

# VISUAL IMPACT ASSESSMENT

## Quirindi 1B Solar Farm



for ITP Development Pty Ltd

19 April 2024

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### Attachment A: Site photographs

## Project details

<b>Project number</b>	<b>0523</b>
<b>Project title</b>	Quirindi Solar Farm
<b>Document title</b>	Visual Impact Assessment
<b>Property</b>	Lots 130 & 134 DP 751009 Borah Creek Road, Quirindi, NSW
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<b>Version</b>	Draft: 14 December 2023 Final: 8 January 2024 Final Rev A: 19 April 2024

**Report title:** This report should be cited as *Quirindi Solar Farm Visual Impact Assessment*, prepared by Zenith Town Planning Pty Ltd, dated 19 April 2024.

**Acknowledgements:** This report has been prepared by Zenith Town Planning Pty Ltd using information supplied by ITP Development Pty Ltd and sourced from local, NSW and Australian government agencies.

**Ownership:** This report is the intellectual property of ITP Development Pty Ltd and Zenith Town Planning Pty Ltd.

**Disclaimer:** The contents of this report are only to be used for the express purpose of supporting the respective project described above. All care is taken to ensure the accuracy and veracity of this information, however, no responsibility is accepted for the interpretation of that information by end users.

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## 1. Introduction

The purpose of this report is to assess the landscape character and visual impacts of a proposed solar farm at Quirindi, located in Liverpool Plains Shire Council area and to be known as the Quirindi 1B Solar Farm.

The scope of this report is to evaluate the potential impacts on landscape character and visual amenity. To achieve this end the report addresses:

- the location and physical characteristics of the site on which the works are proposed,
- the character of the surrounding landscape and the visual catchment within which the proposed works may be of significance,
- potential impacts on the landscape, viewpoints and receivers located within the visual catchment, and
- means to avoid or mitigate potential impacts.

The proponent of the facility which is of 5MW AC capacity is ITP Development Pty Ltd.

## 2. Methodology

Impacts on the visual and scenic amenity of the proposed Quirindi 1B Solar Farm have been assessed by Zenith Town Planning Pty Ltd using the RMS guideline *Environmental Impact Assessment Practice Note– Guideline for Landscape Character and Visual Impact Assessment* (EIA-N04 Version 2.1 released on 21 August 2020). Details of methodology are given below.

A site inspection was carried out on 20 April 2023. Photographs of the site and surrounding land were taken at ground level. Details of the location of the proposed works and the surrounding area have been analysed out to identify the visual catchment, the context of the site of the proposed works and observation points. Land uses and characteristics of the environment such as topography, vegetation, architecture of neighbouring buildings and any heritage values of any significant sites in the vicinity of the proposed solar farm were noted and the capacity of the area to absorb physical change is assessed.

Development plans for the solar farm have been reviewed and the likely impacts on landscape character identified. This is determined by the sensitivity of the landscape to physical change and the magnitude, or relative size and scale, of the works.

The visual significance of the site to observation points and receivers within the visual catchment is described in terms of proximity to the site, landscape character, the composition of views and the sensitivity to change that will affect scenic values.

The visual impacts that will be experienced by each observation point and receiver are identified and evaluated in terms of the sensitivity of each observation point and receiver to change and the magnitude of that change in terms of the proposed works.

The impacts are calculated and ranked according to negligible, low, moderate or high impact based on the following matrix (Table 1).

**Table 1: Landscape character and visual impact grading matrix. Source: RMS Guideline for Landscape Character and Visual Impact Assessment, 2018**

Landscape character and visual impact grading matrix					
	Magnitude				
Sensitivity		High	Moderate	Low	Negligible
	High	High impact	High-moderate	Moderate	Negligible
	Moderate	High-moderate	Moderate	Moderate-low	Negligible
	Low	Moderate	Moderate-low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

An explanation of the rankings of impacts on landscape character and visual amenity are provided in Table 2, sourced from *Pacific Highway HW10 and Wyong Road MR335 intersection and approaches upgrade Tuggerah* by Peter Andrews & Associates Pty Ltd/Corkery Consulting Pty Ltd, September 2012.

