

Appendix E

Visual Impact Assessment

JEMALONG SOLAR FARM (SSD 8803) MODIFICATION 3

Visual Impact Assessment of Proposed Modifications

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JEMALONG SOLAR FARM
(SSD 8803) MODIFICATION 3
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REPORT

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1 PRELIMINARY

We have prepared this report for the sole purposes of Genex Power (“client”) for the specific purpose of only for which it is supplied (“purpose”). This report is strictly limited to the purpose and the facts and matters stated in it and does not apply directly or indirectly and will not be used for any other application, purpose, use or matter.

In preparing this report we have made certain assumptions. We have assumed that all information and documents provided to us by the client or as a result of a specific request or enquiry were complete, accurate and up-to-date. Where we have obtained information from a government register or database, we have assumed that the information is accurate. Where an assumption has been made, we have not made any independent investigations with respect to the matters the subject of that assumption. We are not aware of any reason why any of the assumptions are incorrect.

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1.1 Acronyms

| | |
|----------|--|
| AHD | Australian Height Datum |
| DCP | Development Control Plan |
| EIS | Environmental Impact Statement |
| EP&A Act | NSW Environmental Planning and Assessment Act 1979 |
| LEP | Local Environment Plan |
| LGA | Local Government Area. |
| REF | Review of Environmental Factors |
| RMS | New South Wales Roads and Maritime Services |
| SEARs | Standard Secretary’s Environmental Assessment Requirements |
| SWOT | Strengths Weaknesses Opportunities Threats |
| VIA | Visual Impact Assessment |

1.2 Terms

| | |
|--------------------------|--|
| Genex Power Ltd | The “client” for which this report was prepared. |
| Landscape Character | A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse. |
| Landscape Character Zone | An area of landscape with similar properties or strongly defined spatial qualities, distinct from areas immediately adjacent. |
| Magnitude | A term that combines the judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration. |
| Scenic amenity | The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area. |
| Sensitivity | A term applied to visual receivers, combining judgements of the susceptibility of the receiver to the specific type of change or development proposed and the value related to that receptor. |
| Solar array | Solar panels linked together to form an ‘array’. |
| Visual amenity | The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area. |
| Visual catchment | Extent of potential visibility to or from a specific area, feature or project. |
| Visual prominence | Is determined by the size, height and colour of proposed infrastructure elements and the degree to which the landscape within which they sit can assist in reducing their visual prominence (e.g. screening vegetation, land-form, etc.). |
| Visual receiver | Individuals and/or defined groups of people who have the potential to be affected by a proposal. |

1.3 Study Limitations

This assessment is intended to be an objective report based on professional analysis of the development. It seeks to establish the anticipated visual impacts of the modifications to the Jemalong Solar Farm on the range of viewers identified in the previously approved VIA prepared by Fresh Landscape Design.

This visual impact assessment of the modifications does not replace the existing visual impact assessment titled, “Visual Impact Assessment Jemalong Solar Station 1, Jemalong, NSW” dated July 2015 and prepared by Fresh Landscape Design. Nor does this assessment confirm the accuracy of any previous visual impact assessments.

The assessment has been undertaken based on conceptual level information and therefore is generally broad in its approach.

Landscape and visual assessment requires qualitative (subjective) judgements to be made. The assessment process aims to be objective and describe any changes factually. Potential changes as a result of the Project have been defined, however the significance of these changes requires qualitative (subjective) judgements to be made. The conclusions of this assessment therefore combine objective measurement and subjective professional interpretation.

The services and the purpose undertaken by RPS under the Contract in connection with preparing this report were limited to those specifically detailed in the Contract and this report, and are subject to the scope limitations set out in the Contract and this report.

Other than as expressly stated in this report to the contrary, the opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. RPS has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by RPS described in this report. RPS disclaims liability arising from any of the assumptions being incorrect.

2 INTRODUCTION

RPS has been commissioned by Genex Power to undertake a review of the modifications to Jemalong Solar (SSD 8803) project and identify any visual impact changes to the existing approved VIA and their amendments.

Development consent (SSD 8803) to the initial proposal was granted on 18 May 2018. The development consent as subsequently modified on:

- Modification 1: 24 July, 2018; and
- Modification 2: 3 September, 2019.

This visual impact assessment delivers an objective statement of the probable impacts on the visual environment resulting from the construction of the proposed modifications. The report documents the assessment of visual impact and provides an indication for suitable mitigation measures where appropriate.

2.1 The Proposal

Genex Power is proposing to develop the Jemalong Solar Farm (50MW) at Jemalong in central New South Wales (NSW) within the Forbes Local Government Area (LGA).

