

Wagga Wagga Structure Plan

September 2020

Visual Analysis

To be read as an appendix to the Structure Plan Report



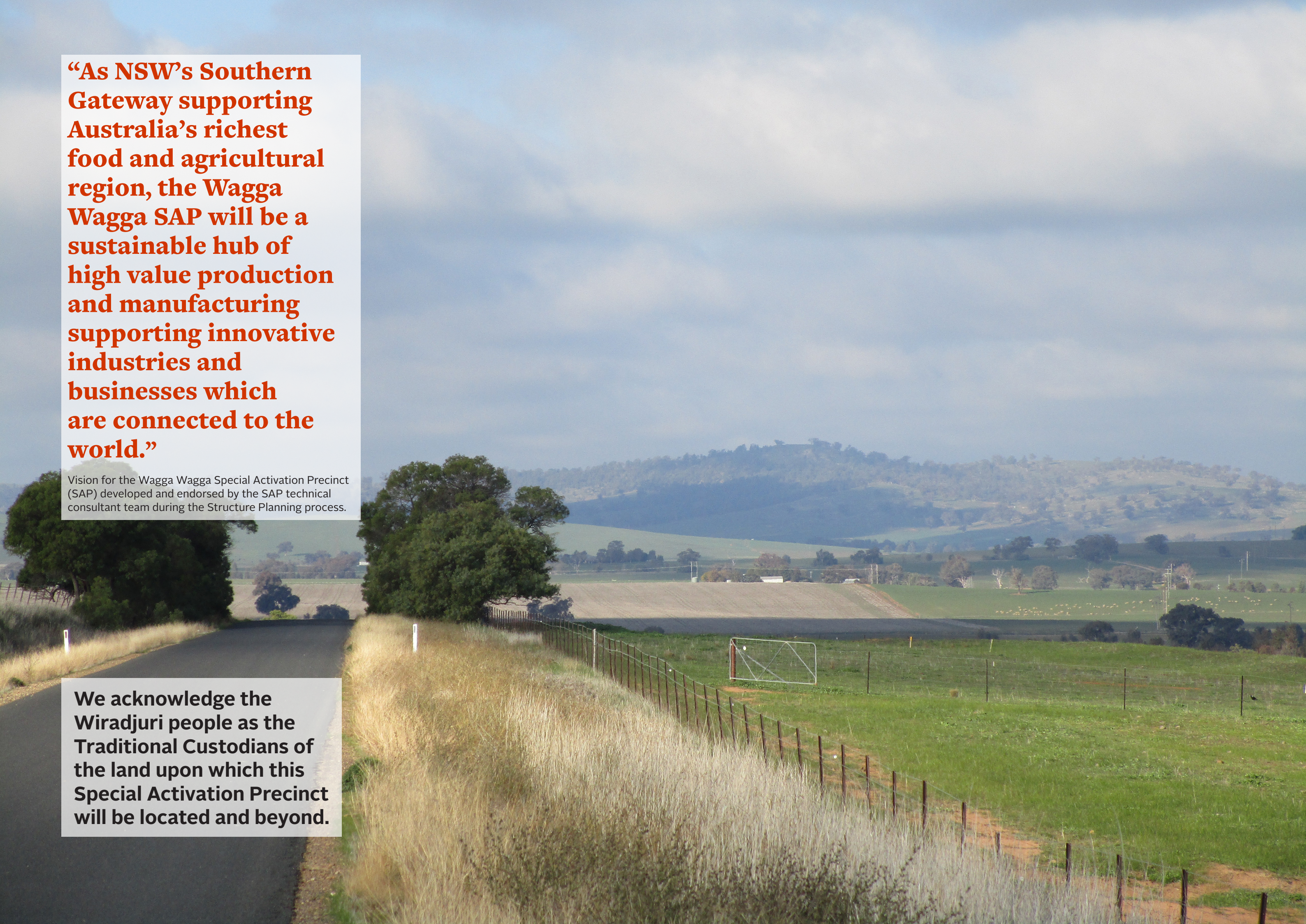
**JENSEN
PLUS**

Planning
Landscape Architecture
Urban Design
Social Planning

“As NSW’s Southern Gateway supporting Australia’s richest food and agricultural region, the Wagga Wagga SAP will be a sustainable hub of high value production and manufacturing supporting innovative industries and businesses which are connected to the world.”

Vision for the Wagga Wagga Special Activation Precinct (SAP) developed and endorsed by the SAP technical consultant team during the Structure Planning process.

We acknowledge the Wiradjuri people as the Traditional Custodians of the land upon which this Special Activation Precinct will be located and beyond.



Contents

How to use this document

The following sections document the process for undertaking the Visual Analysis (VA) and the resulting recommendations

Section 01:
Introduction + Discussion

Section 01 outlines the background to the VA and why this process is valuable to the project outcomes.

It also discusses in general terms some of the key considerations and thinking behind the VA.

Section 02:
Summary_ VA at a glance

Section 02 contains a brief overview of the key findings from the VA.

Section 03:
The Method

Section 03 includes a discussion about how the VA was developed and some considerations about the process and interpretation of this report.

Section 04:
VA_The Viewpoints

Section 04 describes the views and the selection process undertaken.

Section 05:
VA_ Comparative Findings

Section 05 compares the views before and after the development of the proposed SAP based on a 3D model of the Master Plan design. It identifies the framework for analysis and the impact of the proposal on views. It also contains recommendations that have emerged from the analysis to address the issues identified.

Introduction + Discussion

The background to the Visual Analysis (VA) and why this process is valuable to the project outcomes.

Why a Visual Analysis?

The Special Activation Precinct (SAP) proposed for Wagga Wagga will increase the development potential of an area which is currently composed of large agricultural properties and existing industrial uses for the purposes of encouraging new eco-industry and enterprise. Other uses and elements contained within the SAP include some solar farms, roads, creeks, protected paddock trees and roadside vegetation. The SAP area will be integrated with the existing Bomen Business Park and will link to the railway and Olympic Highway corridors.

Some local residential communities enjoy views over the land proposed for development of the SAP and there are also some culturally significant sites located within and surrounding the SAP. Development within the SAP will likely be visible from multiple surrounding locations.

We acknowledge that views are valuable to the neighbouring residential and broader community and we are therefore undertaking this Visual Analysis (VA) with an intent to develop mitigation strategies to inform new development controls that will protect views.

We are assessing the design at a Structure Plan level (and not a detailed design proposal) and therefore there are some limitations to this VA and the specificity in which we can respond.

The modelled built form is indicative of a fully developed preicnt over 40 years.

The Site

The site for the Wagga Wagga SAP is located approximately 4km North East of Wagga Wagga.

- _ The study area is approximately 4506 ha in size.
- _ Major roads crossing the precinct include Olympic Highway and Byrnes Road.
- _ The Main South Railway connecting Sydney to Albury passes north to south through the study area.

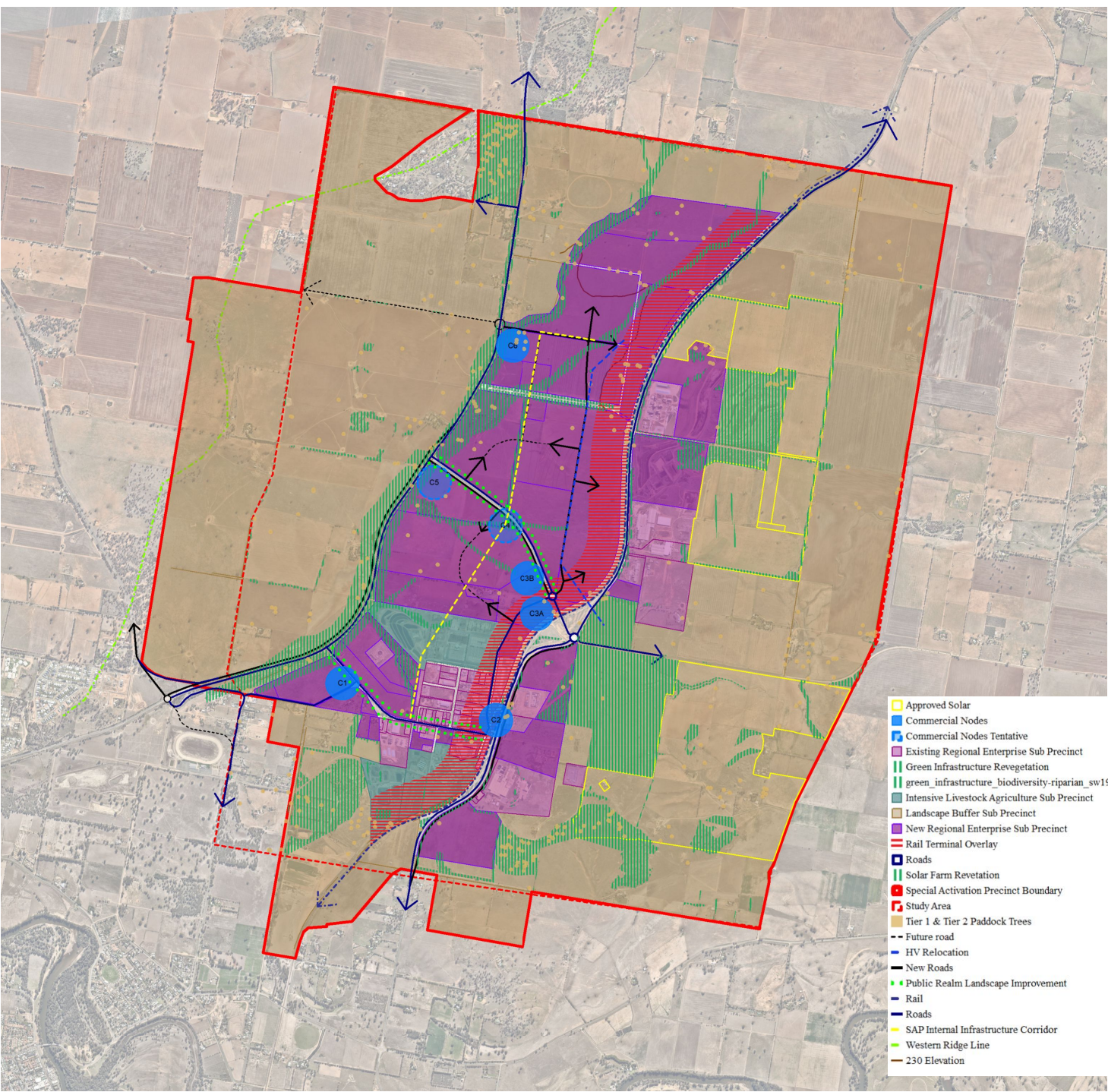
Some of the land within the SAP is currently zoned for industrial uses. The remainder of land is largely used for cropping and grazing. There are a few rural residential properties located within and in the vicinity of the SAP. The Brucedale Drive Residential Area (situated on a hill) is the most elevated location, afforded views over the Western Valley. The Eunony Valley to the East has views across the valley over the Eastern extent of the SAP.

The topography of the area is a major feature of the SAP and has been an important consideration for the investigations undertaken as part of the Structure Plan process. Part of the SAP is located on an elevated ridge line above the town which runs North-South (along the rail corridor) at approximately 240m AHD. Olympic Highway runs along a Western Valley and rises as it travels North. The Eastern boundary of the SAP runs along an Eastern Valley (Eunony Valley) with a quickly rising plateau and ridge further east.

The industrial core of the SAP (the Regional Enterprise Zone) has been designed to be largely located within the valley between Olympic Highway and Byrnes Road and is smaller in size than the current industrially zoned land in the SAP. The structure plan redistributes some of the current industrially zoned land which has the effect of moving development off the ridgeline onto lower, flatter land where visual impacts can more easily be mitigated (through things like planting). Built form on the ridgeline to the east would result in more visible built form for surrounding residential areas in multiple directions with far fewer opportunities for mitigation.

Surrounding the industrial core, a buffer zone (the Rural Activity Zone) has been proposed to provide a transition between the industrial core and the surrounding rural and residential uses.

The Proposed 40-Yr Structure Plan (the Proposal)



The Issues

This report identifies 5 key issues that may arise on completion of the development of the SAP in relation to Visual Impact and that will be explored in the analysis.

- _ Is the potential impact on the views from neighbouring residential communities acceptable?
- _ Is the potential impact on the views from any culturally significant sites acceptable?
- _ Is the potential impact on public domain views (which are enjoyed by the broader community of Wagga Wagga) acceptable?
- _ Is the proposed level of screening and amenity landscape within the Structure Plan effective as mitigation?
- _ Are the potential new small scale solar farm locations within the Rural Activity Zone acceptable?

How the Proposal will address the issues

The Special Activation Precinct Structure Plan (the Proposal) has already considered in detail the issues and integration of the changes to the site with the surrounding landscape. Some of these are “good design practice” and as a result of engagement with the surrounding communities and not necessarily a result of visual impact mitigation.

The Regional Enterprise zone was planned as a centralised north-south spine on the basis of:

- _ Achieving a strongly defined edge along Olympic Highway, avoiding the fragmenting of rural lands to the west of the highway, and separating the Precinct’s industry areas from Wagga’s future northern growth areas beyond.
- _ Providing strong landscape buffers with potential for further revegetation along drainage lines such as Dukes Creek and with revegetated corridors that help to screen industry areas and provide environmental improvements.
- _ Providing approximately 1km separation from the Mount Pleasant area of Brucedale, with additional separation to the northern boundary of the SAP.
- _ Maintaining a separation of industrial uses from residential communities in the Eunony Valley to the east, by containing most new industry land west of the Byrnes Road ridge (acknowledging the existing approved solar farms).

This approach:

- _ best mitigates impacts to surrounding communities
- _ aligns the provision of infrastructure from south to north over time with the topography and landform
- _ supports the SAP design objectives to predict and carefully manage noise, odour and air emissions buffer needs of the SAP.

Some of the other major considerations and techniques explored during the Structure Planning Process that have been incorporated into the draft design as it currently stands include the following:

- _ **Siting** of the SAP is linked to existing industrial areas, intensifying existing uses and utilising transport and freight routes that already exist. The industrial core is also located between the two ridges within the landscape, as well as between Olympic Highway and the rail line / Byrnes Road (therefore development is somewhat constrained to a well defined area).
- _ **A transition zone or buffer zone** known as the Rural Activity zone has been included in the Proposal to be protected as an interface between the new regional enterprise development and the surrounding residential communities.
- _ **A Landscape and Urban Design Strategy** has been detailed (in Concept Design form) to ensure that the surrounding landscape character is maintained and celebrated throughout the SAP. This landscape also acts as screening planting along the major and minor roadways.
- _ **Development Controls and Built Form Design Guidelines** will be prepared to clearly articulate and regulate the location, appearance, screening and design criteria of individual developments within allotments.
- _ **Screening Planting and Revegetation** has already commenced on site to ensure that planting begins to reach maturity at the time when new construction will commence. This planting is proposed to occur at the Bomen Axe Quarry and surrounds, along rural roads and creek lines (Dukes Creek tributary).
- _ **Green Infrastructure Corridors** protect existing vegetation and strengthen these corridors with new plantings to provide links through and to riparian corridors. This vegetation also punctuates the SAP area and allotment layout.
- _ **Staged Approach** to development and infrastructure of the SAP over 40 approximately years (overall).

This Visual Analysis will **qualitatively test** these techniques by the method outlined in Section 3 and make recommendations to better address the identified issues. The analysis is being undertaken based on the overall (completed) SAP that in reality will occur over an extended time period.

Summary

The VA at a glance

During consultation, members of the community have indicated that visual amenity is of great importance. Additional visual analysis has been undertaken in response. The VA has tested the mitigation strategies proposed in the draft Master Plan for the Wagga Wagga Special Activation Precinct. It has been a valuable tool in measuring the proposed strategies success at an early planning/structure plan and conceptual design level in acknowledgement of the value of precinct views and the rural setting of the SAP to the community.

The following recommendations have emerged from the VA (testing of particular viewpoints) that can be integrated into further design decisions through the development of performance criteria for the precinct. Supporting provisions can then be developed as part of the Delivery Plan.

Key Recommendations and Performance Criteria

Built Form + Elements

- Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials. Highly reflective cladding materials should be avoided. New development proposed for Merino Drive allotments should have particular considerations as it is visually prominent from some viewpoints.
- Buildings located East of Byrnes Road should be a maximum 10m in height and cut into the landform wherever possible. These buildings should also be located perpendicular to Byrnes Road where possible.
- Colour and material selections that celebrate the landscape/agricultural character should be selected for the larger buildings as these are seen from more viewpoint locations and often interrupt the views to the horizon.
- Building scale must be considered and buildings that are excessively tall should be discouraged to avoid further interruption of long views towards the horizon and background topographical features.
- Fencing typology and rear of property uses along the Western parts of the SAP industrial core should be well considered as they may be seen from Olympic Highway and properties in the vicinity.

Vegetation + Roads in the Regional Enterprise Zone

- Planting should strongly reflect the broad environmental character so appreciation for the “Place” isn’t lost when long views over the landscape are interrupted and the viewer must focus on the immediate surrounds and foreground vegetation.
- The apparent effectiveness of tree planting proposed for streetscapes within the Regional Enterprise zone is clear from multiple viewpoints so emphasis should be placed on early establishment of these new green corridors.
- Ensure the establishment (with tall tree species) and protection of the green infrastructure corridors within the SAP and Trahairs Road.
- Roads within the Regional Enterprise zone such as RiFL Road and Dorset Drive should be intensely planted with trees that have linking canopies to help mitigate built form views.
- Intensify the tree planting along the North Western Regional Enterprise Zone Boundary and ensure that these trees are planted close enough to create a continuous canopy. This includes the revegetation of creek-lines / tributaries and planting along Olympic Highway to assist in protecting views from the Brucedale area. Consider middle level strata shrubs within these planting groups.
- The Western side of Olympic Highway should be planted with taller, denser canopied trees, more consistently than currently shown, that links to the copse of existing vegetation.
- New plantings on the Northern boundary of the Northern-most existing solar farms (in the Eastern area of the SAP) would assist in mitigating views to these elements.
- Extend new plantings proposed for Byrnes Road at the roundabout further North as the landform rises.