**Table 2: Explanation of rankings based on sensitivity and magnitude.**

Rank	Landscape character	Visual amenity
High	The development would be the dominant feature in the landscape and would significantly affect and alter character	There is a substantial change to visual amenity or a total loss of view towards key features caused by the introduction of new elements that contrast with existing landscape character
Moderate	The development introduces a new element to the landscape and would form a significant and recognisable part of the landscape that alters character	There is partial loss or change of visual amenity towards key features caused by the introduction of new elements that may

Rank	Landscape character	Visual amenity
		be prominent but not substantially in contrast with existing landscape character.
Low	The development constitutes a minor element of the wider view that merges with other land uses	There is a minor loss or change of visual amenity towards key features caused by the introduction of new elements that are consistent with existing landscape character
Negligible	The development is either not visible or only a small part is visible that due to distance separation does not alter character	There is very minor loss or change to visual amenity towards key features caused by the introduction of new elements that are consistent with existing landscape character approximating no change

Where magnitude and sensitivity impacts differ, the ranking would be a hybrid of the two impacts, e.g. moderate-high. Such a ranking would combine elements of both the explanation of a moderate rank and that of a high rank.

The RMS methodology has been validated by the Land and Environment Court for uses other than roads and bridges. For example, in the case of *Houghton V Shoalhaven City Council* [2016] NSWLEC 1195 the commissioner upheld an appeal by the applicant and agreed with the findings of the visual assessment that was prepared using this methodology to consider the impact of tourist development.

The methodology of the guidelines addresses impacts in both qualitative and quantitative terms. The qualitative assessment involves the use of descriptive and conceptual data such as descriptions of landscape characteristics and the setting of the development or viewpoint. The quantitative assessment uses numbers and values such as the distance of a viewpoint from the development and the direction of the view towards the development. The purpose of the assessment is to identify impacts and to determine whether these impacts are acceptable in the context of the benefits of the development to the community and economy.

Using the RMS methodology, which is based on the magnitude (size and scale) of the development and the sensitivity of the landscape and visual receivers to change, ensures that an objective judgement of impacts is made by the assessor. The methodology prevents the assessor from making subjective judgements. Sensitivity is a measure of how sensitive the character of the setting is to the proposed change and its capacity to absorb the change. Magnitude refers to the scale, form and character of a development proposal.

THE RMS methodology has been compared with that required by government guidelines that apply in other states, i.e. South Australia, Victoria and Queensland. South Australia's guideline is silent on

the issue of visual assessment and the Queensland guideline suggests that visual amenity and proximity to sensitive receptors should be investigated when assessing the feasibility and impacts of a project. The Victorian guideline includes advice on minimising impacts on landscape values and on providing screening to reduce visual impacts. It also recommends that design includes visual aids to illustrate the development in the context of the surrounding area and key viewpoints, and that an assessment of the impacts have regard to the scale of the project, the sensitivity of the landscape to change, visibility to private property and public places, the locations and distances from which a facility may be seen, the significance of the landscape and landscape/environmental values. This assessment applies a methodology that would comply with the Victorian guidelines.

### ***NSW Large-Scale Solar Energy Guideline***

Although the proposed development is not classified as a state significant project, reference has been made to the Large-Scale Solar Energy Guideline during the preparation of plans, drawings and reports. The document provides the following guidance for assessing visual impacts:

*The impacts on landscape character and values and the visual amenity of landholders and communities.*

### ***State Environmental Planning Policy (Transport and Infrastructure) 2021***

*SEPP (Transport and Infrastructure) 2021* replaces *SEPP (Infrastructure) 2007* and incorporates the provisions relating to solar energy systems Part 2.3 Division 4. It also includes new provisions that apply to electricity generating works and solar energy systems.

Section 2.42 applies to the development of a solar energy system in a regional city that is state or regionally significant. Under this section the consent authority must be satisfied that the development is located to avoid significant conflict with existing or approved residential or commercial uses of land surrounding the development. The consent authority must also be satisfied that the development is unlikely to have a significant adverse impact on the regional city's capacity for growth, or scenic quality and landscape character.

The township of Quirindi has not been mapped as a 'regional city' in *SEPP (Transport and Infrastructure) 2021*. Nonetheless, any impact on scenic quality and landscape character is assessed in this analysis. Future growth paths of the urban settlement have also been considered.