The modifications proposed to the approval for the project will involve the following:

- Along the southern boundary the construction of a 66kV Overhead Transmission Line within the boundary of the Project (previously approved as an underground transmission line).
- From the north eastern boundary of the site the construction of a 66kV Overhead Transmission Line within the boundary of the Project (previously approved as an underground transmission line) to connect to already approved overhead transmission lines.
- Confirmation that the proposed inverters will be housed in power conversion units to maximum height of 3.7 meters above surrounding finished surface level.

This refinement of the development is required due to the following factors:

- A more detailed design of the solar infrastructure.
- Review of the needs and requirements relating to transfer of power from the site to adjacent substation.

It is noted that the modifications do not involve works outside of the established project area for the original and modified application, that the approved generation capacity of the development remains unchanged, and previous environmental investigations remain valid.

A detailed commentary on the modification is collated in section 3: Project Modifications.

3 PROJECT MODIFICATIONS

Subsequent to the approval of modification 2 of the project, modification 3 of the project is proposed to involve the following amendments:

Southern Boundary Transmission Line

- Construction of a 66kV Overhead Transmission Line within the boundary of the Project (previously approved as an underground transmission line).
- The section of the transmission line to be converted to overhead is approximately 1.5km in length.
- This section of the transmission line will remain within the approved 10m wide easement.

Construction of the Transmission Line

- Construction of a 66kV Overhead Transmission Line within the boundary of the Project (previously approved as an underground transmission line).
- The section of the transmission line to be converted to overhead is approximately 580m in length.
- This section of the transmission line will remain within the approved 10m wide easement.

The section of the transmission line between these two (2) overhead lines (along the eastern boundary) is currently approved as an underground transmission line. No changes are proposed to this section of the transmission line.

Details of Inverters

- Installation of 20 inverters in 10 power conversion unit containers.
- Power conversion unit containers height is 2896 millimetres high.
- Power conversion unit containers installed with clearance to ground, varying in height, up to 800 millimetres from surrounding finished surface level.

The following Figure 1 indicates layout approved in modification 2 for the project and Figure 2 the layout proposed for modification 3.

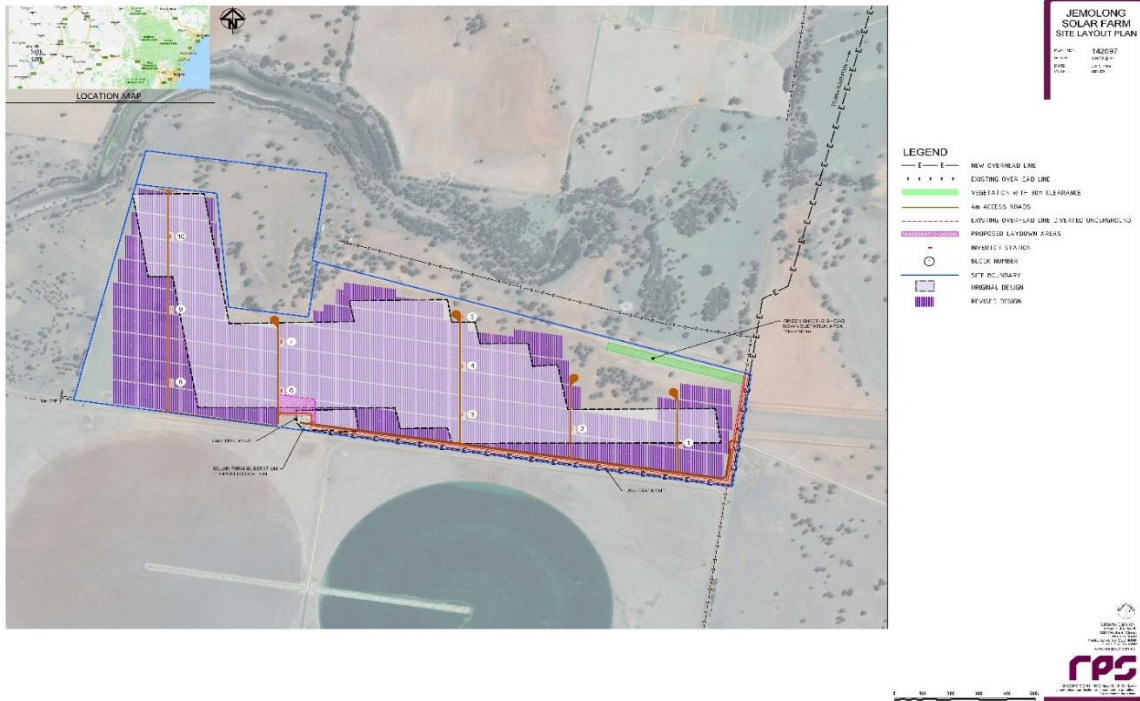


Figure 1 - Approved site layout (modification 2)