Rural Road Revegetation

- Tree spacings on some rural roads (like Mary Gilmore Drive) should contain 2 - 3 rows and be close enough to create a continuous canopy effect based on the particular species selected (considering its particular growth form). Acacia paradoxa has been selected to be utilised along rural roads and these should be planted here, potentially consider 2-3 additional large shrubs for use.
- Sutherlands Road revegetation should be considered as a higher priority in the landscape/streetscape typology hierarchy to prompt denser and more structured street tree planting.
- Greater planting of the Northern Regional Enterprise Zone boundary and that of the existing solar farms should be considered to screen some views on approach from Byrnes Road. Rural road replanting is important on the East of Byrnes Road running perpendicular to this corridor to screen the middle ground views to the solar farm locations.



Protection of Culturally Significant Views

- _ Retain (and protect) existing trees along the Western edge of the Bomen Axe Quarry between the site and the Regional Enterprise Zone.
- _ Ensure the use of endemic vegetation species that reflect the character of the immediate environment around the Bomen Axe Quarry (consider the reflection of Aboriginal Design Principles within buffer planting).
- _ Existing vegetation should be retained and protected wherever possible.

Small Scale Solar Farms in the Rural Activity Zone

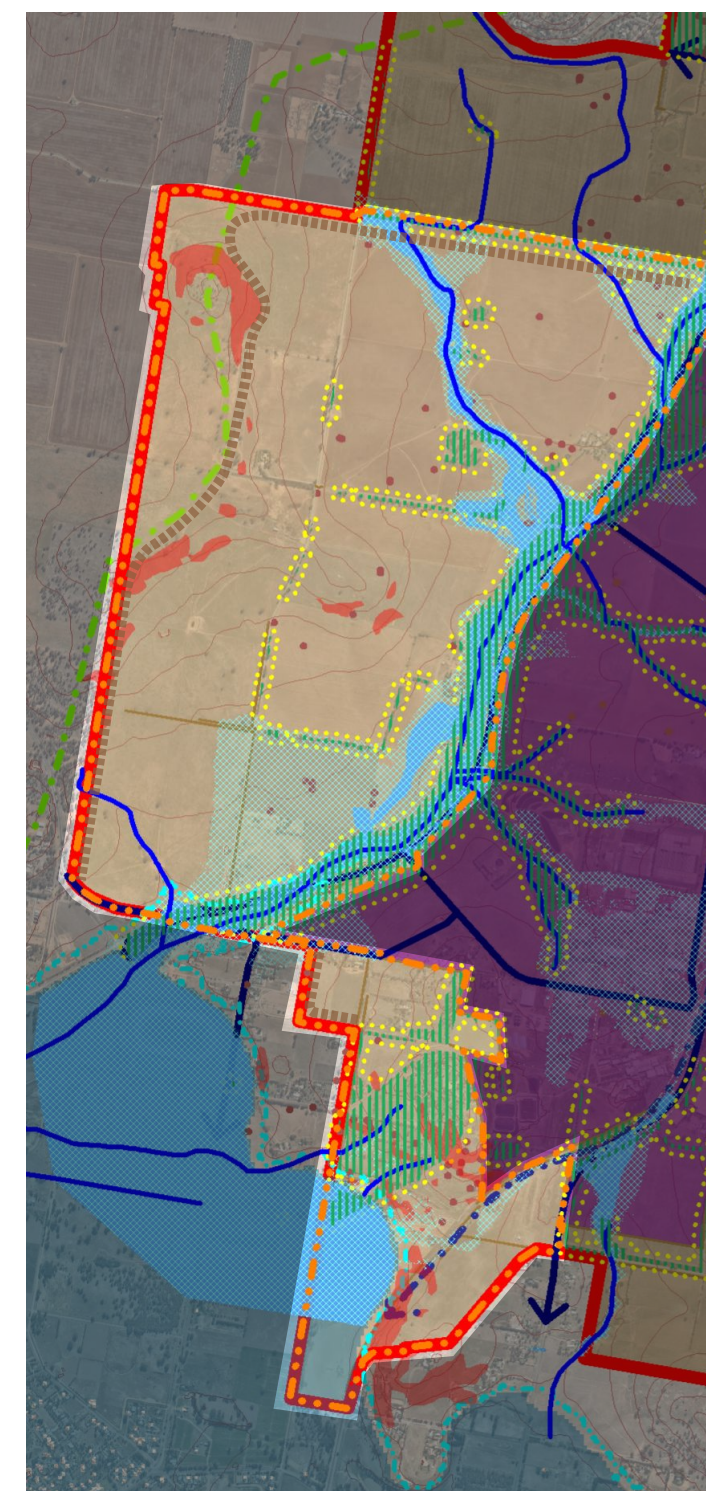
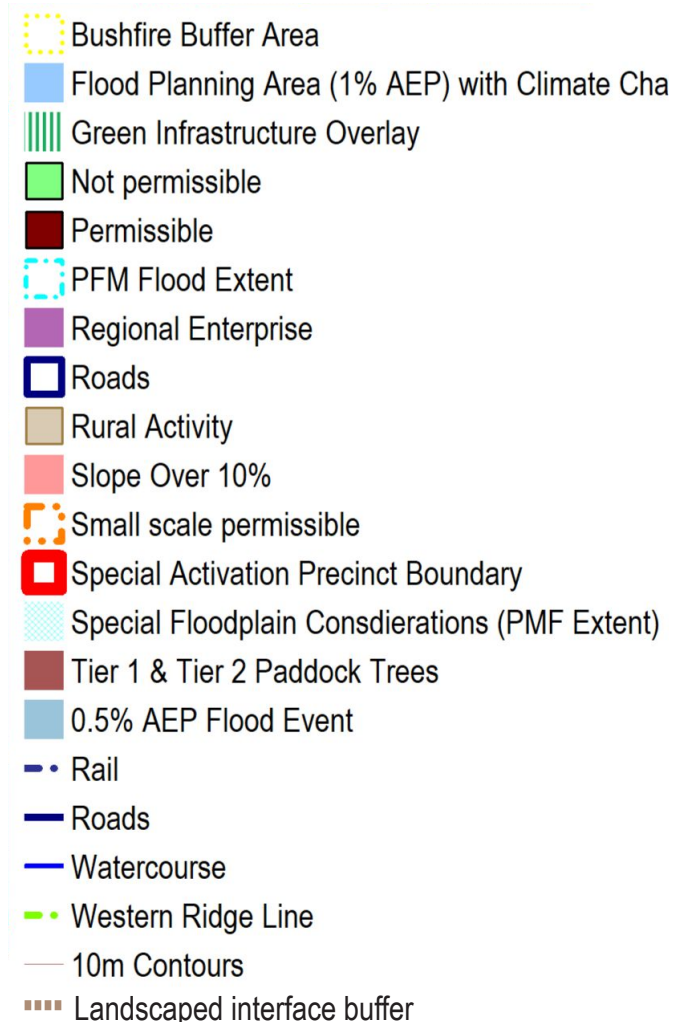
- _ Small scale solar farms in the Northern parts of the area where they are proposed to be permitted in the Rural Activity Zone (closest to Brucedale's Western boundary and adjacent Sutherlands Road) should be reconsidered. This has been reflected in the testing of the alternate location further South and boundary indicated. A development control that reflects the intended extents of new solar farms should limit development within this area and exclude this type of development in close proximity to Brucedale.
- _ Small scale solar farms in the Western parts of the area should also be carefully considered and sited, specifically below the western ridge line which interfaces with the proposed northern growth area for Wagga Wagga.
- _ Consider landscape buffer treatments to the Northern and Eastern boundaries of any new solar farms positioned west of Olympic Highway, potentially on site and that includes upper and lower canopy vegetation. This will act as a buffer from the western ridge, as well as frame views to the horizon from the east.
- _ A more dense, continuous tree-lined buffer should be established along Sutherlands Road between Poiles Road and Olympic Highway to create a "layered" planting effect with other boundary vegetation.
- _ Sutherlands Road revegetation should be considered as a higher priority in the landscape/streetscape typology hierarchy to prompt denser and more structured street tree planting.

- _ Southern locations (adjacent Cartwright's Hill) should consider interface with adjacent residential properties and include a landscaped interface buffer that includes upper and lower canopy vegetation.
- _ Parts of the southern locations are subject to inundation from flood waters in 0.5% AEP. This is not a constraint to establishing solar farms, but requires careful design treatments and flood proof considerations for structures and fencing.
- _ All sites will be constrained by likely bushfire buffer setbacks from green infrastructure corridor plantings and existing vegetation. The extents shown are indicative and will likely require further investigation as to the required buffer extents.
- _ Slopes greater than 10% are not appropriate for solar farms and small pockets of land with this gradient occur within the small scale permissible area, both in the western and southern locations. These small pockets are not considered to pose sufficient constraints for establishing solar farms on these parcels, however the placement and layout of panels should be positioned to run with site contours to minimise the need for altering the natural land forms.
- _ Existing vegetation should be retained and protected in the Rural Activity Zone for the purposes of mitigating views to potential new small scale solar farms.

Note other, non-visual, constraints will likely apply to solar farms which may influence their viability. These have not been specifically considered as part of this assessment.

Solar Constraints Plan

Potential viable sites for small-scale solar farms and where these would be limited due to site constraints are illustrated below. These constraints have informed the locations selected for modelling the potential solar farms.



Small Scale Permissible location constraints for Solar Farms.

Method

How this VA was developed

The following method utilised for undertaking this Visual Analysis considers NSW Land and Environment Court Case Law and planning principles:

- _ The project Team have determined that the proposal will be visible and will change the public domain views from land in the vicinity. The mitigation techniques that have already been incorporated into the design of the SAP should be tested and improvements incorporated into the process.
- _ The Structure Plan shown was updated to reflect all the different landscape, amenity and mitigation techniques that have been explored over time during the process and were a result of design thinking, consultation and engagement with stakeholders and the local community.
- _ A 3D model was created in Skyline TerraExplorer based on this up to date proposal that includes existing and proposed landscape features, roads and indicative development massing. The model helps to gain an understanding and appreciation of views and visibility of the development.
- _ Buildings have been modelled based on assumptions about typical buildings for this type of development. Buildings are mainly warehouse-type structures of typically 10 - 15m in height with some larger buildings such as silos. For some sensitive viewpoints, building height has been specifically tested using taller structures in order to more thoroughly test any potential impacts to views.
- _ Viewpoints were selected for analysis from a variety of locations based on criteria around sensitivity and visitation (see section 3 for further detail).
- _ Time of day was set at 11:00am. Typically sunny with a high degree of visibility.
- _ Before and After images were created in Skyline TerraExplorer using a 6cm photogrammetry mesh model with 50cm aerial imagery and Digital Terrain Model as background data.
- _ The views are captured at a height between 1.5m to

2m with a field of view of 70 degrees to represent a person standing. This doesn't acknowledge people of different ages or abilities. Views from within private properties that might be elevated above this level have also not been considered.

- _ The views were prepared based on photo imagery captured to develop the model on 17 May 2019 and so do not show the now constructed solar farms to the east of Byrnes Road. These solar farms were approved separately to (and before) the SAP process.
- _ For the purposes of the assessment, the approved solar farms have been modelled at full development to reflect the future state.
- _ **As the change to the views is their alteration by the insertion of new elements, the VA was undertaken to determine how that alters the nature of the present views.**
- _ **Recommendations are made about how the current proposal addresses the issues and the extent of the impact of the SAP on sensitive views (in the public domain and on private property).**

Options for Future small scale (35Ha Solar Farms) in the Rural Activity Zone

For the purpose of determining appropriate limitations for the development of new 35Ha solar farms in the Rural Activity Zone, new solar farms have been illustrated and modelled that are approximately 500 x 700m in size. These new solar farm options have been located in the Western portion of the Rural Activity Zone, and the Southern portion of the Rural Activity Zone, consistent with the Small Scale Permissible location identified within the Master Plan. This will allow for the assessment of the views over this area if such development is to occur. The potential locations were selected based on the following constraints:

- _ Are a viable development size based on the Structure Plan investigations and the criteria outlined by the Renewable Energy and Constraints Analysis, Nov 19, WSP.
- _ Land parcels that are generally large enough to accommodate a 35Ha solar farm however it is acknowledged that consolidation of lots could occur.
- _ Land with a south-facing slope and undulation within the workable limit to obtain an energy yield
- _ Areas where impacts on existing vegetation are minimal and outside of locations identified within the Structure Plan for green infrastructure.
- _ Areas outside of identified flood prone land (although it is acknowledged that solar farms can potentially still exist in some areas subject to inundation if appropriately designed).
- _ In visible locations but are not too close to the main highway or to local communities.
- _ The solar farms can be connected and feed energy to a distribution substation in regards to thermal loading.

We have not reviewed the locations from a technical perspective (geotechnical or hydrological). Developers would be required to undertake a detailed study to properly consider any site for this use.



General Discussion

The following key points should be considered in the interpretation of this VA:

- _ This is a **qualitative analysis** being undertaken (and not a quantitative assessment) as the Proposal being analysed is a Structure Plan as opposed to a detailed design. Therefore, certain **subjective assumptions and conclusions** are being made that are not based on the actual design features of specific buildings in terms of the extent of the impact of the SAP on views.
- _ Whether a better design for the SAP can more effectively respond to the issues is not in question but rather **if the mitigation techniques and design assumptions are adequate**.
- _ It is the overall intention that the SAP and associated mitigation techniques contribute to a **minimisation of the impacts and not a complete preservation of the existing view/s recognising the strategic position of the SAP**.
- _ The current views being analysed are **not completely unobstructed**. I.E. the views are not of natural, untouched bushland or landscape but of farm land already punctuated by some existing industrial development.
- _ We must **assume that the proposals for individual developments are reasonable and comply** with all development controls.
- _ Views from inside the Regional Enterprise Zone have not been considered.
- _ Only day time views are being analysed at this stage.
- _ All buildings have been modelled white, without other design features. The actual impacts could therefore be different in reality once certain colour schemes and details are incorporated into the architecture.
- _ We have not considered the internal layouts of the private residence that the views are obtained from and the specific location within the dwelling (I.E. living room or kitchen) therefore, whether the views are enjoyed from a seated or standing position.
- _ No new planting has been modelled within the development allotments.

Legend

- Green Infrastructure Overlay
- Regional Enterprise
- Roads
- Roundabout
- Rural Activity
- Special Activation Precinct Boundary
- Tier 1 & Tier 2 Paddock Trees
- Future roads
- New Roads
- Public Realm Landscape Improvement
- Rail
- Roads
- 10m Contours

VA_ The Viewpoints

The views that were tested as part of the VA and why

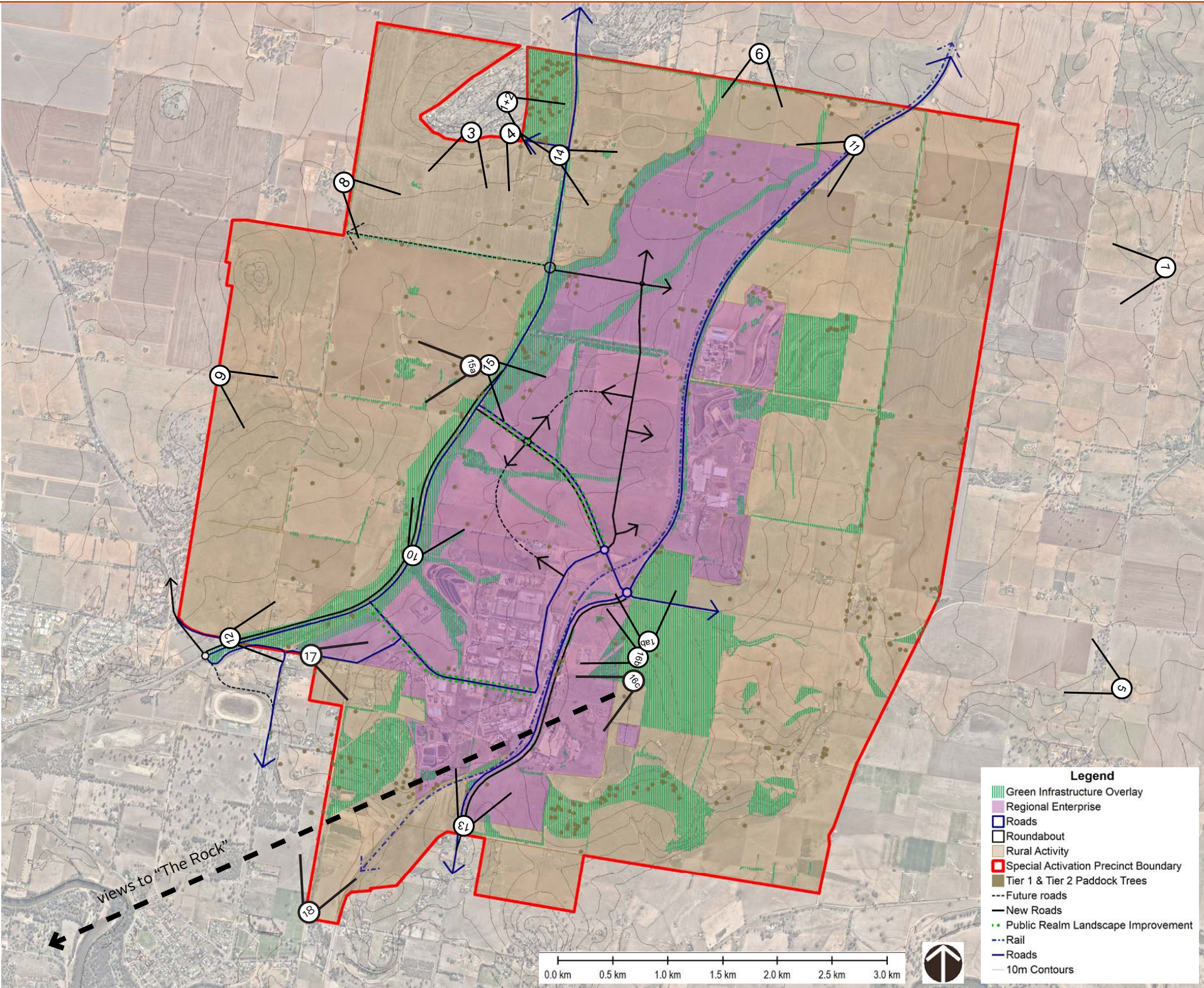
The Team have identified a series of existing viewpoints and relative views that may be classed as “**sensitive**” to analyse how they may be changed by development of the SAP and new solar farms. These have been selected based on certain criteria as follows:

- _ The view is a public domain view that is enjoyed by the whole community
- _ The view has an intensity of public use such as that of a major roadway or entry point to a region/place
- _ The view is from a private property at an elevated location
- _ The view is from a private property where the proposal may considerably impact on the liveability or amenity of that property
- _ The cultural importance of a view (iconic view for a community/group from a heritage place) and heritage places

Eighteen viewpoint locations have thus emerged to be tested as art of this Visual Impact Assessment and are captured in the following list and Plan.

