Environment Effects Statement

VHM Limited
Goschen Rare Earths and Mineral
Sands Project

Chapter 9 Landscape and



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9. Landscape and visual

This chapter provides an assessment of the landscape and visual impacts associated with the construction and operation of the Goshen Rare Earths and Mineral Sands (the Project), including light spill impacts.

This chapter summarises the outcomes of Technical Report D: Landscape and visual impact assessment, prepared in support of the Environment Effects Statement (EES).

Overview

Construction and operation of the Project would result in changes to the landscape, which predominately consists of flat cropland with roadsides and dwellings bounded by vegetation.

The greatest potential for visual impact exists in closer proximity to the Project area where there is limited existing vegetation of a sufficient scale to screen or fragment views of the Project and processing facility. Despite this, the assessment of visual impacts from a number of different locations indicated that potential impacts were generally considered to be low prior to the introduction of mitigation measures. Mitigation measures such as retaining vegetation where possible and planting vegetation along the western perimeter of the Project processing facility would assist in screening views and reduce potential visual impacts.

There is the potential for moderate visual impacts at one dwelling approximately 2 kilometres (km) south of the Project site (dwelling R0012). Additional screening could be provided in the immediate foreground of this dwelling to completely screen views of the Project. Consultation with the landowner would be required prior to implementing any additional screening.

There would be minor impacts to nearby dwellings from light sources at the Project site, however these impacts would be minimised through careful design and installation. This would include, but is not limited to, only using lighting for areas which require it, considering the use of sensors to activate lighting and timers to switch off lighting and directing light downwards to eliminate light spill or glow effect.

EES evaluation objective

The scoping requirements provided by the Minister for Planning for the project set out the specific environmental matters to be investigated and documented in the Project's EES. The scoping requirements inform the extent and scope of the EES technical studies. The following EES evaluation objective is relevant to landscape and visual impact assessment:

To minimise adverse effects on landscape and visual amenity associated with the environs of the project site.

Technical Report D: Landscape and visual impact assessment was prepared in support of the project EES. The technical report provides more detailed information on the investigations and impact assessments conducted in response to the EES scoping requirements.

9.1 Methodology

To determine the potential landscape and visual impacts, the following approach was adopted for the landscape and visual impact assessment:

- Establishment of a study area.
- Review of relevant legislation and policy at a Commonwealth, State and local level to understand the landscape and visual environment of the area.
- Undertaking a desktop review, including a review of physical landscape features.
- Field investigation involving assessment from key viewing locations identified within the visual catchment of the Project.
- Assessment of potential visual impacts.
- Development of mitigation measures in response to the landscape and visual impact assessment.

Avoidance and minimisation

The following measures have been adopted in relation to the design, construction and operation of the Project to avoid and minimise impacts:

- Design principles to reduce contrast with the surrounding landscape (material and colour selection).
- Landscape screening in keeping with the existing landscape character (as determined through field work and desktop assessments).
- Recommendations for lighting design to reduce impacts.

Impact assessment

A change to existing conditions (or the no-Project case) caused by Project activities in any of the Project phases (construction, operation or decommissioning) may give rise to impacts. The impact assessment involved identifying the severity, extent and duration of any impacts, positive or negative, that the Project may have on the existing environment.

The potential visual impact of the Project is then assessed based on the relationship between the visual sensitivity and visual magnitude.

Visual sensitivity

Visual sensitivity is a measure of how critically a change to the existing landscape is viewed by people from different areas. The assessment is based on the number of people affected, land use, and the distance of the viewer from the proposal. It is also defined as the capacity of a view or landscape character to absorb change in the visual character due to a proposal.

For example, a significant change that is not frequently seen may result in a low visual sensitivity although its impact on a landscape may be high. Generally the following principles apply:

- Visual sensitivity decreases as the viewing time decreases.
- Visual sensitivity decreases as the number of potential viewers decreases.
- Visual sensitivity related to viewer activity (for example, person viewing an affected site whilst engaged in recreational activities will be more strongly affected by change than someone passing a scene in a car travelling to a desired destination).

Sensitivity ratings are defined as high, moderate or low.

Visual magnitude

Visual magnitude is defined as the interaction between a proposal and the existing visual environment. It is often expressed as the level of visual contrast of the proposal against its setting or background in which it is viewed. It is also defined as the measurement of scale, form and character of a proposal in comparison to the existing condition and the distance of a viewer from the proposal.

