

Little River Quarry

Visual Impact Assessment

For the proposed Work Plan Variation for Extractive
Industry Work Authority No. 453

Prepared for **Barro Group Pty. Limited**

Quality Assurance

Little River Quarry

Preliminary Visibility Assessment
For the proposed Work Plan Variation for Extractive Industry
Work Authority No. 453

Prepared for

Barro Group Pty. Limited

Project Number

321-0111-00-L-01_RP02

Revisions

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00	28 September 2021	Preliminary visibility assessment of proposed extraction area	MN + MR	MN + MR	MR
01	23 June 2022	Visual Impact Assessment Draft 1	MN + MR	MN + MR	MR
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03	19 January 2023	Visual Impact Assessment Final	MN + MR	MN + MR	MR

Contents

1	Introduction	06	4	Visibility Analysis	18
1.1	Background	06	4.1	Zone of Visual Influence Analysis	18
1.2	The Site	06	4.2	Visual Receptor Sensitivity	19
1.3	The Work Authority Variation Proposal	11	4.3	Impact of Distance on Views	20
1.4	Scope of Assessment	11	4.4	Potential Visibility of the Proposed Extraction Area	21
1.5	Visual Sensitivity Ratings	11	4.5	Outward ZVI Modelling from the Existing & Proposed Quarry Pits	34
2	Context	13	4.6	Inward ZVI Modelling from Key Visual Receptor Locations	35
2.1	Surrounding Land Use	13	5	Impact Assessment	36
2.2	You Yangs Regional Park	14	5.1	Method for Visual Impact Assessment	37
3	Planning Controls – Schedule 1 to clause 42.03 of the Significant Landscape Overlay	16	5.2	Visual Impact Assessment	41
3.1	Significant Landscape Overlay – Schedule 1	16	6	Site Rehabilitation	66
			7	Evaluation	67
			7.1	Evaluation	67
			7.2	Conclusion	68

Figures

Figure 1.	General Location Plan (Bell Cochrane & Associates – Work Plan Variation Report – 12.11.2013)	06	Figure 14.	Zone of Visual Influence Analysis – Viewpoint 1 – Existing Pit	24
Figure 2.	Site Context	07	Figure 15.	Zone of Visual Influence Analysis – Viewpoint 1 – Proposed Pit	25
Figure 3.	Site Setting (Bell Cochrane & Associates – Work Plan Variation Report – 06.07.2014)	08	Figure 16.	Zone of Visual Influence Analysis – Viewpoint 2 – Existing Pit	26
Figure 4.	Existing Site Aerial	09	Figure 17.	Zone of Visual Influence Analysis – Viewpoint 2 – Proposed Pit	27
Figure 5.	Site Detail (NearMap Imagery Captured 12 May 2021)	10	Figure 18.	Zone of Visual Influence Analysis – Viewpoint 3 – Existing Pit	28
Figure 6.	Rehabilitation Plan (Bell Cochrane & Associates – Work Plan Variation Report – 29.01.2022)	12	Figure 19.	Zone of Visual Influence Analysis – Viewpoint 3 – Proposed Pit	29
Figure 7.	Sensitive Visual Receptors	13	Figure 20.	Zone of Visual Influence Analysis – Viewpoint 4 – Existing Pit	30
Figure 8.	You Yangs Regional Park Plan	14	Figure 21.	Zone of Visual Influence Analysis – Viewpoint 4 – Proposed Pit	31
Figure 9.	You Yangs Regional Park details Stockyard Mountain Bike Area	15	Figure 22.	Zone of Visual Influence Analysis – Viewpoint 5 – Existing Pit	32
Figure 10.	Planning Overlays – Landscape Significance Plan	17	Figure 23.	Zone of Visual Influence Analysis – Viewpoint 5 – Proposed Pit	33
Figure 11.	Sensitive Visual Receptors	21	Figure 24.	Key Visual Receptor Locations	36
Figure 12.	Zone of Visual Influence Analysis – Existing Pit	22	Figure 25.	Rehabilitation Plan (Bell Cochrane & Associates – Work Plan Variation Report – 29.01.2022)	66
Figure 13.	Zone of Visual Influence Analysis – Proposed Pit	23			

1 Introduction

1.1 Background

This report has been prepared by Tract Consultants Pty Ltd for Barro Group Pty Ltd.

The report provides a preliminary technical evaluation of the potential visibility of the proposed Little River quarry extension. The proposed quarry extension is subject to a Work Plan Variation for Extractive Industry Work Authority No. 453 prepared by Bell, Cochrane & Associates.

The assessment is based on the following information:

- The quarry development plans included within this report are taken from the BCA report and represent the general nature of the proposed development and rehabilitation.
- Files used for Zone of Visual Influence (ZVI) modelling within this report represent the latest version of quarry plans and may vary slightly from the development plans.
- Existing conditions survey plan by Landair Surveys based on 2013 aerial photography.
- Topographic, cadastral and transport GIS data from State Government sources.



Figure 1. General Location Plan (Bell Cochrane & Associates – Work Plan Variation Report – 12.11.2013)

1.2 The Site

The site is approximately 10km north of Lara and may be accessed from either the west via Sandy Creek Road or from the east via Drysdale Road. The site is within an existing extractive industry precinct which includes an approved processing and extraction area. The site has been worked for many decades supplying a variety of sands and gravels for construction use.

WA 453 covers an area of 282.25ha and contains a large high quality granite resource suited to production of manufactured sand and low shrinkage concrete aggregate.

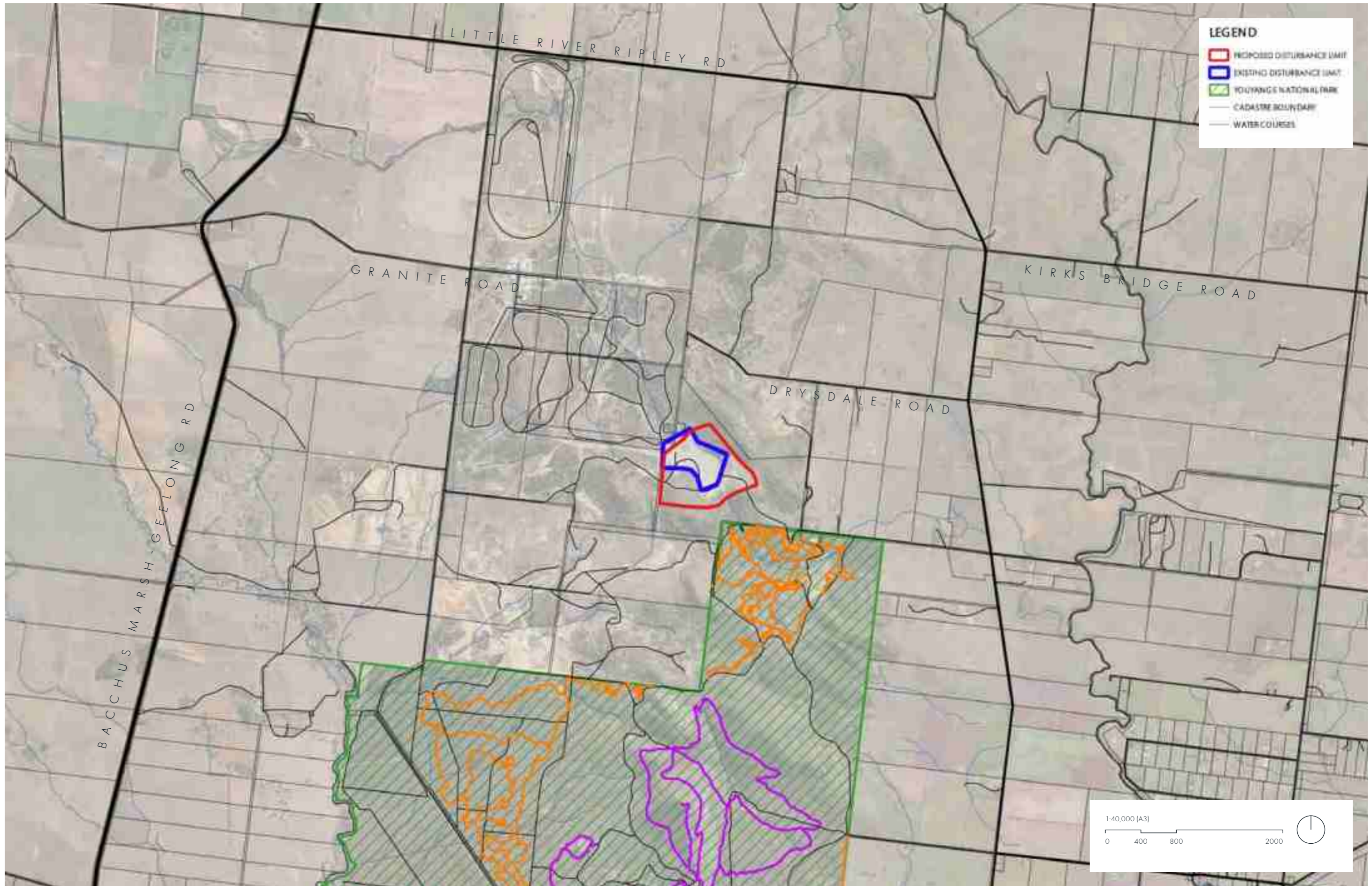


Figure 2. Site Context

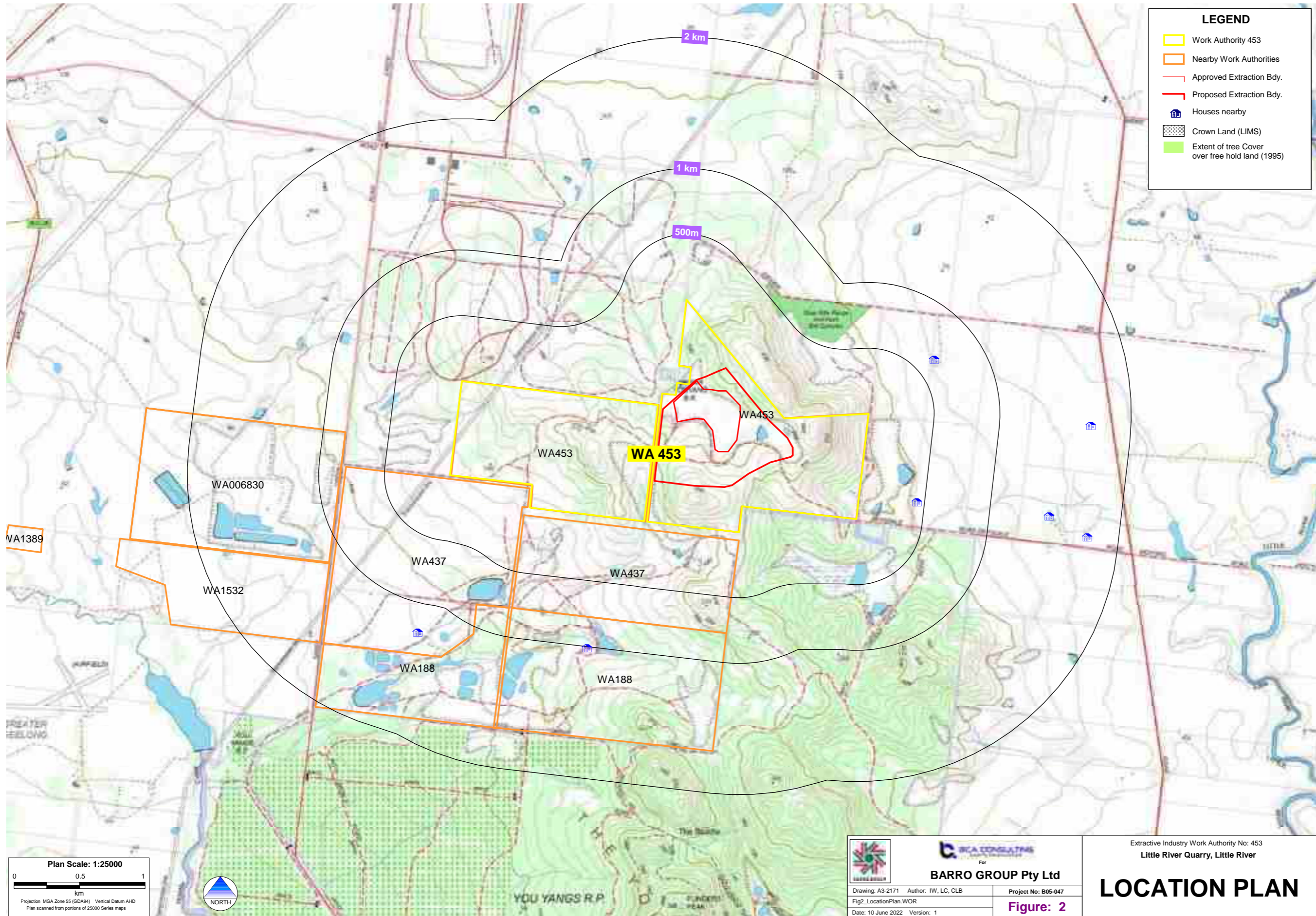


Figure 3. Site Setting (Bell Cochrane & Associates – Work Plan Variation Report – 06.07.2014)



Figure 4. Existing Site Aerial



Figure 5. Site Detail (NearMap Imagery Captured 12 May 2021)

1.3 The Work Authority Variation Proposal

The Work Plan Variation involves increasing the quarry extraction area from approximately 13.5ha to 62.3ha. The extension will involve the removal and storage of overburden, lower-class construction products and extraction of approximately 87MT of fresh granite and 12MT of weathered granite. There is no proposed change to current production rates or to current hours of operation.

1.4 Scope of Assessment

The visibility analysis has been undertaken through a Zone of Visual Influence (ZVI) analysis process which uses GIS modelling to assess the theoretical visibility of the quarry from the surrounding landscape. The modelling is based on a 'line of sight' process from designated viewpoints (both to and from the quarry). The model does not consider existing vegetation, minor surface variations or structures that may prevent actual views from the receptor locations.

The purpose of the model is to identify theoretical patterns of visibility that relate to potentially sensitive visual receptor locations. Higher sensitivity visual receptors are typically defined as land uses and locations where visual amenity is considered to be an intrinsic quality of the location or land use. Lower sensitivity settings are typically focussed on activities that are not specifically linked to landscape character and scenic quality.

1.5 Visual Sensitivity Ratings

Examples of **Higher value visual receptors** would include:

- Scenic lookouts in National or Regional Parks
- High use leisure settings such as trails or park visitor centres
- High use tourism settings such as publicly accessible wineries or function centres
- Major regional roads that carry a higher volume of traffic
- Areas of designated landscape or cultural heritage value, as defined through state or local government policy or planning frameworks. This includes places covered by a Significant Landscape Overlay.
- Town centres and related residential development

Examples of **Moderate value visual receptors** would include:

- Rural-residential housing
- Lower volume public roads used by non-farming related traffic
- Outdoor sports facilities
- General park environments

Examples of **Lower value visual receptors** would include:

- Farming properties
- Local farm roads
- Industrial and general commercial land uses

The ZVI analysis findings are a starting point. The intention is that likely high sensitivity viewpoints will be confirmed by visiting each site and through photography in order to assess whether existing vegetation, structures or other factors inhibit views.