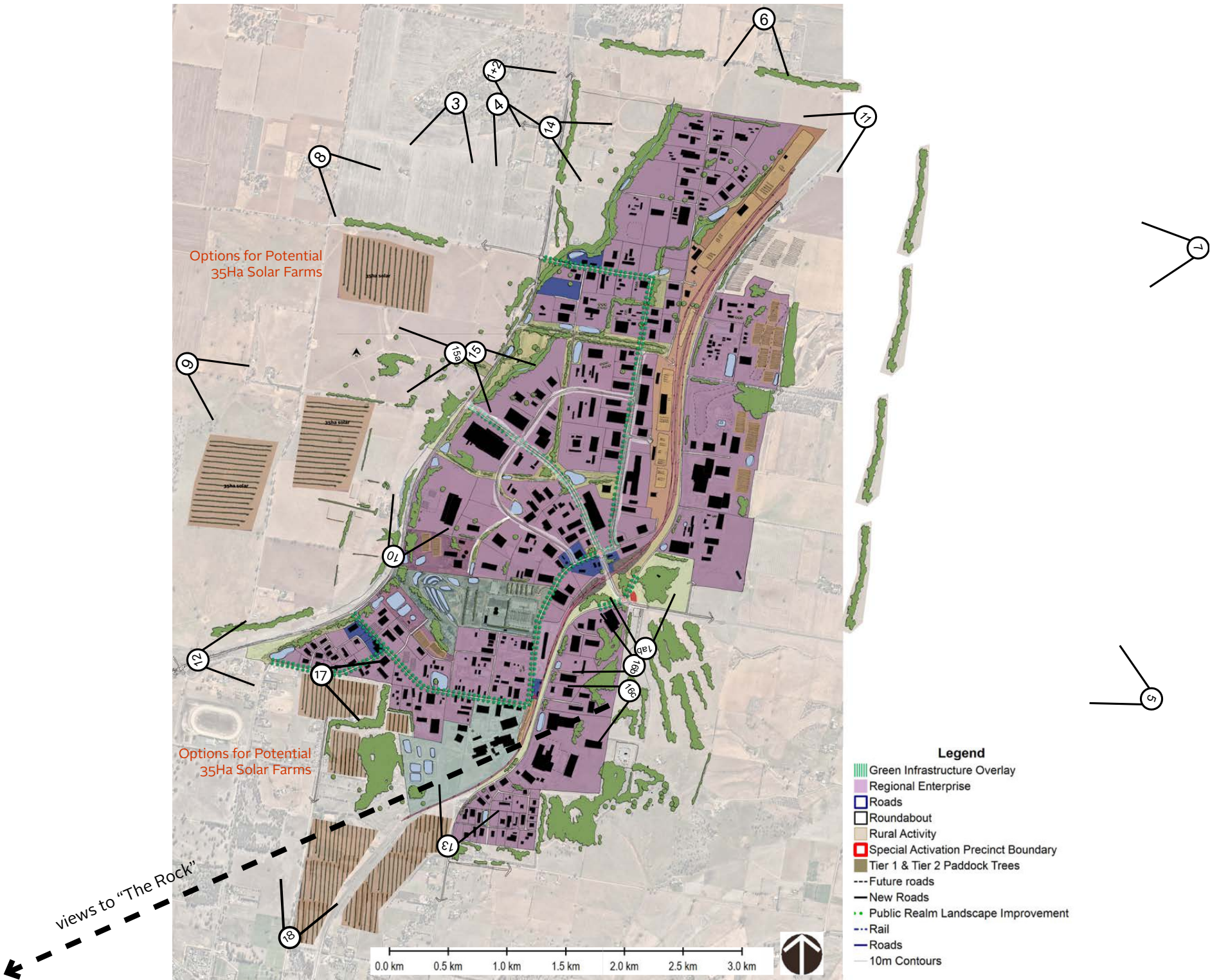
No. Viewpoint Description

- | | |
|---|--|
| 1 Brucedale Drive (Central), Brucedale | 11 Byrnes Road (Elevated Viewpoint 1) |
| 2 Brucedale Drive (Central), Brucedale | 12 Olympic Highway SW Gateway |
| 3 Brucedale Drive (West), Brucedale | 13 Byrnes southern gateway |
| 4 Brucedale Drive (South), Brucedale | 14 Brucedale Hall / Chapel / former public school (heritage place) |
| 5 Eunony Valley, Pattersons Road, Eunanorennya | 15 Hopevale property (heritage place) |
| 6 Mary Gilmore Road (East), Brucedale | 15a Hopevale property (heritage place) |
| 7 Newelles Lane, Eunony Valley | 16a Bomen Axe Quarry |
| 8 Pine Ridge Cottage (Heritage Place) | 16b Bomen Axe Quarry |
| 9 Western Edge of SAP -edge of northern growth area | 16c Bomen Axe Quarry |
| 10 Bomen Road Olympic Hwy Intersection | 17 Old Bomen Road |
| | 18 East Street |



VA_ The Comparative Findings

Before and After Images taken from the Model

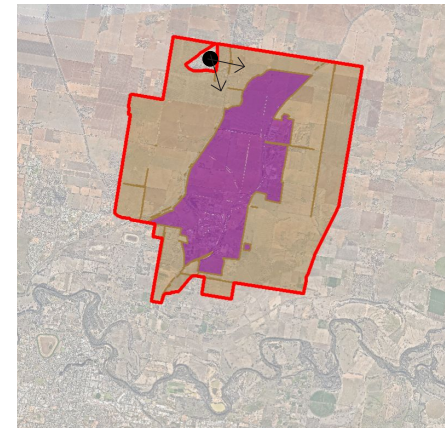


The Proposed Illustrated Master Plan and Views

Framework for how the analysis is being undertaken

The factors being considered during the Visual Analysis are as follows:

- _ Is the view static or dynamic (is it viewed in transit and does it change throughout the day/seasonally?)
- _ Is there any significance attached to the view and who has attributed this and why? Also, is it documented anywhere?
- _ Does the development in the proposal dominate the landscape setting from that viewpoint?
- _ It has been assumed that the present views of farmland, trees and topographical features are desirable. Will the changes in the Proposal make it less so?
- _ Does the present view attract people to that location and will this “attraction” be impacted by changes to the perception and amenity of that Place?
- _ Are there any present obstructions to the broad view and character and should the remaining views be preserved?
- _ Do the design elements offset the interruptions to the present view adequately and what would further improve that view?



Viewpoint 1

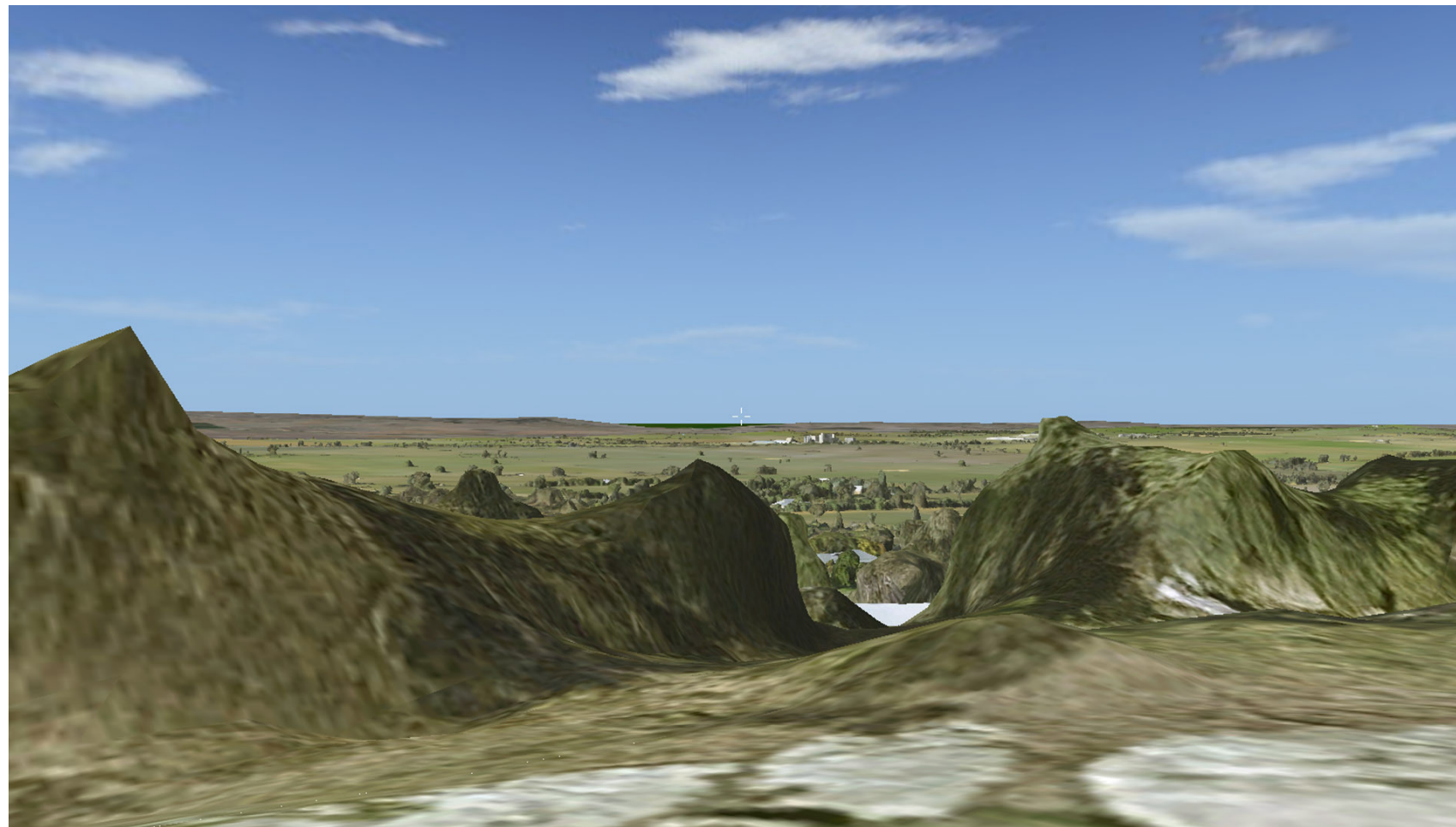
Brucedale Drive (Central), Brucedale - Property Height

Selected for analysis due to the elevated location of this community and the orientation of the properties along Brucedale Drive towards the SAP.

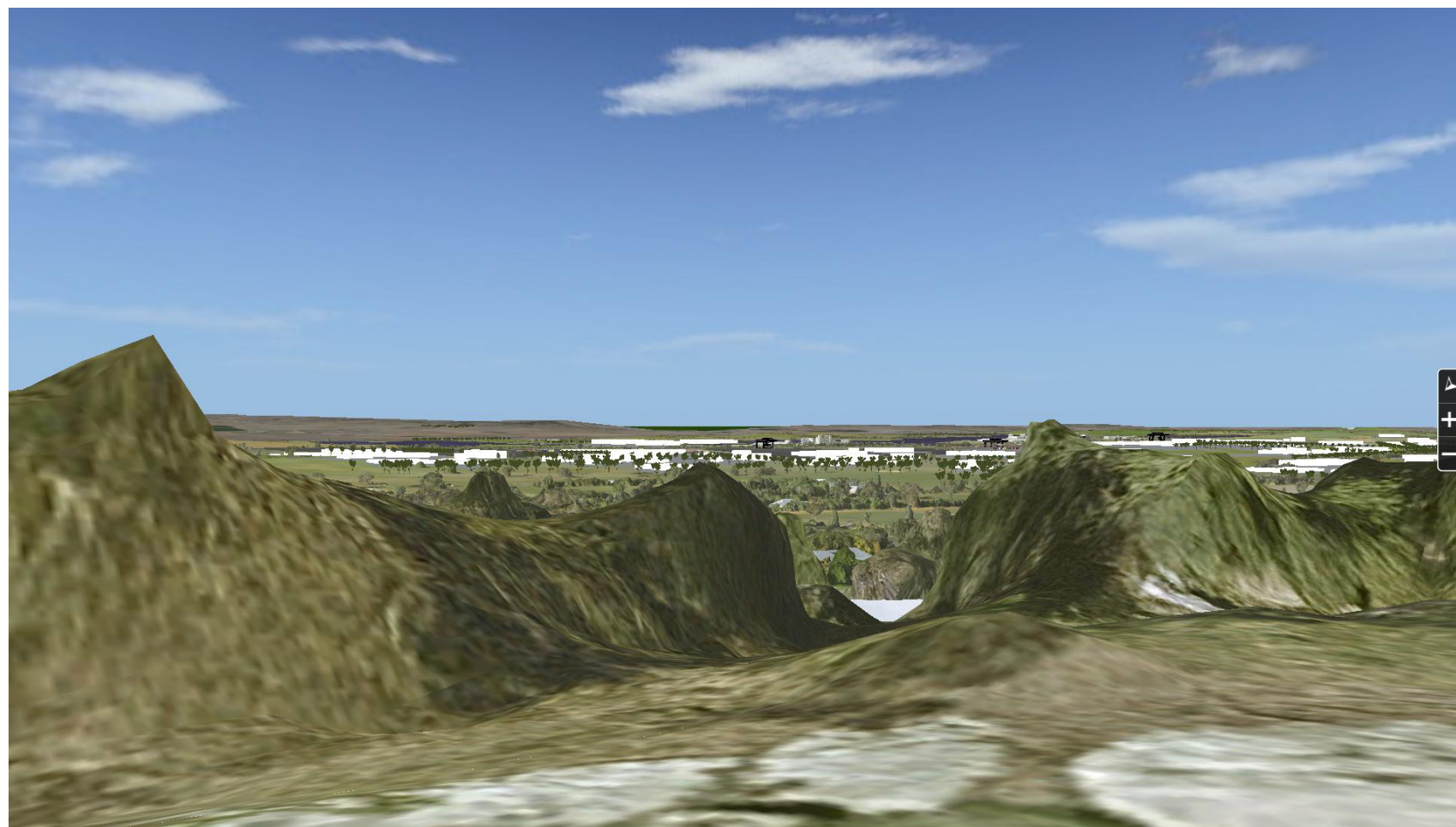
- _ The view from this property is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ There is no documented cultural or heritage significance attributed to the view from this location and it is not a major iconic attraction. However there is a very high value placed on this general view by the residents of the Brucedale community and this property.
- _ The development in the proposal does dominate the landscape setting from this viewpoint however it builds upon that which is already occurring. Currently, the middle ground view is interrupted by existing industrial development, on completion of the SAP most of the middle ground view will be taken up by new built form. It appears from the image that revegetation planting that is proposed for the creek-lines and along rural roads (to strengthen existing planting) will go a long way to mitigate the view corridor to the SAP and offset the new interruptions in the landscape. Further tree planting that is proposed for Trahairs Road, RiFL Road and the green infrastructure corridor also appear to be visible and break up the massing of new built form looking further East through the SAP.
- _ The foreground of the view is currently dominated by tree planting which is assumed to remain unchanged or grow larger over time. The background of the view towards the ridge is unchanged.
- _ Some view area towards farmland is preserved by the limitations put on the Western boundary of the Regional Enterprise Zone and this does help maintain the desirability of the view, as does the Northern Regional Enterprise Zone boundary.
- _ No buildings appear to “skyline” from this viewing location (I.E. they all appear below the horizon line) and therefore do not obstruct this background view and the impression of the broader landscape character.

What would further improve that view?

