Landscape character & visual impact assessment

Lot 1 DP 1110693 No 197 Moroneys Lane, Temora, NSW

Temora Solar Farm

Zenith

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The report has been prepared using information supplied by the client and other stakeholders. 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.

1. Introduction

The purpose of this report is to assess the landscape character and visual impacts of a proposed solar farm at Temora, located in Temora local government area and to be known as the Temora 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 or 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.

2. Methodology

Impacts on the visual and scenic amenity of the proposed Temora 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 14 December 2018). Details of methodology are given below.

Site inspections of the location of the proposed works and the surrounding area took place in November 2020. The visual catchment, the context of the site of the proposed works and observation points were identified at this time. 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

receiver are identified and evaluated in terms of the sensitivity of each 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 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 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.

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 given the benefits of the development to the community and economy.

Although the proposed Temora Solar Farm 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.

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.

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 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 simulations (photomontages) 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.

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 proposes to develop a solar farm and ancillary facilities with an AC output of 5.0MW at 197 Moroneys Lane, Temora, NSW. The site is located approximately 3.5 kilometres by road south-east of the town centre of Temora and is an irregular shape with a total area of 48.5 hectares. The proposed development would occupy approximately 11 hectares of the total site.

There are proposed to be 12,100 solar modules installed in 140 rows running north to south. There is approximately 6.25 metres centre to centre spacing between each row. Each row of PV modules will rotate to track the sun across the sky from east to west each day. The hub height of each tracker is 1.5 metres with the peak of the modules reaching an approximate height of 2.75 metres when the array is fully tilted to 60 degrees from horizontal, i.e. in the early morning and late evening.

Two 3MW inverter stations will be installed at the solar farm each mounted on a 12.2 metre long skid. Each of these inverter stations incorporates high and moderate voltage switchgear and transformers. Each will connect by way of underground cables to the 11kV feeder line that connects to the electricity grid at the Essential Energy zone substation.

The solar farm is to be enclosed within a 1.8 metre high security fence topped with three rows of barbed wire to give a total height of 2.3 metres. The fence will be setback 3 metres from the internal fence separating the northern section of the property, 3 metres from the eastern boundary, variable from the southern boundary ranging from 66.2 metres at the south-eastern corner and 97.3 metres at the south-

western corner of the security fence, and variable from the western boundary ranging from 171.9 metres at the north-western corner and 226.3 metres at the south-western corner of the security fence. Solar arrays are to be setback 8 metres from the security fence. The layout of the solar farm is shown on General Arrangement Plan (Drawing No TEM1C-G-2100) prepared by ITP Renewables.

4. Description of the landscape

The character of the landscape near the site of the Temora Solar Farm is predominantly an open modified agricultural landscape. The land is flat to gently undulating with some remnant native vegetation along road reserves and property boundaries and within nearby small acreages.

The site is rural and located 2.8 kilometres directly south-east of the township of Temora, or about 3.5 kilometres by road. Structures within the vicinity of the site comprise rural lifestyle dwellings set amongst scattered native vegetation. The nearest urban residential area is about 2 kilometres from the development site and separated by intervening small acreages. The Temora golf course is located to the west and the bulk grain terminal and Temora Essential Energy sub-station are located to the north-east. Elements of the existing landscape character are described 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. The closest part of urban area of Temora is approximately 2 kilometres from the site to the north-west. Land to the west and north of the site is occupied by rural lifestyle dwellings on small acreages also zoned RU1. Larger properties used for agriculture are located to the south and east.
Structures	The site is occupied by a dwelling house and several farm sheds located on the northern half of the property and separated by a low wire fence. A dam is located at the south-eastern corner of the property that is fed by a watercourse running north-west to south-east across the property. Structures within the vicinity of the site comprise scattered rural lifestyle dwellings set within vegetated properties and the bulk grain terminal to the north-east
Topography	The topography is gently undulating with a gentle fall to the south. An intermittent creek runs across the property at the south-western corner that eventually drains to Narraburra Creek to the east. The surrounding landscape is similar with gentle rolling hills typical of the south west slopes

Item	Description
Vegetation	Much of the rural landscape has been cleared in the past for agricultural use other than scattered eucalyptus trees and riparian vegetation along watercourses, property boundaries and road reserves. A cluster of native trees and shrubs remain at the north-western corner of the property, however, the majority of the property is covered with exotic pasture grasses. Native vegetation regrowth surrounds many of the rural lifestyle dwellings in the vicinity of the site
Infrastructure	Old Cootamundra Road runs in a north-west to south-east direction to the east of the development site and is an arterial road connecting Temora and Cootamundra that is used by heavy freight vehicles. Local roads in the vicinity of the site connect rural lifestyle dwellings and farms to the urban area of Temora. The Essential Energy sub-station and bulk grain terminal are located about 2 kilometres north-east of the site. An 11kV feeder line that connects to the Temora Zone substation runs parallel to the eastern boundary

Below are photographs of the landscape surrounding the development site. All photographs were taken by Zenith Town Planning Pty Ltd at the time of the site inspection in November 2020.