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### ***Planning principles***

Planning principles established by the NSW Land and Environment Court were also considered as a check on the findings of the landscape character and visual assessment. These principles are derived from the case *Tenacity Consulting v Warringah* [2004] NSWLEC 140 when considering the acceptability of the impact of a proposed development on views enjoyed from private property in the vicinity of that development, and from *Rose Bay Marina Pty Ltd V Woollahra Municipal Council and Anor* [2013] NSWLEC 1046 when assessing the impact of a development on the public domain.

The findings of the landscape character and visual impact assessments are summarised in the conclusion. Recommendations as to refinements of the development plans to avoid or mitigate significant landscape and visual impacts are made if necessary.

## **3. Proposed works**

ITP Development Pty Ltd is proposing to construct a solar farm with an AC output of 5.0 MW on an approximately 142 ha site that is currently used for cropping which is described as Lots 130 and 134 DP 751009 Borah Creek Road, Quirindi. The property is located approximately 5 kilometres north-east of Quirindi centre. The facility will occupy 11.1 hectares of the property.

The layout of the solar farm is shown on General Arrangement Plan prepared by ITP Renewables. Components of the facility which may impact on the landscape and visual amenity are:

- Approximately 10,750 solar modules ranging in height from 1.5 metres to 2.75 metres installed in 128 rows running east to west. There is approximately 6.0 m spacing between each row. The height of each module is approximately 2.0 m to 2.75 m and the mounting system is constructed on piles that are driven into the ground, typically within the depths of 1.5 m to 3 metres,
- Two 3.4MW inverter stations that are 3 metres high and each mounted on a 12.2 metre long skid,
- A 2.9 metre high kiosk to convert high and medium voltage to low voltage electricity suitable for connection to the local system,
- A battery storage system that is 12.2 metres long, 2.4 metres wide and 2.9 metres high located alongside the inverter stations,

- An access off Porters Lane using an existing entry and a 4 metre wide access road to a temporary car parking and materials laydown area, and
- A 1.8 metre high security fence topped with three rows of barbed wire to give a total height of 2.3 metres. The security fence is to be setback a minimum 3 metres from the boundary and the array is to be setback a minimum 10 metres from the security fence. The security fence is to be setback 5 metres from the eastern and southern boundaries, 121 metres from the western boundary at the north-western corner of the fence, 188 metres from the south-western corner of the fence, and 50 metres from the northern boundary.

## 4. Description of the landscape

The character of the landscape near the development site of the Quirindi 1B Solar Farm is summarized in Table 3 below.

**Table 3: Landscape character in the vicinity of the development site**

Item	Description
Land use	The development site is zoned RU1 Primary Production and is used for grazing. Adjoining and surrounding properties are used for agriculture. The site opposite the development site is used as a recreation facility (a motorcross track). The development site is located approximately 5 kilometres north-east of the town centre of Quirindi. The closest part of the urban area of Quirindi is approximately 4 kilometres from the development footprint. An area of land zoned for large lot residential development is located north-east of the urban area.
Structures	The site is currently vacant and is used for cropping and grazing. A shed associated with the recreation facility is located on the southern side of Porters Lane. Rural dwellings and sheds occupy neighbouring land.
Topography	The topography of the site and immediate surrounding land is flat to gently undulating. The site has a very slight crossfall to the east and a slight rise to the north. The land then falls away further north. There are no natural watercourses within the property considered for the solar farm although a man-made drainage channel has been cut along the eastern boundary within Lot 130 parallel to the access track. Moderately sloping hills are on the western side of Borah Creek Road and a low range lies in the distance to the east and south.
Vegetation	Lot 130 is currently under crop and contains four eucalypts in the south-west corner. A row of mature eucalypts exists along the southern boundary within the Porters Lane road reserve which is 50 metres wide alongside Lot 130 reducing to 20 metres adjoining Lot 134. A large cluster of eucalypts exists in the south-western section of Lot 134.

Item	Description
Infrastructure	The site fronts Porters Lane and the western boundary adjoins Borah Creek Road. Neither are classified roads. An 11kV power lines run north-south along Borah Creek Road and east-west along Porters Lane. Quipolly Dam lies approximately 5 kilometres to the north of the site and is accessed via Borah Creek Road.

Photographs of the landscape and surrounding development are provided in Attachment A. All photographs were taken by the land owners. Below is an aerial image of the development site sourced from SIX Maps.