- _ Intensifying the tree planting along the North Western Regional Enterprise Zone Boundary and ensuring that these trees are planted close enough to create a continuous canopy will improve the middle ground view by providing an enhanced screen.
- _ Ensuring the establishment and protection of the green infrastructure corridors within the SAP.
- _ As the background of the view is largely protected, foreground tree planting could be considered that screens the middle ground view but allows glimpses through to the topography beyond.
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials and highly reflective cladding materials should be avoided.



Before



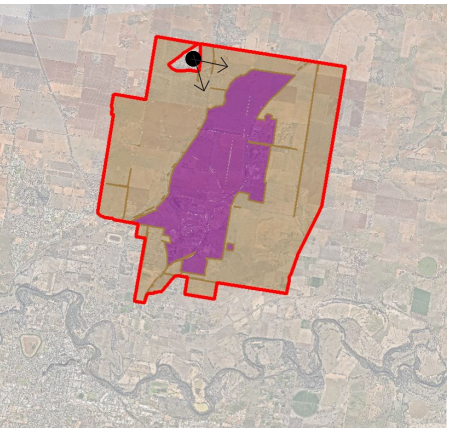
After



Before



After



Viewpoint 2

Brucedale Drive (Central), Brucedale - Street Level

Selected for analysis due to the elevated location of this community and the orientation of the properties along Brucedale Drive towards the SAP.

- _ When standing at street level the view is currently partially obstructed by the roof of number 22 Brucedale Drive and by tree planting in and around Brucedale Drive. Views will be glimpsed through these tree canopies (this is not picked up by the modelling). These foreground elements are more dominant in the viewscape at street level than from property height.
- _ The topographical character of the landscape still remains strong as per the previous comments (see Viewpoint 1) and buildings do not “skyline” so the horizon view is preserved.
- _ As per previous comments (see Viewpoint 1) some design elements such as the creek-line revegetation and rural road replanting are effective in “greening” of the North Western SAP boundary.

What would further improve that view?

- _ See Viewpoint 1

Viewpoint 2

Brucedale Drive (Central), Brucedale - Street Level



View of 10m Height, narrow buildings (including stacks), located perpendicular to Byrnes Road with a balanced approach to cut and fill



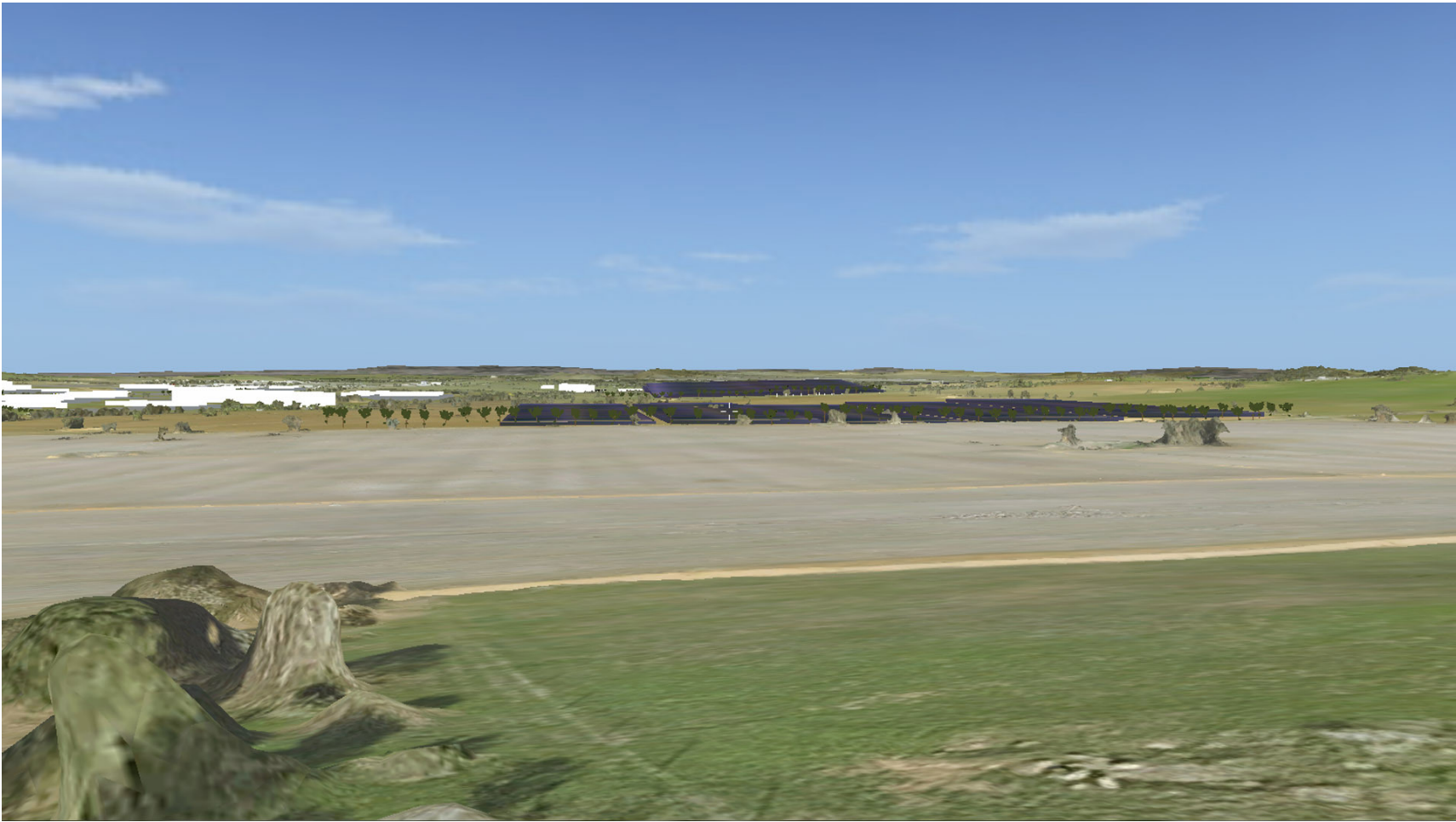
Viewpoint 2 illustrating the beneficial implementation of some development controls

- _ In order to test this viewpoint more rigorously and determine more specific development controls for new buildings East of Byrnes Road (that are located close to the existing ROBE development) different scenarios were modelled. The different scenarios included modelling an option with larger buildings built parallel and perpendicular to Byrnes Road, options for each including;
 - 15m overall height, with 30m high stacks – balanced cut and fill
 - 15m overall height, with 30m high stacks – cut site only (building sits within the landscape)
 - 10m overall height – balanced cut and fill

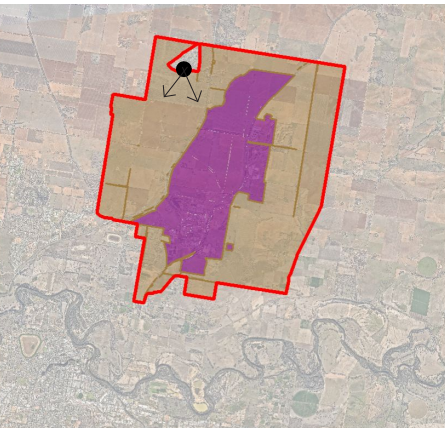
- _ The view above illustrates that new buildings constructed using a balanced approach to cut and fill into the landform but that are limited to 10m in height have the least impact on the long view from this location (image shows buildings designed perpendicular to Byrnes Road).
- _ Planting appears to be effective in breaking up the appearance of built form massing if the buildings are narrower in dimension and located running perpendicular to Byrnes Road. Buildings that ran parallel to Byrnes Road were also tested and were seen to be more dominant within the viewshed.
- _ No buildings appear to skyline at this height.



Before



After



Viewpoint 3 - Brucedale Drive (West), Brucedale

Selected for analysis due to the elevated location of this community and the orientation of the properties looking South towards the Rural Activity Zone (and potential new small-scale solar).

- _ The view from this property is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ There is no documented cultural or heritage significance attributed to this view from this location and it is not a major iconic attraction. However there would be a very high value placed on this general view by the residents of this property. It is assumed that other properties in the vicinity would have a similar outlook to this one (potentially 4x homes at this height and an additional 2x homes at a slightly elevated level).
- _ There doesn't appear to be public access to this viewpoint (I.E. no public roadway).
- _ Currently, some of the Bomen Business Park is visible behind a large expanse of undeveloped agricultural pasture, dotted by remnant paddock trees and is thus fairly unobtrusive to the view (its in the middle - background). The viewer would gain an appreciation for the valley and ridge-line from this location and broad landscape setting characteristic of the locality.
- _ The development of the potential new solar farms in this Western portion of the SAP (in the Rural Activity Zone) dominate the landscape setting from this viewpoint. The planting shown on the Northern boundary of this solar farm that has been modelled does little to mitigate the view over the solar farms due to the height at this property location and is therefore inadequate. The perception of the amenity of this view will more than likely decrease on development of the Northern and Western-most solar farms.
- _ Views looking South West towards the ridge-line are preserved past the western most area of solar farm. This view should be protected.
- _ No buildings appear to “skyline” from this viewing location (I.E. they all appear below the horizon line) and therefore do not obstruct this background view and the impression of the broader landscape character.
- _ The larger buildings that form part of the Western Regional Enterprise Zone development are highly visible (over the highway) as the view sweeps West (and appear bright in high contrast to the dark solar panels). It should be noted that all buildings have been modelled in a white colour and in reality more sensitive colours will be used.

What would further improve that view?

- _ The Northern-most solar farm (closest to Brucedale's Western boundary) should be reconsidered as this is highly obstructive to the view from this location. A more dense tree lined buffer should be modelled to test an improvement to the screen proposed along Sutherlands Road.
- _ Sutherlands Road revegetation should be considered as a higher priority in the landscape/streetscape typology hierarchy to prompt denser and more structure street tree planting.
- _ The revegetation of creek-lines/tributaries along Olympic Highway would also improve this view towards the development in the Western parts of the Regional Enterprise Zone from this section of Brucedale.

Viewpoint 3 - Brucedale Drive (West), Brucedale



Viewpoint 3 showing revised location for Northern most small scale solar farm

- _ In response to the improvements listed in the previous discussion for Viewpoint 3, an alternative location for the Northern-most solar farm (closest to Brucedale's Western boundary) has been illustrated and modelled. This test illustrates that although still visible, the middle ground view from this viewpoint is now better preserved.
- _ The height of this property affords views over the Sutherlands Road tree planting, however the planting directly on the boundary of the new northern-most solar farm appears to buffer views to this new development well (especially once middle strata vegetation is incorporated as recommended).
- _ Views looking South West towards the ridge-line are still preserved past the western most area of solar farm.

What would further improve that view?

- _ Development of new small scale solar farms should be limited to the northern extent as shown on the illustrated master plan right and no closer to Brucedale (as was originally modelled).
- _ A more dense tree lined buffer should be modelled to test an improvement to the screen proposed along Sutherlands Road. This will create a layered vegetation effect in combination with new planting along the solar farm boundary as shown in the Plan right. It is vital that this boundary planting is established and includes middle strata shrubs.
- _ Sutherlands Road revegetation should be considered as a higher priority in the landscape/streetscape typology hierarchy to prompt denser and more structured street tree planting.

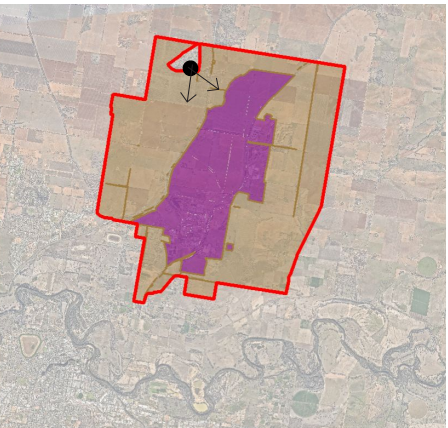




Before



After



Viewpoint 4

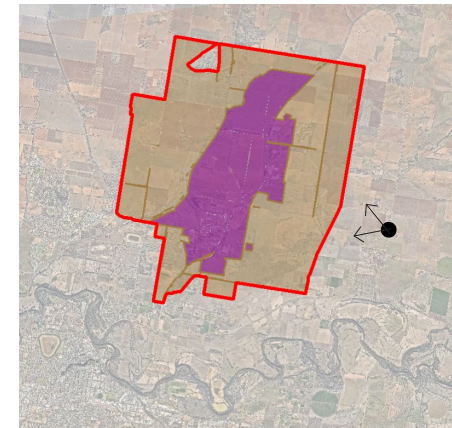
Brucedale Drive (West), Brucedale, property level

Selected for analysis due to the elevated location of this community and the orientation of the properties looking South East over the Valley (at a lower point than Viewpoint 5)

- _ The view from this property is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ There is no documented cultural or heritage significance attributed to this view from this location and it is not a major iconic attraction.
- _ There doesn't appear to be public access to this viewpoint (I.E. taken from private property).
- _ The development in the proposal does dominate the landscape setting from this viewpoint however it builds upon that which is already occurring. Currently, the middle ground view is interrupted by existing industrial development directly in front of the primary viewpoint (ROBE) with some of the existing Bomen Business Park also visible further South however these two locations are broken up by green space, minimising their impact on the viewshed. On completion of the SAP the entire middle ground view will be taken up by new built form. This particular property has no views past the SAP boundaries in comparison to Viewpoints analysed in 1 - 3 and thus it is more sensitive to the potential impacts of the development as there is no "break" from the built form apart from that created by the buffer of farmland in the foreground.
- _ The foreground of the view of farmland is protected, with some existing trees. The background of the view towards the ridge is unchanged. Some industrial development is visible over treetops immediately on the property or close to it.
- _ No buildings appear to "skyline" from this viewing location although they are close to doing so. There is not as great an impression of the broader landscape character from this viewpoint . This viewpoint is particularly sensitive to the height of proposed buildings within the SAP.
- _ Some new planting is visible along Olympic Highway and the creek which is effectively screening the Northern area of the Regional Enterprise Zone which can be seen from this outlook.

What would further improve that view?

- _ Intensifying the tree planting along the North Western SAP Boundary and the continuation of Olympic Highway (North) and ensuring that these trees are planted close enough to create a continuous canopy will improve the middle ground view by providing an enhanced screen.
- _ The Western side of Olympic Highway should be planted with taller, denser canopied trees, more consistently than currently shown that links the copse of existing vegetation.
- _ Ensuring the establishment and protection of the green infrastructure corridors and Trahairs Road within the SAP.
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials (as well as highly reflective cladding materials should be avoided).

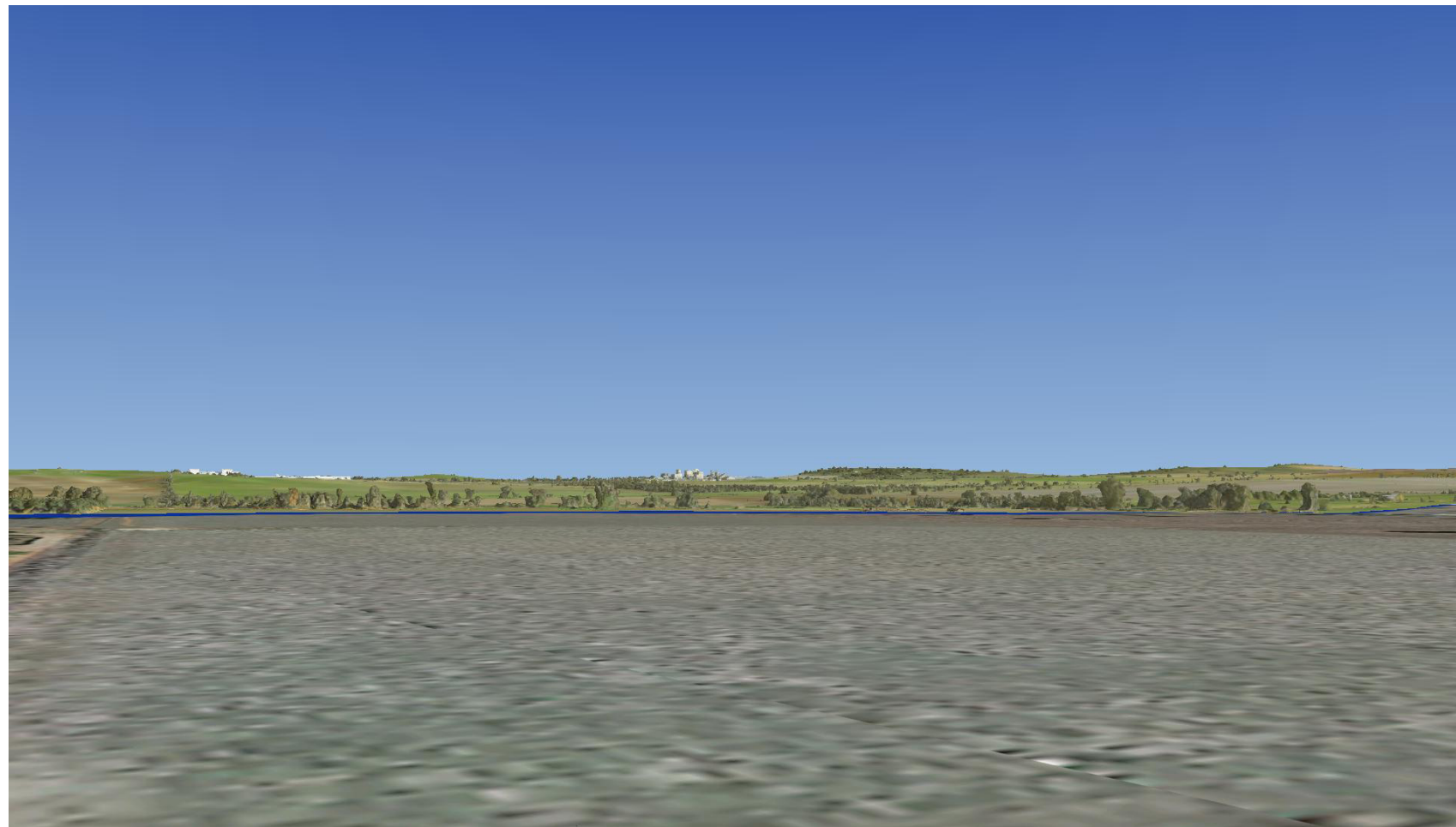


Viewpoint 5

Eunony Valley, Pattersons Road, Eunanorennya

Selected for analysis due to the proximity of this community to the SAP and Rural Activity Zone boundary, taken from property height.

