

5.0 Visual Impact (contd.)

5.1 Visual Catchment

The visual catchment of the Study Site is the area of surrounding land from which the Solar Farm may be partially or completely visible. The zone of visual influence (ZVI) has been determined through the use of digital topographic information and 3D modelling software.

As information on the height and coverage of vegetation, buildings and the levee wall are unavailable, it is important to note the ZVI is based solely on topographic information. Therefore this form of mapping should be acknowledged as representing the worst case scenario and in reality the visibility of the Solar Farm is far less than that shown in Figure 5.

The ZVI is included as shown in figure 7 on page 16 of this report. Areas shaded white represent the extents from which the Solar Farm will be visible. Due to the relatively low vertical span of the solar farm and the flat topography of the surrounding area, the visual catchment extent of the proposed solar farm is relatively low.

An inspection and analysis of the area was undertaken in June 2010 to ground truth the visual catchment. The field work identified landscape features which significantly alter views to the Study Site from the eye level perspective. Viewpoints were selected within the boundaries of the determined visual catchment and are analysed in section 5.2 of this report.

5.2 Viewpoint Analysis

This part of the visual assessment considers the likely impact that development would have on the existing landscape character and visual amenity by selecting prominent sites, otherwise referred to as viewpoints.

5.2.1 SELECTION OF VIEWPOINT ASSESSMENT LOCATIONS

Within the visual catchment of the proposed solar farm, 14 viewpoints were selected, from which the visual impact of the development was to be assessed.

Viewpoints were initially selected through an assessment of the ZVI mapping information. This was followed by field inspections of selected viewpoints to determine actual visibility and to define the boundaries of the visual catchment.

Viewpoints were selected on the basis of where development within the Study Site would appear to be most prominent, either based on the degree of exposure or the number of people likely to be affected.

Other key features that were considered in identifying viewpoints included:

- Location of major roads and railways
- Proximity of the site to residence
- Proximity to town
- Land use of the area

The key areas identified for viewpoint analysis surrounding the proposed Capital Solar Farm were along Tarago Road, Taylors Creek Road and adjoining roads. The exact location of the viewpoints selected are identified in Figure 8 on page 17 of this report.

It is important to note that viewpoints for this study have been taken only from accessible public land, however this does not include viewpoints that are adjacent to residence potentially affected by the development. As part of the Viewpoint Analysis the Landscape Character and Visual Sensitivity are also assessed from each viewpoint.