**Figure 1: Aerial image of the development site. Source: SIX Maps**

## 5. Assessment of impacts on landscape character

The character of the landscape near the site of the Quirindi 1B Solar Farm is a modified agricultural landscape with expansive views across farmland to the east with low ranges in the distant east and south of the site and undulating hills to the west. The settlement of Quirindi is visible in the distance to the south. The landscape in the immediate vicinity of the development site is relatively flat with remnant/regrowth native vegetation along the Porters Lane road reserve and within some nearby properties.

Structures within the immediate vicinity of the site comprise rural dwellings, farm sheds and a shed associated with the motorcross track on Porters Lane. Further afield are rural residential dwellings.

The magnitude of the project and impact on landscape character is considered to be high due to the introduction of a new type of development that is substantial in size and scale relative to existing development. It will be visible from Porters Lane and Borah Creek Road. It would not be visible from other public roads or places in the vicinity of the site. The proposed Quirindi 1B Solar Farm will cause minor changes to the character of the rural landscape in the immediate vicinity of the site and to a lesser degree within the broader district of Quirindi.

The sensitivity of private property to landscape change is considered moderate given the existing modified landscape which is predominantly agricultural. It is expected that occupants of neighbouring farms would be accepting of changes to the landscape as this is part and parcel of ongoing management of rural land. The development is of a type that is suited to a rural location due to the large land area required, proximity to an urban centre and access to energy infrastructure.

The sensitivity of public places such as Porters Lane and Borah Creek Road to landscape change would be moderate in close proximity to the development but low elsewhere due to distance separation and vegetation on intervening land which blocks visibility.

The overall impact on landscape character is assessed to be moderate-high for both private property and the public domain. However, distance, the presence of roadside and boundary vegetation and paddock trees, and the flat to undulating topography temper the effects on landscape character.

The presence of a solar farm in the rural landscape is becoming accepted without question as the urgency to provide renewable sources of energy is now being recognized and supported by all levels of government. Over time, solar farms will become a common component of rural landscapes – they are less intrusive than all other forms of electricity generation and amenity impacts can be managed through a variety of measures.

## **6. The visual catchment**

The visual impact of solar farms depends on the scale and type of infrastructure, the prominence and topography of the site relative to the surrounding environment; vegetation; and any proposed screening measures to reduce visibility of the site. Some potential observation points may not have

a clear line of sight towards the solar farm because of significant existing features such as built structures and vegetation. The greater the distance from the development site the less clear is the view of the solar farm. The ability to distinguish the type of land use and the actual composition of materials diminishes with distance.

For the purposes of this analysis the visual catchment of the proposed development is defined by an area within 2 kilometres of the centre of the development footprint as shown on the visual catchment map below (Figure 2). The visibility of the site from properties located beyond 2 kilometres would be negligible. The visual catchment used in this analysis is the same as that used for the assessment of the impacts of glare and glint (Glint and Glare Assessment, ITP Renewables, 2023).

Observation points are shown in Figure 2. There are 11 rural dwellings and two road routes within the 2 kilometre visual catchment, including Porters Lane which provides access to the development site and Borah Creek Road to the west of the site.

In the case of rural properties and whilst it is acknowledged that the array may be visible from unoccupied parts of a property, it is considered that the view from a dwelling is more critical than from yards and paddocks.

Commercial and industrial properties, machinery sheds and the like are not considered in a visual assessment as sensitive receivers. Consequently any of these types of structures that exist within the visual catchment are not identified and an impact rating is not assigned to these structures.

Figure 3 below indicates contours in the vicinity of the development site. Contours are an important consideration in a visual assessment as these indicate whether an observation point is elevated above the development site and whether the site is visible from that elevation. This in turn determines whether vegetation screening will be of benefit.