- _ The view from this location is largely static and visible when travelling along Pattersons Road (southbound).
- _ There is no documented cultural or heritage significance attributed to the view from this location and it is not a major iconic attraction. However there is a very high value placed on this general view by the Eunony Valley community.
- _ The long view is currently directly towards the rear of the existing development along Byrnes Road (e.g. ROBE and Energi), with agricultural land in the foreground. The view is framed by ridge-line views with vegetation and open grazing land.
- _ The development in the proposal does not appear to dominate the landscape setting from this viewpoint (as it is located on the other side of Byrnes Road) however it further builds upon those glimpsed long views towards established buildings. Although the existing industry buildings appear to be a minor obstruction to the viewshed in the model and the vast majority of the view looks towards farmland these obstructions are not in keeping with the landscape setting. These buildings already “skyline” and interrupt that view of the ridge topography and horizon. Some long views towards new buildings are visible and further interrupt the skyline.
- _ The approved solar farm is also visible in the view in the foreground of the buildings. Plantings are effective in screening parts of views to the solar farm.
- _ The planting East of Byrnes Road is effective in screening views of development to the west of Byrnes Road in the adjacent valley, particularly in the northern end of SAP.
- _ The foreground of the view of farmland is protected as is the ridge and landscape that frames the view (past the Northern SAP boundary and further South).



Before



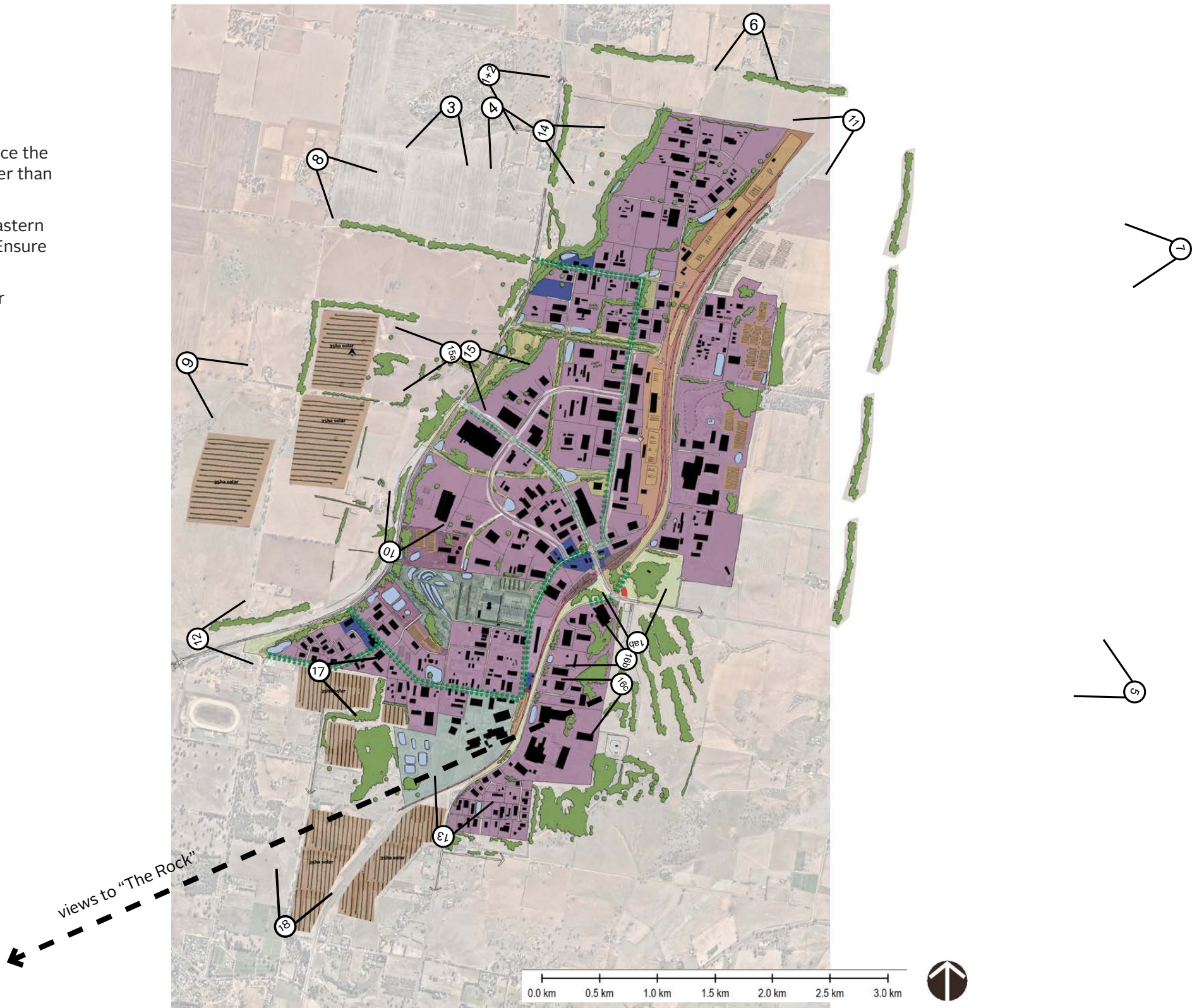
After

Viewpoint 5 *Continued*

Eunony Valley, Pattersons Road, Eunanorennya

What would further improve that view?

- _ Buildings on the eastern side of Byrnes Road with a reduced height and profile will reduce the extent in which skylining occurs when viewed from this location.. Cutting into sites rather than filling will also aid in reducing the profile of buildings from this view.
- _ Boundary plantings to the east of buildings and service areas for development on the eastern side of Byres Road will aid in screening (entirely and partially) buildings from this view. Ensure that these trees are planted close enough to create a continuous canopy
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials (and reflective cladding materials should be avoided).



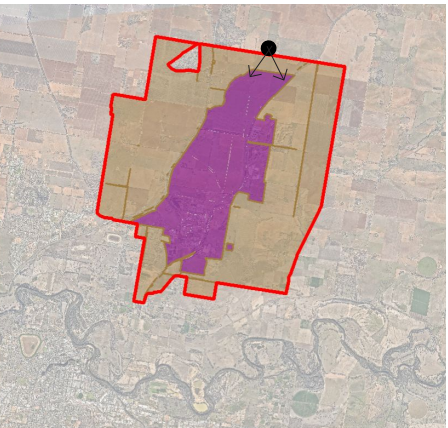
Proposed Illustrated Master Plan with revised potential solar farm location



Before



After



Viewpoint 6

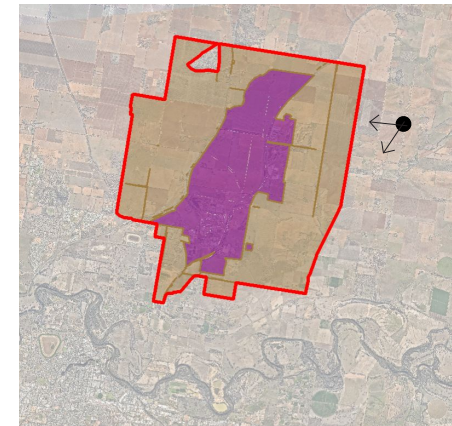
Mary Gilmore Road (East), Brucedale

Selected for analysis due to the noted existing views from this location towards ROBE and the proximity to the Rural Activity Zone / SAP boundary, taken from property height.

- _ The view from this property is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ There is no documented cultural or heritage significance attributed to this view from this location and it is not a major iconic attraction. However there is a very high value placed on this general view by the resident of this property.
- _ There doesn't appear to be public access to this viewpoint (I.E. taken from private property).
- _ The development in the proposal does dominate the landscape setting from this viewpoint however it builds upon a glimpsed view towards the existing ROBE facility. Although this appears to be a minor obstruction to the existing viewshed in the model and the vast majority of the view looks towards existing vegetation, farmland and beyond to a gently undulating landscape of the valley.
- _ At full development of the SAP, the entire middle ground view will be taken up by new built form and solar farms South of Byrnes Road (visible to the East of the View). Some new tree planting has been modelled along the Northern boundary of the Regional Enterprise Zone which builds on some existing trees on Mary Gilmore Road and that which may be planted on the Northern most allotment boundaries of the SAP. This tree planting as it is shown does not provide an adequate screen/buffer to mitigate the view towards the new industry and middle strata shrub plantings will need to be considered in addition to taller trees.
- _ The creek revegetation is not visible from this location as it is screened by existing foreground and middle ground trees so it doesn't appear to contribute to any view mitigation.
- _ The foreground of the view of farmland is protected, with some existing trees. The background of the view towards the ridge is glimpsed only.
- _ This viewpoint, being lower than other Brucedale properties is particularly sensitive to the height of proposed buildings within the SAP and some directly in the centre of the view do encroach on the horizon line.

What would further improve that view?

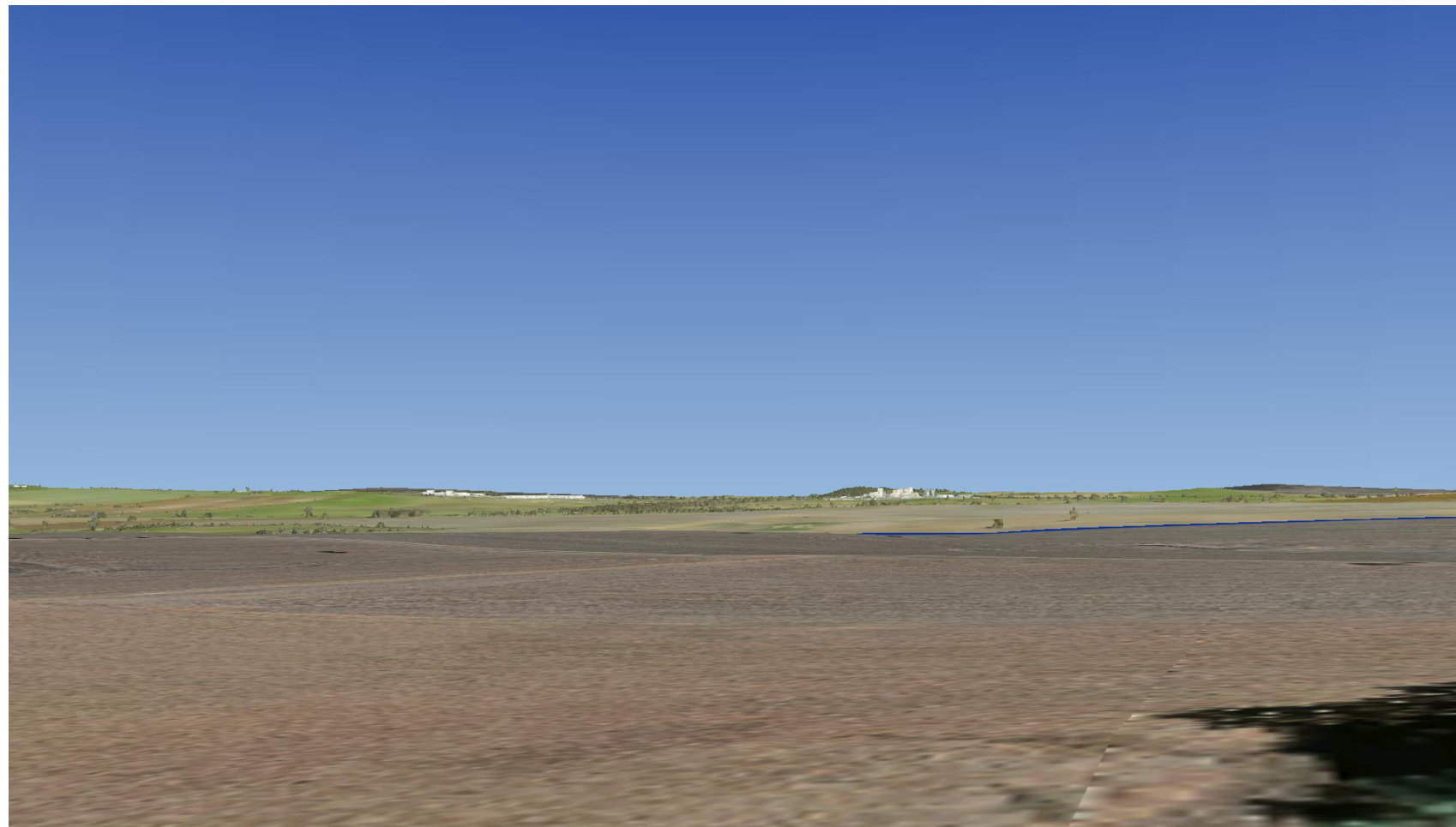
- _ An enhanced screen will be created if both shrub and tree planting is established along Mary Gilmore Drive. Tree spacings should be close enough and contain 2 - 3 rows to create a continuous canopy effect (which is not what has been modelled at this time). Acacia paradoxa has been selected to be utilised along rural roads and these should be planted here, potentially consider 2-3 additional large shrubs for use.
- _ New plantings on the Northern boundary of the Northern-most existing solar farm would assist in mitigating views to these elements.
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials (and reflective cladding materials should be avoided).



Viewpoint 7

Newelles Lane, Eunony Valley

Selected for analysis due to the proximity of this community to the SAP and Rural Activity Zone boundary, taken from property height.



Before



After

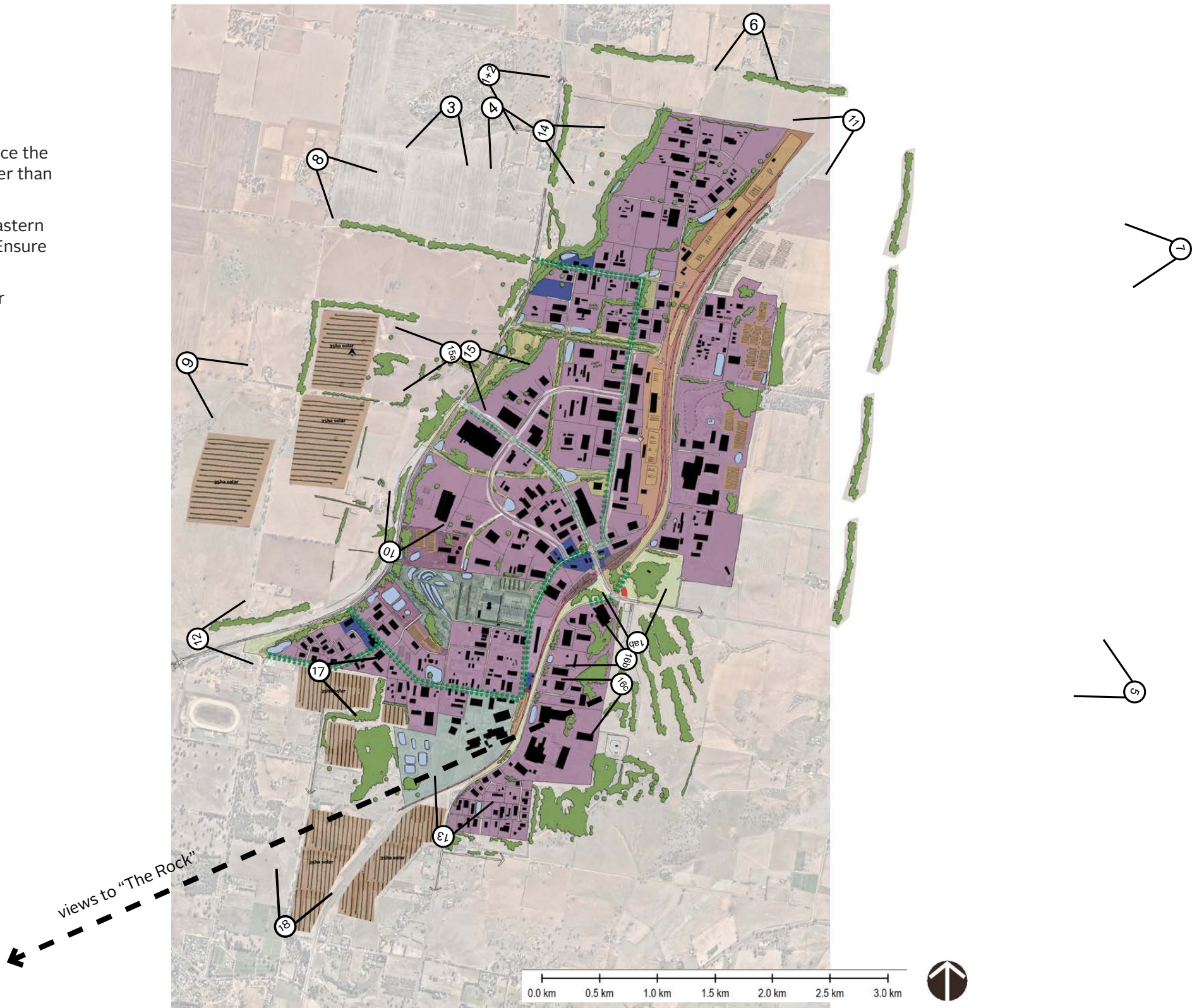
- _ The view from this location is largely static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ There is no documented cultural or heritage significance attributed to the view from this location and it is not a major iconic attraction. However there is a very high value placed on this general view by the Eunony Valley community.
- _ The long view is currently directly towards the rear of the existing development along Byrnes Road (e.g. ROBE and Energi), with agricultural land in the foreground. The view is framed by ridge-line views with vegetation.
- _ The development in the proposal does not appear to dominate the landscape setting from this viewpoint (as it is located on the other side of Byrnes Road) however it further builds upon those glimpsed long views towards ROBE. Although the existing industry buildings appear to be a minor obstruction to the viewshed in the model and the vast majority of the view looks towards farmland these obstructions are not in keeping with the landscape setting. While these buildings already partially “skyline” and interrupt that view of the ridge topography and horizon long views towards new buildings are visible and further interrupt the skyline.
- _ The planting East of Byrnes Road is partially effective in screening views as is the planting proposed along RiFL Road (and potentially the green infrastructure corridor).
- _ The foreground of the view of farmland is protected as is the ridge and landscape that frames the view (past the Northern SAP boundary and further South).