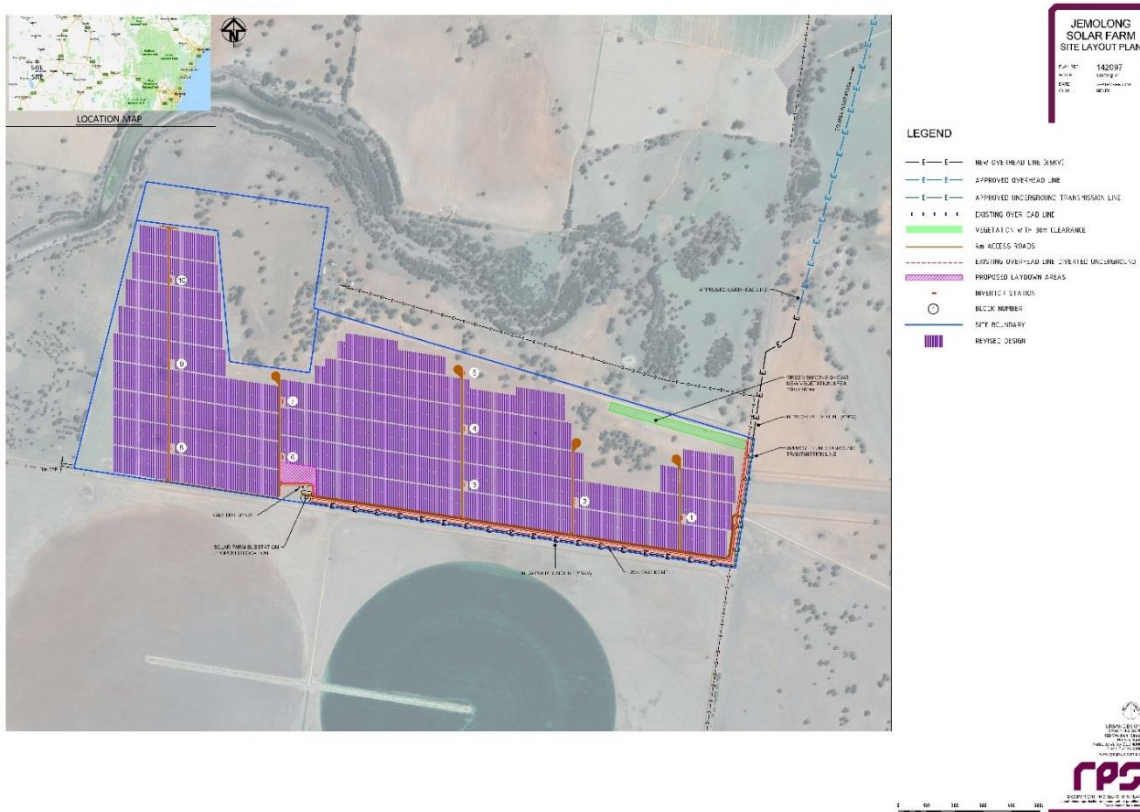


Figure 2 - Proposed site layout (modification 3)

3.1 Transmission lines

The proposal is for the conversion from underground transmission line to overhead 66kV transmission line along the Southern boundary of the site, as well as an extension to North-East of the site to meet the already approved overhead transmission line.

The following parameters on each of the overhead lines are as proposed in Table 1:

Table 1: Overhead transmission line parameters

| Overhead transmission line parameters | | |
|--|--|--|
| Parameter | Transmission line along Southern boundary from solar farm substation east to Eastern boundary of property | Transmission line from North-East corner of property boundary to meet approved overhead transmission line |
| Length of newly proposed overhead line converted from underground: | 1580 meters | 500 meters |
| Maximum height of poles: | 18 meters | <15 meters |
| Approximant number of poles: | 14 poles | 4 or 5 poles |

Table Note: values as supplied by Alex Wheeler on 3 September 2019

The following images (Figure 3) have been supplied as examples of the typical transmission lines used on previous projects of this nature:



Figure 3 - Typical overhead 66 kV transmission lines

The Quantum of the changes are detailed in Figure 4.