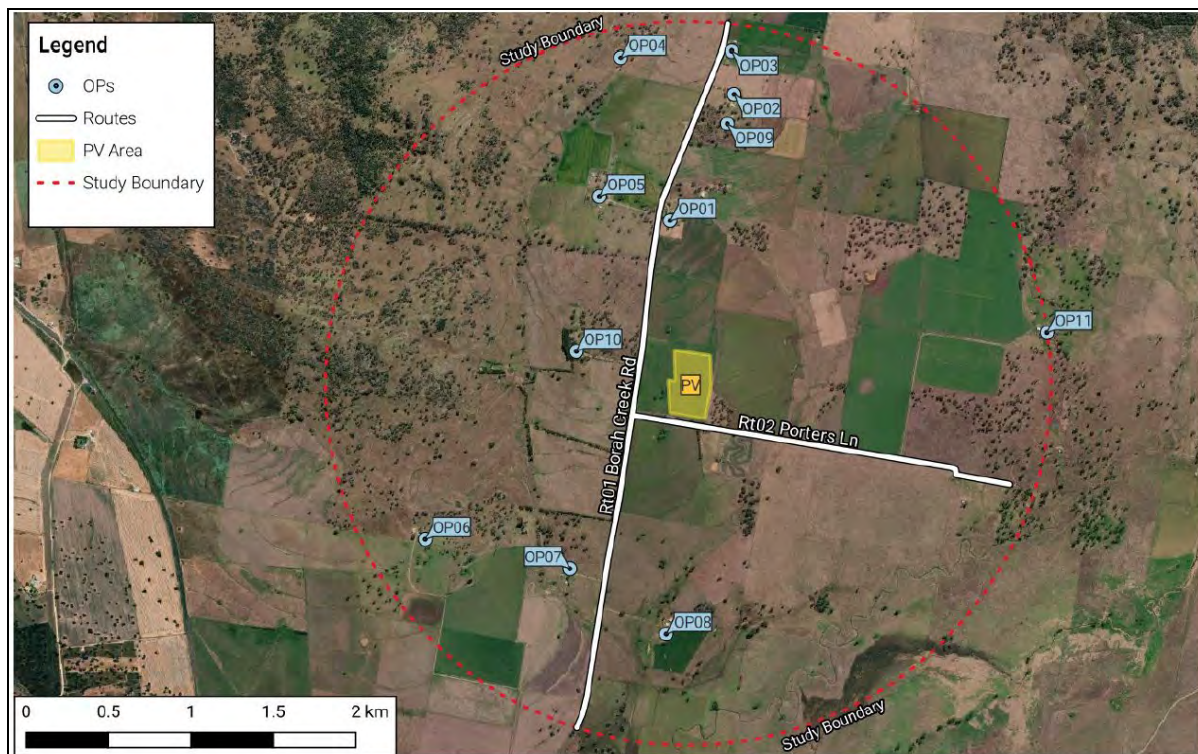


Figure 2: Map showing potential visual receivers within the visual catchment. Source: Google Earth