Viewpoint 7 *Continued*

Newelles Lane, Eunony Valley

What would further improve that view?

- _ Buildings on the eastern side of Byrnes Road with a reduced height and profile will reduce the extent in which skylining occurs when viewed from this location.. Cutting into sites rather than filling will also aid in reducing the profile of buildings from this view.
- _ Boundary plantings to the east of buildings and service areas for development on the eastern side of Byres Road will aid in screening (entirely and partially) buildings from this view. Ensure that these trees are planted close enough to create a continuous canopy
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials (and reflective cladding materials should be avoided).



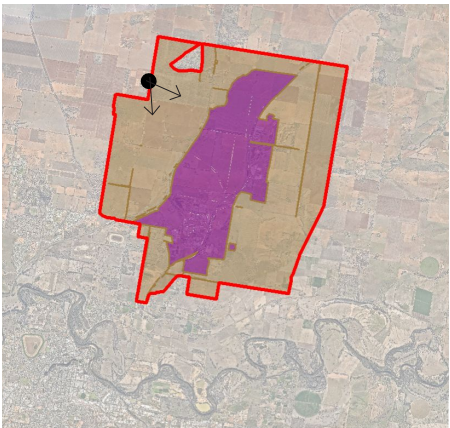
Proposed Illustrated Master Plan with revised potential solar farm location



Before



After



Viewpoint 8

Pine Ridge Cottage (Heritage Place)

Selected for analysis due to its historic heritage classification (and associated sensitivities), noting the proximity to the North Western SAP and Rural Activity Zone boundary and the potential views over any proposed small-scale solar farms in the vicinity.

- _ The view from this property is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ This is a registered local historic heritage place and therefore has some added sensitivities.
- _ The foreground and middle ground views look towards farmland and existing trees along Olympic Highway with long views towards the ridge with scattered development throughout. These buildings are punctuated across the landscape with vegetation, trees and open space.
- _ The developments in the proposal (including the new 35Ha solar farm to the North within the Rural Activity Zone and the development within the industrial core) do dominate the landscape setting from this viewpoint, more than originally anticipated. Some new tree planting (proposed as screening along Sutherlands Road) is visible but is insufficient in it's current modelled form to screen the view towards the new solar farm obstruction - which is the most visibly obtrusive element within this viewshed (as its the closest new piece of infrastructure).
- _ The mix of new plantings along roadways and green infrastructure corridors throughout the SAP do all contribute to a mitigation of the built form massing that would dominate the long views from this location. The ridge-lines are still visible looking North and West to frame this view.

What would further improve that view?

- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials and highly reflective cladding materials should be avoided. New development proposed for Merino Drive allotments should have particular considerations such as variations in materials and colours that break up the facade.
- _ The Northern-most solar farm (closest to Brucedale's Western boundary) should be reconsidered as this is highly obstructive to the view from this location. A more dense tree lined buffer should be modelled to test an improvement to the screen proposed along Sutherlands Road.
- _ Sutherlands Road revegetation should be considered as a higher priority in the landscape/ streetscape typology hierarchy to prompt denser and more structure street tree planting.
- _ The revegetation of creek-lines/tributaries along Olympic Highway would also improve this view towards development in the Western parts of the SAP from this section of Brucedale.
- _ The apparent effectiveness of tree planting proposed for streetscapes within the SAP is clear from this viewpoint so emphasis should be placed on early establishment of these new green corridors.

Viewpoint 8 - Pine Ridge Cottage (Heritage Place)



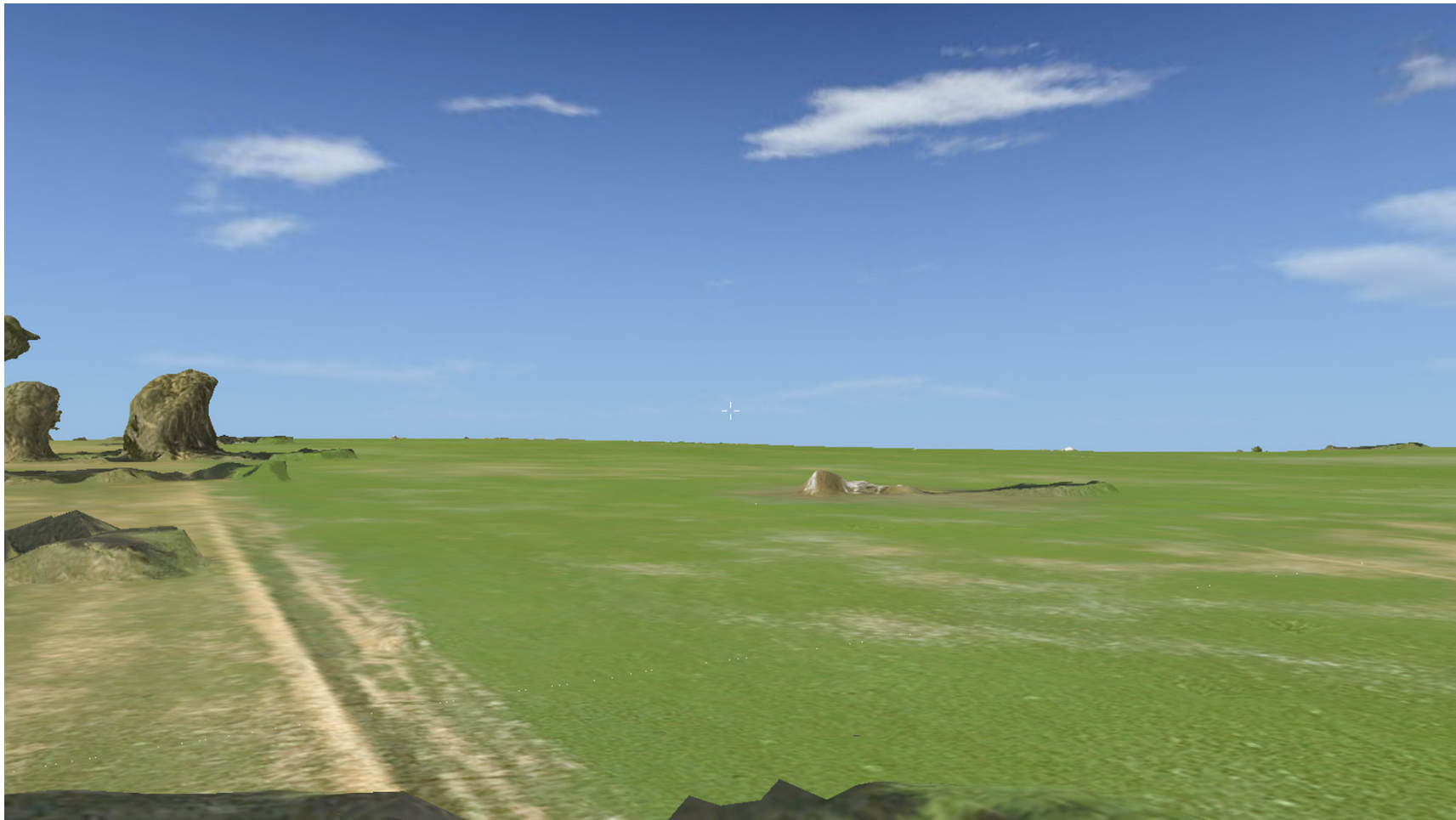
Viewpoint 8 showing revised location for Northern most small scale solar farm

- _ In response to the improvements listed in the previous discussion for Viewpoint 3, an alternative location for the Northern-most solar farm (closest to Brucedale's Western boundary) has been illustrated and modelled. This test illustrates that the view is greatly improved by this change. The potential new solar farm areas are now only glimpsed in the middle - long viewshed and don't appear to impact on the overall view to the extent as previously observed. The existing vegetation in the foreground of the view is an important factor in mitigation of the view towards the SAP, as is the proposed planting to Sutherlands Road.

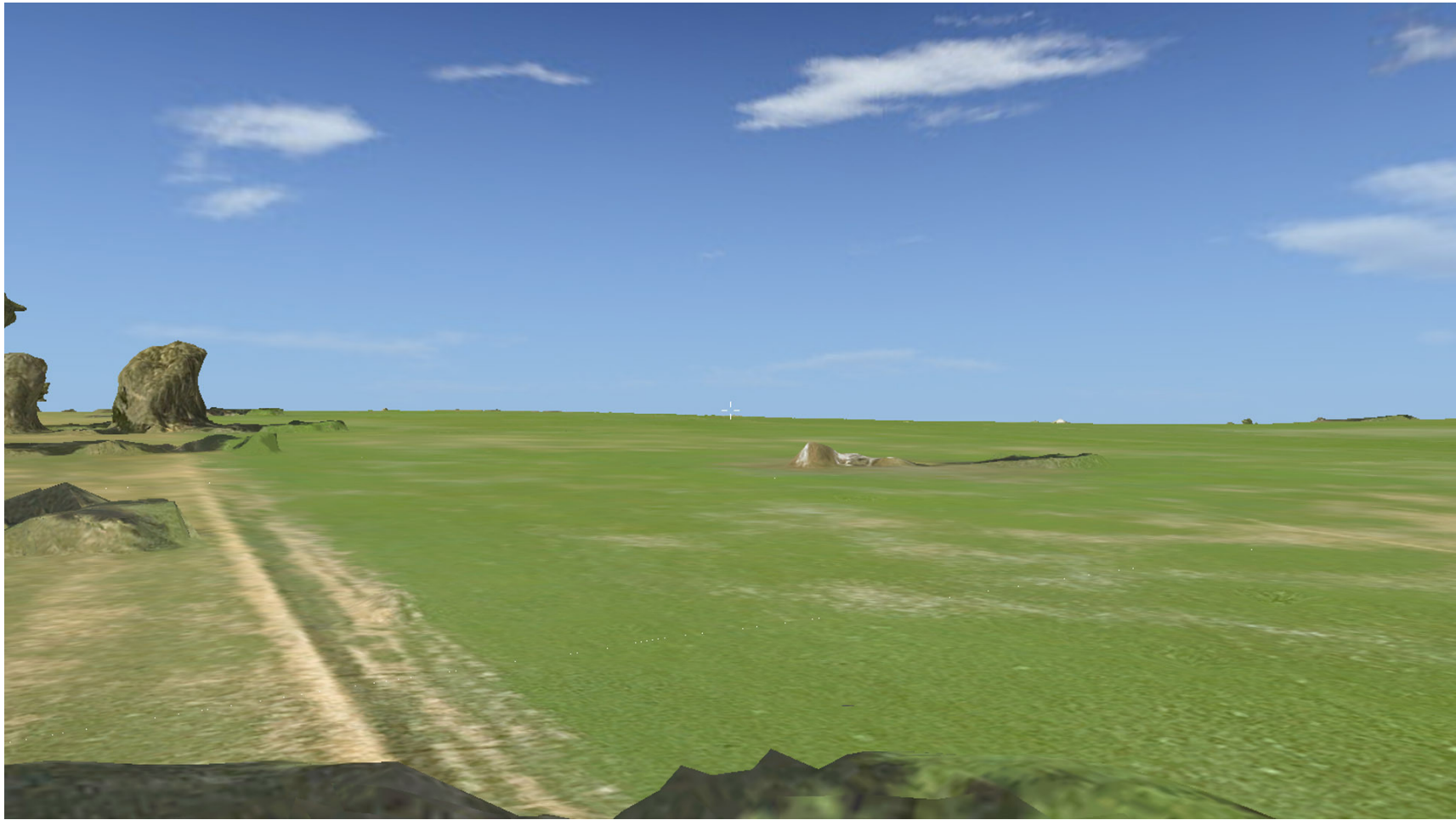
What would further improve that view?

- _ Development of new small scale solar farms should be limited to the northern extent as shown on the illustrated master plan right and no closer to Brucedale (as was originally modelled).
- _ A more dense tree lined buffer should be modelled to test an improvement to the screen proposed along Sutherlands Road. This will create a layered vegetation effect in combination with new planting along the solar farm boundary as shown in the Plan right. It is vital that this boundary planting is established and includes middle strata shrubs.
- _ Sutherlands Road revegetation should be considered as a higher priority in the landscape/streetscape typology hierarchy to prompt denser and more structured street tree planting.
- _ Existing vegetation should be retained and protected.

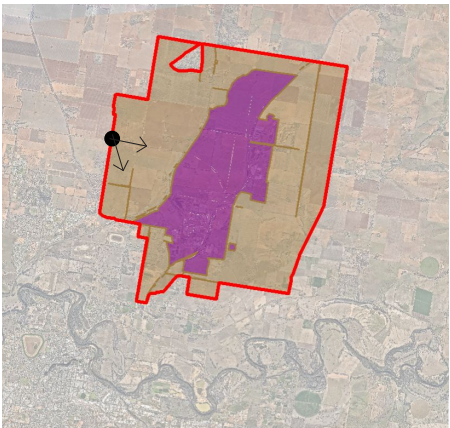




Before



After



Viewpoint 9

Western Edge of SAP - Edge of northern growth area

Selected for analysis due to the proximity to the Western SAP and Rural Activity Zone Boundary and the potential views over any proposed small-scale solar farms in the vicinity.

- _ The SAP does not appear to be visible from this viewpoint.
- _ The solar farms do not appear to be visible from this location.

What would further improve that view?

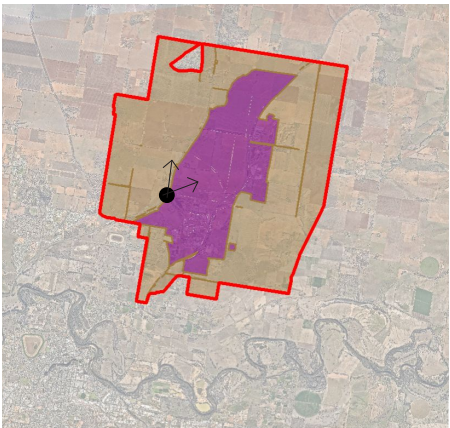
- _ No additional mitigation measures are considered necessary as there is negligible impact from this viewpoint.



Before



After



Viewpoint 10

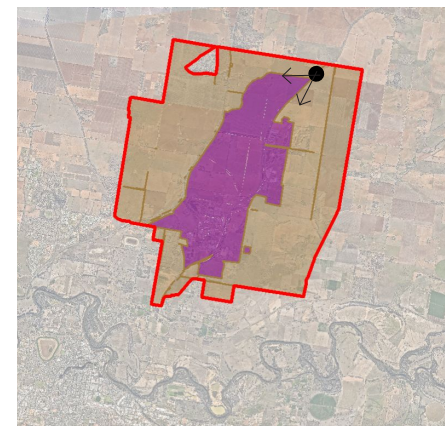
Bomen Road Olympic Hwy Intersection

Selected for analysis due to this location being a major gateway into the SAP and the potential experience of multiple viewers (using the Highway).

- _ The view from location 10 is taken from one of the gateways into the SAP from the South. The view would be dynamic in that it is seen from a moving vehicle and there would be other traffic surrounding the viewer (more than likely) at the time.
- _ The existing view is one of agricultural land, dotted with existing vegetation with no apparent built form. The landform appears relatively flat.
- _ The new design elements that appear to be visible on completion of the SAP mainly comprise of new tree planting along Olympic Highway and Bomen Road (no understorey planting has been modelled at this time). Some new built forms are visible looking North East into the development area that interrupt the views beyond. The combination of the new trees and buildings in the foreground equate to long views being lost, with the exception of what can be seen along the Olympic Highway road corridor. Appreciation for the greater landscape character is lost and the viewer is forced (in a way) to focus on these new elements in the foreground).
- _ The new 35Ha solar farms do not appear to be visible from this location although they would be directly to the left of the viewer.

What would further improve that view?