Low level: occurs when a proposal blends in with its existing viewed landscape due to a high level of integration of one or several of the following: form, shape, pattern, line, texture or colour. It can also result from the use of effective screening, for example topography and vegetation.

Moderate level: occurs where a proposal is visible and contrasts with its viewed landscape however, there has been some degree of integration (for example good siting principles employed, retention of significant existing vegetation, provision of screen landscaping, appropriate colour selection and/or suitably scaled development).

High level: results when a proposal has a high visual contrast to the surrounding landscape with little or no natural screening or integration created by vegetation or topography.

9.2 Study area

For the purpose of the landscape and visual impact assessment, the study area is generally defined as the land within the extents of the Project boundary and areas that extend up to 5 km from the Project boundary. The study area also includes the proposed pump station at Kangaroo Lake and the proposed pipeline between Kangaroo Lake and the Project area.

Land within the study area consists of:

• Large scale agricultural lots that are used for broad-acre wheat cropping.

- Surrounding scattered dwellings.
- Low use roads that provide access to these dwellings and farm lots.
- Kangaroo Lake and its surrounds.
- The town of Lalbert located approximately 3.8 km southwest of the Project area.

The landscape and visual impact assessment study area is presented in Figure 9-1.

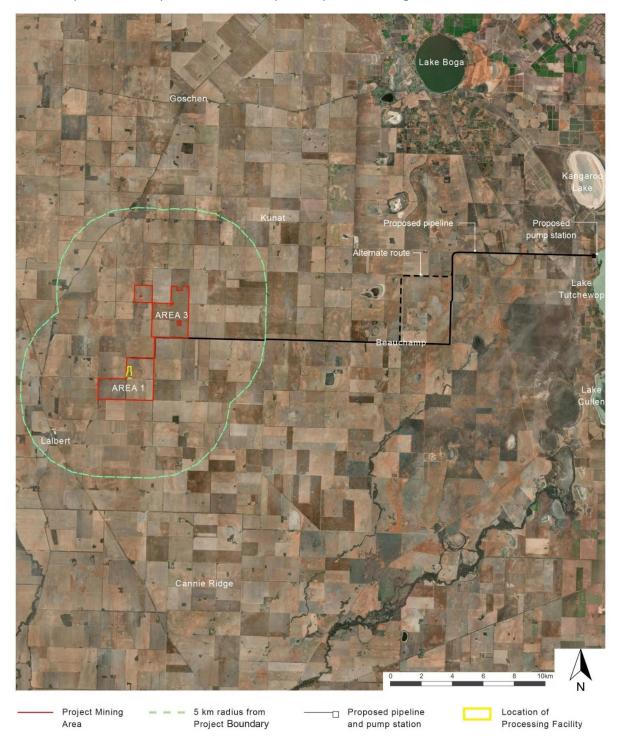


Figure 9-1 Landscape and visual impact assessment study area

9.3 Existing environment

The Project would be located within an agricultural setting, approximately 35 km southwest of Swan Hill. The rural town of Lalbert is approximately 3.8 km southwest of the Project.

The landscape typical of the region is predominantly cleared for croplands, consistent to its historical land use as broadacre wheat growing. Under the Gannawarra Planning Scheme, land within and around the study area is zoned Farming Zone. Rural dwellings and agricultural structures and sheds intersperse the landscape. The rural dwellings are generally surrounded by vegetation for visual screening and wind break planting.

The Project can be accessed via Jobling Road, Bennett Road, Thompson Road and Pola Road and Quambatook-Swan Hill Road. These local roads are mostly unsealed and provide access to the rural farming properties. Donald-Swan Hill Road is the major road linked with Murray Valley Highway south of Swan Hill township. Infrastructure in the area is generally limited to agricultural structures, railway lines, roads and power lines.

The study area sits within Murray Mallee Bioregion. The native vegetation has been largely cleared for agricultural use. Remnant stands of native vegetation that are reminiscent of Ridged Plains Mallee Woodlands, Woorinen Woodlands and Plains Savannah remain and are generally located along roadsides and main watercourses, property boundaries and small pockets within private lots. Lake Lalbert is located 9 km southwest from the study area. It is a deep freshwater marsh fed by floodwater from the Lalbert Creek. Kangaroo Lake is another significant water body that has recreational and ecological associations. It is located approximately 30 km east of the Project mining boundary. Kangaroo Lake serves as an important water source in the region.