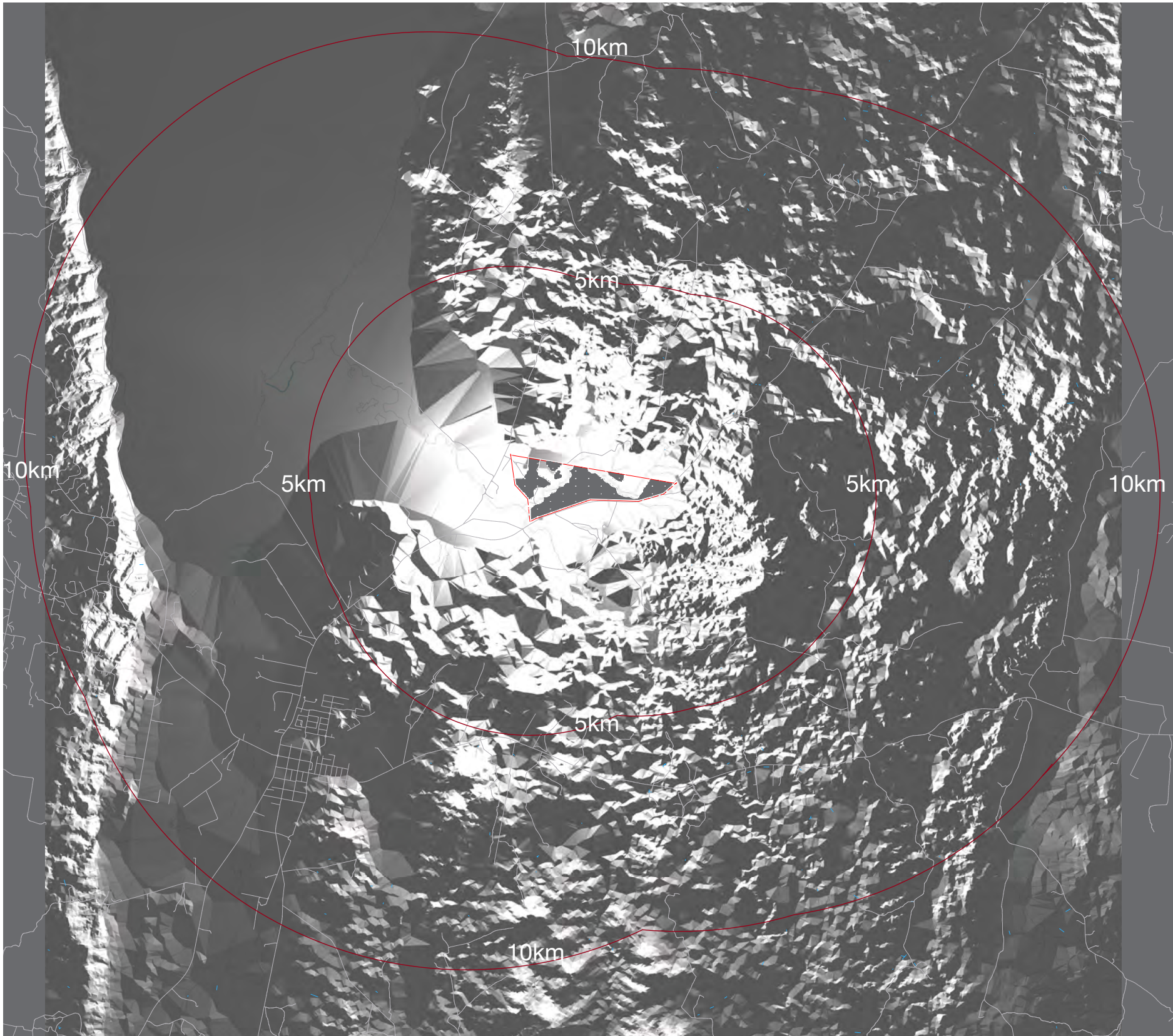
5.2.2 PROCESS OF VIEWPOINT ANALYSIS

Once the viewpoint had been selected, panoramic photographs were taken at eye level from the viewpoint towards the site. Photographs were taken with a Canon 40D digital SLR through a 50mm fixed focal lens (Equivalent to 80mm on 35mm).

The visual impact of the viewpoint was then assessed both on site and with the topographic and aerial information to ensure accuracy.

Viewpoint photographs are shown in the Plates 1-14 on pages 18 to 29 of this report.

5.0 Visual Impact (contd.)



LEGEND

- Existing roads
- Creeklines
- Extent of Solar Farm
- 5km/10km from solar farm
- Area where proposed solar farm would be completely or partially visible.
- Area where proposed solar farm will not be visible due to topography.

Note: Viewshed analysis is based on topographic mapping alone and is worst case scenario. Views are based on the height of the solar farm of 2.3m and does not allow for existing screening by vegetation or buildings.

02.55.0

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Figure 7: Zone of Visual Influence (Based on topography)

