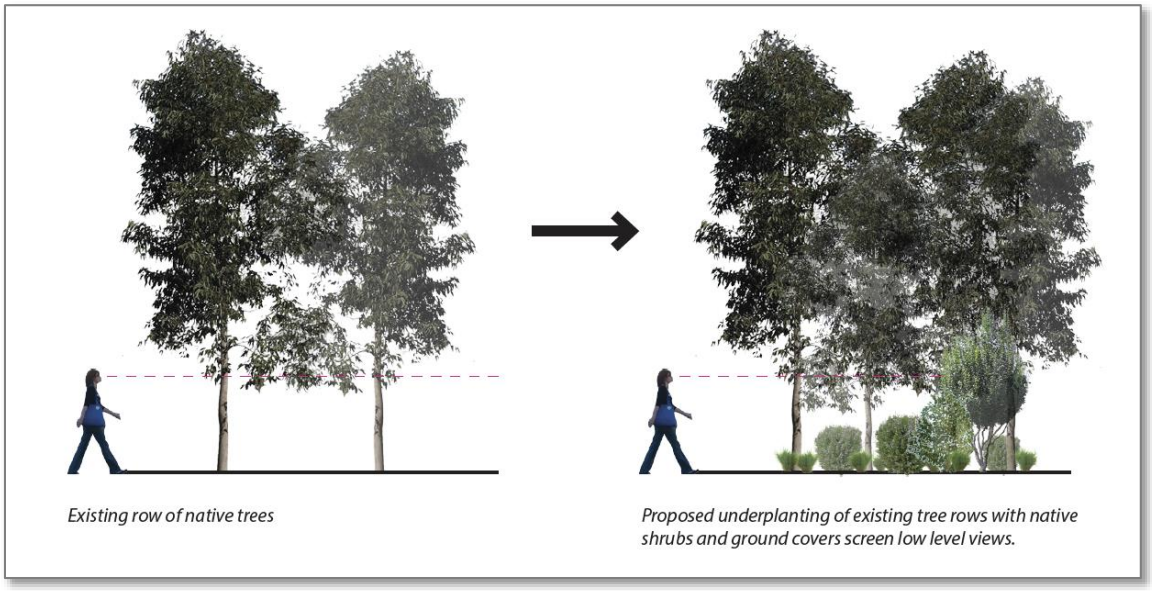


FIGURE 9-18 | UNDERPLANTING EXISTING TREES (OXIGEN, 2017)

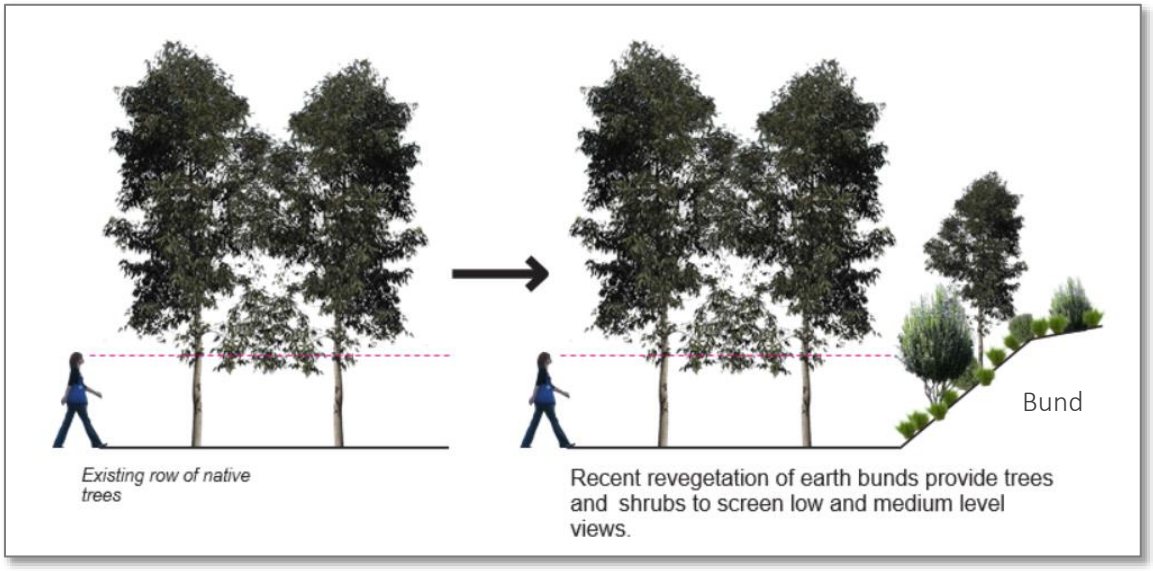


FIGURE 9-19 | EARTH BUNDS (OXIGEN, 2017)