Five key landscape character units (LCU) identified in the study area are described in further detail below. The purpose of establishing and understanding the features of each LCU is to identify visual sensitivity and magnitude of landscapes within the study area and to inform the assessment of the potential visual impacts of the Project on those surrounding landscapes.

Kangaroo Lake and surrounding conservation areas

This LCU is defined by the extents of Kangaroo Lake and its immediate surrounds, including Mystic Park settlements that are located on the lakefront. It also comprises of other reserves and ecologically significant areas located further to the west. The picnic area and boat ramp have significant recreational associations.

Irrigation channel

This LCU comprises of constructed channels that emerge from Kangaroo Lake and supply water to the farmlands in the region. They play an important role in controlling the lake's water levels. It is a modified landscape element. The canals form a significant infrastructure element in a landscape that is otherwise dry. Regulated and managed flows allow some channels to remain dry.

Farmlands

The Farmlands LCU is defined by flat to gently sloping land parcels that have been extensively cleared to support agricultural activity. They are characterised by open, cleared lands with minimal tree cover on large lots used for cropping. This LCU dominates the character within and around the study area. The landscape is highly modified to suit the needs of agricultural production and rural residences.

Roadside vegetation corridors

The LCU is defined by flat to gently sloping roads that provide accessibility within the region. The roadside vegetation is visually distinct from the rest of the landscape because the tree cover along roadsides is dense and diverse. The vegetation acts as a wildlife refuge and is, hence, a significant ecological entity. It also comprises of remnant Mallee Woodland species that are characteristic of the region.

Lalbert

The town of Lalbert presents a unique character with a highly modified landscape. Residences, small scale commercial entities and amenities are located along the town's main street. A freight line also passes through the town. It has significant agricultural associations due to the surrounding land uses. The town has a small population that engages in agricultural activity.

9.4 Visual impact assessment

Given the temporary nature of construction activities (less than 12 months), potential visual impacts during construction and operation of the Project have been considered together for the purpose of this assessment.

9.4.1 Viewpoint analysis

This part of the visual assessment considers the likely impact that the Project would have on the existing landscape character and visual amenity by selecting prominent and accessible sites, referred to as viewpoints. Viewpoints were selected within the study area of the Project to illustrate the following:

- Present landscape character types.
- · Areas of high landscape or scenic value.
- Visual composition.
- Range of distances.
- · Varying aspects.
- · Various elevations.
- Various extent of Project (full and partial visibility).
- Sequential along specific routes

Once the viewpoints were selected, panoramic photographs were taken from a level tripod at a height of 150 centimetres (to represent eye level). The chosen viewpoints were representative of a range of views within the study area, including the proposed mining extraction locations and the proposed pump station near Kangaroo Lake. The selection of viewpoints was informed by topographical maps, field work observations and other relevant influences such as access and landscape character. Where possible, viewpoints were selected to represent the worst-case scenario. A total of 18 viewpoints were selected (refer to **Figure 9-2**).

The desktop assessment identified that majority of the dwellings within 5 km of the Project are surrounded by dense vegetation. These dwellings have been assessed in **Section 9.4.4**. Viewpoints for the landscape and visual impact assessment were taken from accessible public land.