5.0 Visual Impact (contd.)

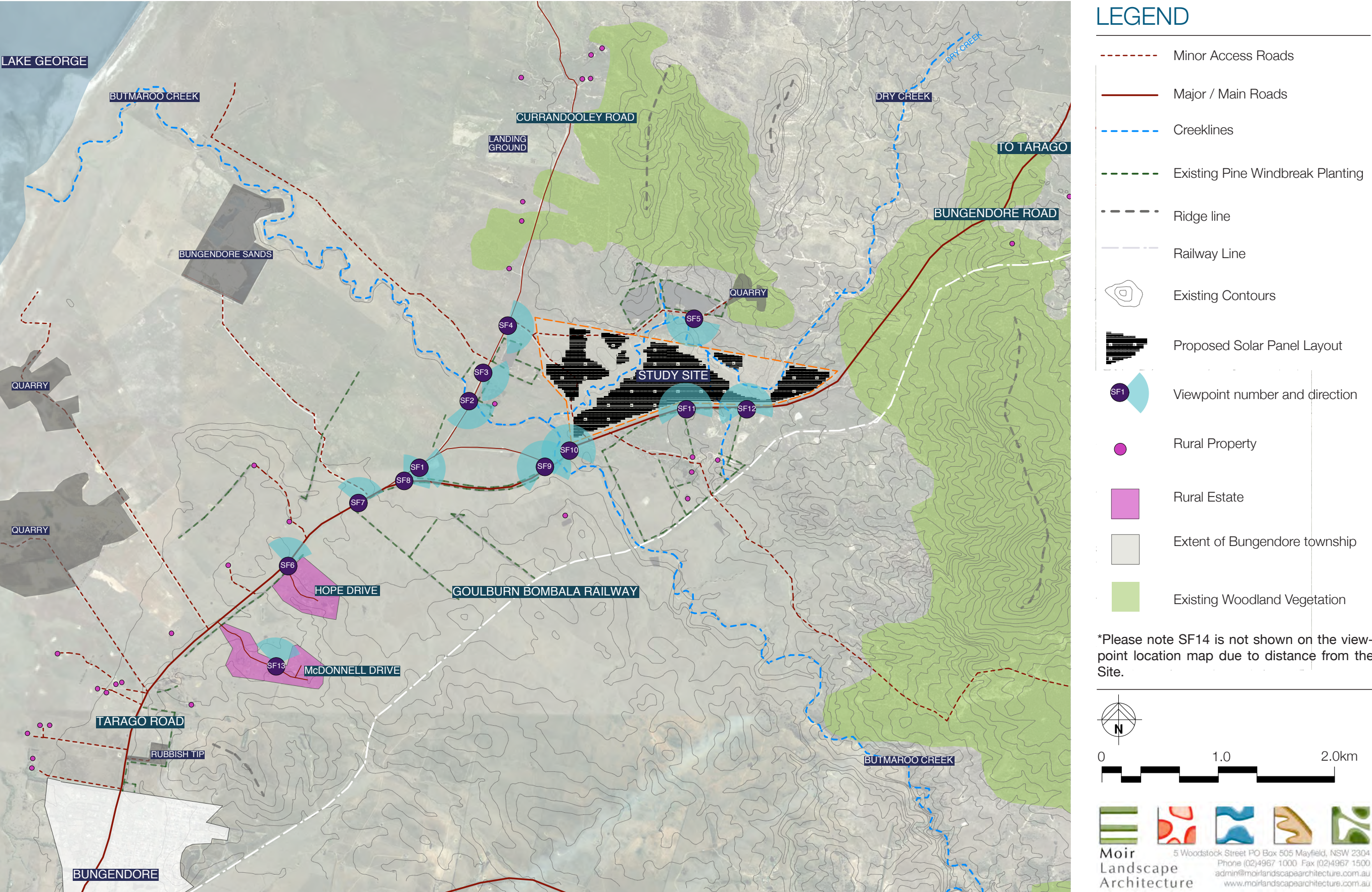


Figure 8: Assessment Viewpoints



Viewpoint SF01: View north east towards the Study Site from Currandooley Road.



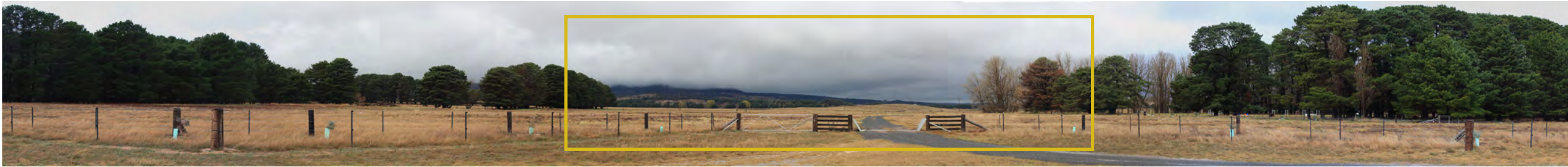
VIEWPOINT: SF01		DESCRIPTION:	COMMENTS:
Location	Currandooley Road	View from the entry of Currandooley Road, off Tarago Road. Currandooley Road is an unsealed access road generally utilised for access to homesteads on the edge of Lake George. The photograph was taken in an eastern direction towards the proposed solar farm site. From this point the topography is flat, gradually rising to the ridgeline in the background which form apart of the Great Dividing Range. The site is mostly cleared grazing land devoid of trees, with the exception of large screening trees including pines and poplars which border the site on the northern edge of Tarago Road.	From this point the development of the solar farm would be visible from the south facing sloped land in the middleground of the photograph. The visual sensitivity of this point is considered low due the current agricultural land use and the distance to the proposed solar farm. The visual effect from this viewpoint is assessed as moderate resulting in an overall visual impact of low. Mitigation measures including screen planting along the edge of Currandooley Road would greatly reduce the visual impact from this viewpoint.
Coordinates	S 35 ° 12.626' E 149 ° 28.677'		
Elevation	756m		
Viewing Distance	1.6km		
LCU	Rural Grazing Land west of the Study Site.		