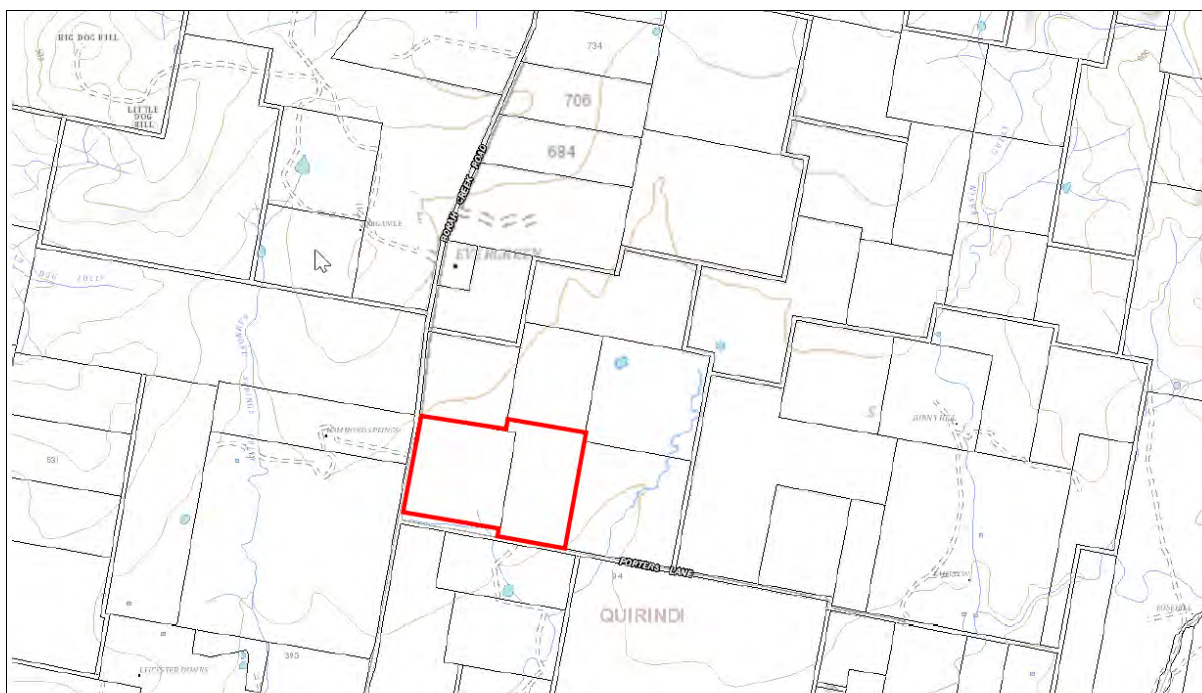


Figure 3: Contour map. Source: SIX Maps

## 7. Assessment of visual impacts

The magnitude of the proposed solar farm in terms of the quantum of change to views and proximity to each observation point, and the degree of sensitivity based on the quality of the view, is rated using the RMS methodology. The rating takes into account whether the site is clearly visible or obscured by landform or vegetation, and the direction and composition of the view. An overall impact rating is then given based on magnitude and sensitivity using the landscape character and visual impact grading matrix provided in section 2 *Methodology*.

Table 4 below contains detail of observations points and estimates of magnitude, sensitivity and the impact rating. The distance to the observation points given in Table 4 is measured from the centre of the proposed array to each dwelling.

**Table 4: Visual impacts on observation points**

Observation point	Relative location	Comment	Magnitude	Sensitivity	Impact rating
OP1 Rural dwelling	920m north	House is oriented west and is surrounded by a garden which includes large trees. No visual connection	Moderate	Moderate	Moderate
OP2 Rural dwelling	1.71km north	Located on a north-facing slope. No visual connection	Negligible	Negligible	Negligible
OP3 Rural dwelling	1.95km north	Located on a north-facing slope. No visual connection	Negligible	Negligible	Negligible
OP4 Rural dwelling	1.89km north-west	Located on a north-facing slope. No visual connection	Negligible	Negligible	Negligible
OP5 Rural dwelling	1.28km north-west	Located on a north-east facing slope. No visual connection	Negligible	Negligible	Negligible
OP6 Rural dwelling	1.80km south-west	Visibility is fully obstructed by large trees and topography	Negligible	Negligible	Negligible
OP7 Rural dwelling	1.33km south-west	Visibility is fully obstructed by large trees and topography	Negligible	Negligible	Negligible
OP8 Rural dwelling	1.49km south	Visibility is fully obstructed by farm sheds and large trees	Negligible	Negligible	Negligible
OP9 Rural dwelling	1.51km north	Located on a north-facing slope. No visual connection	Negligible	Negligible	Negligible

Observation point	Relative location	Comment	Magnitude	Sensitivity	Impact rating
OP10 Rural dwelling	590m west	This receiver is close to the development site and is likely to have a visual connection. However, visibility would be obstructed by the presence of tall trees close to the residence and Borah Creek Road.	Moderate	Moderate	Moderate
OP11 Rural dwelling	2.0km east	Possible low visibility, however, distance separation reduces impact	Low	Low	Low
RT01 Borah Creek Road (sealed)	west	Direct visual connection when adjoining western boundary of development site and on approach from the north and south	High	High	High
RT02 Porters Lane (unsealed)	south	Direct visual connection that is partially obstructed by large trees in the foreground along the road reserve	High	High	High

Based on proximity to the development site, topography, and vegetation and structures on intervening land, the visual impact of the proposed works is assessed to range from negligible to moderate for the residential observation points identified in this assessment.

Two dwellings are likely to have a direct line of sight to the solar farm. Other observation points would have nil visual connection due to the topography and vegetation either on the land surrounding these receivers or on intervening land. OP10 is close to the development site, being 590 metres west. However, there are large eucalypt trees on the western side of Borah Creek Road that would filter views of the solar farm. Residents of OP11 which is located at the eastern edge of the visual catchment may see the facility, but this would be tempered by distance. OP1 to the north is in close proximity but lacks visual connection due to vegetation surrounding the dwelling.

Due to the lack of roadside vegetation, impacts are assessed to be high from the western boundary of the development site and on approach from either direction for motorists, cyclists and pedestrians



using Borah Creek Road. Views towards and across the site from Porters Lane and the intersection with Borah Creek Road would be partially affected by vegetation giving a high impact rating.