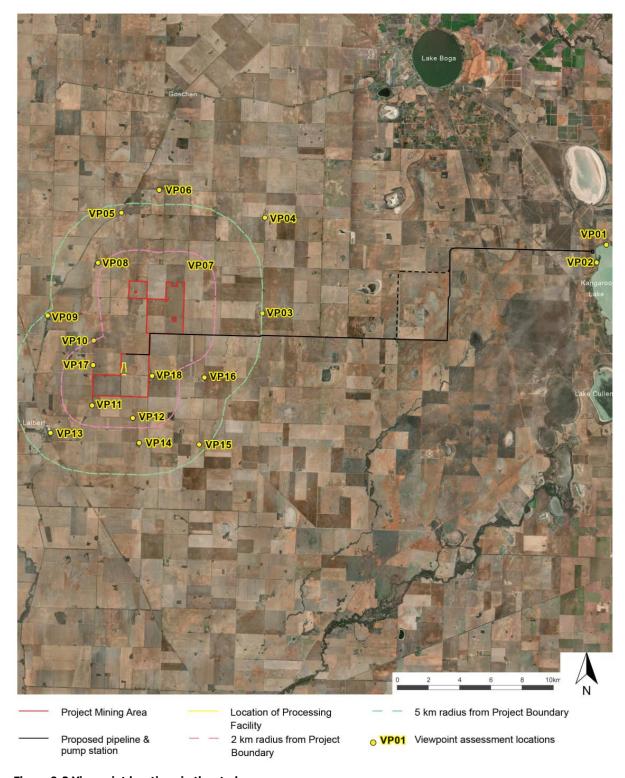


Figure 9-2 Viewpoint locations in the study area

Table 9-1 below summarises the findings of the viewpoint analysis. Of the 18 viewpoints assessed as part of the landscape and visual impact assessment, 13 were assessed as having a 'low' visual impact. Two viewpoints were assessed as having a 'low – moderate' visual impact and three viewpoints were assessed as having a 'moderate' visual impact.

Table 9-1 Viewpoint visual impact summary

Viewpoint	Visual sensitivity	Visual magnitude	Potential visual impact
VP01	High	Low	Moderate
VP02	Moderate	Low	Low- moderate
VP03	Nil - low	Low	Low
VP04	Nil - low	Low	Low
VP05	Nil - low	Low	Low
VP06	Nil - low	Low	Low
VP07	Nil - low	Low	Low
VP08	Low	Low	Low
VP09	Low	Low	Low
VP10	Low	Low	Low
VP11	Low	Low	Low
VP12	Low	Low	Low
VP13	Moderate	Low	Low - moderate
VP14	Low	Low	Low
VP15	Low	Low	Low
VP16	Low	Low	Low
VP17	Moderate	Moderate	Moderate
VP18	Moderate	Moderate	Moderate

Generally, the viewpoints rated as having a moderate visual impact were taken in areas where the proposed development is located within proximity to a point of high or moderate visual sensitivity (VP01, VP17, VP18). VP01 is located adjacent to Kangaroo Lake, northeast of the proposed pump station (refer to **Figure 9-3**). VP17 and VP18 are located to the west and to the east of the Project area, respectively, at the Project site (refer to **Figure 9-4**and **Figure 9-5**).

All 18 viewpoints are provided in EES Technical Report D: Landscape and visual impact assessment.



Figure 9-3 VP01 Kangaroo Lake picnic area, Mystic Park



Figure 9-4 VP17 Pola Road, Lalbert



Figure 9-5 VP18 Bennett Road, Lalbert

The assessments have been made without the consideration of mitigation measures which would significantly reduce the potential visual impact from these locations (refer to **Section 9.5**). Such measures would include retaining existing vegetation, where possible and planting vegetation along the western boundary of the processing facility to screen views. Structures should also be built with non-reflective and earthy-toned material, where possible, to help blend in with the existing environment.

9.4.2 Photomontage assessment

A photomontage is a visualisation based on the superimposition of an image (i.e. building, road, landscape addition etc.) onto a photograph for the purpose of creating a realistic representation of proposed or potential changes to a view. Photomontages have been utilised to assist in the impact assessment of the proposed development. The process for generating a photomontage involves computer generation of a wire frame perspective view of the Project site and processing facility.

Six photomontages of the Project were selected as key views to present the general visibility of the Project and processing facility from public locations chosen as a representation of the potential impact on surrounding dwellings. Photomontages have been prepared for viewpoints VP10 (photomontage 1), VP11 (photomontage 2), VP12 (photomontage 3), VP16 (photomontage 4), VP17 (photomontage 5) and VP18 (photomontage 6). When undertaking the landscape and visual impact assessment, viewpoints selected for the preparation of photomontages were generally those viewpoints determined to have the greatest potential for visibility of the Project and the highest visual impact. Due to the relatively low footprint of the Project, the highest visual impact would be experienced within immediate proximity of the Project and processing facility. Publicly the highest impact would be experienced along Pola Road and Bennett Road. A moderate to low visual impact would be experienced along Nalder Road due to the distance between the road and Project area and processing facility.

Photomontage locations are presented in Figure 9-6.