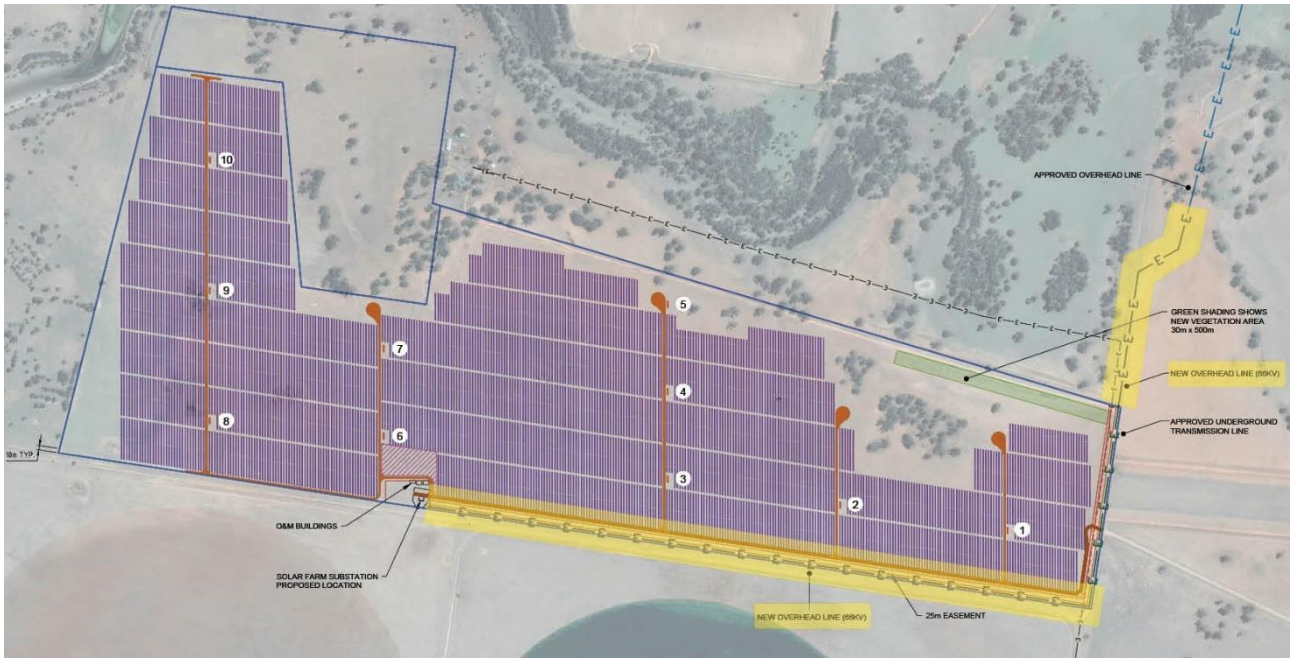


Figure 4 - Changes between modification 2 and proposed modification 3 (shown in yellow)

3.2 Inverters

The modified proposal for the installation of 20 inverters in 10 power conversion unit containers. Previous approvals had allowance for 22 inverters in 11 power conversion unit containers.

It is proposed that the power conversion unit containers height will be installed at a maximum height of 3700 millimetres above the surrounding finished surface height being:

- Power conversion unit containers at 2896 millimetres high.
- Clearance to ground, varying in height, up to 800 millimetres from surrounding finished surface level.

4 METHODOLOGY

To detail the visual impacts of the modification to the proposal, this report considers the existing visual receivers (viewpoints) identified in the approved VIA and identifies where a change to the established visual impact has occurred as a result of the modification. The changes are assessed in the same methodology as the original report prepared by Fresh Landscape Design [1]. The assessment methodology is based on the process described by the Landscape Institute and Institute of Environmental Management and Assessment [2] and Tudor [3].

The two major components of the assessment include; a baseline study and an impact assessment. The baseline study prepared by Fresh Landscape Design establishes an inventory of the existing landscape character and values in the places from where the development may be visible. The Visual Impact Assessment prepared by Fresh Landscape Design describes for the available views, the changes in visual character and visual amenity that are expected to result from the development.

To review the visual impacts of these changes RPS has undertaken the following methodology:

1. Describe the quantum of changes to the proposal (refer section 3 Project Modifications);
2. Confirm the visual baseline study undertaken by Fresh Landscape Design [1] (refer section 5 Review of visual baseline study);
 - a. Landscape Character Units;
 - b. Location of specific locations relating to visual impact;
3. Review visual impacts of proposed modifications from specific locations; and
4. Review of previously proposed mitigation measures in visual baseline study undertaken by Fresh Landscape Design [1] against the modification proposed for the works.

5 REVIEW OF VISUAL BASELINE STUDY

This section is a description of the baseline visual studies undertaken by Fresh Landscape Design [1] in the approved Visual Impact Assessment.