Plate 1: Looking south from within the development site

Plate 2: Farmland to the south of the site

Plate 3: Looking towards Old Cootamundra Road

Plate 4: Looking north along Moroneys Lane

Plate 5: Looking north along Old Cootamundra Road

Plate 6: The nearest residential area to the development site

Plate 7: A rural lifestyle dwelling on Moroneys Lane

Plate 8: Essential Energy sub-station, Old Cootamundra Road

Plate 9: Bulk grain terminal, Old Cootamundra Road

5. Assessment of impacts on landscape character

The rural landscape in the vicinity of the development site is one that has been modified by human activity associated with the agricultural industry. It is characterised by a mix of farming, rural uses including rural industrial facilities, rural living dwellings and scattered remnant native vegetation along boundaries, road reserves and patches within private property.

The project occupies approximately 11 hectares and the 12,100 panels have a maximum height of 2.7 metres. The development footprint is situated on a local road (Moroneys Lane) and a kilometre from the arterial road (Old Cootamunrda Road) at the nearest point. Distance, the presence of native vegetation and topography diminish visibility and overall influence on landscape character.

The size and scale, or magnitude, of the project and impact on landscape character is considered to be high for private property due to the introduction of a new type of development that is substantial in size and scale, and will change the nature of the rural landscape in the immediate vicinity of the site. It is also judged to be high for local roads from which it is visible and moderate for Old Cootamundra Road.

The sensitivity of private property to landscape change is considered moderate given the existing modified landscape which is predominantly agricultural with intervening vegetation between the dwellings and the development footprint. All dwellings to the west of the site are setback significantly from Moroneys Lane. Topography and vegetation would provide effective screening of the facility from dwellings to the north and to some extent from dwellings to the west. The sensitivity would decrease with distance so that visibility of the solar farm to neighbouring farms to the east and south would be negligible.

The works would be visible from some public roads including Moroneys Lane and Old Cootamundra Road. The sensitivity of Moroneys Lane and other local roads to landscape change would be moderate in close proximity to new development, and low for other roads as it is tempered by the presence of the silo and sub-station.

The overall impact on landscape character in relation to private property is assessed to be moderate-high. The overall impact on landscape character in relation to the public domain is assessed to range from low to moderate to moderate-high depending upon proximity to the development site. The large sub-station and grain facility serve to mitigate the impact of the size and scale of the facility on the rural landscape visible from Old Cootamundra Road.

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.

For the purposes of this analysis the visual catchment of the site of the proposed Temora Solar Farm is defined by an area within 2 kilometres of the development site from which the works may be visible as shown on the visual catchment map below (Figure 1). This area is the same as that considered in the glare and glint analysis and the observation points are identical. 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. The separation distances from each dwelling to the nearest point of the development area are given in Table 4. The distance has been measured as a straight-line from the nearest point of a residence to the centre of the solar array.