9.6.1.2.4 TECHNIQUE 4. LANDSCAPE MAINTENANCE

Planted areas are managed through regular landscape maintenance responding to site and environmental conditions and ongoing monitoring of planting success and weed management.

A maintenance track allows for regular monitoring of plant health and condition and provides fire and emergency access to the property perimeter.

The regular landscape maintenance ensures that landscape qualities are sustained over time and the Terramin property contributes positively to the visual amenity, biodiversity and natural assets of the wider region.

9.6.1.2.4.1 BIODIVERSITY MANAGEMENT PLAN

The objective of the site Biodiversity Management Plan (Appendix R6) is to proactively manage all natural resource and heritage issues, by providing a practical guide to all natural resource issues to be managed actively at the proposed site. Issues include impacts on biodiversity values, riparian health, soil health, fire management, dust, visual amenity, heritage, historic waste, weeds and pests. The Biodiversity Management Plan will be updated again prior to PEPR submission.

TABLE 9-4 | DESIGN AND MANAGEMENT MEASURES

Design and Management Measures	Impact ID	
Site designed by landscape architects to reduce impact	PIE_9_01	PIE_9_12
Ore Silo rather than ROM pad	PIE_9_02	PIE_9_13
Temporary screening with patterned shadecloth through construction	PIE_9_03	PIE_9_14
No processing facilities located onsite	PIE_9_04	PIE_9_15
IML reduced and located into hillside cut, rather than in western paddock	PIE_9_05	PIE_9_16
Landscaped amenity bunding to screen operations	PIE_9_06	PIE_9_17
Operation area lowered to reduce visibility	PIE_9_07	PIE_9_18
Direct seeding and tubestock is proposed to establish vegetation rapidly	PIE_9_08	PIE_9_19
Planting established trees around carpark to screen rapidly	PIE_9_09	PIE_9_20
Biodiversity Management Plan (inc. Weed and Pest management)	PIE_9_10	PIE_9_21
Topsoil Management Plan	PIE_9_11	

Design and Management Measures	Impact ID	
Hydromulching and hydroseeding utilised on disturbed earth to reduce colour contrast of soil		

9.7 IMPACT ASSESSMENT

The following external factors affect the extent to which the mine construction and operations impact visually on the landscape:

- Landform and proportion
- Colours and materials
- Vegetation type and density
- Built structures

The following renders provide an impression of the proposed development when viewed from the viewpoints outlined within this plan. Each render provides an indication of the visible infrastructure and landscape within 3-5 years allowing for plant establishment and the landscaping of earth bunds.

Oxigen reviewed the existing vegetation and the orientation of adjacent dwellings and businesses facing away from Terramin's property, and this resulted in a low visual impact catchment. Seven viewing locations were identified with a visual impact from the proposed project, of these only one is considered to have the potential for a high visual impact due to its elevation above the operations site and exposure to the greatest amount of visual change within the landscape. As discussed in the assessment method (Section 9.2), these viewpoints were identified by Oxigen from the surrounding public roadways, residences and places of business where views to the project site are visible.

The generally low visual catchment is attributed to the following elements:

- Visual screening provided by the density of existing boundary planting and internal vegetation.
- Existing landform restricting 'whole of site' views from the surrounding road network.
- The central siting and orientation of proposed infrastructure within a lowered ground level working platform.
- The sparse number of neighbouring properties including residences, and agricultural/viticultural businesses.
- The distance of potential external views from the property.

Renders were also developed as part of closure planning, and have been included in Appendix X1, however, due to the site design and planted vegetation through construction, are very similar to the operational phase, with the only material difference being the removal of the ore silo from view.