5.1 Landscape Character Units

The initial Visual Impact Assessment undertaken by Fresh Landscape Design [1] described various Landscape Character Units in and around the site with reference to the Visual landscape character preference indicators in Appendix 7 of the *Visual Landscape Planning in Western Australia* [4]. The following is a tabulation of the Landscape Character Units from this initial report:

Table 2: Summation of Landscape Character units [1]

| Landscape Unit | LCU1 | LCU2 | LCU3 | LCU4 | LCU5 | LCU6 |
|----------------------|---|---|---|--|--|---|
| Unit Name | Farmland | Lachlan Valley Way corridor | Lachlan River corridor | Bedgerabong settlement | Jemalong Ridge | Wilbertroy State Forest |
| Landform | Broad floodplain. | Broad floodplain. | River corridor is slightly sunken in the flood plain with the river banks sloping down to the water. | Flat flood plain beside meandering river. | The steep ridge line rises abruptly out of surrounding flat plain and runs approximately north-south over a large distance; Jemalong Ridge is a dominant form in the landscape and provides a backdrop for many views. | Slightly raised area in flat plain. |
| Vegetation | Large expanses of pasture grasses and annual crops including wheat and lucerne divided by shelter belts of native trees, occasionally exotic trees planted around farmhouses. | Open grassy woodland along roadsides with mature eucalypts. | Mature native trees line both sides of the river, creating a heavily shaded and enclosed linear space along the water body with a grassy understorey. | Mature native trees dominate the landscape which is also planted with exotic trees around houses and cleared for pasture grasses and annual crops. | Heavily vegetated with mature native trees. | Reported to have high ecological value, remnant woodland of Red River Gum, Grey Box and Belah. |
| Water | Straight irrigation channels have been excavated in the plain and are filled with water. | Adjacent to the Lachlan River corridor. | Meandering, shallow river with turgid, slow flowing water and some lagoons. | Lachlan River is nearby. | - | not known. |
| Natural Areas | - | - | Understorey with minimal shrub cover appears modified by grazing practices and human use. | - | Jemalong Ridge is relatively inaccessible due to the slopes and lack of road access; appears to contain relatively undisturbed native vegetation. | Managed as state forest, part of this area was included in the National Park Estate in 2012 but no information about the site is listed on the NSW National |

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| Landscape Unit | LCU1 | LCU2 | LCU3 | LCU4 | LCU5 | LCU6 |
|-------------------------------------|--|--|--|---|---|--|
| | | | | | | Parks and Wildlife Service website. |
| Colour | Seasonal changes in colours of crops and pastures. | Dominated by dark grey road surface, drab greens and browns of vegetation and often blue sky. | Dark brown trunks and drab, dark greens. | Seasonal variation from crops and deciduous trees with patches of drab greens and bright expanses of sky. | Drab grey greens. | - |
| Scarcity | Seen across a wide area. | Seen over a long distance and typical of roadsides in the area. | Scarce in the wider region and attractive as a water body in a dry place. | - | Relatively scarce in the region. | - |
| Human land use | Used extensively for grazing and agriculture. | Transport route between Forbes and Condoblin with moderate traffic flows and relatively unused land either side of the road surface. | Used as water source for irrigation and used by locals and visitors for recreation such as picnics, fishing and camping. | The settlement is divided into small rural lots located mainly along one road without a clearly defined centre; many lots have a house and farm buildings surrounded by small paddocks. | Appears unsettled with no visible built form apart from roads and transmission lines passing through gaps in the ridge. | Previously used for logging then managed by grazing by adjacent landowners; there appears to be no public road access. |
| Built characteristics | Scattered farmhouses and sheds, many with weathered galvanised or grey powder coated steel sheeting walls and roofs; straight fences, sealed and unsealed roads and irrigation channels divide the landscape into geometric shapes such as squares and rectangles. | Asphalt road is dominant structure, corridor is generally delineated by farm fencing. | Few built structures other than bridges and the Jemalong Weir. | Small houses and farming infrastructure such as sheds, fences, machinery, tracks and fences; community resources including a primary school, church, racecourse, hall and bushfire brigade. | - | - |
| Agricultural characteristics | Intensively managed farmland with many agricultural enterprises including grazing cattle and sheep, crops including wheat, lucerne and other | - | - | Relatively small flat paddocks adjacent to houses used for a range of small farm purposes. | - | - |