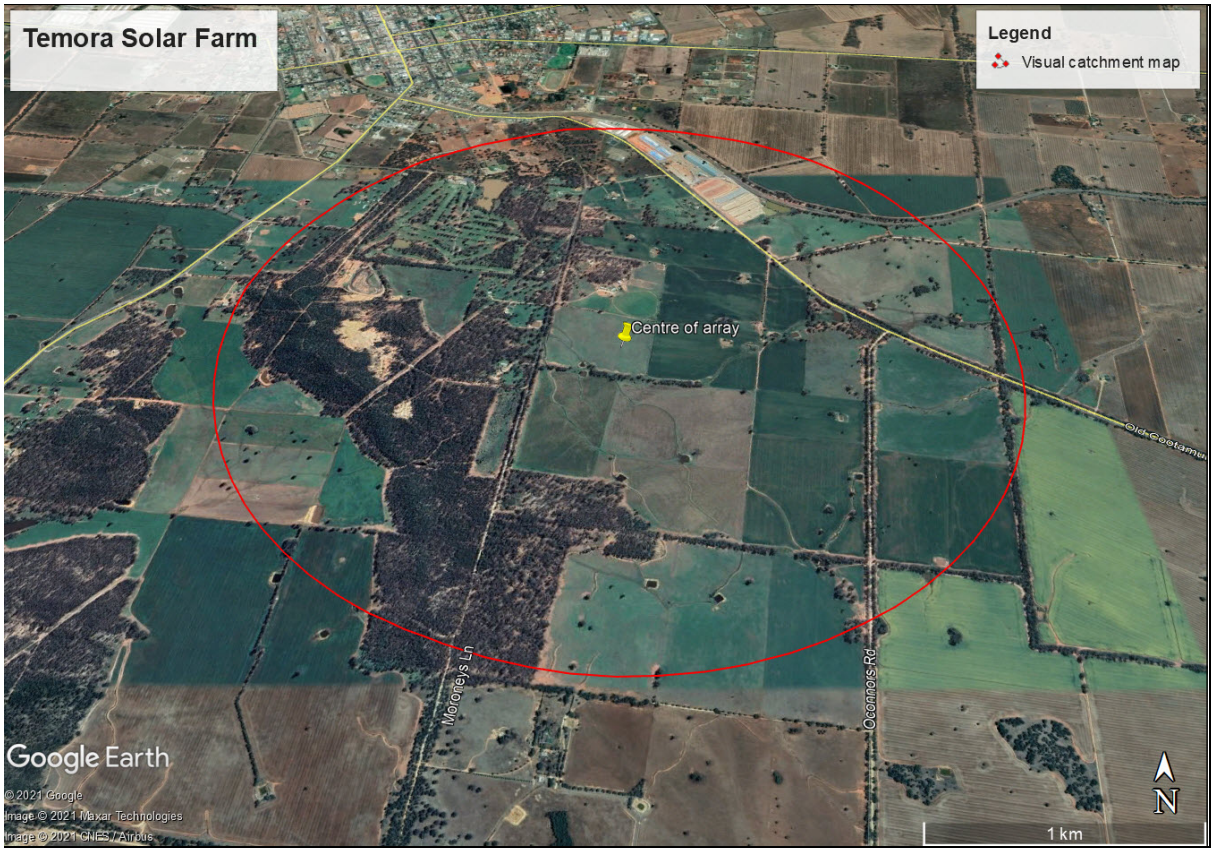


Figure 1: The visual catchment. Source: SIX Maps

The observation points located within the viewshed and visual catchment coincide with those used to assess the potential impacts of glare and glint in the Glare and Glint Assessment prepared by ITP Renewables (see Figure 2). There are 17 residential dwellings within the visual catchment of 2 kilometres radius of the development site. Eleven roads including Old Cootamundra Road are also within the visual catchment. The residence on the development site that is occupied by the landowner is located 180 metres north of the facility. 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.