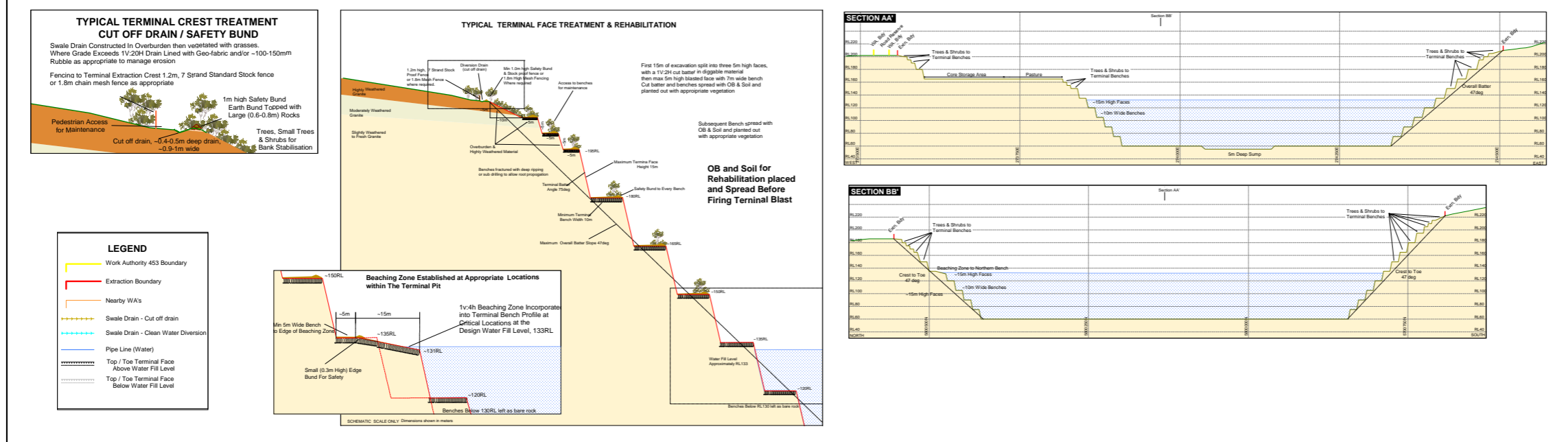
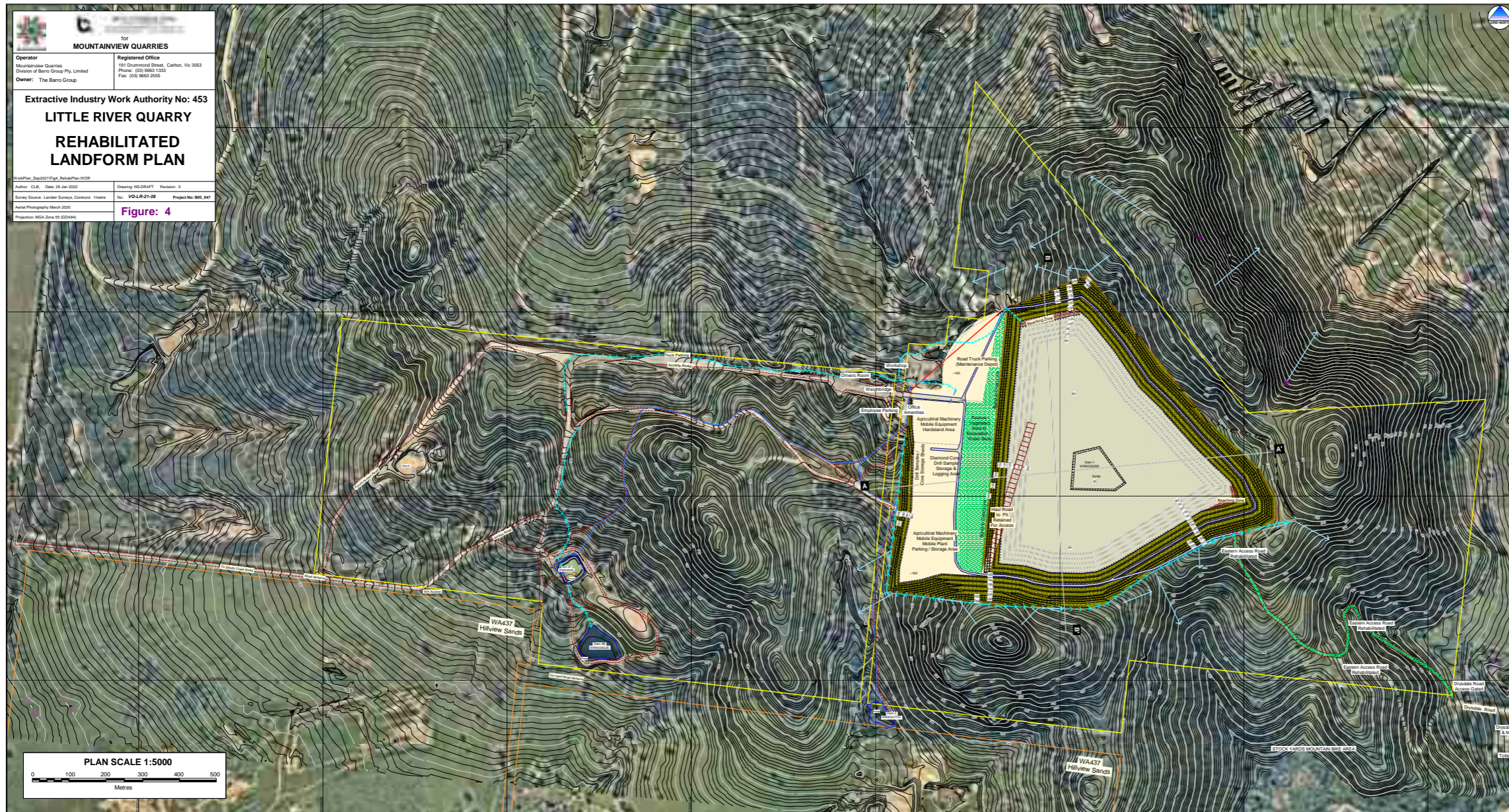


Figure 6. Rehabilitation Plan (Bell Cochrane & Associates – Work Plan Variation Report – 29.01.2022)

2 Context

2.1 Surrounding Land Use

Immediate neighbours include the You Yangs Regional Park to the south and south east, WA 437 to the south, WA 347 to the west, the former Ford Proving Ground to the north-west, the Victorian Sporting Shooters Association Gun Club to the North and rural farm zone / agriculture to the east.

There are 5 residences within 2km of the Work Authority boundary. The closest residence is at least 1100m from the extraction boundary.

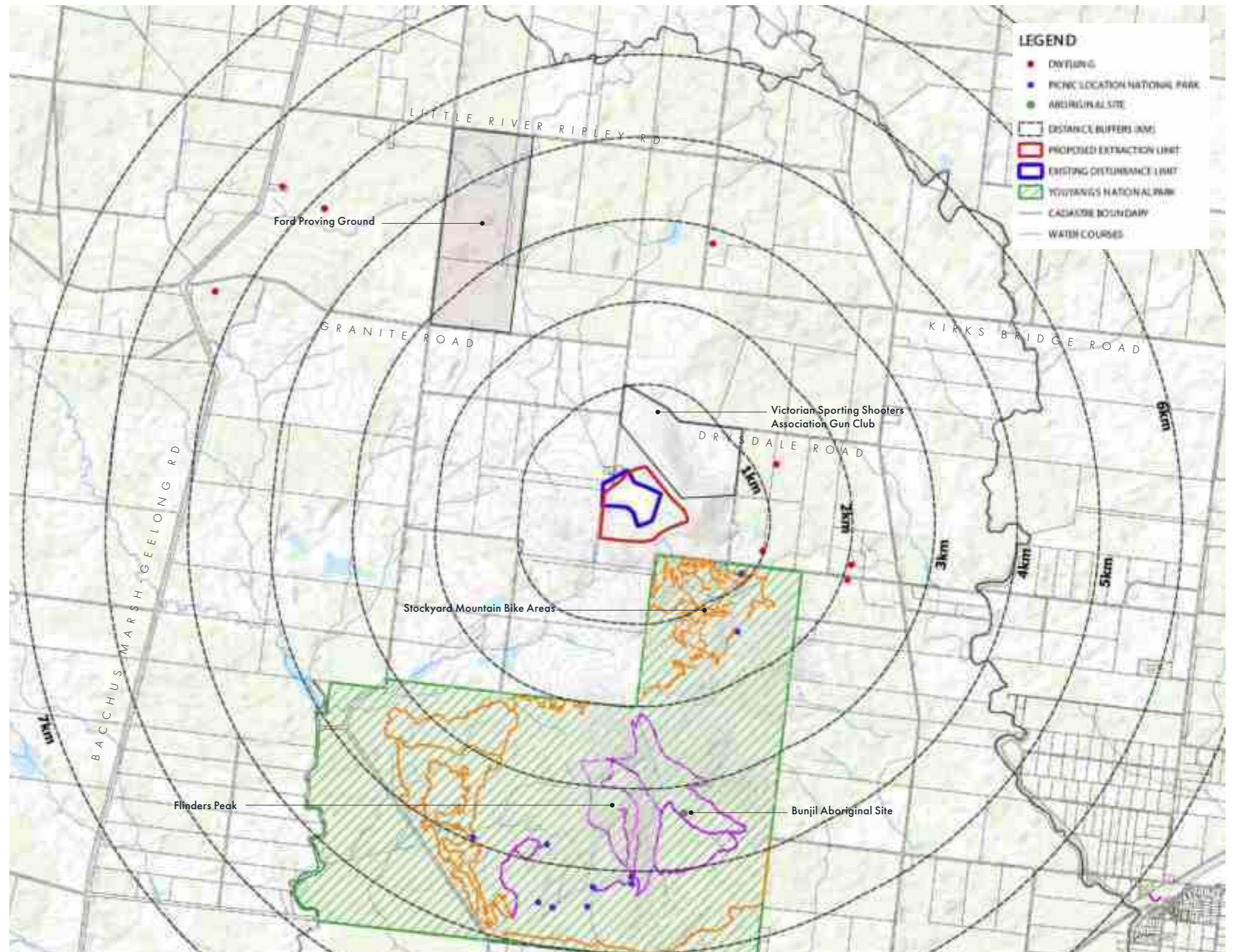


Figure 7. Sensitive Visual Receptors

2.2 You Yangs Regional Park

The You Yangs are a series of granite ridges that rise to 319 m above the flat and low-lying Werribee Plain, approximately 5 km due west of the rural town of Little River, 55 km southwest of Melbourne CBD and 22 km northeast of Geelong. The main ridge runs roughly north-south for about 9 km, with a lower extension running for about 15 km to the west. Much of the southern parts of the ranges are protected by the You Yangs Regional Park.

The You Yangs and Serendip Sanctuary are popular reserves for wildlife viewing, education and for outdoor recreation, including mountain biking, horse riding, rock-climbing and abseiling, trail running, bushwalks and picnics. The Stockyards Area mountain bike area is located immediately south of the Site and is accessed from the Drysdale Road.

Given its proximity to Melbourne and Geelong, the precinct draws more than 470,000 people annually. This group are predominately day visitors, but with visitation steadily growing and the expansion of Avalon airport services, there is the potential for this number to rise.

The Geelong – Bacchus Marsh Road west of the site is a major regional link and touring route.

The Little River – Ripley Road and Drysdale road to the north and east function as rural roads and provide access to the northern end of the You Yangs Regional Park (Stockyards Area).

Branch Road to the south provides access to the southern end of the Park, including the main visitor parking and picnic areas.

You Yangs Regional Park

- Parking
- Information
- Toilets
- Sheltered area
- Lookout
- Horseshoe
- Disabled access

- Picnic table
- Gas BBQ
- Fireplace
- Parks Victoria office
- Aboriginal Site

- Main road
- Sealed road
- Unsealed road
- 4WD

- Walking track
- Mountain bike track
- Shared track
- Horse riding trail

- One-way road only
- Management vehicles/walking track only
- Minor river
- Stream

- You Yangs Regional Park
- Mountain bike area
- Horse riding area

- Wetland
- Waterbody
- Gate
- ESTA marker



0 0.5 1 kilometres



www.parks.vic.gov.au

Disclaimer: Parks Victoria does not guarantee that this data is without flaw of any kind and therefore disclaims all liability which may arise from you relying on this information.

Cartography by Parks Victoria August 2017.

For mobile App search for Avenza PDF Maps

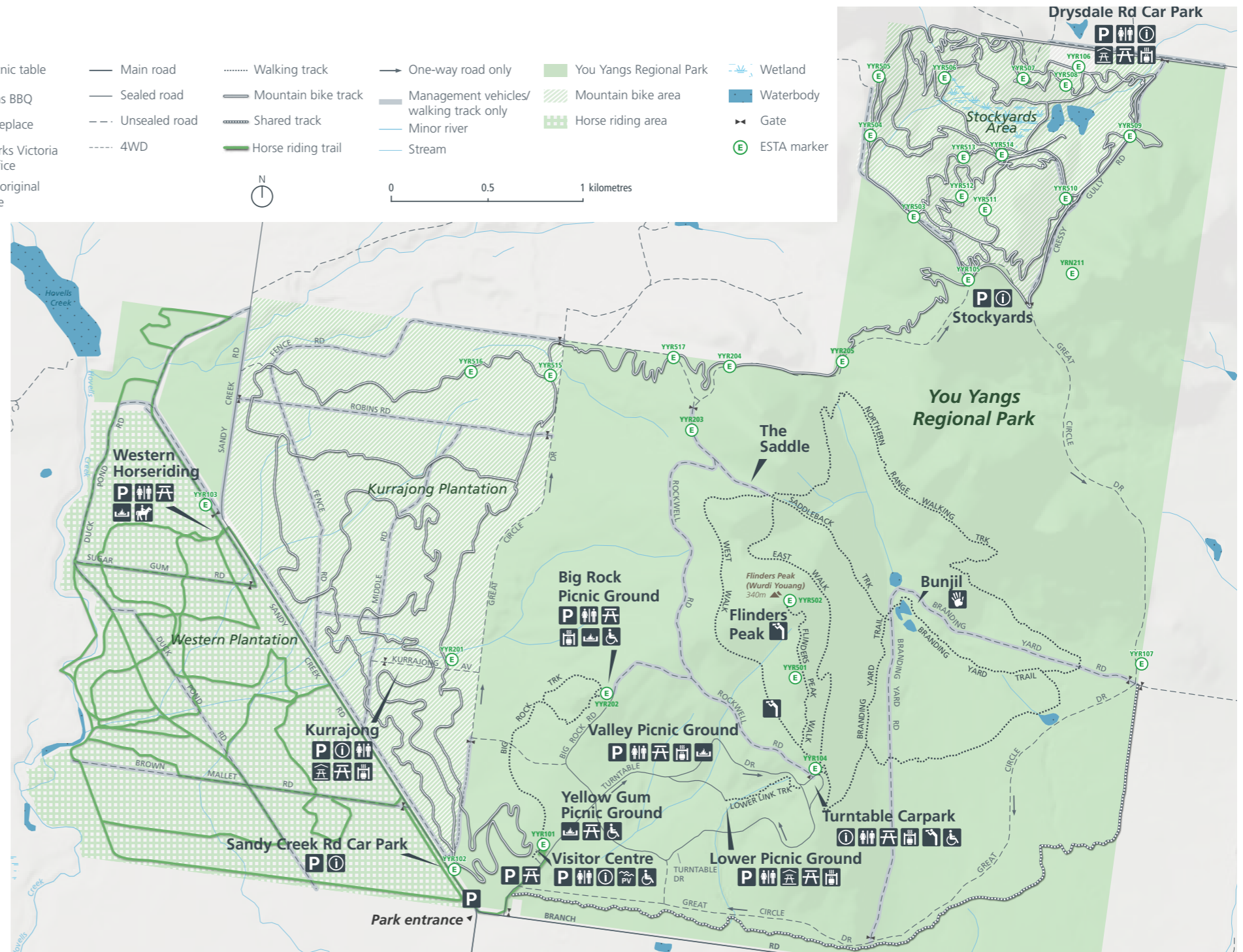


Figure 8. You Yangs Regional Park Plan

You Yangs Regional Park

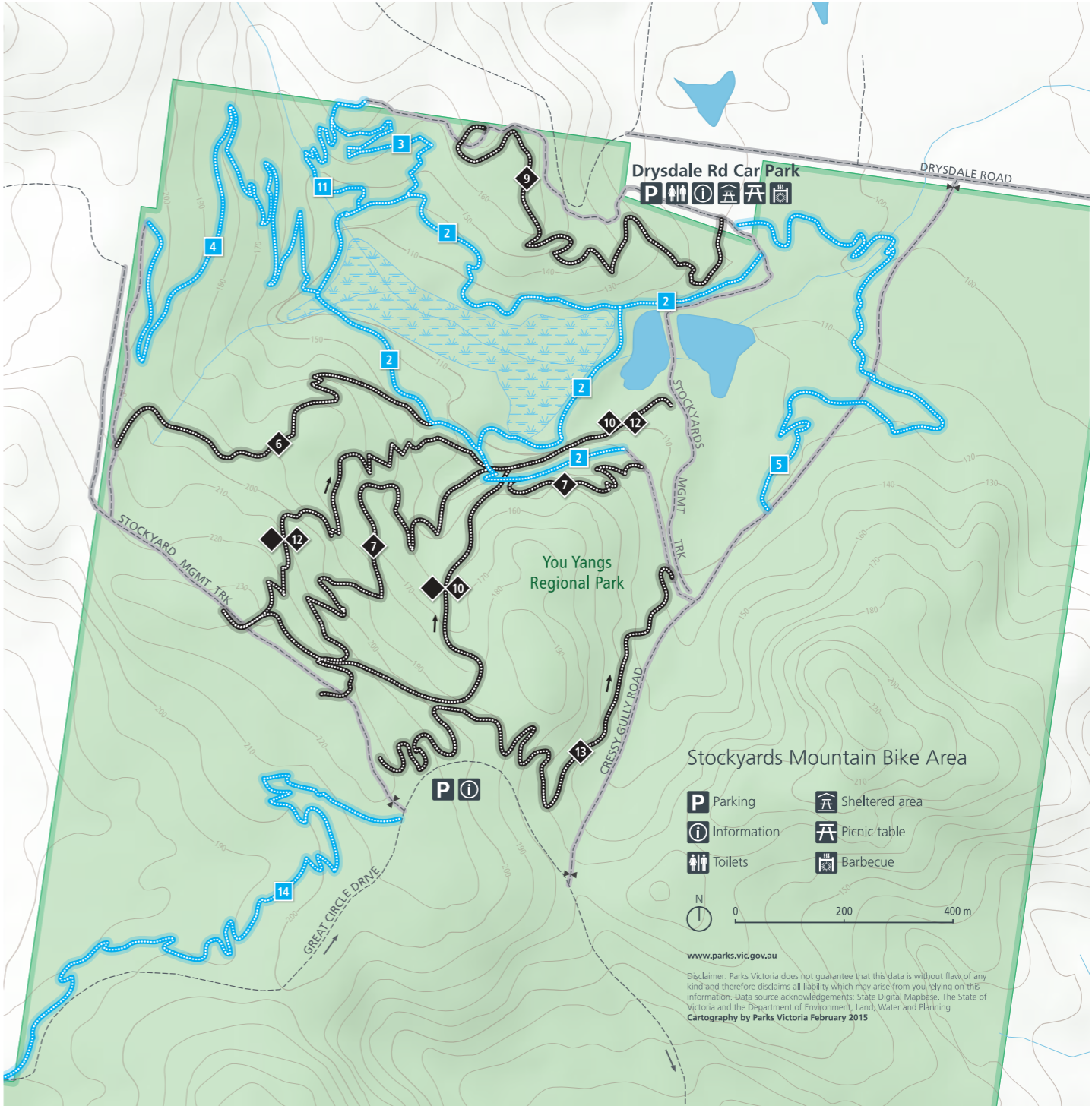


Figure 9. You Yangs Regional Park details Stockyard Mountain Bike Area

3 Planning Controls – Schedule 1 to clause 42.03 of the Significant Landscape Overlay

3.1 Significant Landscape Overlay – Schedule 1

The Work Authority area is predominantly zoned Farming, with the western portion zoned Special Use, Schedule 7. There is a Wildfire Management Overlay over a small section of the Work Authority and a Significant Landscape Overlay – Schedule 1 over the entire Work Authority.