## 8. Assessment against planning principles

The Land and Environment Court consistently applies a set of planning principles derived from the case *Tenacity Consulting v Warringah* [2004] NSWLEC 140 when considering the acceptability of the impact of a proposed development on views enjoyed from private property in the vicinity of that development. These planning principles are addressed below in relation to the proposed solar farm. The planning principles are not predicated on a position that a landowner or occupant has a proprietary right to retain all or part of the views enjoyed from their land. The Court has acknowledged that even entire view loss is reasonable in certain circumstances (Lindsay Taylor Lawyers, November 2015).

### Impact on private property

#### **Step 1: The views to be affected**

The solar farm may be visible to two dwellings (OP10 and OP11) located to the west and at the eastern extent of the visual catchment respectively. Views eastward from OP10 are filtered by large eucalypt trees on the property. The view enjoyed from OP11 towards the development site is one of a cleared rural farm with low hills in the distant west. Elsewhere vegetation, topography and distance would obstruct direct visibility of the array.

#### **Step 2: From what part of the property the views are obtained**

Views may be available from the dwellings and paddocks of observations points OP10 and OP11.

#### **Step 3: The extent of the impact**

The array will occupy 11.1 hectares of the total property of 141.75 hectares. The majority of the outlook from the affected observation points is across cleared paddocks with a hilly backdrop. The extent of the impact is mitigated by large trees in the case of OP10 and by distance for OP11 which reduces prominence of the solar farm in the landscape. The array would occupy only a small portion of the view to the west from OP11.

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#### **Step 4: The reasonableness of the proposal that is causing the impact**

It is considered that the proposed solar farm is suited to a rural location and is a legitimate rural use that is benign in terms of environmental impacts. The production of solar energy is an activity that is mandated by *SEPP (Transport and Infrastructure) 2021* as permissible in a rural zone and the land owner has a reasonable expectation to develop a use that is permissible subject to the implementation of safeguards to prevent or mitigate adverse impacts on the environment and amenity.

##### *Impact on the public domain*

The case *Rose Bay Marina Pty Ltd V Woollahra Municipal Council and Anor* [2013] NSWLEC 1046 established planning principles to be considered when assessing the impact of a development on the public domain. The process must account for reasonable development expectations as well as the enjoyment of members of the public of outlooks from public places.

#### **Step 1: The nature and scope of existing views**

Views from the public domain towards the development site are available to pedestrians, cyclists and motorists using Borah Creek Road to the west and Porters Lane to the south. Views are across a managed rural landscape that is occupied by scattered machinery sheds and rural dwellings. The solar farm would not be visible to other public roads due to the topography and vegetation on intervening land.

#### **Step 2: The locations from which the potentially interrupted view is enjoyed**

Views from the immediate adjoining sections of Borah Creek Road and Porters Lane and on approach from either direction would be affected.

#### **Step 3: The extent of the obstruction at each relevant location**

There are no significant landscape features other than vegetation within the road reserve of Porters Lane that would obscure views of the solar farm. The facility will be wholly visible from Borah Creek Road looking east across the site and on approach from both the north and south. As the land slopes gently to the east and north, visibility would extend above and over the array towards the low ranges to the east and undulating land to the north.

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**Step 4: The intensity of public use of those locations where that enjoyment will be obscured**

Borah Creek Road is used by local traffic comprising residents and commuters of properties north of the site to access the township of Quirindi. It is also used by work crews to maintain any ancillary infrastructure at Quipolly Dam. The intensity of use is judged to be moderate. There is no pedestrian or cyclist pathway along Borah Creek Road.

Porters Lane is unsealed and used by residents of properties to the east and for users of the motorcross park. The intensity of use is low. There is no pedestrian or cyclist pathway along Porters Lane.

**Step 5: Whether or not there is any document that identifies the importance of the view**

There is no strategic plan of Liverpool Plains Shire Council or the NSW Government that identifies the importance of the view. It is not mapped as a scenic landscape or as visually sensitive land in *Liverpool Plains LEP 2011*.

In summary, assessment against the planning principles established by the NSW Land and Environment Court finds that the potential impacts of the proposed solar farm on views from both private property and the public domain are acceptable. It is important to note that any development has a visual impact, irrespective of the size or scale of that development. It can also be reasonably assumed that there is broad acceptance of the impacts of renewable energy developments on private property and the public domain given that land in the district of Quirindi has been heavily modified by agricultural activities.