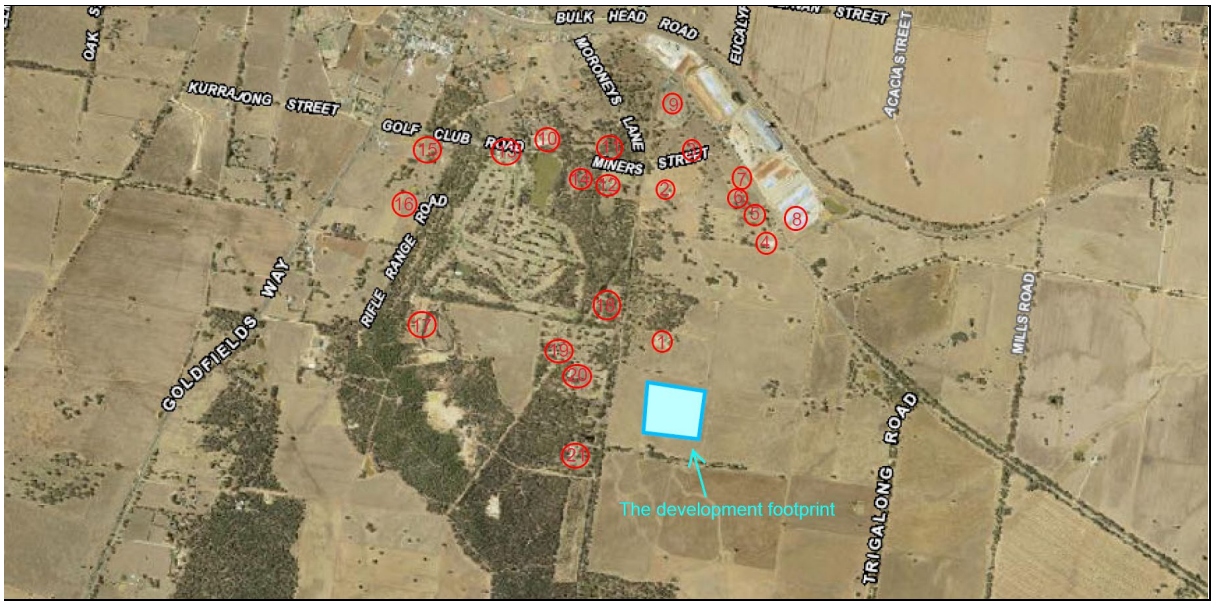


Figure 2: Observation points. Source: SIX Maps

7. Assessment of visual impacts

The magnitude of the proposed solar farm in terms of the visual change in the landscape and proximity to each observation point, and the degree of sensitivity based on the quality of the view, whether the site is clearly visible or obscured by landform or vegetation, the direction and composition of the view is assessed in Table 4 below. An assessment of how sensitive the view is to changes in the landscape that will result from the proposed development is also given. An impact rating is then given based on magnitude and sensitivity using the landscape character and visual impact grading matrix provided in Table 1 above. Commercial and infrastructure properties (observations points 4, 8, 9 and 13) are not considered sensitive receivers in terms of visual impact and consequently an impact rating is not assigned to these properties.

Table 4: Visual impacts on observation points

Observation point	Location relative to solar farm	Comment	Magnitude	Sensitivity	Impact rating
OP1 Residential	0.39 km north	Dwelling on same property as the development site in same ownership	High	Low	Moderate
OP2 Residential	1.2 km north	No visual connection due to topography and intervening vegetation	Low	Low	Low
OP3 Residential	1.5 km north	No visual connection due to topography and intervening vegetation. In close proximity to bulk grain terminal and electrical sub-station	Negligible	Negligible	Negligible
OP4 Commercial	1.1 km north-east	Partial visibility. Topography mitigates direct views towards the development site	n/a	n/a	n/a
OP5 Residential	1.2 km north-east	No visual connection due to topography and intervening vegetation. In close proximity to bulk grain terminal and electrical sub-station	Low	Low	Low
OP6 Residential	1.2 km north-east	No visual connection due to topography and intervening vegetation. In close proximity to bulk grain terminal and electrical sub-station	Low	Low	Low
OP7 Residential	1.2 km north-east	No visual connection due to topography and intervening vegetation. In close proximity to bulk grain terminal and electrical sub-station	Low	Low	Low
OP8 Commercial	1.2 km north-east	Bulk grain terminal - not considered a sensitive receiver	n/a	n/a	n/a
OP9 Infrastructure	1.6 km north	Electrical sub-station - not considered a sensitive receiver	n/a	n/a	n/a

Observation point	Location relative to solar farm	Comment	Magnitude	Sensitivity	Impact rating
OP10 Residential	1.7 km north-west	No visual connection due to topography and intervening vegetation	Negligible	Negligible	Negligible
OP11 Residential	1.5 km north	No visual connection due to topography and intervening vegetation	Negligible	Negligible	Negligible
OP12 Residential	1.3 km north	No visual connection due to topography and intervening vegetation	Low	Low	Low
OP13 Commercial	1.7 km north-west	Golf club buildings - not considered a sensitive receiver	n/a	n/a	n/a
OP14 Residential	1.4 km north-west	No visual connection due to topography and intervening vegetation	Negligible	Negligible	Negligible
OP15 Residential	1.9 km north-west	No visual connection due to topography and intervening vegetation. Located on western side of golf course	Negligible	Negligible	Negligible
OP16 Residential	1.8 km north-west	No visual connection due to topography and intervening vegetation. Located on western side of golf course	Negligible	Negligible	Negligible
OP17 Residential	1.5 km west	No visual connection due to topography and intervening vegetation	Negligible	Negligible	Negligible
OP18 Residential	0.7 km west	The dwelling is setback approximately 85 metres from Moroneys Lane and 240 metres form the entrance to the development site. Vegetation surrounding the dwelling and along the road reserve obscures direct visibility	Moderate	Moderate	Moderate
OP19 Residential	0.8 km west	The dwelling is setback about 330 metres from Moroneys Lane and	High	Moderate	High-moderate