Statement of Nature and Key Elements of Landscape

This area is comprised of treeless foothills and plains at the base of the You Yangs. The You Yangs are the most prominent landscape feature in the northern area of the municipality, providing panoramic views of Geelong. The surrounding foothills and plains create an open view path to the You Yangs, visually exposing them when viewed from the surrounding basalt plains. The key element of the landscape is its open character and contrast with the You Yangs.

Landscape character objectives to be achieved

- To protect and enhance the open character, contrast and scenic quality of the landscape.
- To maintain an open view path to the regionally significant You Yangs.
- To protect the landscape from visual intrusion by inappropriate buildings and works and their siting, design or materials.
- To encourage the siting, design and landscaping of buildings and works to be responsive to the landscape values of the area.
- To facilitate the rehabilitation of extractive industries when they reach the end of their economic life.

Decision Guidelines

The following decision guidelines apply to an application for a permit under Clause 42.03, in addition to those specified in Clause 42.03 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:

The landscape values of the edges of the foothills of the You Yangs.

The protection and appropriate enhancement of the landscape, having regard to:

- Protecting landscape areas and vantage points of high quality.
- The conservation of significant areas of natural vegetation and significant stands of trees.
- The necessity of retaining a buffer strip of vegetation in the vicinity of watercourses, roads and property boundaries, in particular any remnant indigenous vegetation species.

Whether the siting, height, scale, materials and form of proposed buildings and works has been designed to have least visual effect on the landscape and scenic views of the foothills of the You Yangs.

Whether approval of the proposed buildings and works is compatible with maintaining the visual and natural significance of the landscape.

The benefit of permit conditions requiring all building materials to be non-reflective and of colours which are complementary to those of the natural landscape.

The benefit of conditions requiring the landscaping of buildings and works, while also having regard to the maintenance of existing view-lines.

Whether an alternative site is available on the land for the proposed buildings and works that would better meet the landscape objectives of this schedule.

The containment of extractive industries to ensure that development and subsequent reclamation are carried out without significant detriment to the recreational and scenic value of the surrounding area.

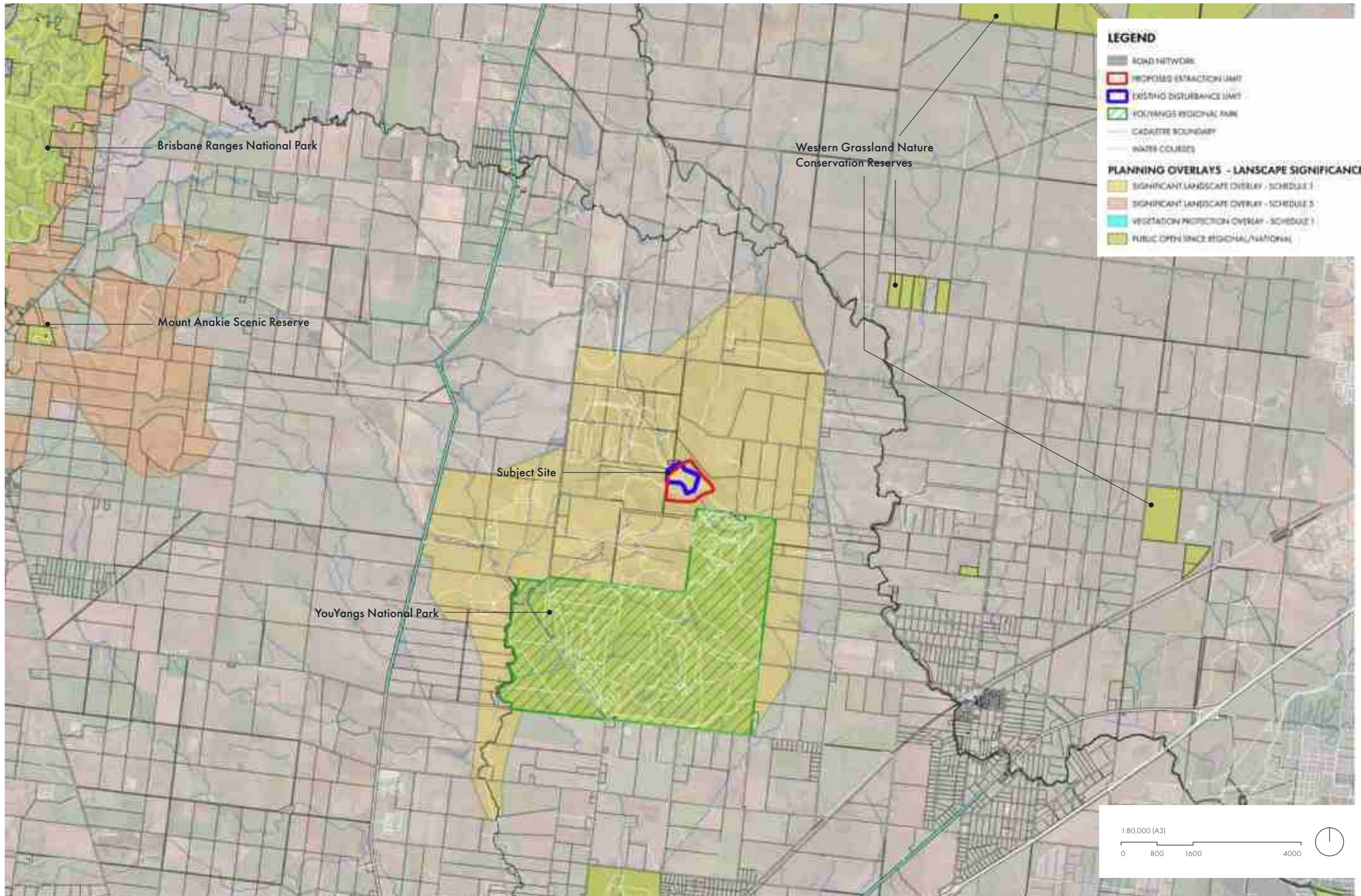


Figure 10. Planning Overlays – Landscape Significance Plan

4 Visibility Analysis

4.1 Zone of Visual Influence Analysis

Zone of Visual Influence (ZVI) modelling analysis was undertaken for the site to understand the potential visibility of the quarry to surrounding areas, including locations of potential visual sensitivity.

The ZVI analysis utilises GIS modelling to assess 'line of sight' visibility of the quarry to and from the surrounding landscape. The modelling is based on topographic data only and does not include vegetation or local structures that are not included within the terrain model. As such, it represents a 'worst-case scenario' for potential visibility of the quarry that is unlikely to exist under actual day-to-day conditions.

The ZVI analysis provides an objective basis to determine the likely extent of visibility and the location of potential visual receptors associated with the proposed development. Actual visibility can only be established by on-site photography and wire frame modelling and or rendered visualisation of the proposed development.

In addition to an overall ZVI from the quarry development, viewsheds were modelled from potential individual sensitive receptors (viewpoints) to check the potential level of visual exposure from these locations.

The topographic data utilised for the ZVI analysis includes survey contour data of the site at 0.5m contour interval. For the surrounding area Digital Elevation Model (DEM) with a grid size of 25m x 30m was utilised. Contours of 1m interval were interpolated from the DEM and combined with the detailed site contours to create a digital terrain model for the ZVI analysis.

All ZVI analysis has been undertaken with a viewer height of 1.6m. This is intended to represent the eye-level view from a typical person.

4.2 Visual Receptor Sensitivity

Visual receptor sensitivity is a measure of the direct or indirect effects that development-based changes may have on a view or scenic resource, which could include physical elements, visual character and cultural values.

To determine visual receptor sensitivity, consideration is given to those receptors who have the potential to view the proposed change. For the purposes of the detailed impact assessment, viewer sensitivity is defined as a combination of the following factors:

- Location or land use has a specific interest in or relationship to the visual environment
- There is a strong attachment or functional relationship between the receptor and the place that is subject to change
- The viewer distance and the available angle of view (field of view) is likely to result in a noticeable or dominant visual change
- The surrounding level of use (the number of visual receptors/users)

Sensitivity Level	Definition
High	Designated state level parks and scenic reserves, major recreation trails, formal scenic view locations & lookouts
	Highways with higher traffic volumes
	Major tourist roads and established scenic routes
	Public spaces within town centres
Moderate	Non-rural residential properties
	Large volume regional link roads
	Secondary tourist roads and recreational driving routes
	Commercial facilities (ie Wineries) or tourism sites that are based specifically around established scenic values
	Major landscape dependant outdoor recreation facilities & settings
Low	Rural residential properties
	Schools and residential care facilities
	Local rural roads
	Farming properties
	Industrial land uses
	Local sports facilities
	Forest areas and other relatively inaccessible locations
Forest trails where the focus is mountain biking or other activity-based focus	

On-site Verification

The ZVI modelling process identifies areas that may potentially provide views of the development site. On-site inspection, reference photography and wire frame modelling confirm whether views actually exist, the nature and magnitude of the view and the degree to which visual effects can be mitigated.

Table 1. Receptor Sensitivity Classification

4.3 Impact of Distance on Views

Each of the ZVI analysis maps shows radial distances from the quarry outwards. This is important as the perception of a view changes as a result of the distance between the viewer and the object and the nature of the viewed object.

The greater the viewing distance, the less detail is observable and the more difficult it is to distinguish between the site or object and its background, diminishing the impact.

Distance is an important factor in assessing the magnitude of change and overall impacts. Other potential aspects of change include scale, proportion, size, height, massing, colour, texture, finish, permanence. For the purposes of this assessment, four distance ranges are applied as described in table.

Distance Levels	Definition
Foreground (<1km)	<p>Obvious or dominant visual change to the landscape and landform characteristics including colour contrast, lighting and textural details are clearly perceived, depending on the visual context</p> <p>Views are more likely to be broken by foreground features</p> <p>Landform characteristics and the relationship between landscape features are clearly discernible.</p>
Middle ground (1 – 3 km)	<p>Obvious or dominant visual change to the landscape and landform characteristics</p> <p>Views are more likely to be broken by foreground features such as landform or vegetation</p> <p>Landform characteristics and the relationship between landscape features are discernible but may or may not be dominant, depending on the visual context provided by the surrounding landscape.</p>
Background (3 – 5 km)	<p>Likely minimal visual recognition of strong colour and light contrasts and large-scale vegetation clearance only.</p> <p>Minimal recognition of form and detail and no appreciation of vehicle movement</p> <p>Distance zone where different landscape elements are visually apparent but not dominant</p>
Distant views (5 km +)	<p>Textures are no longer visible. Only landform features such as ridges, valleys, skyline and ridgelines are visible</p> <p>Likely minimal visual recognition of strong colour and light contrasts and large-scale vegetation clearance only.</p> <p>Minimal recognition of form and detail and no appreciation of vehicle movement</p> <p>The visual scale of the change may be barely discernible and appear as a relatively minor visual element within a larger landscape complex</p>

Table 2. Effect of viewing distance

4.4 Potential Visibility of the Proposed Extraction Area

A ZVI analysis of the proposed extraction area was undertaken using 23 surface level visibility points located around the outer edge of the existing disturbance area and 29 points around the proposed disturbance area. Note: surface points represent a surface level at the edge of the extraction area. They do not necessarily represent an 'object' or area which can be seen from a distance.

The modelling points include nominal heights within the processing and stockpile areas.

A distance of 8km from the extraction area was utilised as the range for the ZVI analysis, but the focus was on the area within 6km of the extraction area.

Modelling outward from the existing and proposed quarry configurations is used to identify possible receptor locations and the likely extent of views (the number of viewpoints observed).

Modelling inward from key receptor locations allows an analysis of the likely extent of views.