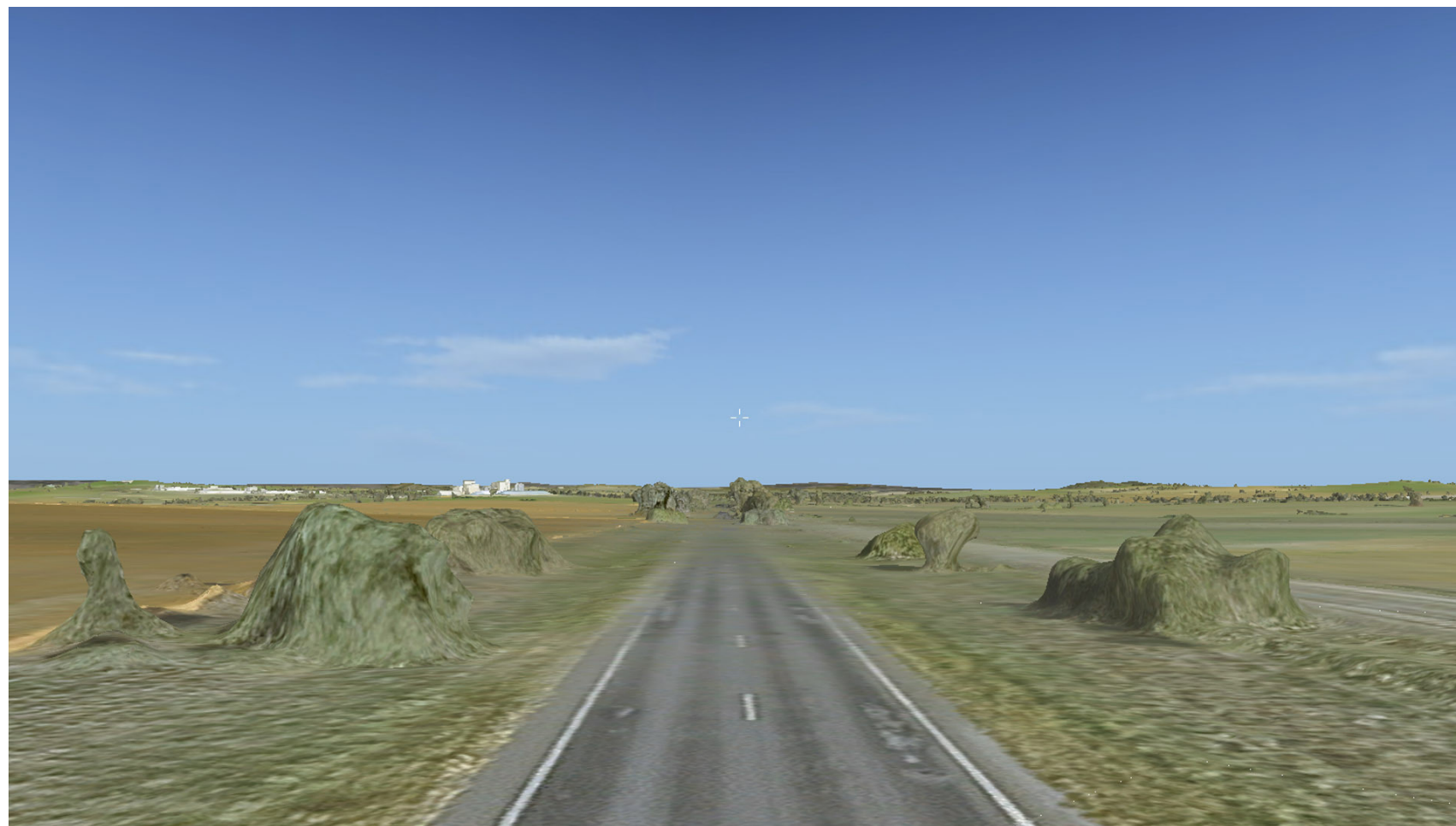
- _ In consideration of transit-oriented, dynamic viewpoints some emphasis must be placed on gaining an appreciation for your locality in that seeing landmark buildings assists with navigability and provides interest along a journey. Therefore, seeing buildings from the road is not necessarily a problem if they are designed with a material and colour palette that is reflective of the character of the environment and desired precinct Vision.
- _ Colour and material selections that celebrate the landscape/agricultural character should be selected for the larger buildings.
- _ Planting should strongly reflect the broad landscape character so appreciation for the “Place” isn't lost when you lose those long views and must focus on immediate surrounds.



Viewpoint 11

Byrnes Road (Elevated Viewpoint 1)

Selected for analysis due to this location being a major gateway into the SAP and the potential experience of multiple viewers (using Byrnes Road).



Before



After

- _ This viewpoint location provides a dynamic view experienced in transit when travelling into the SAP (with a south-facing view-cone). There is no documented significance attached to this view however as it is elevated it does provide a wide experiential view of the landscape character. The existing long view is currently interrupted by existing industrial development on the Eastern side of the proposed SAP area. The foreground view is of agricultural land with a background view to the treed/green ridge.
- _ On completion of the SAP the centre view (through the road corridor) will be terminated by large scale built form (consideration will need to be given to the design quality and appearance of these structures). The existing middle ground views are interrupted by SAP development on either side of Byrnes Road with little buffer planting mitigating this perspective (or effective in mitigating this perspective).
- _ Some buildings appear to punctuate the horizon line, with glimpsed topography visible past the SAP. The landscape character is altered by the proposal with limited emphasis on landscape interventions from this south facing view cone and gateway to the precinct.
- _ The existing solar farms in the foreground of the SAP also appear to be highly visible in contrast to the surrounding agricultural / green space with little mitigation and screening.
- _ The Rural Activity zone provides a beneficial boundary / edge to the industrial development to the East of Byrnes Road.

What would further improve that view?

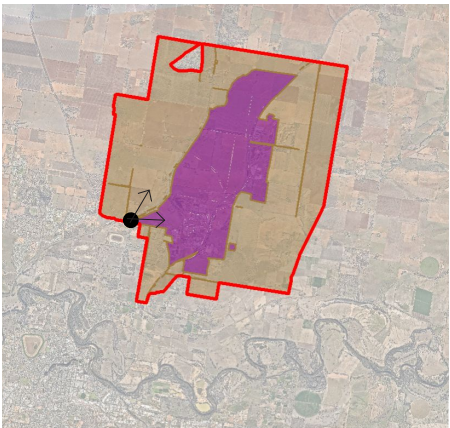
- _ In consideration of transit-oriented, dynamic viewpoints some emphasis must be placed on gaining an appreciation for your locality in that seeing landmark buildings assists with navigability and provides interest along a journey. Therefore, seeing buildings from the road is not necessarily a problem if they are designed with a material and colour palette that is reflective of the character of the environment and desired precinct Vision.
- _ Colour and material selections that celebrate the landscape/agricultural character should be selected for the larger buildings.
- _ Greater planting of the Northern Regional Enterprise Zone boundary and that of the existing solar farms should be considered to screen some views on approach from Byrnes Road. Rural road replanting is important on the East of Byrnes Road running perpendicular to this corridor to screen the middle ground views to the solar farm locations.
- _ Reducing the height of buildings east of Byrne Road would aid in reducing potential for skylining above the horizon from this viewpoint.
- _ Ensuring the establishment and protection of the green infrastructure corridors within the SAP.



Before



After



Viewpoint 12

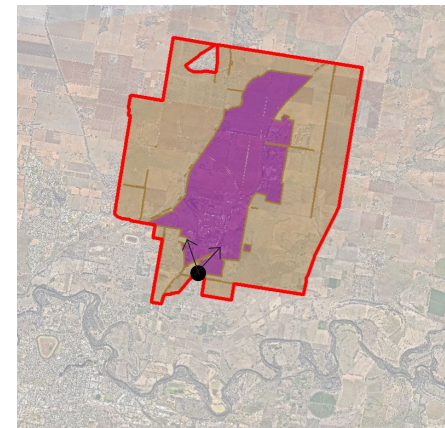
Olympic Highway SW Gateway

Selected for analysis due to this location being a major gateway into the SAP and the potential experience of multiple viewers (using the Highway).

- _ This viewpoint location provides a dynamic view experienced in transit when travelling into the SAP (with a north-facing view-cone). There is no documented significance attached to this view.
- _ The existing view is mainly of roadside vegetation with some middle ground views of pasture/ agricultural land and remnant vegetation in the background.
- _ Glimpses towards the new SAP development through the existing trees allows some navigability towards a potential destination (which should be important for a major gateway). The retention of this vegetation appears to provide very effective mitigation of the SAP from this viewpoint as the proposal does not dominate the landscape setting.

What would further improve that view?

- _ No additional mitigation measures are considered necessary as there is negligible impact from this viewpoint.



Viewpoint 13

Byrnes Road Southern Gateway

Selected for analysis due to this location being a major gateway into the SAP and the potential experience of multiple viewers (using Byrnes Road).

- _ Development within the Regional Enterprise Zone does not appear to be visible from this viewpoint.
- _ The new small scale solar farms do not appear to be visible from this location.

What would further improve that view?

- _ No additional mitigation measures are considered necessary as there is negligible impact from this viewpoint.



Before



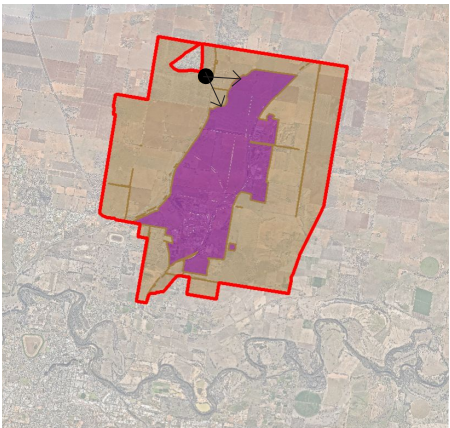
After



Before



After



Viewpoint 14

Brucedale Hall / Chapel / former public school

Selected for analysis due to the location of these buildings within the SAP and their historic heritage classification (and associated sensitivities).

- _ This public domain view is taken from a cluster of Local Historic Heritage items and therefore the experience of the landscape character carries some importance for visitors to this location. The foreground view is that of agricultural land and green space with glimpsed views to the topography beyond. Views of the horizon line are currently punctuated by existing industrial development (assumed to be ROBE) and are therefore not entirely uninterrupted. Foreground trees also punctuate these broad views to the middle and background.
- _ The existing view is of the East of the SAP at relatively close proximity, however this doesn't appear to compromise the experience of the viewer and amenity of the view more adversely than other viewpoint locations. This is due to a combination of the different vegetation mitigation measures proposed including creekline revegetation, Olympic Highway planting, Trahairs Road and the green infrastructure corridor and the retention of paddock trees. The SAP is glimpsed through these trees and does contribute to the existing built form massing of ROBE in the middle ground (particularly the taller buildings).
- _ The foreground remains unchanged, some views to the ridge-line in the North past Northern Regional Enterprise Zone boundary are retained.

What would further improve that view?

- _ Intensifying the tree planting along Olympic Highway and revegetation of the creekline revegetation should be a focus for mitigation of views from this location. Consider middle level strata shrubs within these planting groups.
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials (and reflective cladding materials should be avoided).
- _ Building scale must be considered and buildings that are excessively tall should be discouraged to avoid further interruption of long views towards the horizon and background topographical features.

Viewpoint 14

Brucedale Hall / Chapel / former public school



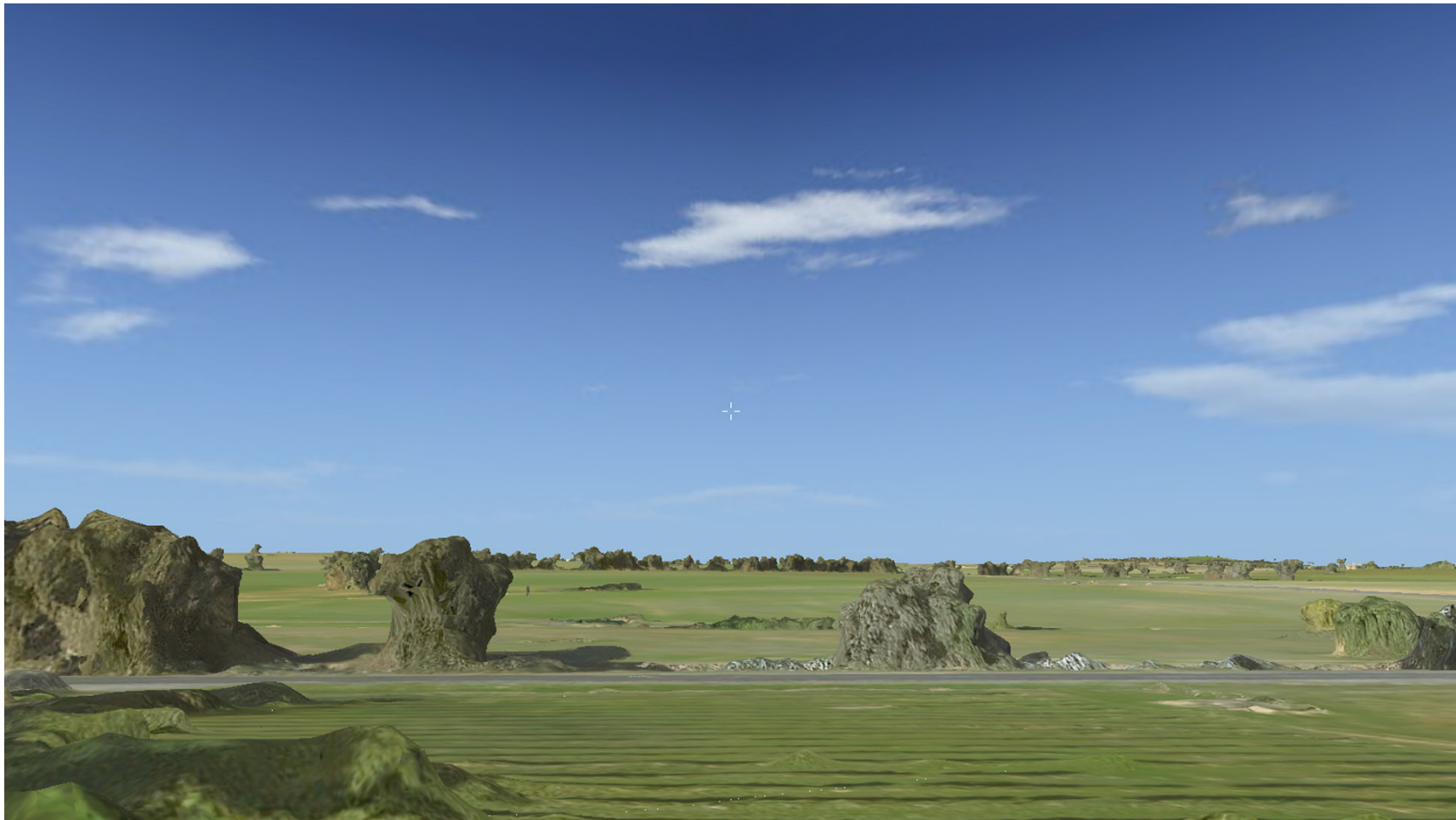
View of 15m Height, wider buildings (including stacks), located parallel to Byrnes Road, cut into the landform (without any fill material)



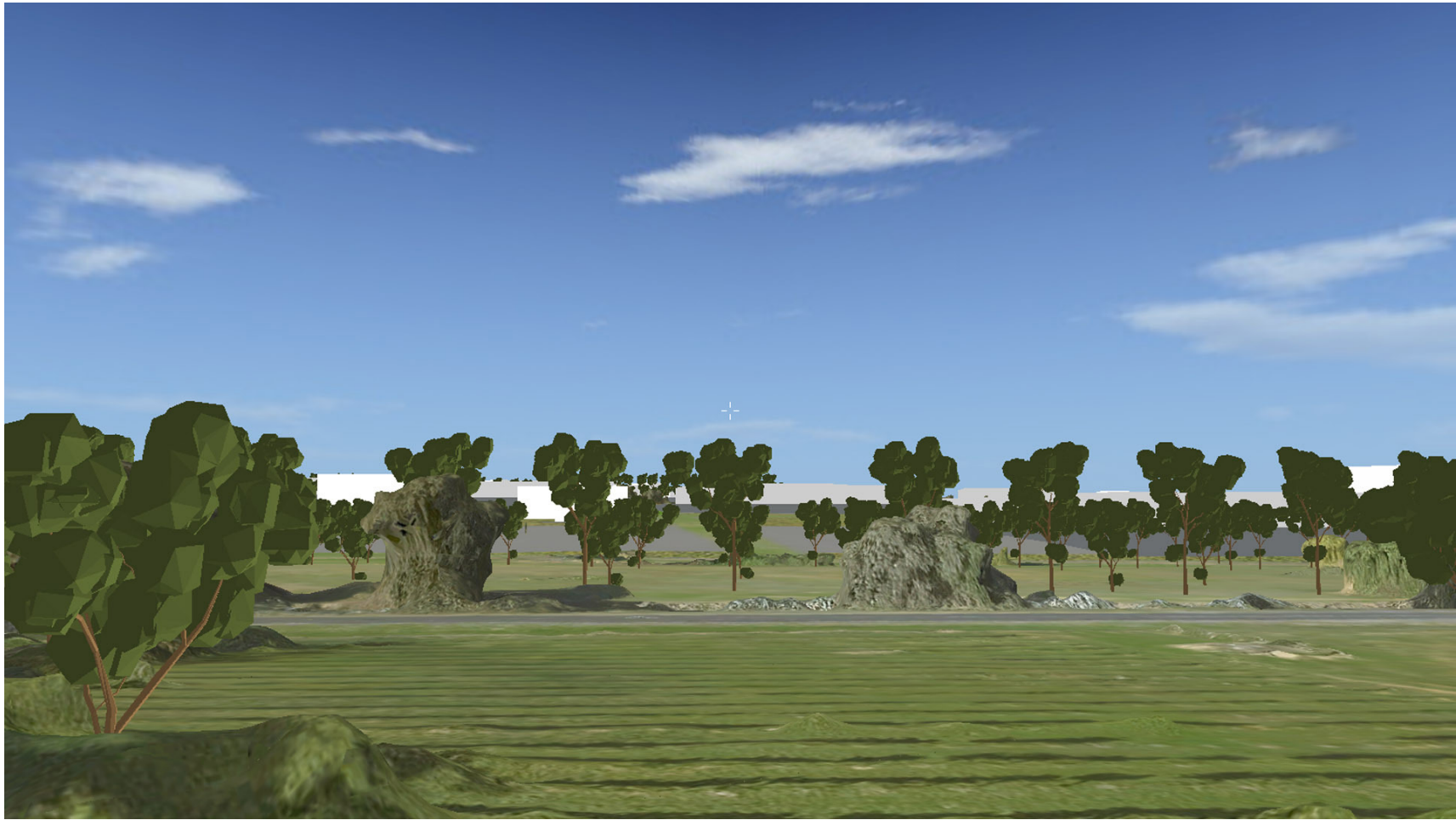
Viewpoint 14 illustrating the beneficial implementation of some development controls