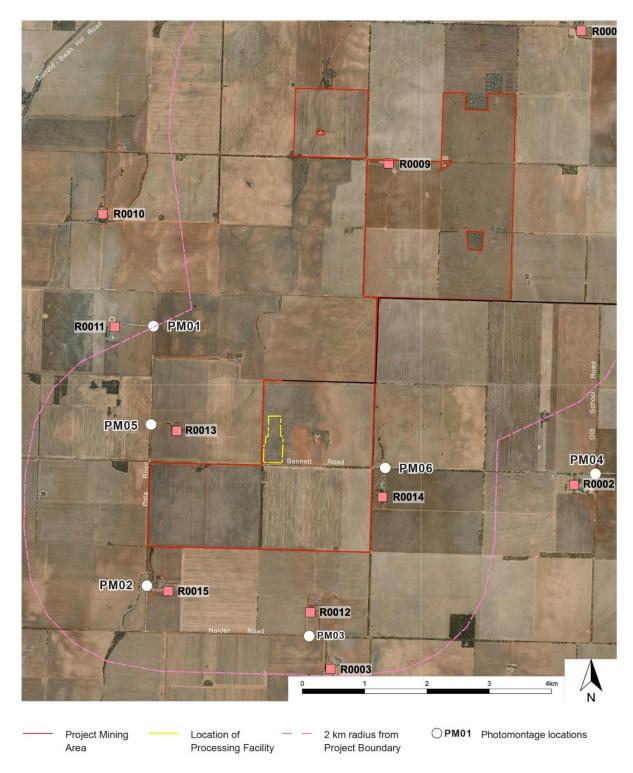


Figure 9-6 Photomontage locations

Photomontages 1 to 6 are presented in **Figure 9-7** to **Figure 9-12** below.



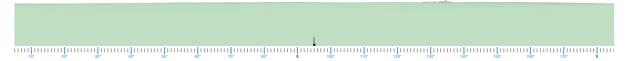


Figure 9-7 Photomontage 1, VP10 Pola Road, Lalbert



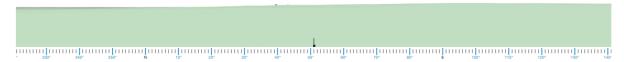


Figure 9-8 Photomontage 2, VP11 Pola Road, Lalbert



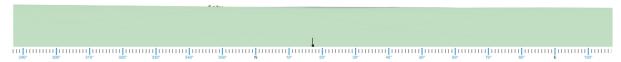


Figure 9-9 Photomontage 3, VP12 Nalder Road, Lalbert



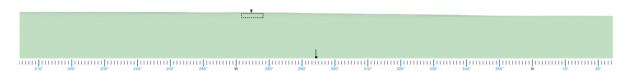


Figure 9-10 Photomontage 4, VP16 intersection of Bennett Road and Old School Road, Beauchamp



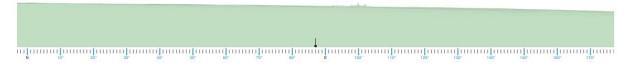


Figure 9-11 Photomontage 5, VP17 Pola Road, Lalbert



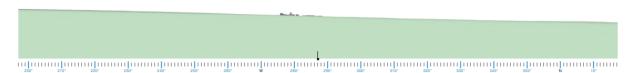


Figure 9-12 Photomontage 6, VP18 Bennett Road, Lalbert

The six photomontages have been used to assess potential visual impacts on public viewing locations (refer to **Section 9.4.3**)

9.4.3 Potential visual impact on public viewing locations

Publicly accessible viewing locations are generally limited to roads adjacent to the site. Local roads such as Pola Road, Bennett Road, Shepherd Road, Old School Road and Nalder Road have a low frequency of use and they are generally used to provide access to dwellings or farm lots along these roads. Moderate impact is likely to be experienced along Bennett Road since it would be used to access the Project site. This road also has a slightly higher road usability.

Photomontages 01, 02 and 05 (**Section 9.4.2**) illustrate the visibility of the processing facility from along Pola Road. Photomontage 05 especially illustrates the potential visual impact on a location with the highest opportunity for public visibility (as shown without mitigation measures implemented). Views to the structures are likely to be available to the general public only when travelling southwards along Pola Road. However, the resulting impact would be low to moderate since the road is not used very often by the public and is characterised by continuous stretches of roadside plantations.

Photomontages 04 and 06 (**Section 9.4.2**) have been prepared from public locations along Bennett Road to demonstrate visual impacts to the east of the Project. Views of the Project are likely to be fragmented and hindered (as shown without mitigation measures implemented) because of existing roadside vegetation and vegetation belts within rural lots. The speed and direction of travel along Bennett Road would result in a low to moderate visual impact to the general public traveling along this road.