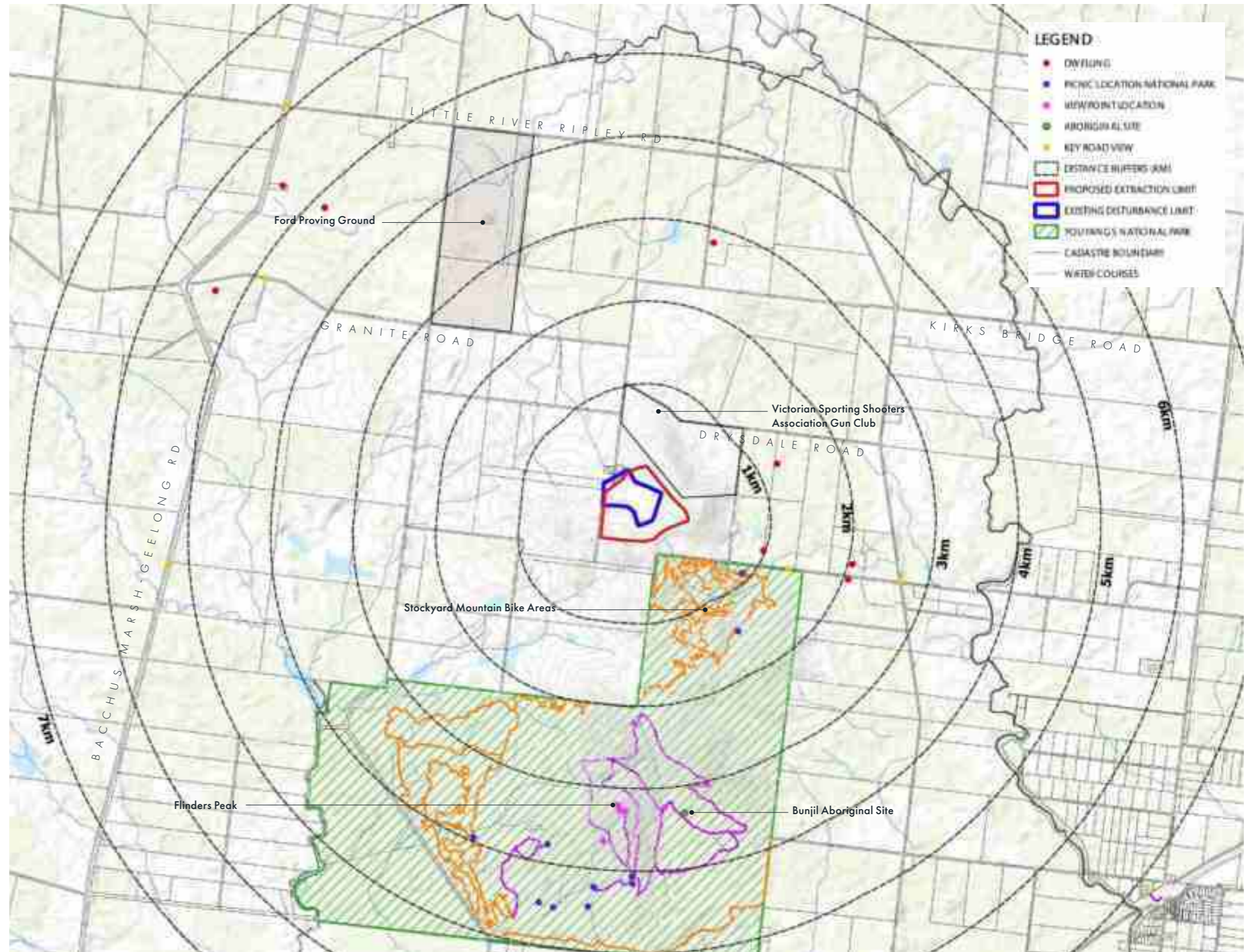


Figure 11. Sensitive Visual Receptors

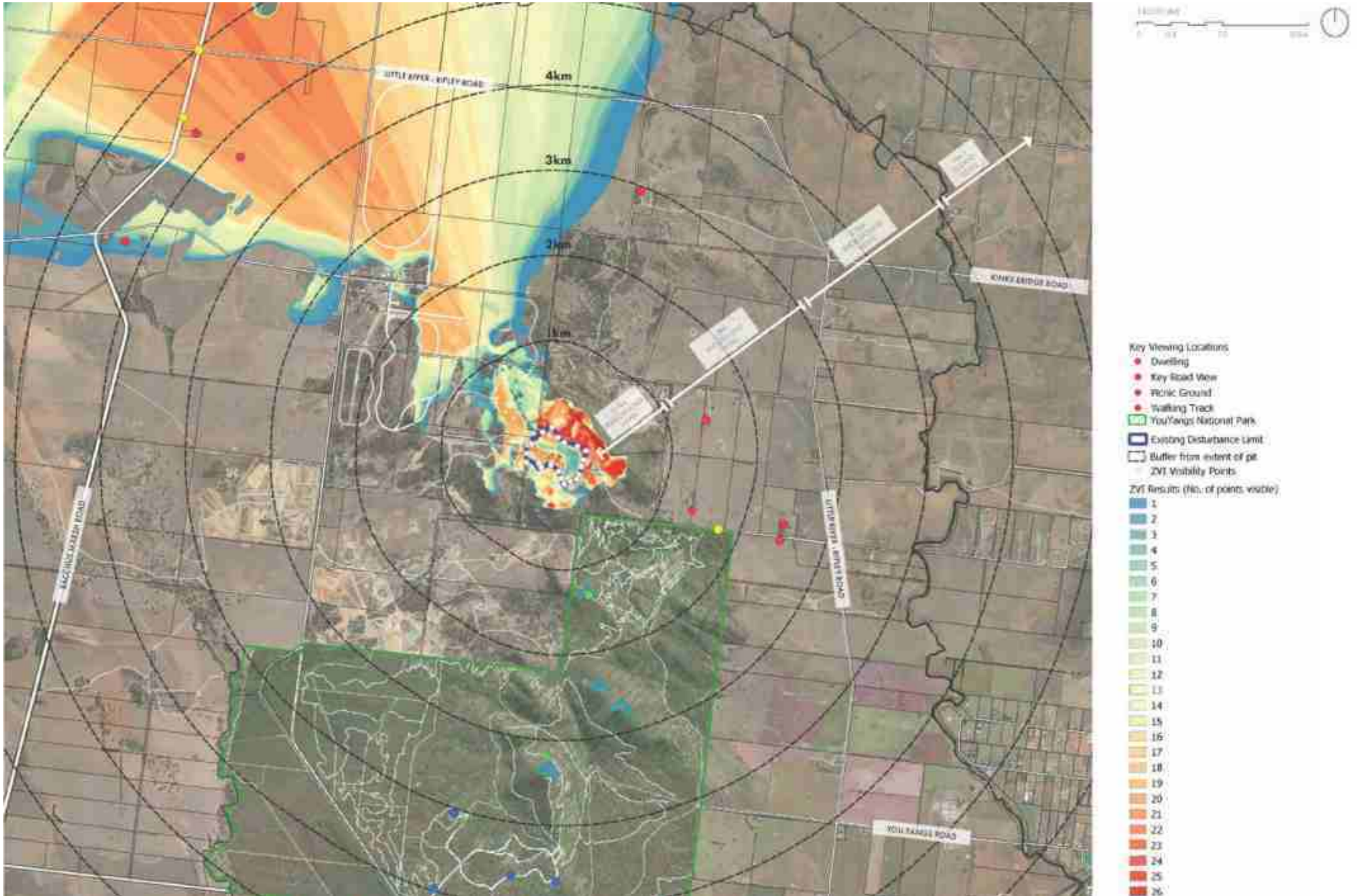


Figure 12. Zone of Visual Influence Analysis – Existing Pit



Figure 13. Zone of Visual Influence Analysis – Proposed Pit

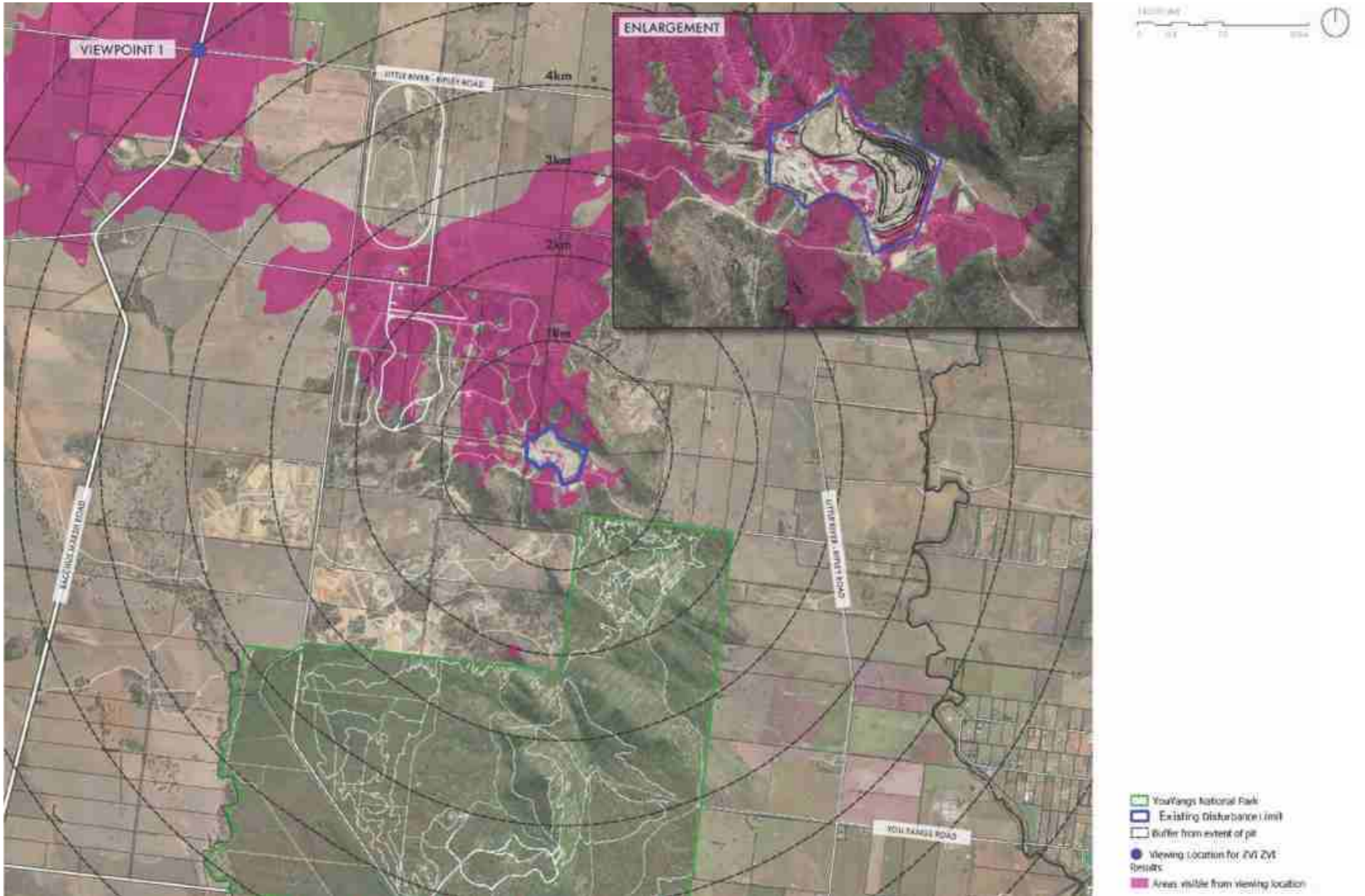


Figure 14. Zone of Visual Influence Analysis – Viewpoint 1 – Existing Pit

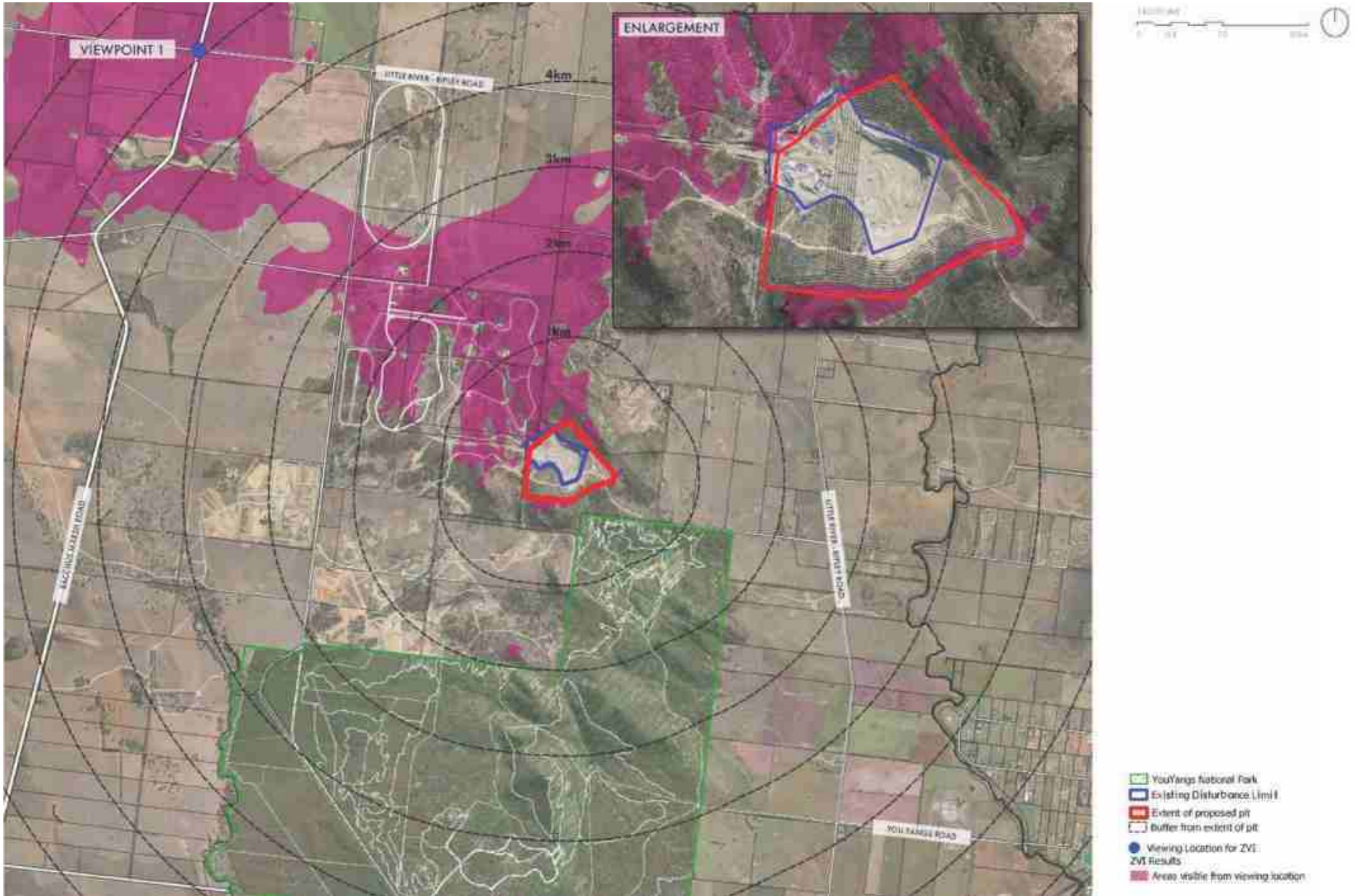


Figure 15. Zone of Visual Influence Analysis – Viewpoint 1 – Proposed Pit

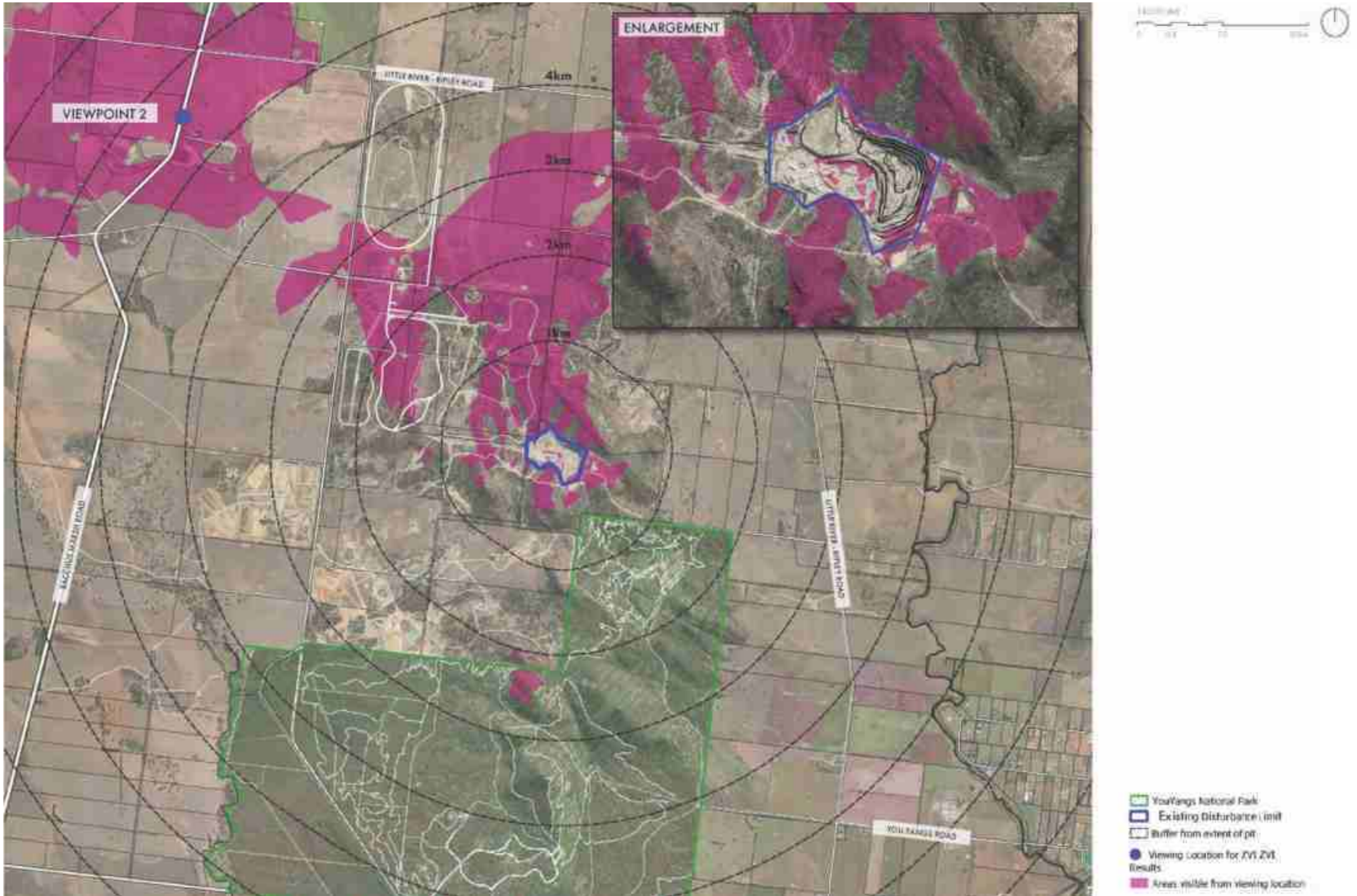


Figure 16. Zone of Visual Influence Analysis – Viewpoint 2 – Existing Pit

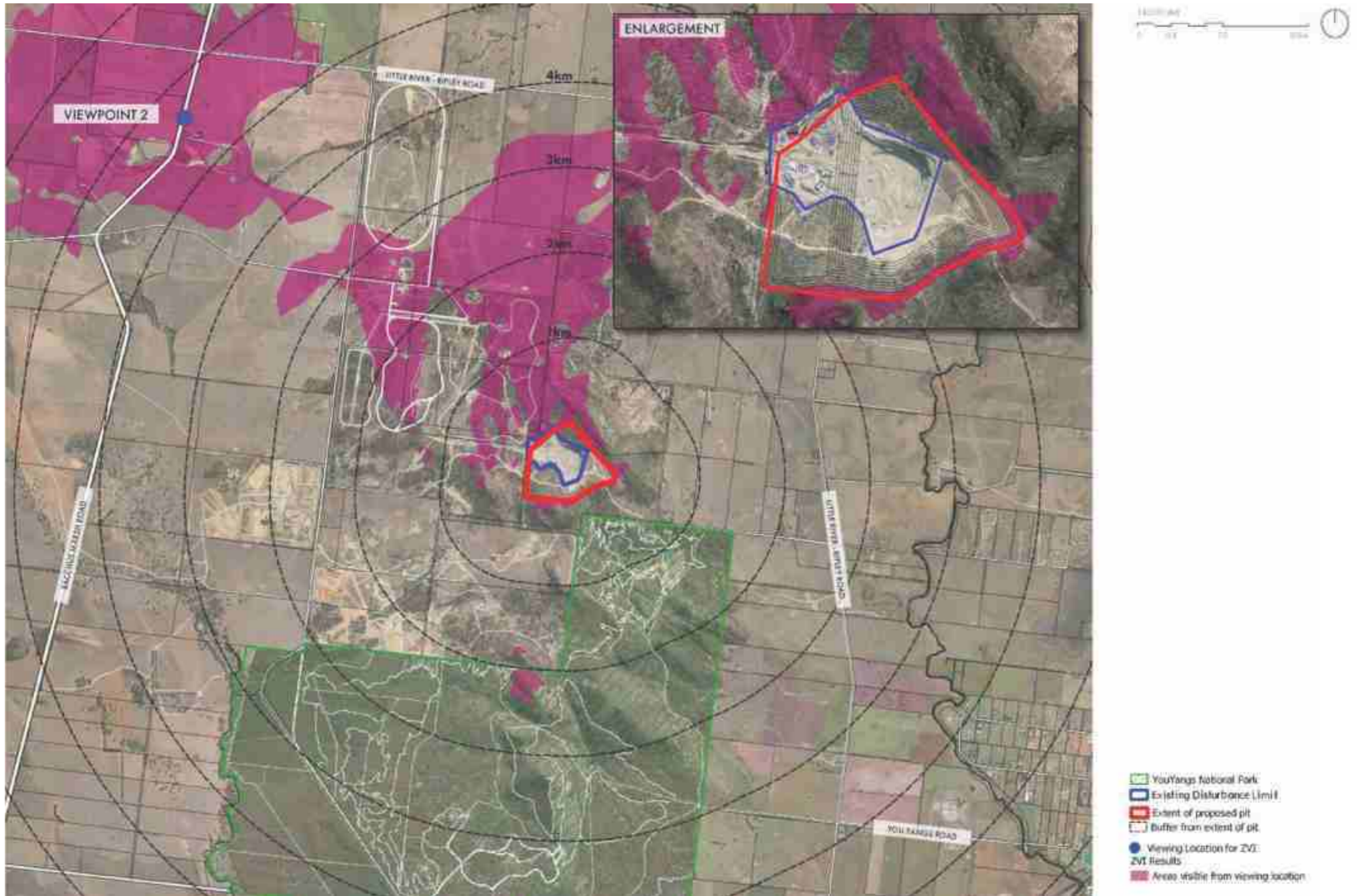


Figure 17. Zone of Visual Influence Analysis – Viewpoint 2 – Proposed Pit

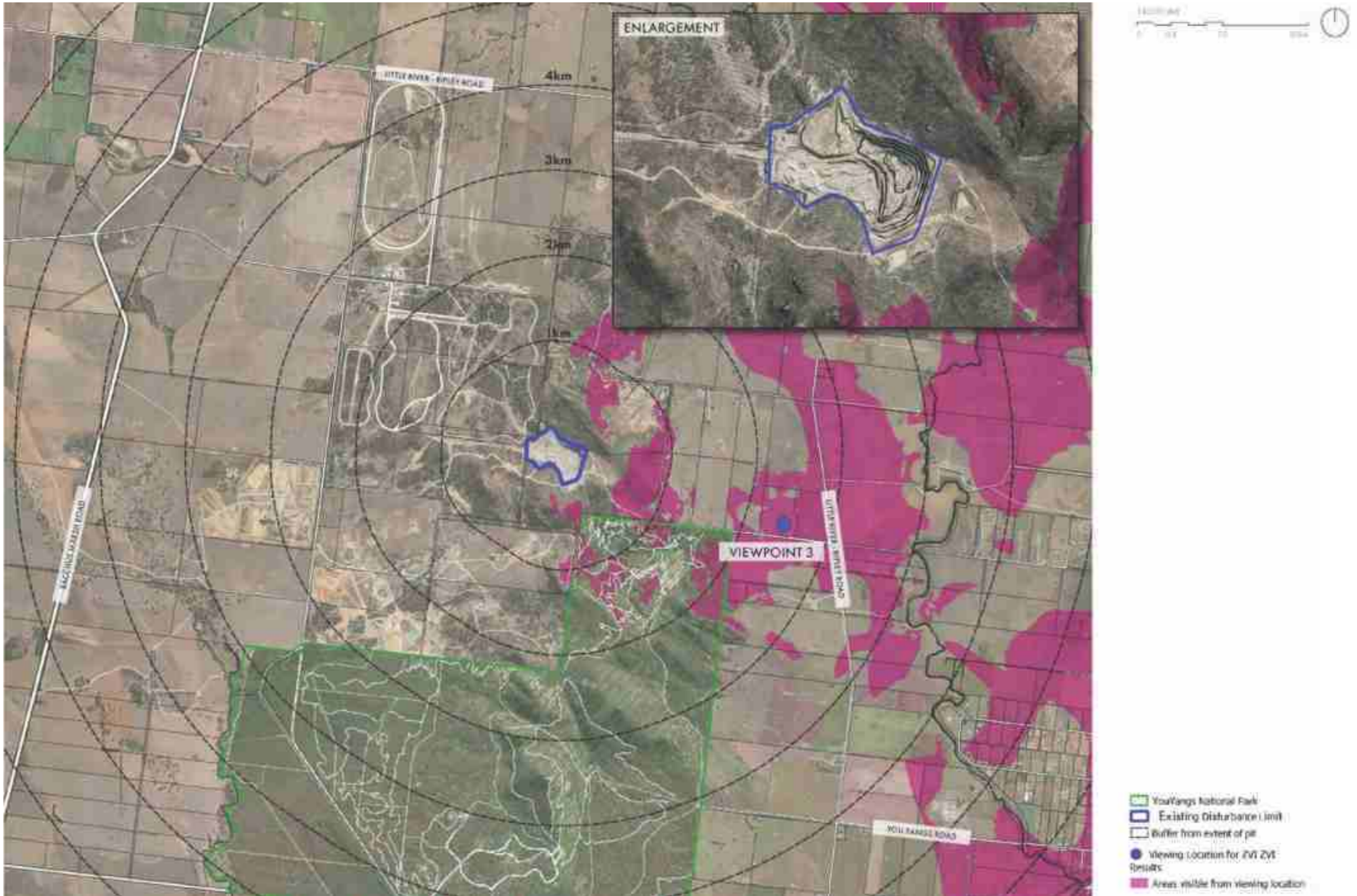


Figure 18. Zone of Visual Influence Analysis – Viewpoint 3 – Existing Pit

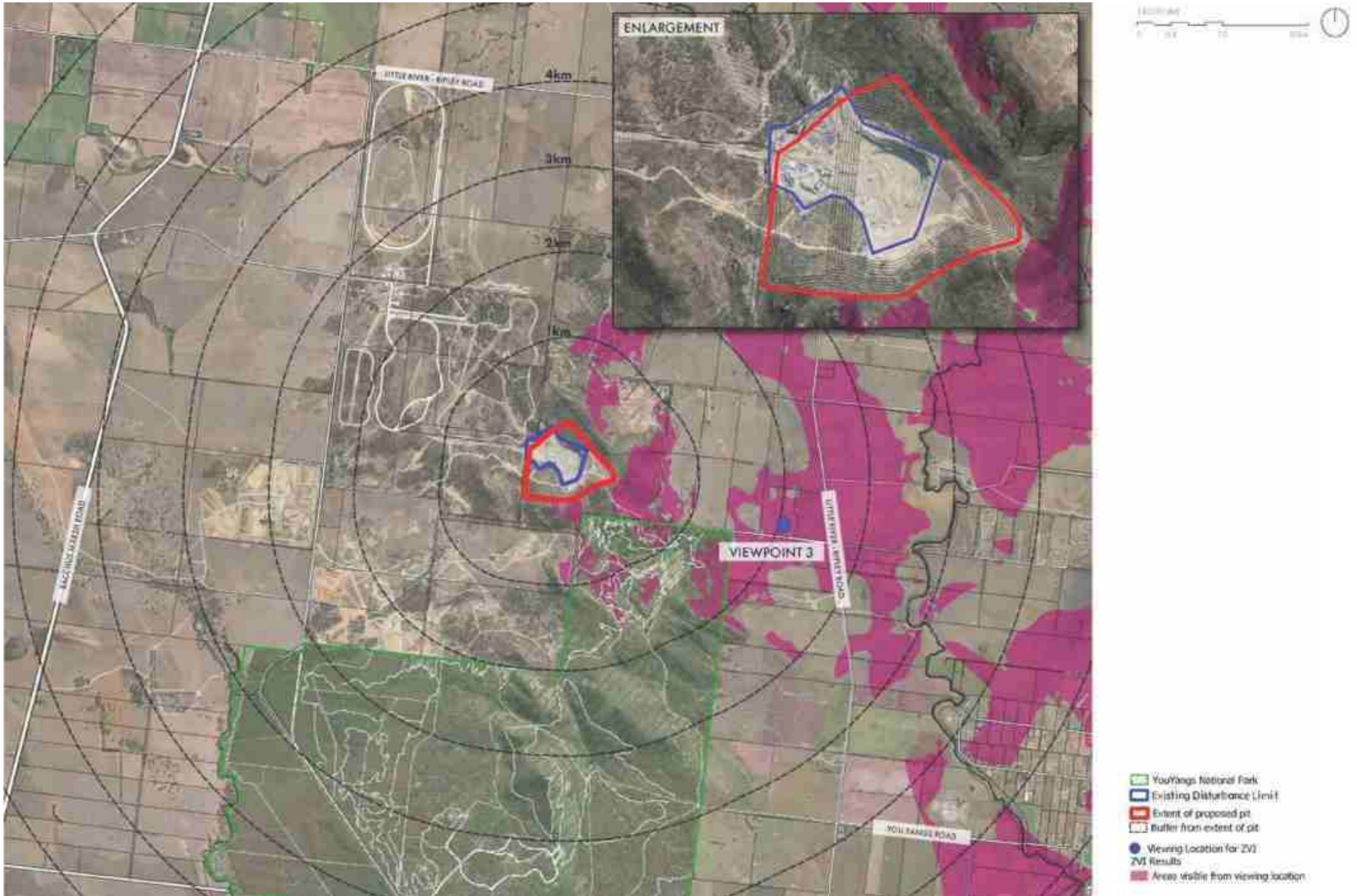


Figure 19. Zone of Visual Influence Analysis – Viewpoint 3 – Proposed Pit

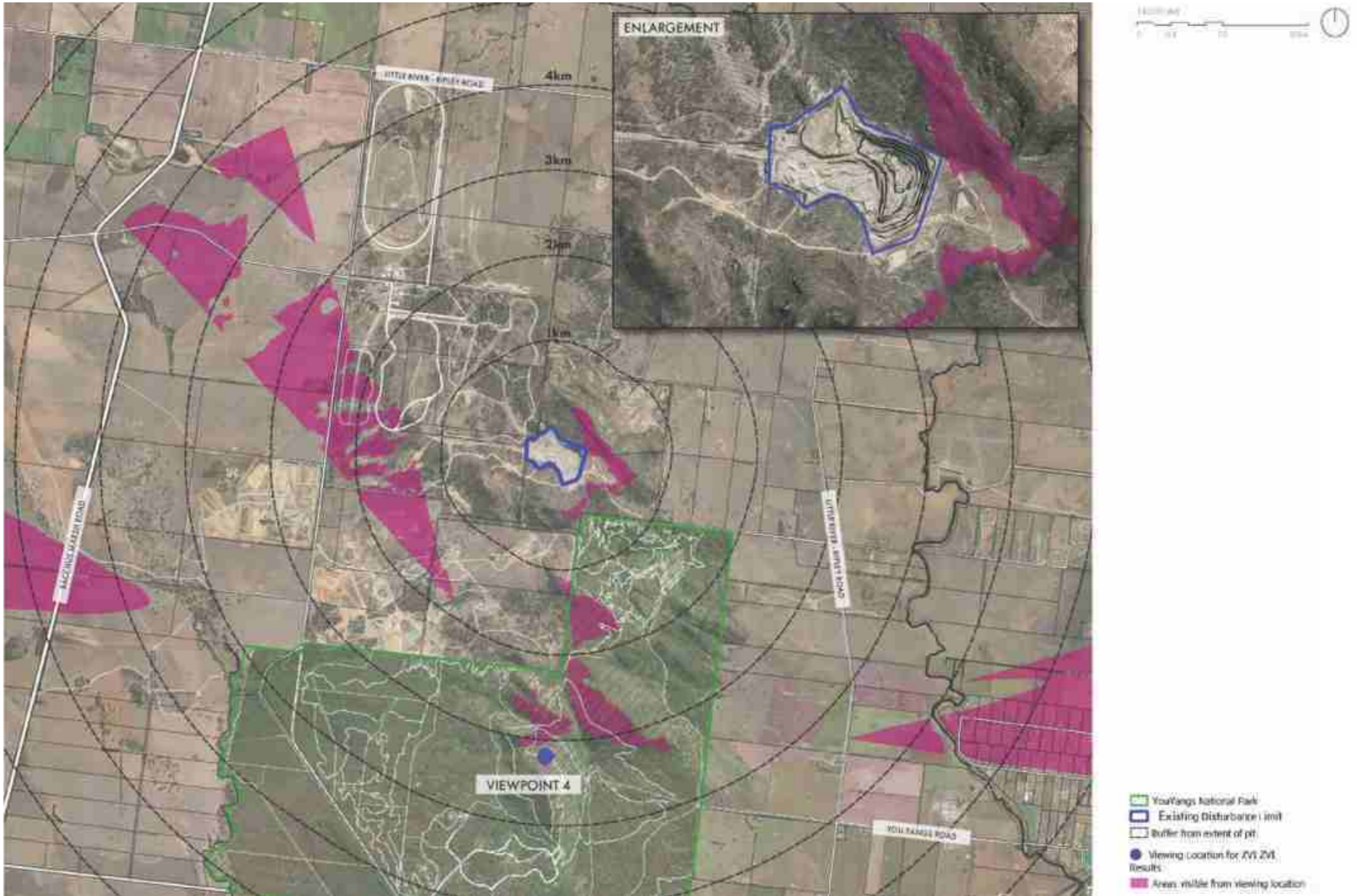


Figure 20. Zone of Visual Influence Analysis – Viewpoint 4 – Existing Pit

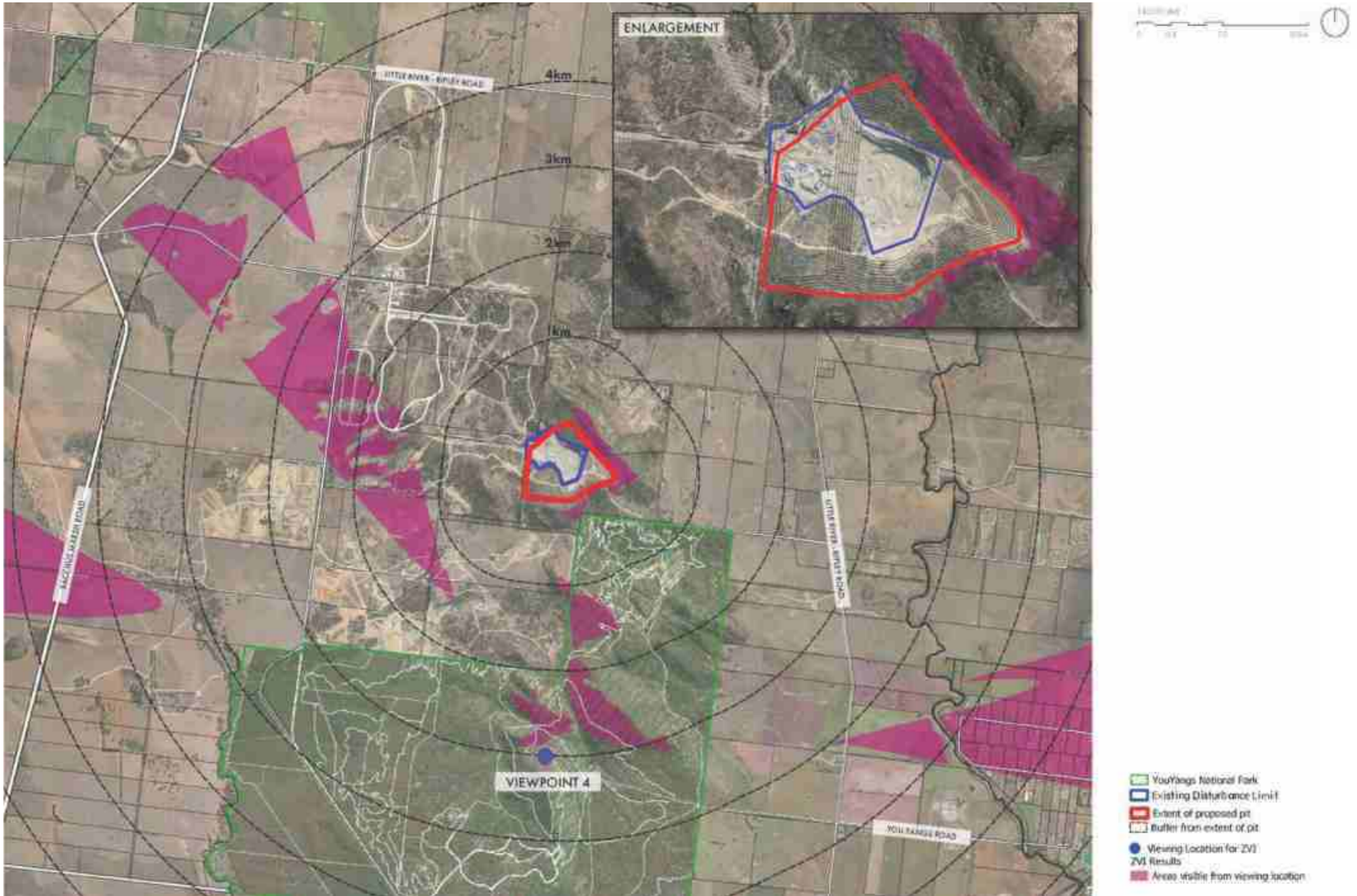


Figure 21. Zone of Visual Influence Analysis – Viewpoint 4 – Proposed Pit

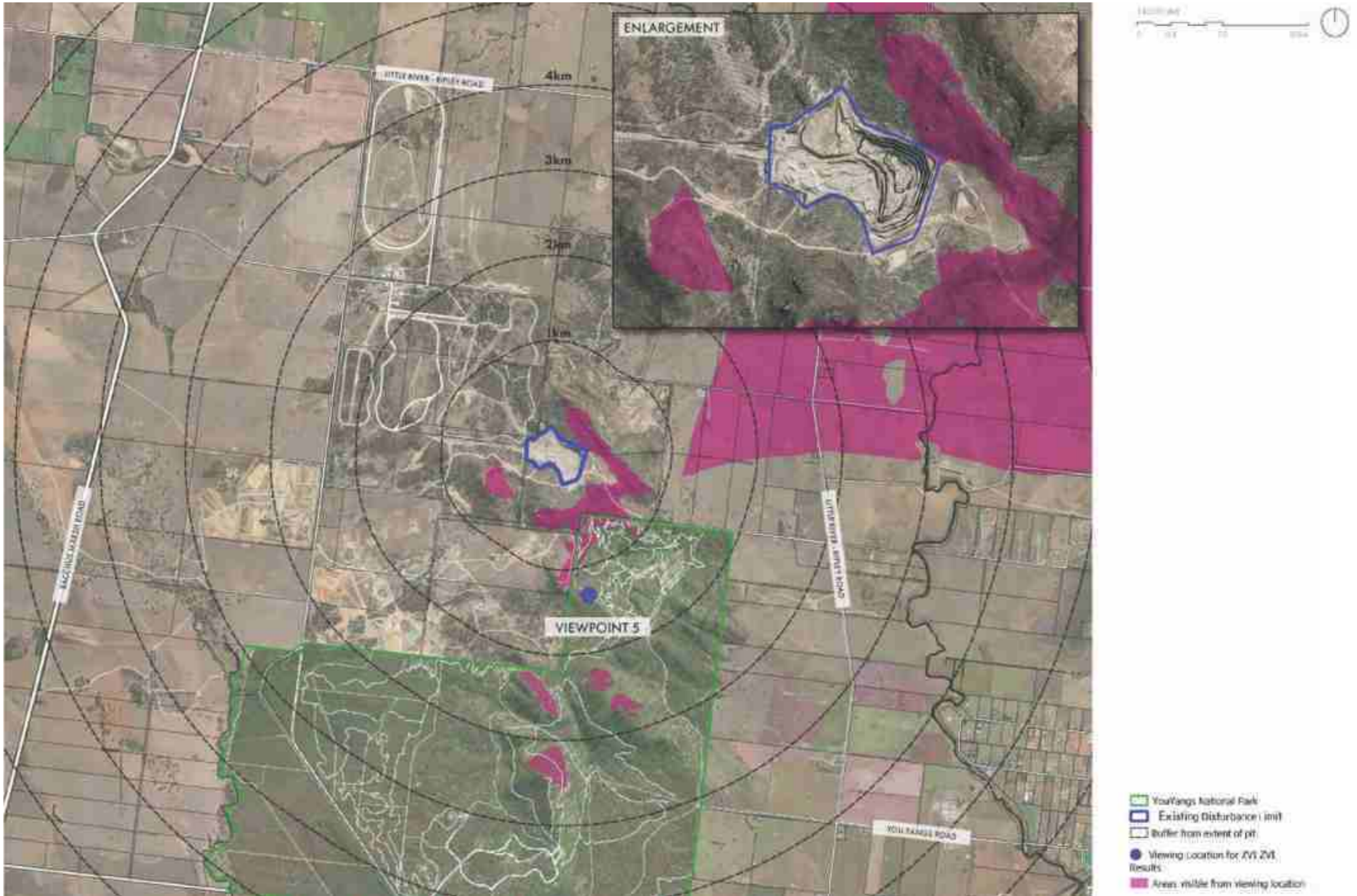


Figure 22. Zone of Visual Influence Analysis – Viewpoint 5 – Existing Pit

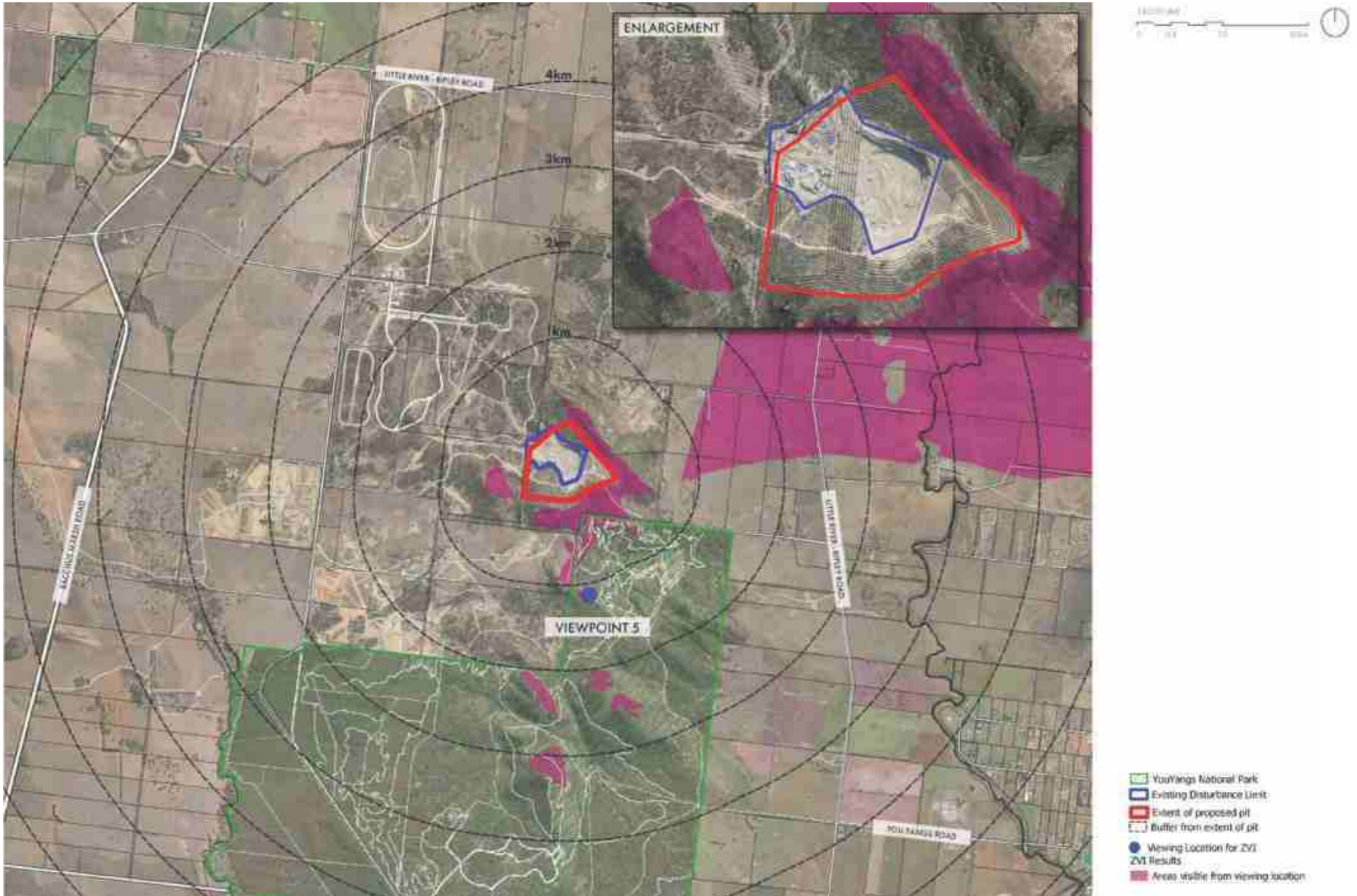


Figure 23. Zone of Visual Influence Analysis – Viewpoint 5 – Proposed Pit

4.5 Outward ZVI Modelling from the Existing & Proposed Quarry Pits

Existing Quarry – Outward Looking ZVI

Figure 12 describes the likely pattern of viewing based on ZVI modelling from the existing quarry pit.

The existing quarry operation has a potential pattern of viewing that suggests the following:

- The greatest potential visibility is to the north west. This includes a section of the Geelong – Bacchus Marsh Road at a distance of 5.2km – to 7km distance and three dwellings within the 4.7km – 5.3km distance. At this distance, and with the effects of intervening vegetation and farming infrastructure, it is unlikely that development would be discernible.
- There is a low level of potential visibility to the north over general farmland.
- There is no visibility to the west.
- There is no visibility to the east. This area includes farmland, low level public roads and four rural residential properties at distances ranging from 1.4km – 2.5km.
- There is potential visibility of one visibility point from one location (1.8km) within the You Yangs Stockyard mountain bike trail network. This viewpoint may be screened from most viewing locations by existing park vegetation and the activity focus is on active sport (mountain bike riding), rather than scenic viewing.

New quarry – outward looking ZVI

Figure 13 describes the likely pattern of viewing based on ZVI modelling from the proposed quarry pit.

The new quarry operation has a potential pattern of viewing that suggests the following:

- The greatest potential visibility is to the north west, although the level of visibility is substantially less than the existing quarry. This includes a section of the Geelong – Bacchus Marsh Road at a distance of 5.2km – to 7km distance and three dwellings within the 4.7km – 5.3km distance. At this distance, and with the effects of intervening vegetation and farming infrastructure, it is unlikely that development would be discernible.
- There is a low level of potential visibility to the north over general farmland.
- There is minimal visibility to the west with one theoretical viewpoint over farmland.
- There is minimal visibility to the east (one visibility point). This area includes farmland, low level public roads and four rural residential properties at distances ranging from 1.4km – 2.5km. One rural residential property at a distance of 2.1km may have visibility, although this is likely to be screened by vegetation located between the quarry edge and the receptor.
- There is potential visibility of one visibility point from one location (1.3km) within the You Yangs Stockyard mountain bike trail network. The visual receptor area is larger with the new quarry configuration than the existing pit.

4.6 Inward ZVI Modelling from Key Visual Receptor Locations

Figures 15 – 24 describe the likely pattern of viewing based on the ZVI modelling from five individual visual receptor points. The ZVI modelling findings for the new quarry configuration (the Proposal) indicate theoretical visibility, without existing vegetation or other site-specific factors.

The impact assessment discussed in section 5 is based on actual site photography and wireframe modelling which provides a realistic assessment of what will actually be seen from each visual receptor location, and on that basis, provides a more definitive assessment of visual effects associated with the long term future development proposal.

The following visual receptor points represent the most sensitive or most representative potential receptor locations. Modelling toward the quarry location from these locations provides an understanding of the theoretical extent of views. These results are likely to represent a ‘worst case’ scenario that does not consider small changes in landform, structures and existing vegetation which can significantly reduce view potential. Actual views can only be determined by on-site photography.

Receptor 1

Corner Geelong – Bacchus Marsh Road and Little River – Ripley Road

Existing Quarry

- The site is 6km from the quarry and on that basis, is likely to only allow an indistinct recognition of large-scale changes in surface form and colour contrasts
- The south-east corner of the quarry has the highest potential level of visibility
- Existing vegetation is likely to eliminate views from this viewpoint.

Viewpoint 4

You Yangs Regional Park – Track

Existing Quarry

- The location is approximately 3.2km from the Site
- There are no views of the existing quarry