- _ In order to test this viewpoint more rigorously and determine more specific development controls for new buildings East of Byrnes Road (that are located close to the existing ROBE development) different scenarios were modelled. The different scenarios included modelling an option with larger buildings built parallel and perpendicular to Byrnes Road, options for each including;
- 15m overall height, with 30m high stacks – balanced cut and fill
 - 15m overall height, with 30m high stacks – cut site only (building sits within the landscape)
 - 10m overall height – balanced cut and fill

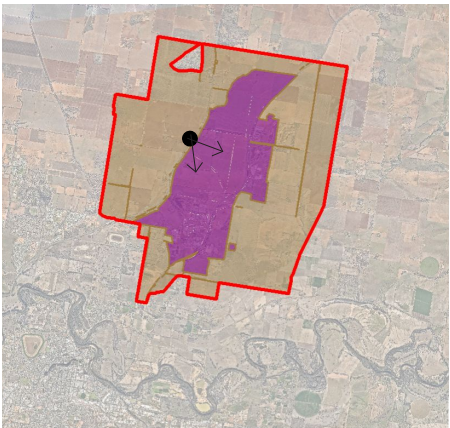
- _ The view above illustrates that new buildings constructed using only a cutting in (without fill material) construction technique are less visually obtrusive than if they are located on a filled site, and thus sit higher within the landscape. At this height it is clear from the above image that tree canopies are effective in screening much of this long view towards development East of Byrnes Road.
- _ From the analysis of scenarios (both 10m high buildings and 15m high buildings), height appeared to be less of a consideration in the mitigation of views than the cut and fill design from viewpoint 14.



Before



After



Viewpoint 15

Hopevale property (heritage place)

Selected for analysis due to the location of this property within the SAP and its historic heritage classification (and associated sensitivities). This location is particularly close to Olympic Highway and the Regional Enterprise Zone (with views East over this zone and West towards any potential new solar farms as illustrated in Viewpoint 15A).

- _ The view from this private property is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky). The view would be highly valued by the owners of this property who currently have an outlook towards uninterrupted agricultural land and existing vegetation in the background with some topographical variations.
- _ Medium and long views are completely removed by establishment of the proposal due to the location of this property right on the edge of the SAP boundary. Trees as modelled appear to be ineffective in screening built form as it is viewed through the middle strata. It is anticipated that more planting would be established here along Olympic Highway and Dukes Creek which would be effective in mitigating views to new buildings over time. This viewshed is completely altered from one of long views to solely foreground views of landscaped area and the rear of new property development (which could have further screening plantings).
- _ All proposed buildings “skyline” and interrupt any view towards the far ridgeline and horizon.

What would further improve that view?

- _ Intensifying the tree and shrub planting along Olympic Highway and Dukes creek tributary. Planting could also be considered within the property boundary line. Attractive landscaping and creek revegetation areas may prove an attractive outlook although this differs from what is currently seen (as this would provide screening in the foreground and long views over the landscape would be lost).
- _ Fencing typology and rear of property uses along the Western edge of the Regional Enterprise Zone should be well considered as they may be seen from Olympic Highway and properties in the vicinity.
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials and highly reflective cladding materials should be avoided.

Viewpoint 15A Hopevale property (heritage place) - View West to proposed new solar farms



View 15A Reverse view towards the proposed new solar farms

- _ This view tests the alternative location for the Northern-most solar farm (closest to Brucedale's Western boundary) that been illustrated and modelled. This test illustrates that although the solar farms are visible in the longer viewshed, the middle ground view from this viewpoint is well preserved.
- _ Buffer planting along the Eastern boundary of these solar farms will be very important in minimising the impacts of this new development on the view from this place.

What would further improve that view?

- _ Development of new small scale solar farms should be limited to the northern extent as shown on the illustrated master plan right and no closer to Brucedale (as was originally modelled).
- _ New planting along the solar farm boundaries should be established as shown in the Plan right. It is vital that this boundary planting includes middle strata shrubs.
- _ Existing vegetation should be retained and protected.

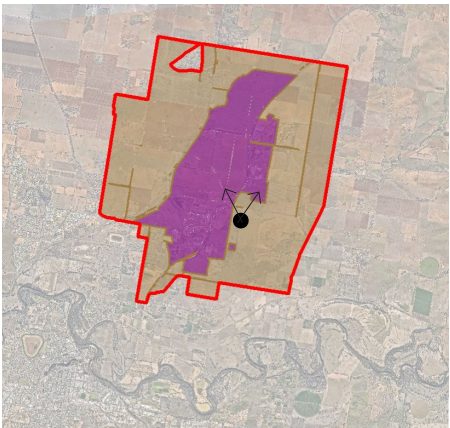




Before



After



Viewpoint 16A

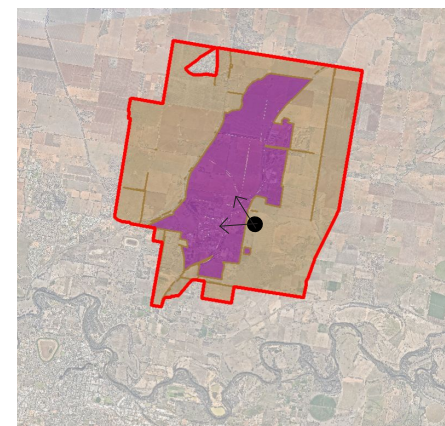
Bomen Axe Quarry. View north to Merino Drive junction and RiFL beyond

Selected for analysis due to the cultural significance of the Bomen Axe Quarry and its importance (including the views) to the Wiradjuri people.

- _ This viewpoint is taken from a culturally significant location to the Wiradjuri People - the Bomen Axe Quarry. The view over the landscape to the surrounding ridgelines and beyond is also culturally significant to the Wiradjuri people and should be considered a public domain and potentially “iconic” view. The view should therefore be considered sensitive for these reasons.
- _ The view from this place is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ The existing view looking North is interrupted by the RiFL industrial development but is largely of agricultural land, open space and the landform and Northern ridge. The foreground view is of the site itself with expansive views opening up in the background of the uninterrupted ridgeline (which is understood to be significant).
- _ At full development of the SAP the view to the surrounding ridgeline is preserved. No buildings appear to skyline which is positive. However, the middle ground view to the North is extensively built up with new industry and few mitigation methods appear effective from this height (looking down on the SAP) apart from the planting of major roadways like Bomen Road.
- _ Foreground views are retained as are views further East due to the establishment of the Rural Activity Zone during planning stage. It appears that the retention of existing trees provides a valuable mitigation technique.

What would further improve that view?

- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials (as well as highly reflective cladding materials should be avoided).
- _ Strengthen rural road planting and planting within sites on the Eastern side of the Regional Enterprise Zone.
- _ Plantings along roads within the SAP such as RiFL Road and Dorset Drive should be intensely planted with trees that have linking canopies to help mitigate built form views.
- _ Extend new plantings proposed for Byrnes Road at the roundabout further North as the landform rises.
- _ Denser planting of tall trees in the green infrastructure corridor could be considered that runs North - South through the SAP providing a break in the built form.
- _ Retain existing trees along the Western edge of the Bomen Axe Quarry between the site and the Regional Enterprise Zone.



Viewpoint 16B

Bomen Axe Quarry - View West to adjacent industry.

Selected for analysis due to the cultural significance of the Bomen Axe Quarry and its importance (including the views) to the Wiradjuri people.



Before

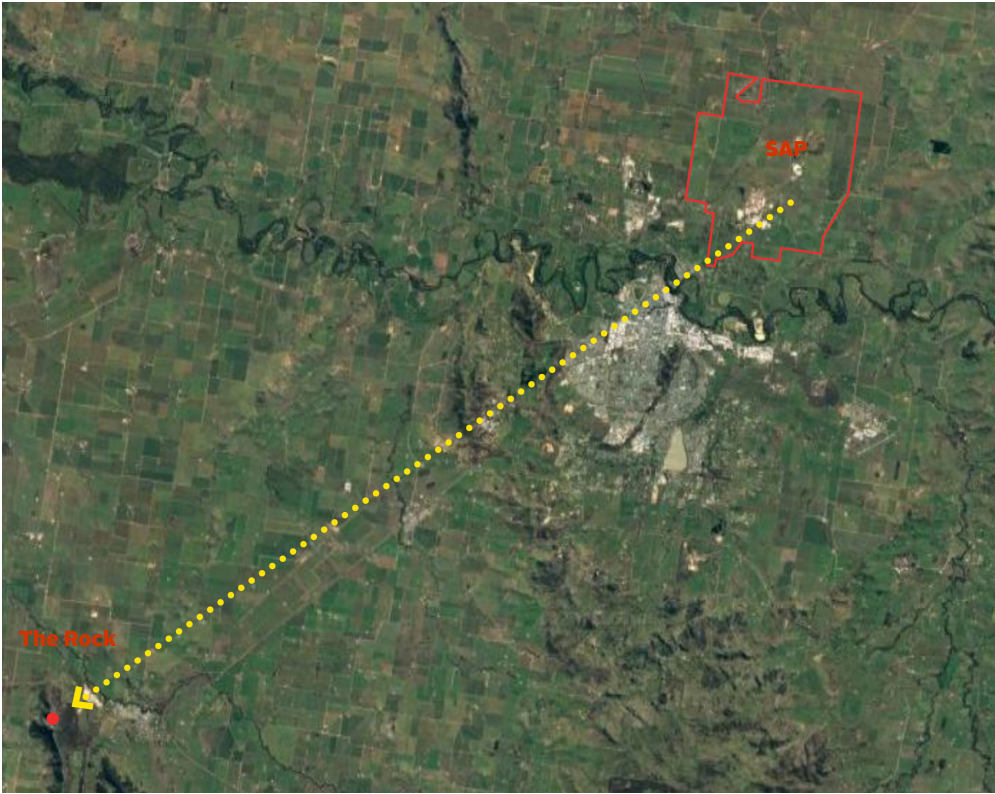


After

- _ This viewpoint is taken from a culturally significant location to the Wiradjuri People - the Bomen Axe Quarry. The view over the landscape to the surrounding ridgelines and beyond is also culturally significant to the Wiradjuri people and should be considered a public domain and potentially "iconic" view. The view should therefore be considered sensitive for these reasons.
- _ The view from this place is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ The existing view West is currently interrupted by the Bomen Business Park which dominates the middle ground views with existing vegetation in the foreground providing some mitigation. There are currently no buildings visible in the view towards the North West. The foreground view is of the Bomen Axe Quarry site itself with expansive views opening up in the background of the uninterrupted ridgeline (which is understood to be significant).
- _ At full development of the SAP, the view to the surrounding ridgeline is preserved. No buildings appear to skyline which is positive.
- _ There is some intensification of existing middle ground views in the centre of the viewpoint and looking further West however the limitations put on the SAP Industrial Core's siting is effective in retaining views to surrounding landscape and green space. Existing vegetation mitigates middle ground views to the existing development within the Bomen Business Park and the new SAP development that joins this.
- _ New small scale solar farms in the Western part of the SAP are clearly visible in the middle to background of this view.

What would further improve that view?

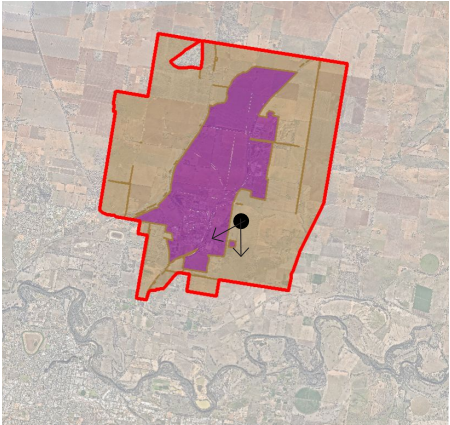
- _ Colour selections that recede and blend into the landscape should be selected for larger buildings and roof materials and highly reflective cladding materials should be avoided.
- _ Consider landscape buffer treatments to the Eastern boundaries of the new solar farms.
- _ Retain existing trees along the Western edge of the Bomen Axe Quarry between the site and the Regional Enterprise Zone.



The Rock in relation to the SAP area



View to The Rock from Bomen Axe Quarry



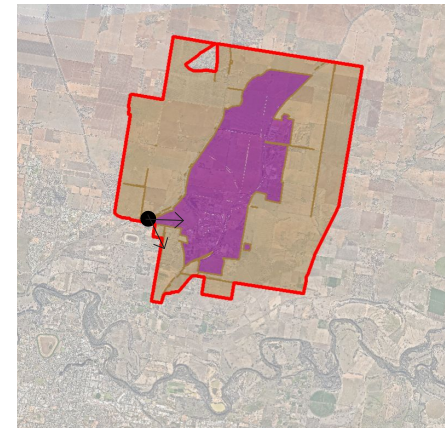
Viewpoint 16C

Bomen Axe Quarry - View South towards “Kengall” The Rock, Aboriginal Cultural Heritage Place
Selected for analysis due to the cultural significance of the Bomen Axe Quarry and its importance (including the views) to the Wiradjuri people.

- _ This viewpoint is taken from a culturally significant location to the Wiradjuri People - the Bomen Axe Quarry. This particular view towards “Kengall” The Rock is particularly culturally significant. The view should therefore be considered highly sensitive for these reasons.
- _ The view from this place is static, minor seasonal variations in foliage colour may occur throughout the year but any moving features are weather dependent or natural (such as birds flying through the sky).
- _ The view towards The Rock is unimpeded by the proposed development within the SAP. It is clearly visible on the skyline, the long view of the ridgeline is the focal point, without sky-lining buildings.

What would further improve that view?

- _ No additional mitigation measures are considered necessary as there is negligible impact from this viewpoint.



Viewpoint 17

Old Bomen Road - View East to adjacent potential solar farm location.

Selected for analysis to test the potential visibility of solar farms in this location from approach and adjacent residential properties.

- _ This viewpoint location provides a dynamic view experienced in transit adjacent to the SAP (with a north-facing view-cone), although this access road is minor and only used for local traffic.
- _ The existing view is mainly of roadside vegetation with some additional vegetation on the adjacent land parcel to the east. Scattered farm buildings exist among trees within open paddocks, and the water tower on the hill on the Teys site is visible above the horizon.
- _ Vegetation lines and frames views the ridge and horizon.
- _ The development intensifies middleground views, although does not appear to skyline above the ridge in this location, with the water tank remaining visible above it.
- _ The retention of existing vegetation and a vegetated buffer to the perimeter of the site

What would further improve that view?

- _ Landscape buffer plantings to the perimeter of the site along the western, southern and northern boundary will be important in mitigating views of the solar panels from this location and adjacent residential development.
- _ Existing roadside trees should be retained and further supplemented with additional plantings to further screen views, particularly from the west on approach up the hill along Old Bomen Road.
- _ It is vital that both road verge and boundary planting is layered and includes middle strata shrubs.



Before



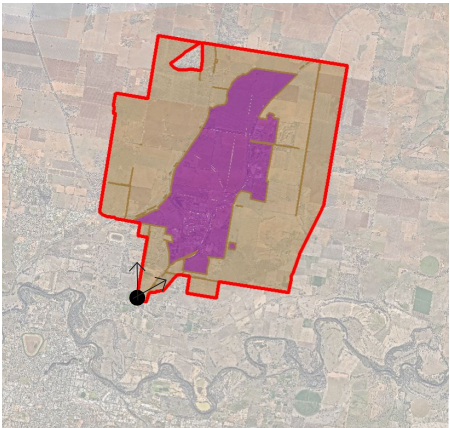
After



Before



After



Viewpoint 18

East Street - View north to potential solar farm.
Selected for analysis test the visual impact of a solar farm in this location.

- _ This viewpoint location provides a dynamic view experienced in transit adjacent to the SAP (with a north-facing view-cone), although this access road is minor and only used for local traffic.
- _ The existing view is mainly of roadside vegetation with some additional vegetation on the adjacent land parcel to the east. There are no apparent views through to the middle ground or longer distance through the vegetation.
- _ The retention of this vegetation appears to provide very effective mitigation of the SAP from this viewpoint as the proposal does not dominate the landscape setting.

What would further improve that view?

- _ No additional mitigation measures are considered necessary as there is negligible impact from this viewpoint.
- _ Retention of vegetation in place (both on private land and within road verge) will be important to screening any potential solar farm in this location.

Level 1, 21 Roper Street
Adelaide 5000 South Australia
08 8338 5511
admin1@jensenplus.com.au
www.jensenplus.com.au