Observation point	Location relative to solar farm	Comment	Magnitude	Sensitivity	Impact rating
		vegetation at the eastern end of the property plus roadside vegetation obscures direct visibility			
OP20 Residential	0.6 km west	There are two dwellings on this property setback between 180 to 200 metres from Moroneys Lane. Initervening vegetation on the property and along the road reserve partially obscures visibility but there would be direct views form the southern dwelling and the driveway	High	High	High
OP21 Residential	0.6 km south-west	The dwelling is setback 130 metres from Moroneys Lane and approximately 155 metres from the south-eastern corner of the development site. The array will be partly visible from the property though existing vegetation on the property and the road reserve go some way to mitigating visual impacts	High	High	High
Bulk Head Road (road route)	North-east	Runs behind the bulk grain terminal. No visual connection	Negligible	Negligible	Negligible
Golf Club Road (road route)	North-west	Intervening vegetation precludes visual connection	Negligible	Negligible	Negligible
Miners Street (road route)	North	Intervening vegetation precludes visual connection	Negligible	Negligible	Negligible
Moroneys Lane (road route)	North-west	Direct visual connection along development site boundary with partial screening by roadside vegetation. Visibility is obscured to the north and	High	High	High

Observation point	Location relative to solar farm	Comment	Magnitude	Sensitivity	Impact rating
		south of the site by the topography (the slope of the land) and intervening vegetation			
Old Cootamundra Road (road route)	North-east	Direct but distant visual connection along sections of road that are separated by cleared farmland. Roadside vegetation provides effective screening from the intersection with Trigalong Road and onwards heading south. Sensitivity would be tempered by the presence of the electrical sub-station and bulk grain terminal	Moderate	Moderate	Moderate
Reynolds Lane (road route)	North-east	Distant views towards site from intersection with old Cootamundra Road	Moderate	Low	Low-moderate
Rifle Range Road 4 (road route)	West	Intervening vegetation precludes visual connection	Negligible	Negligible	Negligible
Trigalong Road (road route)	South-east	Interrupted visibility due to roadside vegetation	Moderate	Low	Low-moderate
Unnamed road (road route	East	Intervening vegetation precludes visual connection	Negligible	Negligible	Negligible
Websters Lane (road route)	North	Intervening vegetation precludes visual connection	Negligible	Negligible	Negligible
Woodlands Road (road route)	West	Intervening vegetation precludes visual connection	Negligible	Negligible	Negligible

The development footprint is fully cleared, however, existing vegetation in the Moroneys Lane road reserve, within adjoining rural properties and along property boundaries would partially screen the site from the most sensitive receivers located to the immediate west of the development site. The fall of the land to the south and intervening vegetation along roadsides and property boundaries provides interference with direct views over the property from all directions except from the east.

The visual impact of the proposed works is assessed to range from negligible to high for the observation points identified in this assessment – being 17 dwellings and 11 public roads. The solar farm would be partially visible to dwellings in close proximity to the site located on the western side of Moroneys Lane. These are OP19, OP20 and OP21. Setbacks to Moroneys Lane combined with vegetation on private property and the roadside would interfere with direct visibility of the development from the dwellings although it would be highly visible from the access driveways of these dwellings. The dwelling on the same site as the proposed solar farm would have unimpeded views towards the facility from the residence, outbuildings and yards, however, this is acceptable given that the land owner has entered into a lease agreement to construct and operate the facility. One other dwelling, OP18, may have obscured views from the site from some parts of the properties but distance separation, and either topography or vegetation would mitigate visual impacts. The impact rating is low or negligible for all other residential observation points.

The development would not be visible to motorists using public roads other than Moroneys Lane, Old Cootamundra Road including the intersection with Reynolds Lane, and Trigalong Road. It would be visible from Moroneys Lane only from the immediate adjoining section of road and no more than 200 metres on approach from either direction. The development would be partly obscured by existing roadside vegetation although there are gaps in that vegetation that would allow full visibility. It would be visible from Old Cootamundra from the north near the bulk grain terminal as far south as the intersection with Trigalong Road. It would be a distant view across intervening farmland but visible nonetheless. Motorists turning into and out of Reynolds Lane would have similar distant views for a short distance along that road. Motorists using Trigalong Road would have partial views of the southern side of the array through gaps in roadside vegetation. The impact ratings range from low-moderate for Reynolds Lane and Trigalong Road to moderate for Old Cootamundra to high for a short section of Moroneys Lane. The impact rating is negligible for all other public roads.

These impacts are considered acceptable given the nature of the proposed development and that it will contribute to renewable energy generation and provide a source of electricity for domestic and commercial use whilst at the same time assisting to reduce greenhouse gas emissions and reliance on fossil fuels.