Receptor 2

Geelong – Bacchus Marsh Road

Existing Quarry

- The site is 5.5km from the quarry and on that basis, is likely to only allow an indistinct recognition of large-scale changes in surface form and colour contrasts
- The south-east and eastern edge of the quarry has the highest potential level of visibility
- Existing vegetation is likely to eliminate views from this viewpoint.
- This receptor location has a marginally higher viewing potential than Receptor 1.

Viewpoint 5

You Yangs Regional Park – Bike Track

Existing Quarry

- The location is approximately 1.4 km from the existing Site
- There is one view of a small part of the north eastern corner of the existing quarry, but the seen area does not form part of the current extraction area and is likely to be seen as undisturbed vegetation.

Receptor 3

Rural Residential Property off Drysdale Road

Existing Quarry

- The property is approximately 2.5km from the Site
- Modelling indicates that there are no views of the existing quarry

5 Impact Assessment

The visual impact assessment deals with potential effects on visual resources from changes in the composition and quality of views, people's response to likely changes and the overall effect on visual amenity. This impact assessment has been based on the criteria of the sensitivity of receptors, duration of impacts, nature and magnitude of impacts and the overall significance of impacts.

As a result of the baseline assessment and subsequent ZVI modelling, four representative viewpoints within the affected areas were identified for more detailed analysis and wireframe visual simulations. The wireframe photo simulations are based on surveyed photo locations and standardised photo techniques that describe the actual effect of the Proposal on the subject locations.

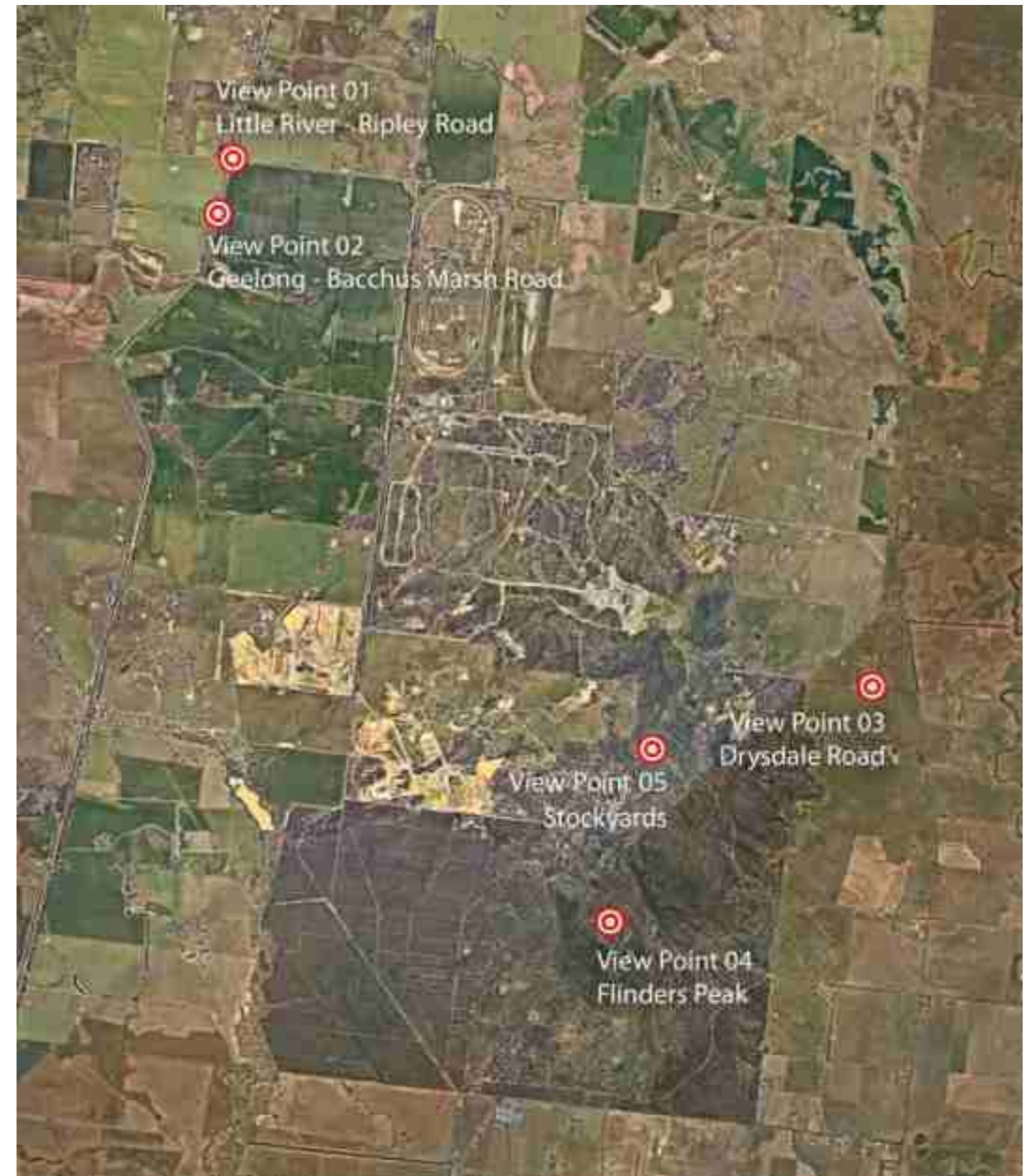


Figure 24. Key Visual Receptor Locations

5.1 Method for Visual Impact Assessment

Impact assessment has been based on the criteria of sensitivity of key visual receptors (viewers), the nature and magnitude of impacts, the likely duration of impacts and the overall significance of impacts. As there is already a quarry operation at the site which forms a baseline, the duration of impacts primarily refers to the cumulative impact of both existing and proposed additional works.

Perception of Change

In determining the magnitude of landscape change, the following factors of landscape character will be considered. These findings, in isolation are indicative only factors to be considered as a part of the assessment. The factors are based on physical attributes and do not provide a specific or definitive measure of likely perceptions of visual effects / impacts or the values that may be attached to those changes in the viewed landscape by individuals. These factors do not consider elements such as context, cultural meaning and the manner in which the receptor views the landscape.