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| Landscape Unit | LCU1 | LCU2 | LCU3 | LCU4 | LCU5 | LCU6 |
|---|--|--|---|--|---|--|
| | fodder crops and oranges. | | | | | |
| Key landscape character elements | Broad, open landscape combining a variety of rural uses into a vast rural patchwork with Jemalong Ridge and the tree-lined river as backdrops to views. | Flat linear road corridor with gentle bends and curves enclosed by large trees on both sides. Views out to adjacent farmland and the Lachlan River are filtered by tree trunks and screened by dense vegetation along the river. | The meandering river is an attractive feature with expanses of water and sloping banks in contrast to the surrounding areas. The shady tree canopy provides a sense of enclosure and tranquillity. | An eclectic mix of rural style houses and farm buildings interspersed with mature trees and cleared patches along roadside with potential to develop into rural village. | Stark contrast between the steep, heavily vegetated ridgeline and the surrounding rural floodplain. This ridgeline would provide expansive views across the landscape if it was accessible. The break in the ridgeline at the Lachlan River creates a gateway to the Jemalong area. | This area was not able to be visited. |
| Visual amenity and quality | Considered attractive as a working rural landscape with wide, open spaces covered with pasture or crops and areas of native trees; contains some buildings of heritage interest; views from individual houses likely to be highly valued by occupants. | Moderately attractive travel route through a typical rural working landscape. | Highly valued locally as a relatively natural area used for recreation; mentioned in tourism literature and is a landmark and backdrop for surrounding areas; likely to have significance for traditional owners. | Likely to be valued locally as familiar rural-style landscape without distinctive scenic features; contains places of heritage interest; views from individual houses likely to be highly valued by occupants. | Valued locally as dramatic landform and relatively natural area; identified in Edge Land Planning (2009) as a key landscape feature of the Forbes area. | Little seen but valued at state level for ecological values. |

5.2 Visual Impact from specific locations

The initial Visual Impact Assessment undertaken by Fresh Landscape Design [1] identified a series of observation points in the study area to sample views that might be affected by the proposed development, refer Figure 5. In the original report these points were used to assess the visual effects for the proposed development considering:

- The susceptibility of the viewers to change;
- The value related to the view;
- The size or scale of the visual effect;
- The geographic extent of the effect; and/or,
- The duration and reversibility of the effect.