9.7.1 OPERATIONS VIEWPOINTS

Viewpoint 1

Altitude	460m Above Sea Level
Latitude	34 degrees 57’ 10.32” S
Longitude	138 degrees 54’ 21.13” E

Address

Petaluma Winery

77/233 Pfeiffer Road, Woodside

The BIHGP cannot be seen from the Petaluma cellardoor. This proposed view is from the rear of the bottling facility. For this reason, Terramin do not consider there to be a credible visual amenity pathway.

Viewpoint 2

Altitude	412m Above Sea Level
Latitude	34 degrees 57’ 34.0” S
Longitude	138 degrees 54’ 07.1” E

Address

Private Residence and Vineyard

86 Bird In Hand Road, Woodside

The southern paddock of the Goldwyn property can be seen from the front veranda of the 86 Bird in Hand Road residence. Owing to the raised topography, the mine water storage dam is largely below the viewpoint. For this reason, Terramin consider there to be an expected **Low** visual impact. A credible worst caste impact is also **low**, as it is unlikely that vegetation will not grow, and there being limited visible mining infrastructure other than the ore silo.

Viewpoint 3

Altitude	400m Above Sea Level
Latitude	34 degrees 57’ 35.63” S
Longitude	138 degrees 53’ 59.59” E

Address

Artwine winery

72 Bird In Hand Road, Woodside

The southern paddock of the Goldwyn property can be seen from the carpark of Artwine. The mine water storage dam can be seen, however, the IML is hidden behind existing vegetation. For this reason, Terramin consider there to be an expected **Low** visual impact. A credible worst case impact is also **low**, due is being unlikely that vegetation will not grow, and there is no sight of mining infrastructure.

Viewpoint 4

Altitude	395m Above Sea Level
Latitude	34 degrees 57’ 24.98” S
Longitude	138 degrees 53’ 46.57” E

<u>Address</u>

Bird In Hand Winery

Corner Bird In Hand Road and Pfeiffer Road

Woodside

The western paddock of the Goldwyn property can be seen from the Bird in Hand Winery. Existing vegetation screens most of the site, as well as a landscaped amenity bund which runs along the western side. Mining infrastructure is located behind this bund, and no other infrastructure can be seen outside of the ore silo, designed to replicate the existing Bird in Hand Winery silos. For this reason, Terramin consider there to be an expected Low visual impact. A credible worst case impact is also low, due is being unlikely that vegetation will not grow, and there is already screening vegetation in place

Viewpoint 5

Altitude	394m Above Sea Level
Latitude	34 degrees 57’ 15.58” S
Longitude	138 degrees 53’ 51.41” E

Address

Pfeiffer Road Verge

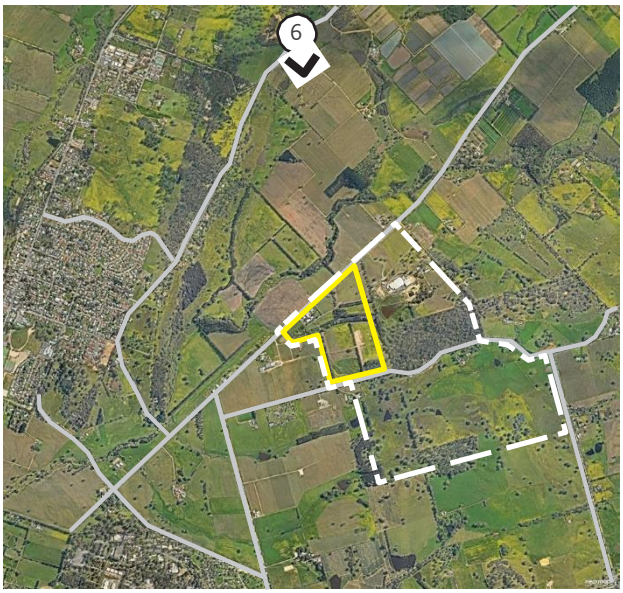
Due to the location of the operational site and associated infrastructure, the developed site cannot be seen from the Pfeiffer Road residence. For this reason, there is not a credible pathway.

Viewpoint 6

Altitude	426m Above Sea Level
Latitude	34 degrees 56’ 8.55” S
Longitude	138 degrees 53’ 53.94” E

Address

Ridge Road Verge



Long range views are possible from Ridge Road but very limited of the BIHGP. For this reason, there is not a credible pathway.