Principles	Definitions
Visibility	The magnitude of visual impact is at least partly determined by the nature of that view and whether it is moving or static.
Method of Perception	These fields of vision indicate a field of view and visual 'recognition' but in isolation, are not meaningful measures of scenic perception. The process of recognising and observing an object or scene (Dynamic Visual Acuity) is complex and involves constant scanning of the seen area, recognition and refocussing within the field of view; a process that is modified (narrowed and simplified) by viewer movement, the speed of movement of the viewer and secondary activities such as driving, but enhanced by colour contrasts, illumination, proximity, size, shape, symbol recognition based on expectation and other factors.
Field of view	<p>Horizontal line of sight: The normal binocular field of vision (horizontal line of sight / width of view) is considered to be 124 degrees. Within the binocular field of vision the viewer has depth perception. Either side of the binocular field is a monocular field of 42 degrees for each eye (peripheral vision) which provides the viewer with awareness of movement speed and locational cues.</p> <p>Within the binocular field is a central foveal field (zone of visual acuity) of 2.5 degrees where viewed objects are sharply fixed and in detailed focus.</p> <p>Vertical line of sight: the normal vertical field of view is considered to be 120 degrees with the limit of colour discrimination at 55 degrees.</p>
Occupied view area	<p>The nature and magnitude of the visual impact is likely to have a proportional relationship to the percentage of the available view taken up by development infrastructure, new activities or landscape interventions. Objects may be visible, but not dominant, particularly when they occur within landscapes that have been modified by human activity and where the context and complexity of the natural landscape has been significantly altered.</p> <p>A spread of built elements or landscape changes across a wide view or several viewable areas is likely to result in a perception of greater overall visual impact than a similar number of built elements within a more confined viewable area.</p> <p>Horizontal field of view: as a general guide only, a visual element of less than 5° of a field of view may be considered insignificant, depending on the nature of background visual contrasts and the movement of the viewer.</p> <p>Vertical field of view: as a general guide only, less than 0.5° of a field of view may be considered insignificant, depending on the nature of background visual contrasts and the movement of the viewer.</p>
Speed of movement	As the speed of movement increases, viewer concentration on a fixed area increases and peripheral vision diminishes, effectively shrinking the visual field. Foreground detail begins to fade.

Table 3. Principles and Definitions

Principles	Definitions
Relative elevation	Objects viewed against a skyline silhouette or at the edge of a break in slope are likely to have a greater visual impact than objects or changes viewed from a location where features are viewed against a land backdrop. Colour contrasts may modify this outcome.
Size, colour and form	The greater proportion of a view occupied by new features or activities the greater the impact. Contrasting colours and forms increase the relative impact of change.
Illumination	Luminance contrast increases the visual definition of the shape, size and location of objects and potentially changes the context in which objects are re viewed. Lighting colour and movement increase the potential level of contrast.
Activity	Movement of objects, including vehicles and light reflection changing with movement will increase impact.
Complexity	Changes to a visually complex field of view with elements of varying scales and form are likely to result in lower impacts than changes to a relatively uniform field of view.
Context	The extent to which the proposed development is in character with the land use and landscape character of the site will affect the perceived level of impact.
Weather conditions	Overall clarity of the view, the angle of the sun and the degree to which skyline silhouettes are masked by clouds etc will affect visibility.
Change	The degree of change in the view and the process of change will affect the degree of impact on the viewer.
Familiarity	Changes to a familiar visual setting or where the viewer interacts with the setting is likely to have a relatively greater impact on the viewer than changes to a setting that is rarely seen or poorly understood.
Cultural context	Changes to a visual setting with significant cultural value or purpose is likely to have a relatively greater impact on the viewer than what may be considered a 'generic' landscape setting with no specific value.
Individual context	Perception of a visual impact or visual improvement within a landscape is likely to differ between communities, cultural groups and among individuals. Personal context and values strongly influence the manner in which visual effects are valued.
Distance	<p>The greater the viewing distance, the less detail is observable and the more difficult it is to distinguish between the site or object and its background, diminishing the impact.</p> <p>Distance is an important factor in assessing the magnitude of change and overall impacts. Other potential aspects of change include scale, proportion, size, height, massing, colour, texture, finish, permanence. For the purposes of this assessment, three distance ranges are applied as described in Table 6.</p>

Nature of Impact	Magnitude of Impact	Definitions — Visual Impacts on Landscape	Definitions — Visual Impacts on Receptors
Major Adverse	High (6)	<p>Total or substantial alteration to key features of the baseline conditions</p> <p>Effects are at considerable variance with the landform, scale and pattern of the landscape and cannot be substantially mitigated.</p> <p>Would cause a high quality or designated landscape to be substantially changed and its quality and values diminished.</p>	<p>Total or substantial alteration to key features of the baseline conditions.</p> <p>The proposal forms a significant and dominant part of a view of high scenic quality. Other scenic elements become subordinate and diminished in value.</p> <p>The valued scenic character of the site is markedly changed.</p> <p>Sensitive visual receptors are adversely affected by the change.</p>
Moderate Adverse	Moderate (5)	<p>Would be noticeably out of scale with the landscape and clearly at variance with key landscape attributes identified within the baseline conditions.</p> <p>Will leave an adverse impact on a landscape of recognised quality</p>	<p>The proposal forms a clearly visible and recognisable new element within the overall scene that is readily noticed by the receptor.</p> <p>The scenic character and quality of the site is diminished.</p>
Minor Adverse	Low (4)	<p>Will have an apparent but not obvious or dominant effect on an area of recognised landscape character or its key attributes.</p>	<p>The proposal constitutes a discernible but minor component of the wider view.</p> <p>Awareness of the element will have a negative but not a marked effect on overall scenic quality.</p>
Neutral Impact	Negligible (3)	<p>Only a very slight change to baseline conditions and maintains existing landscape character and quality.</p> <p>New features complement the scale, landform and pattern of the site landscape and its broader setting</p>	<p>No part of the development proposal or associated activity is visually discernible.</p> <p>The activity or feature is visible but has an insignificant effect on the perceived values or scenic quality of the setting</p>
Minor Beneficial	Negligible (2)	<p>Likely to enable the restoration of valued landscape characteristics or features lost or diminished through existing land use activities.</p> <p>Potential to contribute to the development of a new and higher quality landscape character.</p>	<p>The proposal fits comfortably within the existing visual landscape</p> <p>The proposal helps to articulate existing visual character and amenity values</p> <p>Potential for the proposed development to contribute to the development of a new and higher value visual character.</p>
Moderate / Major Beneficial	Negligible (1)	<p>Fits comfortably within the existing landscape character and clearly contributes to the development of higher landscape values.</p> <p>Results in a significant improvement to the quality of the landscape through the rehabilitation of damaged areas or the removal of features or activities that have a negative impact on landscape values.</p> <p>Results in a distinctive landscape feature that has the potential to add new values to the landscape without diminishing existing valued landscape characteristics.</p>	<p>Fits comfortably within the existing landscape character and clearly contributes to the development of higher landscape values.</p> <p>Results in a significant improvement to the visual quality of the landscape through the rehabilitation of damaged areas or the removal of features or activities that have a negative impact on scenic values.</p> <p>Results in a distinctive landscape feature that has the potential to add new visual or tourism values to the landscape without diminishing existing valued visual characteristics.</p>

Table 4. Nature & Magnitude of Impact – significance definitions

Impact duration is defined as

Duration	Definitions
Short Term	Project construction and establishment phase (<3 years)
Medium Term	Early project operational phase (3 – 10 years)
Long Term	Within projected operational phase (10 – 25 years)
Permanent	Beyond projected operational phase (25 years +)
Reversible	Physical potential for full rehabilitation to original baseline condition within feasible cost parameters and land use objectives To be specified within the decommissioning management plan
Irreversible	Permanent physical change to the baseline condition Beyond feasible cost parameters and land use objectives Specified for retention in the Decommissioning Management Plan

Table 5. Impact duration

Impact significance is defined in the following terms

Significance	Definitions
Significance Ratings	Reflect an assessment of the importance of the predicted impact and also indicate mitigation priorities.
Impact Significance	Is derived from combining the magnitude of landscape and visual change with sensitivity of the receptor
Significance Values	Are expressed as three levels (represented by shading).
Rating Combinations	A number of 'moderate' rating factors may collectively represent a relatively 'high' degree of change to a receptor (cumulative impact) and therefore mitigation measures may need to be considered for more than 'high significance' rated impacts.
Ratings	Are made against the Baseline Condition.

Table 6. Impact significance

Magnitude of Change	Sensitivity (Landscape / Viewers)		
	Low	Moderate	High
High	Moderate	High	High
Moderate	Moderate	Moderate	High
Low	Low	Moderate	Moderate
Negligible	Low	Low	Low
	Low	Moderate	High

Table 7. Magnitude and Sensitivity Impact with related significance rating

5.2 Visual Impact Assessment

The visual impact assessment is based on a combination of views that represent:

- The most prominent (worst case) views of the site from key public locations
- Areas of likely sensitivity based on the type of visual receptor
- Different types and angles of view

Viewpoint	Description of likely impacts	Receptor Sensitivity	Nature of Magnitude of Change	Duration	Significance Rating	Mitigation Measures / Recommendations
Viewpoint 1 Cnr Bacchus Marsh & Lt River / Ripley Rd	<ul style="list-style-type: none"> • The viewpoint is around 6km NW the quarry. On that basis the site appears as a relatively small feature within a larger and more complex landscape. • Foreground vegetation, shelterbelt plantations and farm developments have the potential to block views and provide a more complex visual field that reduces visual awareness of landscape features at the quarry site. • People viewing the landscape from this location are likely to be driving. This will allow only fleeting views of the You Yangs landscape and the subject site as existing trees block most views to the site. <p>Baseline (existing) condition</p> <ul style="list-style-type: none"> • There is a view of the existing eastern and south-eastern upper quarry faces. This appears as a colour contrast (grey) 'layer' within the overall vegetated landform that surrounds the quarry site. • The existing quarry formation sits below the vegetated skyline silhouette of the You Yangs formation. The overall landform is unchanged. • The visual foreground includes an offsite development that appear bright grey. The foreground also contains high tension power lines and towers and other vegetation clearances to the south. As a result, the You Yangs landscape from this location appears as a distinct wooded landform but does not appear as an undisturbed or entirely natural landscape. • No quarry activity, including processing or truck movements are evident. • The visual effects of distance result in minimal colour contrasts and no awareness of movement or on-site activities. <p>Proposed future condition</p> <ul style="list-style-type: none"> • Modelling indicates that the visible extent of the upper layer of the quarry will extend to the south and slightly to the north. • The depth of the visible layer will increase to the south but not significantly and there will be no change to the skyline land formation. • The change in the shape of the extraction area is likely to be seen as an extension to an existing landscape feature, not as a new feature. • The wider area of vegetation clearance will be visible as a colour contrast, but not dominant. 	Low / Moderate	Low Minor Adverse	Long Term Partly Reversible	Low	<ul style="list-style-type: none"> • Any works that reduce the visual contrast between the quarry face and the surrounding vegetation will be most effective • Maintaining a vegetated skyline and unchanged skyline landform is critical. • Vegetation screening on the western and southern edges of the pit will be most effective, along with progressive rehabilitation of the upper levels of the pit. • Any additional tree growth close to the view source will partly or fully mitigate the visual effects of the change.

Viewpoint	Description of likely impacts	Receptor Sensitivity	Nature of Magnitude of Change	Duration	Significance Rating	Mitigation Measures / Recommendations
Viewpoint 2 Geelong – Bacchus Marsh Rd	<ul style="list-style-type: none"> The viewpoint is around 5.5km NW of the quarry. On that basis the site appears as a relatively small feature within a larger and more complex landscape. Foreground vegetation, shelterbelt plantations and farm developments have the potential to block views and provide a more complex visual field that reduces visual awareness of landscape features at the quarry site. People viewing the landscape from this location are likely to be driving. This will allow only fleeting views of the You Yangs landscape and the subject site as existing trees block most views to the site. <p>Baseline (existing) condition</p> <ul style="list-style-type: none"> There is a theoretical view of the existing eastern and south-eastern upper quarry faces. This appears as a colour contrast (grey) 'layer' within the overall vegetated landform that surrounds the quarry site. Existing foreground vegetation breaks up views of the quarry face. The existing quarry formation sits below the vegetated skyline silhouette of the You Yangs formation. The overall landform is unchanged. The visual foreground contains farm development, high tension power lines and towers and other vegetation clearances to the south. As a result, the You Yangs landscape from this location appears as a distinct wooded landform but does not appear as an undisturbed or entirely natural landscape. No quarry activity, including processing or truck movements are evident. The visual effects of distance result in minimal colour contrasts and no awareness of movement or on-site activities. <p>Proposed future condition</p> <ul style="list-style-type: none"> Modelling indicates that the visible extent of the upper layer of the quarry will extend to the south and slightly to the north. The depth of the visible layer will increase but not significantly and there will be no change to the skyline land formation. The change in the shape of the extraction area is likely to be seen as an extension to an existing landscape feature, not as a new feature. The wider area of vegetation clearance will be visible as a colour contrast, but not dominant. 	Low / Moderate	Low Minor Adverse	Long Term Partly Reversible	Low	<ul style="list-style-type: none"> Any works that reduce the visual contrast between the quarry face and the surrounding vegetation will be most effective Maintaining a vegetated skyline and unchanged skyline landform is critical. Vegetation screening on the western and southern edges of the pit will be most effective, along with progressive rehabilitation of the upper levels of the pit. Any additional tree growth close to the view source will partly or fully mitigate the visual effects of the change.

Viewpoint	Description of likely impacts	Receptor Sensitivity	Nature of Magnitude of Change	Duration	Significance Rating	Mitigation Measures / Recommendations
Viewpoint 3 Drysdale Road	<ul style="list-style-type: none"> The location is approximately 2.5km east of the quarry. The quarry is located to the right of the centre of the image and is concealed by landform as well as vegetation. People viewing the landscape from this location are likely to be driving or as residents. <p>Baseline (existing) condition</p> <ul style="list-style-type: none"> There is no view of the existing quarry from this publicly accessible location. The quarry operation is screened by existing landform. <p>Proposed future condition</p> <ul style="list-style-type: none"> Modelling indicates that there will be no views of the quarry formation due to foreground landform and vegetation. 	Low	Neutral Neutral	Long Term N/A	Low	

Viewpoint	Description of likely impacts	Receptor Sensitivity	Nature of Magnitude of Change	Duration	Significance Rating	Mitigation Measures / Recommendations
Viewpoint 4 Flinders Peak Trail (Park)	<ul style="list-style-type: none"> The location is approximately 3.2km south of the site People viewing the site from this location will be walking and view quality will be an integral part of the visitor experience. <p>Baseline (existing) condition</p> <ul style="list-style-type: none"> There is no view of the existing quarry from this publicly accessible location. The quarry operation is screened by existing landform. The trail system in this general location does provide views to surrounding rural areas, which includes high tension power lines and other industrial / extractive land use areas. These features are not dominant and are seen as components of the 'plains' landscape rather than the You Yangs landscape. <p>Proposed future condition</p> <ul style="list-style-type: none"> Modelling indicates that there will potentially be a view of a small area at the northern tip of the quarry formation. This will be a shallow layer that sits below the wooded ridgeline. This change will be seen as a small colour contrast in an otherwise wooded landscape. Based on the small size of the change area, it is unlikely that the nature of the quarry land use will be clearly discernible at this distance. It will not be a dominant view component. As the trail system continually takes in views of land use changes surrounding the You Yangs park, it is likely that a small scale colour change of the type described, will be seen as one additional change within an already patterned landscape setting. Trail edge vegetation tends to control views. The small size of the visible quarry area suggests a rating of low / minor adverse, rather than a moderate rating. This change does not represent an extensive or major effect on the landscape and visual values of the regional landscape. 	High	Low Minor Adverse	Reversible	Moderate	<ul style="list-style-type: none"> Reducing the extent of the northern extraction area may reduce or eliminate views from the trail viewpoint. Maintaining a vegetated skyline and unchanged skyline landform is critical. Vegetation screening on the southern edges of the pit will be most effective, along with progressive rehabilitation of the upper levels of the pit. Any additional tree growth close to the view source will partly or fully mitigate the visual effects of the change.

Viewpoint	Description of likely impacts	Receptor Sensitivity	Nature of Magnitude of Change	Duration	Significance Rating	Mitigation Measures / Recommendations
Viewpoint 5 Stockyards	<ul style="list-style-type: none"> The location of the potential view is approximately 1.8km from the visible edge of the proposed extraction area The view shown in the model is only available from several isolated locations. The majority of the trail system has no views of the potential extraction area and is screened by vegetation. People viewing the site from this location will be track riding and there will only be glimpse views available from 2-3 isolated locations. The view quality for riders will be a lesser part of the experience given the nature of the recreational activity. <p>Baseline (existing) condition</p> <ul style="list-style-type: none"> There is no view of the existing quarry from this publicly accessible location. The quarry operation is screened by existing landform. The trail system in this general location provides views to partly vegetated privately owned areas to the north which form a part of the general You Yangs landscape. <p>Proposed future condition</p> <ul style="list-style-type: none"> Modelling indicates that there will potentially be an isolated view of one small extraction area at the northern edge of the quarry. This will be a shallow layer that sits below the wooded ridgeline approximately 1.8km from the viewpoint. Most of the trail system will have no views of the extraction area (2-3 small trail locations only) This change will be seen as a small colour contrast in an otherwise wooded landscape. Based on the small size of the change area, it is unlikely that the nature of the quarry land use will be clearly discernible at this distance. It will not be a dominant view component. A small scale change of the type described, is likely to be seen as one minor change within an already patterned landscape setting. Trail edge vegetation screens views for the majority of the trail system in this area. The small size of the visible quarry area and the very limited number of possible viewing points suggests a rating of low / minor adverse, rather than a moderate rating. This possible view does not represent an extensive or major effect on landscape values of regional importance. 	Low	Low Minor Adverse	Reversible	Low	<ul style="list-style-type: none"> Reducing the extent of the northern extraction area may reduce or eliminate views from the trail viewpoint. Early / progressive rehabilitation of the upper levels of the pit will eliminate the visual impact in the short term. Any additional tree growth close to the trail view source mitigate or eliminate the visual effect of the quarry activity.