Photomontage 03 (**Section 9.4.2**) has been prepared from a location along Nalder Road to demonstrate the potential visual impact 2.5 km south of the proposed processing facility at the Project. The opportunity to view the Project along Nalder Road would be low (as shown without mitigation measures implemented) because of existing intervening elements such as roadside vegetation, farm structures and vegetation belts on properties. The speed and direction of travel along Nalder Road would result in a low visual impact. Areas that are located beyond 2.5 km of the processing facility are therefore likely to have low to nil visual impact. Viewpoint analysis in **Section 9.4.1** of this also indicates that the potential impact on recreation areas in Lalbert would likely be very low.

The surrounding land has been extensively cleared and modified to support agricultural activities. Apart from the removal of some trees at the proposed driveway entry/exit locations along Bennett Road, it is expected that roadside vegetation would largely remain intact. Existing vegetation patches in Area 3 are proposed to be retained and the mine footprints have been planned to avoid intersection with significant areas of remnant native vegetation. As a result, the Project would have minimal impact on the existing vegetation character. It is recommended, however, that tree protection and structural root zones for existing vegetation are established as the Project progresses.

The construction and operation of the pump station is likely to have minimal impacts on users of Kangaroo Lake and its surroundings. The pump station would be difficult to discern from recreational areas around the lake given its relatively small footprint and any impacts to boat users would be temporary due to their movement across the lake. Construction activities associated with the underground water pipeline between Kangaroo Lake and the Project area would be temporary and hence, the impact is likely to be low.

9.4.4 Potential visual impact on residences

A total of seven dwelling were identified within 2km of the Project and 17 dwellings were identified within 5 km of the Project, excluding the dwellings in Lalbert Township. Due to the large scale of the Project and the relatively flat topography surrounding it, there is potential for visual impact to occur at any of the nearby dwellings. An assessment of visual impact at the dwellings involved 3D modelling, review of aerial imagery and consideration of mitigation measures. It was identified that the majority of the dwellings in the study area would have limited or no views to the Project, due to screening factors such as vegetation and/or exiting structures in the dwelling's foreground (refer to **Figure 9-13**).

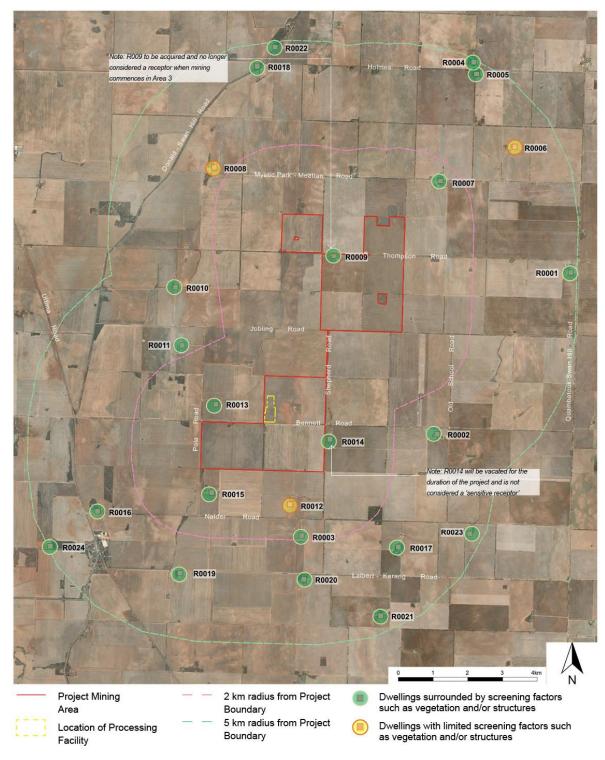


Figure 9-13 Dwellings surrounding the Project

Seventeen dwellings were identified within 5 km of the Project's processing facility, excluding the dwellings in Lalbert township. Nine of these are surrounded by dense screening vegetation or existing structures such as sheds. Dwelling R0012, is partially surrounded by vegetation in its foreground. On-site verification confirmed that this dwelling is surrounded by wind break and screen planting. Vegetation surrounding the dwelling partially limits its views to its immediate surrounds. Dwellings R0006 and R0008, approximately 7 km and 10 km from site, are surrounded by patchy vegetation in the foreground.