9.7.2 CONSTRUCTION VIEWPOINTS

1

Viewpoint 1

Altitude	460m Above Sea Level
Latitude	34 degrees 57’ 10.32” S
Longitude	138 degrees 54’ 21.13” E

Address

Petaluma Winery

77/233 Pfeiffer Road, Woodside

The BIHGP construction cannot be seen from the Petaluma cellardoor. This proposed view is from the rear of the bottling facility. For this reason, Terramin do not consider there to be a credible visual amenity pathway.

2

Viewpoint 2

Altitude	412m Above Sea Level
Latitude	34 degrees 57’ 34.0” S
Longitude	138 degrees 54’ 07.1” E

Address

Private Residence and Vineyard

86 Bird In Hand Road, Woodside

The southern paddock of the Goldwyn property can be seen from the front veranda of the 86 Bird in Hand Road residence. The construction of the mine water storage dam is laregly visible. This is a negative change affecting this receptor outside of the project area boundary, but not regionally and is expected to be a short duration (that is, less that 12 months).

For this reason, Terramin consider there to be an expected **Medium** visual impact. A credible worst caste impact is **low**, as it is unlikely that vegetation will not grow owing to the soil and climatic conditions, and there being limited visible mining infrastructure other than the ore silo.

3

Viewpoint 3

Altitude	400m Above Sea Level
Latitude	34 degrees 57’ 35.63” S
Longitude	138 degrees 53’ 59.59” E

Address

Artwine winery

72 Bird In Hand Road, Woodside

The southern paddock of the Goldwyn property can be seen from the carpark of Artwine. The mine water storage dam construction is behind construction hoarding/fencing, however, the IML construciton remains hidden behind existing vegetation. For this reason, Terramin consider there to be a short term (<1 years) negative change due to the construction hoarding/fencing, resulting in a low visual impact. A credible worst case impact is also low, due is being unlikely that vegetation will not grow, and there is no sight of mining infrastructure.

4

Viewpoint 4

Altitude	395m Above Sea Level
Latitude	34 degrees 57’ 24.98” S
Longitude	138 degrees 53’ 46.57” E

Address

Bird In Hand Winery

Corner Bird In Hand Road and Pfeiffer Road

Woodside

The western paddock of the Goldwyn property can be seen from the Bird in Hand Winery. Existing vegetation screens most of the site, as well as a landscaped amenity bund which runs along the western side. No vegetation growth has been included in this scenario. Construction is largely behind construction hording/fencing and no other infrastructure can be seen outside of the ore silo, designed to replicate the existing Bird in Hand Winery silos. For this reason, Terramin consider there to be an expected low visual impact. A credible worst case impact is also low, due is being unlikely that vegetation will not grow, and there is already screening vegetation in place.

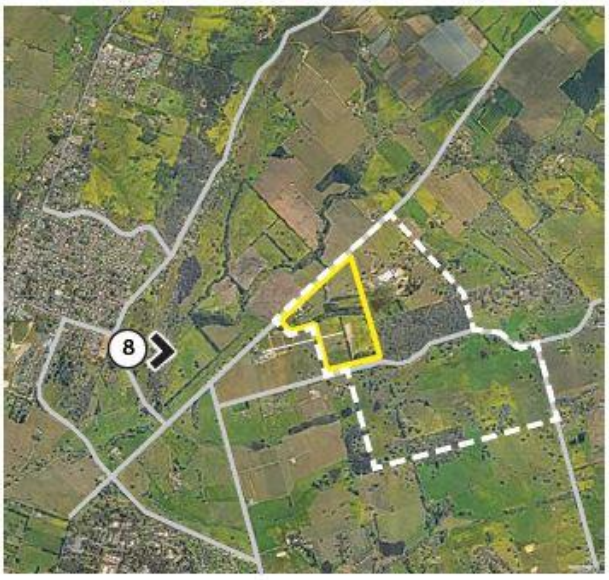
5

Viewpoint 8

Altitude	394m Above Sea Level
Latitude	34 degrees 57’ 15.58” S
Longitude	138 degrees 53’ 51.41” E

Address

South Ridge Road Property



Due to the distance and location of the operational site and associated infrastructure, there is limited visibility of the construction site form the 5A Ridge Road residence. Views of the propoerty are possible only from select locations within the backyard. Existing vegetation in the foreground and distance obscures the majority of the site. Once construction is completed, there is not a credible pathway from this residence due to the distance to the property.