Viewpoint SF2: View from Currandooley Road looking south.



VIEWPOINT: SF02		DESCRIPTION:	COMMENTS:
Location	Currandooley Road	View from residence on Currandooley Road south towards the study site. An occupied cottage exists directly west of the study site to the rear of the band of dense pine forest in the foreground of the photograph. Butmaroo creek transverses the road, and is devoid of vegetation. The landscape is typically flat, cleared grazing land with the exception of the depression of Butmaroo creek in the foreground. From this position views to the solar farm site are limited as a result of the site being screened by the Pine plantings and the scattered vegetation associated with Currandooley Road in the middleground of the photograph.	From this viewpoint the development of the solar farm would be screened due to the dense, established screen planting associated with the homestead off Currandooley Road. This viewpoint has been included to demonstrate the effectiveness of the existing pine windbreak planting in screening views towards the solar farm.
Coordinates	S 35 ° 12.226' E 149 ° 29.029'		
Elevation	675m		
Viewing Distance	0.8km		
LCU	Rural Grazing Land west of the Study Site.		



Viewpoint SF3: View east from Currandooley Road.



VIEWPOINT: SF03		DESCRIPTION:	COMMENTS:
Location	Currandooley Road	View directed east from Currandooley Road on the northern side of the occupied cottage off Currandooley Road. From this point the topography is typically flat and the views extend to the ridgelines associated with the Great Dividing Range. The tree line in the middle ground is associated with Tarago Road.	From this viewpoint the western edge of the solar farm will be visible through the opening in the Pine wind break plantings in the centre of the photograph. The visual sensitivity would be assessed as low as a result of the land use and distance to the site. The visual effect is measured as moderate resulting in an assessed visual impact of low. Mitigation measures such as increased screen planting would assist in further minimising the visual impact.
Coordinates	S 35° 12.079' E 149° 29.138'		
Elevation	677m		
Viewing Distance	0.6km		
LCU	Rural grazing land west of the Study Site.		



Viewpoint SF4: Currandooley Road- Access to Solar Farm EAST



VIEWPOINT: SF04		DESCRIPTION:	COMMENTS:
Location	Currandooley Road	View from the existing access road off Currandooley Road, looking south-east towards the proposed solar farm site. The land is mostly cleared grazing land with the exception of the Pine wind break to the south and woodland vegetation associated with the mountains in the background. Turbines along the ridge line of Hammond’s Hill can be seen in the background north of the solar farm site. The sealed access road in the centre of the photograph connects to the solar farm site, which is located to the south. The existing 330kV power lines are visible in the foreground.	From this viewpoint the solar farm will be partially visible. The western edge of the solar farm is sited on the eastern side of the hill in the middle ground of the photograph. A small number of the panels will be visible to the north and south of the hill from this point. The visual sensitivity from this viewpoint is assessed as low. The visual effect is considered to be low resulting in an overall visual impact of low from this point. The visual impact of the solar farm would be greatly reduced from this perspective through screen planting, which would be in keeping with the existing character of the landscape.
Coordinates	S 35° 11.792’ E 149° 29.302’		
Elevation	681m		
Viewing Distance	0.3km		
LCU	Rural grazing land west of the Study Site.		



Viewpoint SF5: View over the study site from end of Currandooley Road, at the entry to Bungendore Quarry.