Construction of the facility will also generate 50 jobs over three months plus work for maintenance crews once it becomes operational. It is expected that acceptance of and adaptation to change will occur within a relatively short space of time following completion of works and when local economic benefits are realised.

Photomontages that show the site prior to development and after completion of the solar farm with and without landscape screening are provided as Attachment A. The photomontages confirm that the panels

will be visible from Moroneys Lane, Old Cootamundra Road and neighbouring private properties. However, the depiction of vegetative through stages of growth demonstrate that landscaping will provide effective screening from all directions.

Due to the complexity of the undulating landscape and the solar farm design, photomontages can be difficult to produce and do not necessarily provide a realistic view of how the constructed solar farm will look. These are indicative only and the actual development may differ from these images.

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 Temora Solar Farm.

Impact on private property

Step 1: The views to be affected

The solar farm would be visible to dwellings located to the immediate west of the development site and potentially to dwellings located north-east of the site. Elsewhere vegetation, topography and distance would obstruct direct visibility of the array. The view enjoyed from these properties is one of a cleared rural farm landscape interspersed with remnant or regrowth native vegetation along road reserves and boundaries and within private properties.

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

Vegetation within the affected properties to the west and building line setbacks to Moroneys Lane would mitigate most visual impacts although direct views of the development would be available from driveways and entrances. Only one of the dwellings at observation point OP20 would have a visual connection with the facility. There would be direct views across the development site from farms to the north-east and east although vegetation along boundaries obscures visibility from land to the south.

Step 3: The extent of the impact

The array will occupy 11 hectares of the 48.5 hectare property. Topography is generally flat with a rise to the north meaning that extensive views are generally only available from land to the east. Elsewhere views across the landscape are interrupted by topography and/or vegetation. The extent of the impact

is therefore considered minimal, especially given that the development site is a working farm currently agisting alpacas and the proposed footprint of the array is less than a quarter of the whole property.

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

The proposed solar farm is a project that is suited to a rural location. The property is a working farm and the production of solar energy is an activity that is mandated by *SEPP (Infrastructure)* as permissible in a rural zone. The development will contribute to the viability of other farm operations, be compatible with those operations and enable the property to continue to be productive. A solar farm is considered a reasonable land use of the development site.

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 from four roads to the west, north-east, east and south-east. The scope of views from Moroneys Lane is limited by roadside vegetation. Views from easterly aspects are across an open rural landscape.

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

Views from the immediate adjoining section Moroneys Lane and no for more than 200 metres on approach from either direction would be affected. Views for motorists travelling between just south of the bulk grain terminal as far as Trigalong Road along Old Cootamundra Road would be affected. Motorists accessing Reynolds Lane would have distant views and motorists using Trigalong Road would have partial views of the southern side of the array through gaps in roadside vegetation.

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

The photomontages indicate the extent of view obstruction from the affected roads. There are no significant landscape features that would obscure views of the solar farm although the generally flat landscape to the west and south would moderate impacts. The relative distance from Old Cootamundra and Trigalong Road would lessen the extent of impacts.

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

Local roads such as Moroneys Lane, Reynolds Lane and Trigalong Road are used to access rural properties and are of low intensity of use. It is estimated that usage of the public roads would be approximately 4 vehicle movements per day per dwelling. Use of Old Cootamundra Road is more intense as it is used for freight movements as well as passenger vehicles. Speed is limited to 100km/hr along Old Cootamundra Road meaning that glimpses of the facility would be fleeting.

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

There is no strategic plan of Temora 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 *Temora LEP 2010.*

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 all development has a visual impact, irrespective of the size or scale of that development.

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).

In this case there is no view loss, the impact is a change to the view – a new element within a rural landscape that is likely to merge with and add interest to that landscape. It will be offset by the existence of two large developments that have a significant visual impact – the bulk grain terminal and electrical sub-station located north-east and north respectively of the site on Old Cootamundra Road.

9. Conclusion and recommendations

The character of the landscape near the site of the Temora Solar Farm is a modified agricultural landscape with scattered remnant or regrowth native vegetation existing along road reserves and boundaries and within private properties. The landscape is generally flat with a gentle rise to the north-east. Structures within the vicinity of the site comprise rural lifestyle and farm dwellings, the bulk grain terminal and Temora Essential Energy sub-station.