Dwelling R0012 (refer to **Figure 9-14**) was assessed as having a moderate potential visual impact, especially considering its proximity to the Project. If deemed necessary, in addition to mitigation measures presented in **Section 9.6**, additional screening could be provided in the immediate foreground of this dwelling to completely

screen views of the Project. Consultation with the land owner would be required prior to recommending any additional screening.

Dwellings R0006 and R0008 were assessed has having a negligible visual impact given their distance to the site and considering a row of dense windbreak vegetation that runs along Mystic Park-Meatian Road. This vegetation would help limit views generally towards the south.



Figure 9-14 Representative view and photomontage from Nalder Road near boundary fence of dwelling R0012.

9.4.5 Potential visual impact on existing landscape character

Due to the scale of the Project, there is the potential for the Project to become a feature of the area. However, the degree to which the existing landscape character and significance is altered by the Project would be determined by its dominance in relation to existing landscape features.

As previously discussed, the proposed development would be located within a predominantly agricultural and rural landscape that has not been identified as significant or rare. The following table summarises the potential visual impact of the project on each LCU identified in **Section 9-4**. The Project would have low to moderate impacts on the existing scenic quality of these landscape features.

Table 9-2 Potential visual impact on existing landscape character units

LCU	Name	Preliminary visual impact assessment
LCU01	Kangaroo Lake and surrounding conservation areas	Views from this LCU are both filtered and open. The views however, are mostly directed towards the lake. The lake is at a significant distance from the mineral sands development but the proposed pump station would be located on the lake's shoreline. Views of the pump station are likely to be available in areas that receive high visitor footfall. However due to existing infrastructure at the lake and the relatively small footprint of the pump station, the impact is likely to be low.
LCU02	Irrigation channels	Opportunities to view the pump station from this LCU would be available due to the lack of tree cover in this LCU. However due to existing infrastructure, the impact of a pump station is likely to be low. Canals and irrigation channels are modified landscape elements that have low scenic associations.
LCU03	Farmlands	Impacts on this LCU would likely be high as this is the most dominant character of the region and features open, unobstructed views of surrounds. The LCU however, also has a number of agricultural production associations that are in keeping with the character and purpose of the proposed development.
LCU04	Roadside vegetation corridors	Views of the project from this LCU would likely be low due to the dense vegetation character. The proposed development would likely have negligible impacts on areas within this LCU. Topography and existing vegetation would assist in reducing the impact of the project on the existing character.
LCU05	Lalbert	This LCU is located at a significant distance from the project. It would be likely that the development would have a low visual impact on the residences and recreational areas of the town. Most areas are flat and are surrounded by vegetation which helps limit views within the LCU.

9.4.6 Overview of impacts of night lighting sources

Existing light sources within the study area are limited due to the limited inhabitation. 17 dwellings were identified within 5km of the Project. Additionally, the town of Lalbert comprises of approximately 20 dwellings that are located approximately 3.8 km south west of the Project and approximately 6 km south west of the processing facility. Light sources in surrounding areas are limited to homesteads, agriculture infrastructure and

motor vehicles dispersed through the study area. Dwellings within the study area therefore experience a dark night sky with minimal light pollution.

From most dwellings within the study area, direct views to the Project would be screened by existing vegetation surrounding the dwelling and the Project site. This is also the case for dwellings R0013, R0014, R0015 and R0012 as they are surrounded by vegetation in their foreground or along the lot boundary. Views to light sources associated with the Project would be obscured and therefore the impacts of lighting sources on residences would be considered low. There is the potential for lighting sources to be visible to motorists travelling along adjacent roads through the vegetation. The impacts of such lighting would likely be limited to glow effect when the night sky is unclear with fog or haze. The potential impact on travel routes during clear conditions would be intermittent since the lighting would be visible through vegetation gaps. Given that vehicles would not be stationary along travel routes, the impacts of night lighting would be low.