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Viewpoint 1 — Ripley Road — Existing Conditions

Existing Conditions (no wireframe)



Camera Viewpoint	Location	Coordinates	Horizontal field of view Deg	View Direction Deg	Camera Type	Photograph Date	Photograph time	Camera height Above ground level	Lens type	Photomontage Date	Revision
VS01	Ripley Rd	269733.7261m, 5804987.5747m, 109.8950m	121	139	Canon EOS 5D Mark IV	03/02/2022	10.26 AM	1.6	50mm	May 2022	00

Existing Conditions (with wireframe)

— Unseen Quarry Formation

— Likely seen quarry area without vegetation or other mitigation measures

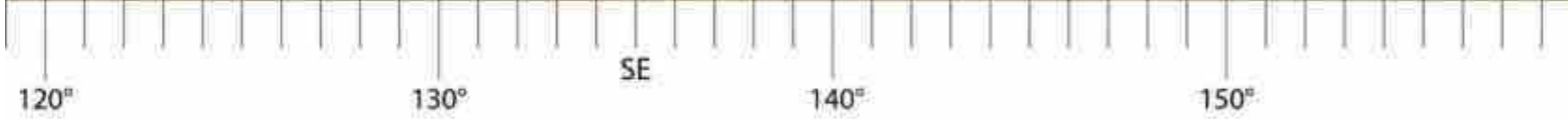


Viewpoint 1 — Ripley Road — New Conditions

New Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



New Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



Viewpoint 2 — Bacchus Marsh Road — Existing Conditions

Existing Conditions (no wireframe)



Camera Viewpoint	Location	Coordinates	Horizontal field of view Deg	View Direction Deg	Camera Type	Photograph Date	Photograph time	Camera height Above ground level	Lens type	Photomontage Date	Revision
VS02	Bacchus Marsh Rd	269567.2585m, 5804363.2631m, 108.7130m	124	127	Canon EOS 5D Mark IV	3/02/2022	10.41 AM	1.6	50mm	May 2022	00

Existing Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



Viewpoint 2 — Bacchus Marsh Road — New Conditions

New Conditions (with wireframe)

— Unseen Quarry Formation

— Likely seen quarry area without vegetation or other mitigation measures



New Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



Viewpoint 3 — Drysdale Road — Existing Conditions

Existing Conditions (no wireframe)



Camera Viewpoint	Location	Coordinates	Horizontal field of view Deg	View Direction Deg	Camera Type	Photograph Date	Photograph time	Camera height Above ground level	Lens type	Photomontage Date	Revision
VS03	Drysdale Rd	276685.2024m, 5799244.3044m, 69.9840m	124	296	Canon EOS 5D Mark IV	3/02/2022	11.55 AM	1.6	50mm	May 2022	00

Existing Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



Viewpoint 3 — Drysdale Road — New Conditions

New Conditions (with wireframe)

— Unseen Quarry Formation

— Likely seen quarry area without vegetation or other mitigation measures



New Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



Viewpoint 4 — Flinders Peak — Existing Conditions

Existing Conditions (no wireframe)



Camera Viewpoint	Location	Coordinates	Horizontal field of view Deg	View Direction Deg	Camera Type	Photograph Date	Photograph time	Camera height Above ground level	Lens type	Photomontage Date	Revision
VS04	Flinders Peak	273816.7753m, 5796693.0649m, 266.0940m	124	0	Canon EOS 5D Mark IV	3/02/2022	2.54 PM	1.6	50mm	May 2022	00

Existing Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures

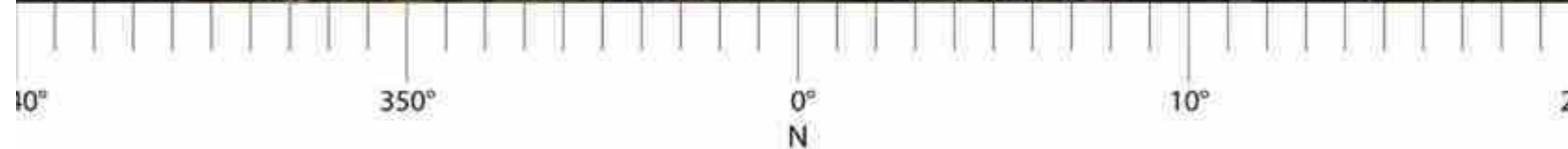


Viewpoint 4 — Flinders Peak — New Conditions

New Conditions (with wireframe)

— Unseen Quarry Formation

— Likely seen quarry area without vegetation or other mitigation measures



New Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



Viewpoint 4 — Flinders Peak — Existing Conditions

Existing Conditions (no wireframe)



Camera Viewpoint	Location	Coordinates	Horizontal field of view Deg	View Direction Deg	Camera Type	Photograph Date	Photograph time	Camera height Above ground level	Lens type	Photomontage Date	Revision
VS04	Flinders Peak	273816.7753m, 5796693.0649m, 266.0940m	124	0	Canon EOS 5D Mark IV	3/02/2022	2.54 PM	1.6	50mm	May 2022	00

Existing Conditions (with wireframe)

Unseen Quarry Formation

Likely seen quarry area without vegetation or other mitigation measures



Viewpoint 5 — Stockyards — Existing Conditions

Existing Conditions (with wireframe)

— Unseen Quarry Formation

— Likely seen quarry area without vegetation or other mitigation measures



Camera Viewpoint	Location	Coordinates	Horizontal field of view Deg	View Direction Deg	Camera Type	Photograph Date	Photograph time	Camera height Above ground level	Lens type	Photomontage Date	Revision
VS05	Stockyards	274257.4342m,5798621.6709m,226.7540m	80	347	Canon EOS 5D Mark IV	8/11/2022	3.53 PM	1.6	50mm	December 2022	00

Viewpoint 5 — Stockyards — New Conditions

New Conditions (with wireframe)

— Unseen Quarry Formation

— Likely seen quarry area without vegetation or other mitigation measures



The proposed site rehabilitation process is generally described within the BCA Consulting Rehabilitation Plan (29th January 2022)

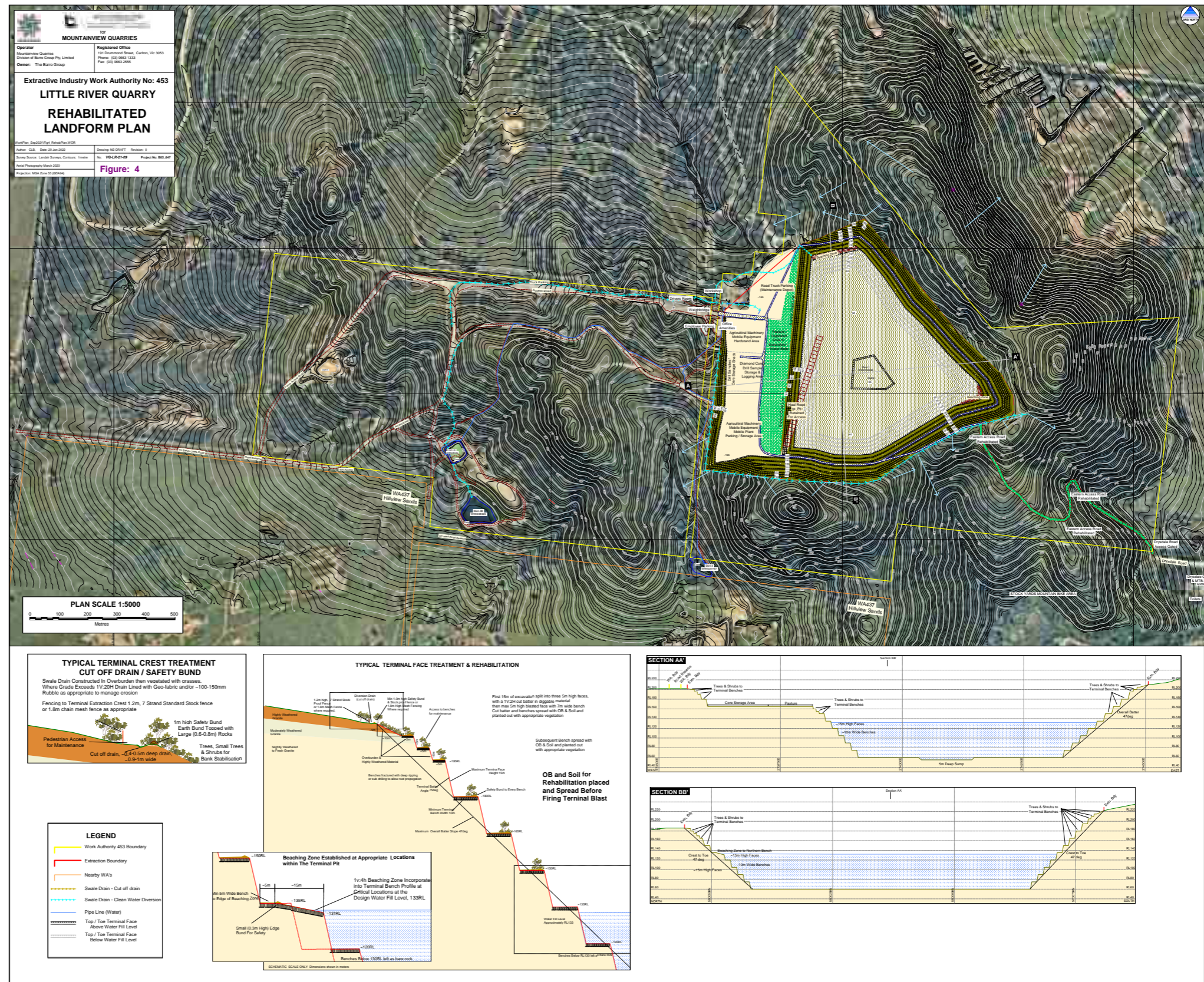


Figure 25. Rehabilitation Plan (Bell Cochrane & Associates – Work Plan Variation Report – 29.01.2022)

Baseline (existing) conditions

- The subject site is an existing quarry operation that is located within a valley within the You Yangs land formation.
- The upper faces of the existing quarry are partly visible from distant locations to the north west, but the seen area is relatively small and only seen as a minor colour change in the landscape. The You Yangs landform skyline is not affected by quarrying operations.
- Other existing landscape features such as industrial uses, power transmission infrastructure and farming development are components of the view and reinforce the perception that this is a working landscape, not an undisturbed natural landscape.
- There are no views of the existing quarry operations from the east, south or north.
- Existing visual impacts are substantially mitigated by factors including the nature of the view receptor (largely drivers driving at speed), the viewing distance, atmospheric conditions and vegetation at or near the view-point.
- The current quarry operation has a relatively low impact on the landscape character and scenic quality of the setting.

New (future) conditions

- The proposed quarry expansion will increase the size of the seen area. The depth of the visible quarry face will increase marginally. The visible length of the extraction area will be the most noticeable visual change, particularly to the south. The You Yangs landform skyline will not be affected by the proposed quarrying operations.
- Areas to the north west will continue to provide limited views to the upper quarry face. The change is considered to provide a 'low / adverse' impact on the view quality, but the significance of the change is considered to be low as a result of the viewing distance and existing mitigating factors
- Views from the east will continue to be blocked by foreground landforms. Existing levels of impact related to truck movements and operational patterns are expected to be substantially unchanged.
- Views from the Flinders Peak trail system will change marginally through the quarry extension, with the northern edge visible to a minor extent. While this change is likely to be seen as a minor landscape change that does not visually dominate the setting, the change is considered to be moderately significant, given the high status of the trail system. Impacts may be partially or fully mitigated in the medium to long term as a result of early site rehabilitation works and / or vegetation growth close to the view point.
- Views from the south (Stockyards mountain bike area) will include a view to a very small area of the upper quarry face. The change in scenic quality is rated as Low, but this impact is not visually dominant and is likely to be substantially reduced or eliminated through trail edge regrowth and early rehabilitation of the upper terminal pit batters.
- Overall, the locations that are subject to the greatest potential views are at the greatest distance from the site and are not considered to provide a dominant visual change to the landscape adjoining the You Yangs Park
- Over the long term, site rehabilitation of the (early) upper quarry faces is likely to eliminate or substantially mitigate the visual changes resulting from the quarry expansion from the five possible viewing points.

Significant Landscape Overlay — Objectives

To protect and enhance the open character, contrast and scenic quality of the landscape.

- The landscape and visual effects resulting from the proposed quarry works will not change the fundamental visual character and scenic quality of the landscape.

To maintain an open view path to the regionally significant You Yangs.

- View paths are not changed by the proposed works.

To protect the landscape from visual intrusion by inappropriate buildings and works and their siting, design or materials.

- Changes to the views and scenic quality resulting from the works are considered to be Low and not dominant.

To encourage the siting, design and landscaping of buildings and works to be responsive to the landscape values of the area.

- Landscape rehabilitation works will be consistent with indigenous landscape qualities.

To facilitate the rehabilitation of extractive industries when they reach the end of their economic life.

- Site rehabilitation is described within the application, including early rehabilitation of the small areas that are visible from sites 4 and 5 within the You Yangs Regional Park.

Visual amenity impacts - conclusion

- Overall, the LVIA assessment suggests that the effects associated with proposed works are low level and compatible with the nature of the You Yangs setting Significant Landscape Overlay objectives..

Significant Landscape Overlay — Schedule 1 decision guidelines

The landscape values of the edges of the foothills of the You Yangs.

The protection and appropriate enhancement of the landscape, having regard to:

Protecting landscape areas and vantage points of high quality.

The conservation of significant areas of natural vegetation and significant stands of trees.

The necessity of retaining a buffer strip of vegetation in the vicinity of watercourses, roads and property boundaries, in particular any remnant indigenous vegetation species.

- There are two vantage points to consider. Viewpoint 4 is a high sensitivity visual receptor that will be affected by the landscape change. The actual visual impact is rated as being low because of the very small visual change and the viewing distance but the impact is rated as moderate in the short term as a result of the receptor sensitivity. Impacts may be partially or fully mitigated in the medium to long term as a result of early site rehabilitation works and / or vegetation growth close to the view point.
- Viewpoint 5 is a less sensitive receptor because of the nature of the users. There will be a low impact change to the scenic quality in the short term but visual effects will be potentially fully mitigated in the short to medium term by early site rehabilitation works.

Whether the siting, height, scale, materials and form of proposed buildings and works has been designed to have least visual effect on the landscape and scenic views of the foothills of the You Yangs.

7.2 Conclusion

- The proposed works have been sited and designed to minimise environmental and visual effects.

Whether approval of the proposed buildings and works is compatible with maintaining the visual and natural significance of the landscape.

- The works are considered to be compatible with the visual and natural significance of the You Yangs landscape.

The benefit of permit conditions requiring all building materials to be non-reflective and of colours which are complementary to those of the natural landscape.

- This clause is not applicable to the LVIA findings

The benefit of conditions requiring the landscaping of buildings and works, while also having regard to the maintenance of existing view-lines.

- Viewlines are not affected by the nature of the proposed works

Whether an alternative site is available on the land for the proposed buildings and works that would better meet the landscape objectives of this schedule.

- This clause is not applicable to the LVIA findings

The containment of extractive industries to ensure that development and subsequent reclamation are carried out without significant detriment to the recreational and scenic value of the surrounding area.

- The LVIA findings conclude that the proposed development can be carried out without significant detriment to the scenic value of the area surrounding the You Yangs Regional Park landscape.

- The proposed quarry expansion maintains the existing pattern of viewing and the nature of those views, although the apparent size of the extraction area will increase marginally from north-western viewpoints.
- The viewing distances from the north-west and the nature of the foreground landscapes are major mitigating factors, and on that basis, the change in scenic quality from those areas is not considered significant.
- Views from the east (the closest viewpoints) will be unchanged as a result of blocking landforms as well as vegetation.
- The northerly view from the Flinders Peak trail system will be changed as a result of the quarry expansion. Although possible views are limited because of existing landforms and vegetation, the available view shown in the View Point 4 modelling represents a very small scale change to existing scenic qualities in that location and on that basis, is considered moderately significant, mainly on the basis of the viewpoint importance. The actual nature of the visual change will be very small and not visible from most trail locations. Effects are likely to be substantially or fully mitigated in the short to medium term because of early site rehabilitation.
- The northerly view from Viewpoint 5 (Stockyards Trail area) will be changed as a result of the quarry expansion, but the change will be small scale and easily mitigated in the short term through early rehabilitation of the upper terminal pit batters. The change in scenic quality is considered to be minor and reversible in the short term.
- On the basis of the analysis, the proposed change is considered acceptable from a visual impact perspective
- The proposal is considered to meet the objectives and decision guidelines of the Significant Landscape Overlay.

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