The overall impact on landscape character in relation to private property is assessed to be moderate-high. The overall impact on landscape character in relation to the public domain is assessed to range from low to moderate to moderate-high depending upon proximity to the development site. The large sub-station and grain facility serve to mitigate the impact of the size and scale of the facility on the rural landscape visible from Old Cootamundra Road.

There are 17 dwellings and 11 public roads within the 2 kilometre visual catchment measured from the centre of the array. The development footprint is fully cleared, however, existing vegetation in the Moroneys Lane road reserve, within adjoining rural properties and along property boundaries would partially screen the site from the most sensitive receivers located to the immediate west of the development site. Substantial building line setbacks of these properties provides distance separation which is also a mitigating factor. The fall of the land to the south and intervening vegetation along roadsides and property boundaries provides interference with direct views over the property from all directions except from the east.

The development would be visible to motorists using Moroneys Lane, Old Cootamundra Road including the intersection with Reynolds Lane, and Trigalong Road. Significantly, it would be visible from Moroneys Lane only from the immediate adjoining section of road and no more than 200 metres on approach from either direction although partly obscured by existing roadside vegetation. It would be clearly visible across farmland from Old Cootamundra from the north near the bulk grain terminal as far south as the intersection with Trigalong Road.

The findings of the assessment acknowledge that there will be impacts on the landscape and visual amenity as there are with any type of development. However, there is no view loss; the impact is a change to the view – a new element within the landscape that is already populated with large developments such as the electrical sub-station to the north and the bulk grain terminal to the north-east. Impacts are greatest in close proximity to the solar farm as the further the distance a viewpoint is from the site the less the overall visual impact as the development occupies a lesser proportion of the total view.

To mitigate impacts on the landscape and visual amenity, it is recommended that a vegetation screen be planted around all four sides of the array. Native plants that grow to a maximum height of 2.5 metres should be selected for all boundaries.

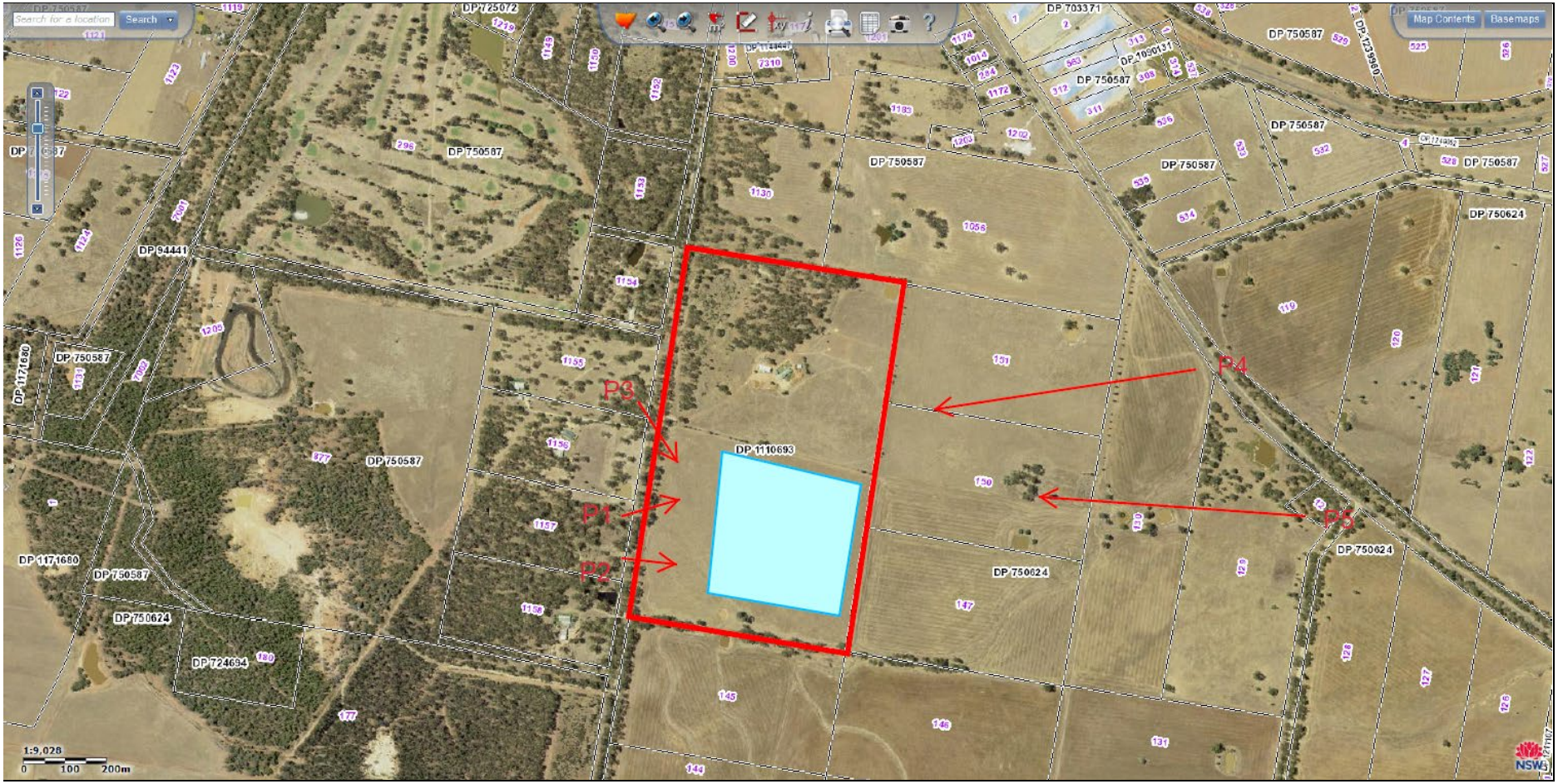
Temora Development Control Plan 2012 contains a list of species suitable for planting in the vicinity of Temora Airport. Council should be consulted to determine appropriate plant species for the Moroneys Lane location.