It is intended that the mine would operate for 24 hours per day and all year round. It is recommended that light sources in mining areas be limited to the mine void and/or below the level of surrounding bund walls or soil stockpiles. Additionally, the design and installation of project lighting should be in accordance with Australian Standard AS4282-1997 - Control of Obtrusive Effects of Outdoor Lighting and with consideration to the Australian Government Department of the Environment and Energy, National Light Pollution Guidelines for Wildlife: Including marine turtles, seabirds and migratory shorebirds, January 2020 Version 1.0. Australian Standard AS4282 sets out criteria for appropriate illuminance and human experience of light. In AS4282, the definition of outdoor lighting is any form of permanently installed exterior lighting and interior lighting systems which emit light that impacts on the outdoor environment. As the nuisance effects of outdoor lighting are best controlled by appropriate design, AS4282 primarily focuses on new lighting installations. New developments must comply with this standard.

Recommendations for early stages of operation and fixed night lighting on building structures or other areas in the processing facility are presented in **Section 9.6**.

9.4.7 Summary of visual impacts

Overall, the proposed development would result in a minor modification to the existing visual landscape when viewed from different locations. There is the potential for moderate visual impacts from dwelling R0012 and from three viewpoints (VP01, VP17 and VP18) and there is the potential for low to moderate visual impacts from two viewpoints (VP02 and VP13). The assessment of photomontages 01, 02, 04, 05 and 06 identified a low to moderate potential visual impact from public viewing locations. With the implementation of mitigation measures, the visibility of the project would be reduced.

9.5 Residual impacts

The Project life cycle is expected to be approximately 20-25 years, which presents an opportunity to create, establish and sustain buffer screening across various parts of the Project area. It is recommended that the proposed screen planting (refer to MM-LV02, **Section 9.6**) is established prior to the commencement of mining operations so that the visual amenity of the surrounding area is preserved, and all potential impacts are reduced as far as practicable. Adopting this measure to assist in fragmenting and obscuring views into the Project site is likely to minimise any potential visual impacts that may be caused by the Project.

9.6 Summary of mitigation measures

The mitigation measures to manage potential visual impacts are presented in **Table 9-3**.

Table 9-3 Landscape and visual mitigation measures

Mitigation measure ID	Mitigation measure	Project phase
MM-LV01	 Minimise adverse effects on landscape and visual amenity Early establishment of vegetation screening along the perimeter of the mine site where appropriate, including as a minimum along the western boundary of the processing facility, with planting of suitable fast growing screen species where appropriate. Ongoing management and maintenance of vegetation and screen planting. Soil restoration strategies in line with the recommendation of the Soil and Land Resource Technical Report and the Rehabilitation and Closure Technical Report. The establishment of plant growth medium to support revegetation that will help restore landscape values. Monitoring of the rehabilitation measures by providing direction of documentation procedures, data collection, record-keeping, and performance tracker for plant establishment. 	All phases
MM-LV02	Minimise adverse effects of visual amenity – lighting All lighting fixtures installed on-site should be in accordance with the AS4282-1997 Australian Standard Wherever possible, lighting should face downwards and be shielded to reduce the likelihood of a light spill and glow effect.	Construction Operation
MM-LV03	Minimise adverse effects of visual amenity The building materials and finishes should be sandy/earthy colour tones, where possible, and should utilise non-reflective materials. Low contrast textures and materials should be used to the extent practicable.	Construction

9.7 Conclusion

It has been identified that the greatest potential visual impact exists in closest proximity to the Project and where there is no existing vegetation of a sufficient scale to screen or fragment views of the Project and processing facility. The assessment of visual impact on public land indicated limited opportunities to view the Project in its entirety due to adequate roadside and windbreak plantations common in the area. It is likely that the highest visual impact would be experienced along Bennett Road because it would be used to access the Project area. Moderate to low impacts would be experienced along other roads such as Pola Road, Shepherd Road, Old School Road and Jobling Road. The impact of the project would reduce for receptors located 3 km away from the Project, and therefore, it is considered that the Project would have low to nil impact on the visual character of Lalbert.

Due to existing vegetation in the study area, the relatively planar topography and the broad scale of the view, mitigation measures to reduce potential visual impacts on certain locations in the public domain are limited. Provision of planting along the perimeter of the processing facility would be effective in integrating the development into the surrounding landscape. Additionally, it is recommended that all structures as part of the processing facility should be built with non-reflective and earthy-toned material. Additional screening could be provided in the foreground at dwelling R0012 where visual impacts would likely be moderate, however consultation with the landowner should be undertaken prior to recommending any additional screening. With the implementation of the recommended mitigation measures, the Project would have a minimal visual impact on the surrounding visual landscape.