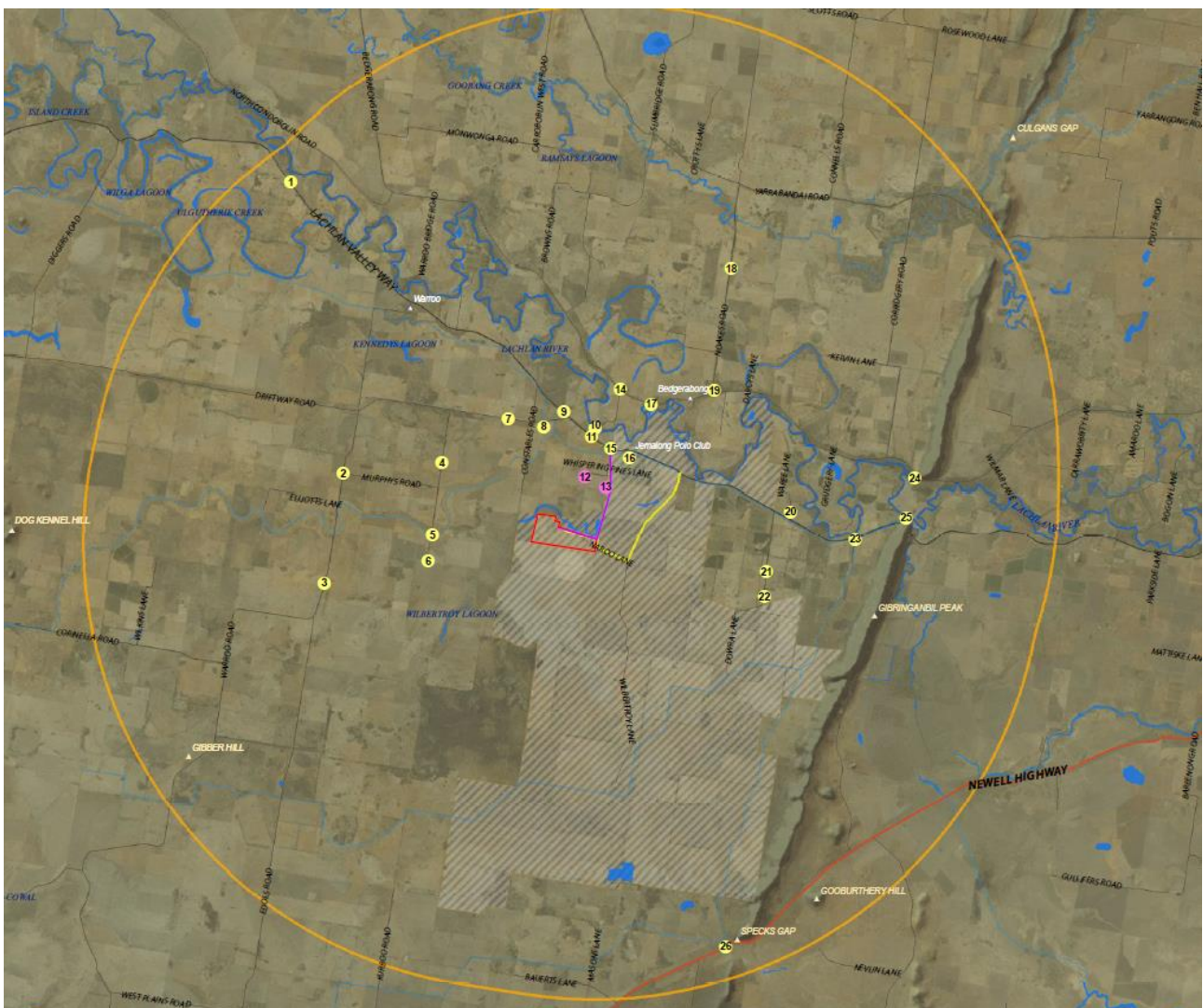


Figure 5 - Established viewpoints – refer [1] for established viewpoint locations.

6 VISUAL IMPACT ASSESSMENT OF MODIFICATIONS

In order to qualify the visual impacts of the project on surrounding viewpoints the initial Visual Impact Assessment undertaken by Fresh Landscape Design [1] undertook a review of 26 viewpoints to determine:

- The visual effects of the proposed development;
- Susceptibility of viewers to change; and
- The significance of the effects.

The below Table 3 outlines the visual impact significance established in the approved VIA, and then identifies whether the modified proposal creates any change to the visual impact.

Table 3: Assessment of visual impact changes

| Established Viewpoint [1] | Existing VIA Visual impact significance [1] | Modified proposal Visual impact significance Modifications 1 and 2 | Modified proposal Visual impact significance Modification 3 |
|----------------------------------|--|--|---|
| V1 – Lachlan Valley Way 1 | Not significant (minimal visual effects due to distance to development). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V2 – Murphy's Road | Not significant (visual effects unlikely to be seen from this viewpoint). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V3 – Waroo Rd | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V4 – Willawang Road 1 | Not significant (visual effects are relatively small, generally not seen by highly susceptible viewers, heliostat glare is unlikely and mitigation opportunities exist if required). | The visual impact significance remains as not significant. Heliostats are no longer part of the solar array design. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment. The additional overhead transmission lines do not increase the visibility of the proposal at this viewpoint and distance. The visibility of the Power conversion unit containers is not increased at this viewpoint. |
| V5 – Willawang Road 2 | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |

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| V6 – Willawang Road 3 | Not significant (visual effects will be relatively small in scale and generally not seen by highly susceptible viewers). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment. The additional overhead transmission lines do not increase the visibility or scale of the proposal at this viewpoint and distance. The visibility of the Power conversion unit containers is not increased at this viewpoint. |
| V7 – Driftway 1 | Not significant (visual effects unlikely to be seen or will be relatively small in scale and viewed for short durations). | The visual impact significance is relatively unchanged from the original assessment. Where the modified solar array footprint includes panels in the south-west corner of the site, these panels may be visible. There is a potentially minor 5% increase in visual impact. | The visual impact significance is unchanged from the modified assessment. The additional overhead transmission lines do not increase the visibility or scale of the proposal at this viewpoint and distance. The visibility of the Power conversion unit containers is not increased at this viewpoint. |
| V8 – House - Driftway | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V9 – Lachlan Valley Way 2 | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V10 – Hodges Road | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V11 – House – Lachlan Valley Way | Not significant (visual effects unlikely to be seen to be seen from the houses and are small in magnitude for travellers). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V12 – House 1 – Whispering Pines Lane | Significant (visual effects of JSS1 extend across the breadth of the view but are relatively small in height, viable mitigation opportunities are available and landowner is unconcerned). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the modified assessment. The additional overhead transmission lines and the changes to the power conversion unit containers do not increase the visibility or scale of the proposal at this viewpoint and distance (2 kilometres from proposal). |

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|---------------------------------------|--|--|--|
| V13 – House 2 – Whispering Pines Lane | Significant (visual effects of the transmission line will contrast with existing elements and be viewed for extended lengths of time from the house and garden, visual effects of JSS1 will be not significant because of the small proportion of view occupied by the development). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the modified assessment. Noting that the assessment of the original proposal considered the visual impacts of the transmission lines adjacent to this viewpoint the additional overhead transmission lines do not increase the visibility or scale of the proposal at this viewpoint and distance (1.5 kilometres from proposal). |
| V14 – North Condobolin Road West | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V15 - Substation | Not significant (visual effects unlikely to be noticed). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be noticed from this viewpoint. |
| V16 – Jemalong Polo Club | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V17 – Bedgerabong West | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V18 – Noakes Road | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V19 – Bedgerabong East | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V20 – Waree Lane | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |