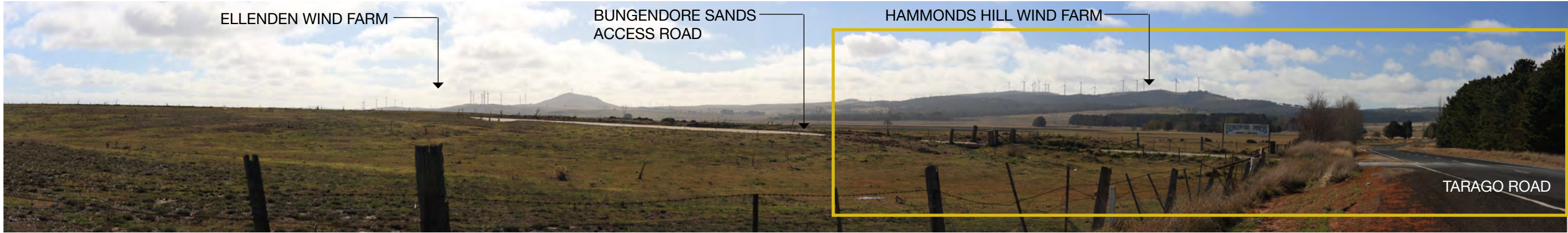
VIEWPOINT: SF05		DESCRIPTION:	COMMENTS:
Location	Northern end of Currandooley Road	View looking south from the end of Currandooley Road at the entrance of Bungendore Quarry. The land is characterised by an open expanse of grassland with interspersed plantings of exotic windbreaks along roadways and paddock boundaries. The topography declines slightly towards the Pine tree planting associated with Tarago Road. The subject site sits directly south of this viewpoint and extends to Tarago Road. Rural residential properties on McDonnell Drive can be seen in the background.	From this viewpoint the solar farm would be visible. Due to the slight slope in topography, most of the solar panels would be visible from this point. Considering the land use and distance to the site the visual sensitivity of this viewpoint is moderate. The visual effect of the proposed solar farm is moderate resulting in an overall visual impact of moderate. Measures to mitigate the impact include screening planting along the site boundary.
Coordinates	S 35° 11.768' E 149° 30.649'		
Elevation	708m		
Viewing Distance	0.3km		
LCU	Rural grazing land north of the Study Site.		



Viewpoint SF6: Corner of Bungendore Rd & Hope Drive.



VIEWPOINT: SF06		DESCRIPTION:	COMMENTS:
Location	Corner of Tarago Road & Hope Drive	View north from the entrance of Hope Drive off Tarago Road. The character of this area is slightly undulating pastoral land with sparse of vegetation. Exotic pine screen plantings can be seen in the right hand side of the photograph along the southern edge of Tarago Road. Wind turbines along the ridge of Hammond's Hill can be seen in the background of the photograph. The western extent of the proposed solar farm is located approximately 3.5km east of this viewpoint, and would not be visible due to the distance and pine screening.	Due to the distance from the site, the relatively flat topography and the dense pine planting, the site is not visible from this viewpoint.
Coordinates	S 35° 13.183' E 149° 27.785'		
Elevation	716m		
Viewing Distance	3.2km		
LCU	Rural residential development south west of the Study Site.		



Viewpoint SF7: View North up Bungendore Road, 50m South of Bungendore Sands entry road.



VIEWPOINT: SF07		DESCRIPTION:	COMMENTS:
Location	Entry to Bungendore Sands off Tarago Road	View from Tarago Road looking north-east along Tarago Road towards the proposed solar farm site. The access road to Bungendore Sands runs perpendicular to Tarago road in the foreground of the photograph. Turbines associated with the existing Capital Hill Wind Farm can be seen along the ridgeline of Governor Hill and Hammonds Hill in the background. The solar farm sits immediately east of the band of Pine screen planting adjoining Currandooley Road which is visible in the middle ground.	From this viewpoint the western extent of the solar farm may be visible, but partially obscured by distance. It is likely the solar panels would appear as a grey line in the distance. The visual sensitivity of this viewpoint would be assessed as low due to the distance from the site and current land use. The visual effect of the development would be low due to the distance from the viewpoint and the limited height of the panels. The visual impact of the solar farm is assessed as low and attenuation through screen planting would reduce the visual impact even further.
Coordinates	S 35° 12.801' E 149° 28.296'		
Elevation	703m		
Viewing Distance	2.3km		
LCU	Rural grazing land south west of the site.		