On balance and having regard to other matters for consideration under section *4.15 Evaluation* of the *Environmental Planning and Assessment Act 1979*, the 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,
- It will also generate employment opportunities during the construction phase and once operational will provide employment for maintenance crews,
- The placement of the array in a section of the property downslope and close to the eastern boundary ensures as much distance separation as possible from neighbouring dwellings,
- Existing vegetation along road reserves and boundaries is to be maintained,
- The proposed landscaping surrounding all sides of the array will grow to a height that will screen the facility from observation points including public roads that are on level ground with the development site and elsewhere will soften the visual impact from land to the east and north-east that is slightly elevated above the development site.

Attachment A

Photomontages



Directions of photographs for photomontage analysis

Direction 1 Image 1: Looking north-east across the development site from a gap in vegetation along Moroneys Lane before development

Direction 1 Image 2: Looking north-east across the development site from a gap in vegetation along Moroneys Lane after development before landscaping

Direction 1 Image 3: Looking north-east across the development site from a gap in vegetation along Moroneys Lane after development with landscaping

Direction 1 Image 4: Looking north-east across the development site from a gap in vegetation along Moroneys Lane after development semi-mature landscaping

Direction 1 Image 5: Looking north-east across the development site from a gap in vegetation along Moroneys Lane after development mature landscaping

Direction 2 Image 1: Looking east from Moroneys Lane before development

Direction 2 Image 2: Looking east from Moroneys Lane after development before landscaping

Direction 2 Image 3: Looking east from Moroneys Lane after development with landscaping

Direction 2 Image 4: Looking east from Moroneys Lane after development semi-mature landscaping

Direction 2 Image 5: Looking east from Moroneys Lane after development mature landscaping

Direction 3 Image 1: Looking south-east towards the secondary entrance before development

Direction 3 Image 2: Looking south-east towards the secondary entrance after development before landscaping

Direction 3 Image 3: Looking south-east towards the secondary entrance after development and after landscaping

Direction 3 Image 4: Looking south-east towards the secondary entrance after development with semi-mature landscaping

Direction 3 Image 5: Looking south-east towards the secondary entrance after development with mature landscaping

Direction 4 Image 1: Looking from Old Cootamundra Road towards the development site from the east before development

Direction 4 Image 2: Looking from Old Cootamundra Road towards the development site from the east after development before landscaping

Direction 4 Image 3: Looking from Old Cootamundra Road towards the development site from the east after development with landscaping

Direction 4 Image 4: Looking from Old Cootamundra Road towards the development site from the east after development semi-mature landscaping

Direction 4 Image 5: Looking from Old Cootamundra Road towards the development site from the east after development mature landscaping

Direction 5 Image 1: Looking north-west towards the development site from Old Cootamundra Road before development

Direction 5 Image 2: Looking north-west towards the development site from Old Cootamundra Road after development before landscaping

Direction 5 Image 3: Looking north-west towards the development site from Old Cootamundra Road after development with landscaping

Direction 5 Image 4: Looking north-west towards the development site from Old Cootamundra Road after development semi-mature landscaping

Direction 5 Image 5: Looking north-west towards the development site from Old Cootamundra Road after development mature landscaping