## **9. Conclusion and recommendations**

The character of the landscape near the site of the Quirindi 1B Solar Farm is a modified agricultural landscape with expansive views across farmland to the east with low ranges in the distant east and south of the site and undulating hills to the west. The settlement of Quirindi is visible in the distance to the south. The landscape in the immediate vicinity of the development site is relatively flat with remnant/regrowth native vegetation along the Porters Lane road reserve and within some nearby properties and on hilly country.

Structures within the vicinity of the site comprise rural farm buildings and rural dwellings. Quipolly Dam is located approximately 5 kilometres to the north of the site and is accessed by Borah Creek Road.

The overall impact on landscape character is assessed to be moderate-high for both private property and the public domain. However, distance, the presence of roadside and boundary vegetation and paddock trees, and the flat to undulating topography temper the effects on landscape character.

Based on proximity to the development site, topography, and vegetation and structures on intervening land, the visual impact of the proposed works is assessed to range from negligible to moderate for eleven residential observation points within the visual catchment.

Two dwellings are likely to have a direct line of sight to the solar farm. Other observation points would have nil visual connection due to the topography and vegetation either on the land surrounding these receivers or on intervening land. OP10 is close to the development site, being 590 metres west. However, there are large eucalypt trees on the western side of Borah Creek Road that would filter views of the solar farm. Residents of OP11 which is located at the eastern edge of the visual catchment may see the facility, but this would be tempered by distance (2 kilometres). OP1 to the north is in close proximity but lacks visual connection due to vegetation surrounding the dwelling.

Due to the lack of roadside vegetation, impacts are assessed to be high from the western boundary of the development site and on approach from either direction for motorists, cyclists and pedestrians using Borah Creek Road. Views towards and across the site from Porters Lane and the intersection with Borah Creek Road would be partially affected by vegetation giving a high impact rating.

The security fence is to be setback 5 metres from the eastern and southern boundaries, 121 metres from the western boundary at the north-western corner of the fence, 188 metres from the south-western corner of the fence, and 50 metres from the northern boundary. The array is setback a minimum of 10 metres from the security fence. This distance from Borah Creek Road of between 121 and 188 metres means that the facility will only be visible in the distance to motorists and pedestrians and cyclists using that road.

## Summary

On balance and having regard to other matters for consideration under section 4.15 *Evaluation* of the *Environmental Planning and Assessment Act 1979*, any impacts are considered acceptable given that:

- 
- the solar farm will contribute to renewable energy generation and provide a source of electricity for local domestic and commercial use whilst at the same time assisting to reduce greenhouse gas emissions and our reliance on fossil fuels,
  - The solar farm will demonstrate the commitment of the community of Quirindi to renewable energy and will assist the NSW Government to meet its emissions reduction target,
  - It will generate employment opportunities during the construction phase and once operational will provide employment for maintenance crews, and
  - Any existing vegetation along road reserves and property boundaries is to be maintained.

The township of Quirindi is not mapped as a 'regional city' in *SEPP (Transport and Infrastructure) 2021*. Impacts on scenic quality and landscape character have been assessed to be acceptable and no vegetation screening is warranted.

The rural landscape is a primary production environment and appropriate uses including solar farms are permissible in the zone. The presence of the solar farm in the landscape can be reversed without permanent impact. The land will return to its current appearance after the solar farm is decommissioned in approximately 35 years time. The process of decommissioning will see the removal of all panels, supporting frames and ancillary items such as the inverter stations and fencing.

Solar farms are becoming a common component of rural landscapes and are less intrusive than other forms of electricity generation. The urgency with which we need to develop renewable energy production is becoming accepted by mainstream society.

## **Attachment A**

Site photographs



**Plate 1: The intersection of Borah Creek Road and Porters Lane**



**Plate 2: Looking south along Borah Creek Road towards the development site on the left**





**Plate 3: Looking east along Porters Lane**



**Plate 4: Looking south-east across the site from Borah Creek Road**





**Plate 5: Looking north across the site from Porters Lane**



**Plate 6: Looking west from within the site from the access track**



**Plate 7: Looking west along Porters Lane towards the Borah Creek Road intersection**



**Plate 8: Quipolly Dam**





**Plate 9: The site entry off Porters Lane**



**Plate 10: Sheds on the adjoining property to the north**