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|----------------------------------|--|--|---|
| V21 – Dowra Lane North | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V22 – Dowra Lane South | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V23 – Specks Lane | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V24 – North Condobolin Road East | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V25 – Jemalong Weir | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |
| V26 – Newell Highway | Not significant (visual effects unlikely to be seen). | The visual impact significance is unchanged from the original assessment. The modified footprint does not increase the visibility of the proposal. | The visual impact significance is unchanged from the original and modified assessment as the proposal is unlikely to be seen from this viewpoint. |

7 VISUAL IMPACT ASSESSMENT- MITIGATION MEASURES

The following mitigation measures were proposed to manage and minimise the impacts on visual amenity by the proposed solar farm as part of application for modification 1 of the development consent:

| Measure | Feasible | Effective | Reliability |
|--|----------|------------------|-------------|
| 1. Selection of solar panels which minimise the potential for off-site visual impacts such as glare or reflection. If glare or reflection is experienced on neighbouring properties, install shade material on security fence in targeted locations. | Yes | Immediately | Excellent |
| 2. Establish and maintain a mature vegetated buffer with a variety of endemic species capable of providing effective screening (within 5 years) of the solar panels and ancillary infrastructure (excluding overhead powerlines) at the location outlined in Figure 1 of the Development Consent SSD 8803. | Yes | Within 3-5 years | Good |
| 3. All external lighting is low intensity (except where required for safety or emergency purposes) | Yes | Immediately | Excellent |
| 4. All external site lighting does not shine above the horizon | Yes | Immediately | Excellent |
| 5. All lighting complies with AS4282 (int) 1997 – Control of obtrusive effects of outdoor lighting, or its latest version | Yes | Immediately | Excellent |
| 6. Screen planting south of house area at V12 House 1 – Whispering Pines Lane to screen views to receiving towers* | Yes | Within 3-5 years | Good |
| 7. Locate new transmission line poles to minimise impacts of views from House 2 in Whispering Pines Lane | Yes | Immediate | Excellent |
| 8. Select colours for above ground structures, including the construction site offices, sympathetic to the landscape character of the site and surrounding | Yes | Immediate | Excellent |
| 9. Not mount any advertising signs or logos on site, except where required for identification or safety purposes | Yes | Immediate | Excellent |

It is noted that the modified proposal does not contain receiving tower and therefore measure 8 should read as follows:

- Screen planting south of house area at V12 House 1 – Whispering Pines Lane to screen views to **solar PV panels**.

On the basis of reconciling the significant impacts noted in the Visual Impact Assessment to the below noted sites the measures previously outlined (and as above) **do not require modification** on the basis of the proposed changes add overhead transmission lines and the height of the Power conversion unit containers:

- V12 – House 1 – Whispering Pines Lane; and
- V13 – House 2 – Whispering Pines Lane.

8 CONCLUSION

A key consideration in the assessment of the visual impact of the proposal will be the perception of local residents to elements that evoke a variety of responses.

Per previous reports there are two sites, both residences on Whispering Pines Lane, unto which there are significant visual impacts if the proposal is not adequately mitigated.

That noted the degree to which the viewers will be impacted is influenced by an individual's perceptions of what change will bring. The residents and users of the landscape surrounding the site will reflect a range of sensitivities. The degree to which the changes to the landscape are perceived negatively will depend on the actual users / residents.

Following review of the Visual Impact Assessment prepared by Fresh Landscape Design [1], the amended Visual Impact prepared by RPS for modification 2 of these works and the proposed changes to the project, the mitigation measures proposed remain relevant to the current project (refer section 7: VISUAL IMPACT ASSESSMENT- MITIGATION MEASURES).

9 REFERENCES

1. Fresh Landscape Design (2015) Visual Impact Assessment Jemalong Solar Station 1 Jemalong, NSW, Issue July 2015.
2. Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment Available online <http://bailey.persona-pi.com/Public-Inquiries/A465-English/10%20-%20Landscape%20and%20Visual%20Impact/10.2.8%20-%20IEMA%202013%20Guidelines%20for%20Landscape%20and%20Visual%20Impact%20Assessment.pdf>.
3. Tudor, C. (2014) An approach the Landscape Character Assessment. Available online www.gov.uk/natural-england.
4. Western Australian Planning Commission (2007) Visual Landscape Planning in Western Australia Available online https://www.dplh.wa.gov.au/getmedia/eb523b89-fbdf-4af7-aff1-c3575c0b5c8a/ML_Visual-landscape-planning-in-Western-Australia.