9.8 DRAFT OUTCOME(S) AND MEASUREMENT CRITERIA

In accordance with the methodology presented in Chapter 6, an outcome has been developed for visual amenity impact events with a confirmed link between a source, pathway and receptor (S-P-R linkage), see Table 9-5.

All outcomes are supported by draft measurement criteria which will be used to assess compliance against the draft outcomes during the relevant phases (construction, operation and closure), and where relevant draft leading indicator criteria. These measurement criteria and leading indicators are indicative only and will be developed further through the PEPR.

All Outcomes for the entire project are presented in Appendix D1.

TABLE 9-5 | DRAFT OUTCOMES AND MEASUREMENT CRITERIA

Draft Outcome	Draft Measurement Criteria	Draft Leading Indicator Criteria
No impact to visual amenity caused by use of colour and/or materials of built structures related to mining activities	Construct to Design Audit of Strategic Visual Amenity Plan and Construction Plan[1] completed by a suitably qualified and experienced independent party within three months of completion of surface construction.	None proposed
	Construct to Design Audit of Landscape Amenity bunding completed by a suitably qualified and experienced independent party within three months of completion of construction.	None proposed
	Annual photopoints at viewpoints identified in the SVAP demonstrate that the new landforms are integrated into the existing landscape, existing vegetation has not been cleared and has been expanded upon, and all surfaces have been softened to blend in with the natural colour palette.	None proposed
	Mine records show that progressive rehabilitation of the IML area was conducted in accordance with the Mine Closure and Rehabilitation Plan in the PEPR.	None proposed
No impact to visual amenity caused by the clearance of boundary vegetation within CT/6055/379	Annual assessment of vegetation clearance, measured using a combination of GIS software, ground surveys (e.g. photos) and/or aerial surveys of the existing ML boundary and fencelines (shown in Figure 9-17) demonstrates no clearance of existing boundary and fenceline vegetation unless pre-authorised by the Mining Lease Proposal.	None proposed

[1] Note that this Construction Plan is proposed to be developed during preparation of the PEPR

Draft Outcome	Draft Measurement Criteria	Draft Leading Indicator Criteria
Designated rehabilitation sites are established self-sustaining systems.	Annual assessment until Lease surrender, or at a frequency as recommended by an independent and suitably qualified expert (to Chief Inspector of Mining's satisfaction) using Landscape Function Analysis (LFA), until LFA monitoring have achieved, or by trends, may be confidently predicted to reach and pass sustainability thresholds as defined by LFA (Sustainability thresholds for each parameter are interpreted as the points of maximum curvature on the sigmoidal curve shape as per Tongway and Hindley (2005).	Evidence of establishment of native plant species on designated rehabilitation areas within 12 months of construction and no degradation over two years of LFA indices for stability, infiltration and nutrient cycling when compared to control sites.
No public nuisance or loss of amenity caused by external lighting from mining activities	Outdoor lighting will be audited post construction by a suitably qualified and experienced independent party within three months of completion of surface construction to demonstrate compliance with AS4282 – 'Control of the obtrusive effects of outdoor lighting'	None proposed

9.9 FINDINGS AND CONCLUSIONS

Existing vegetation and the orientation of adjacent dwellings and businesses facing away from Terramin's property result in a low visual impact catchment. Seven viewing locations were identified with a visual impact from the proposed project, and as discussed previously in Section 9.7, of these only one is considered to have a high visual impact due to its elevation above the operations site and exposure to the greatest amount of visual change within the landscape.

The generally low visual catchment is attributed to the following elements:

- Visual screening provided by the density of existing boundary planting and internal vegetation.
- Existing landform restricting 'whole of site' views from the surrounding road network.
- The central siting and orientation of proposed infrastructure within a lowered ground level working platform.
- The sparse number of neighbouring properties including residences, and agricultural/viticultural businesses.
- The distance of potential external views from the property.

Recommendations for visual amenity improvements are based on strengthening existing vegetation screening and adopting landscape forms and elements similar to those within the surrounding region.

Initial mitigation measures have commenced and are proposed to continue during the operational phase of the mine in accordance with environmental conditions.

It is recommended the SVAP is reviewed in accordance with changing conditions and operational requirements during the mine life and in response to emerging community and environmental issues.