



NGH



AMENDMENT REPORT

Yanco Solar Farm

June 2020

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AMENDMENT REPORT

A 60-megawatt (MW) (AC) photovoltaic (pv) solar farm is proposed to be developed approximately 1 km west of Yanco and on the south-western outskirts of Leeton. The Yanco Solar Farm (the proposal) previously had a development footprint of around 183 hectares (ha).

The proposal is classified as State Significant Development under the NSW *Environmental Planning and Assessment Act 1979* and requires consent from the NSW Minister for Planning. An Environmental Impact Statement (EIS), describing the proposal and assessing its potential environmental impacts was prepared by NGH Environmental and submitted to the NSW Department of Planning, Industry and Environment (DPIE). The EIS was prepared in accordance with Part 4 of the New South Wales (NSW) *Environmental Planning and Assessment Act 1979* (EP&A Act). The EIS was placed on public exhibition between 24 April 2019 and 22 May 2019.

Post-exhibition of the EIS, a Response to Submissions Report (RTS) and an Amendment Report were submitted to DPIE in September 2019.

Since the exhibition of the EIS and submission of the RTS and Amendment Report in September 2019, amendments have been made to the proposed design of the solar farm to achieve a reduction in impacts to the nearest residential sensitive receptors. All amendments are within the previously surveyed solar farm footprint. Therefore, no further assessments were required.

1. INTRODUCTION

1.1. PURPOSE

With the agreement of the Planning Secretary, the applicant of an SSD application may amend what it is seeking approval for at any time before the Development Application (DA) is determined.

These amendments may be necessary to:

- Improve the design of the project.
- Respond to issues raised in submissions or further community engagement.
- Reduce the impacts of the project.

The Department requires the applicant to submit an Amendment Report with any amended DA.

The purpose of the Amendment Report is to outline the changes to the project and help the community, Government agencies and the consent authority to understand the implications of these changes.

In preparing the Amendment Report, the Applicant may:

- Refine the design of the project.
- Undertake further engagement with the community and Government agencies.
- Undertake further assessment.
- Update the evaluation of the merits of the project to incorporate the findings of any further assessment or engagement.

This Amendment Report details the alterations to the State Significant Development (SSD) Application # 9515. The alterations to the design of the solar farm layout have been proposed to reduce noise and amenity impacts, address feedback from the Leeton Shire Council (LSC) and the DPIE.

1.2. YANCO SOLAR FARM PROJECT

Yanco Solar Farm is in the Leeton Local Government Area (LGA) approximately 1 km west of Yanco and on the south-western outskirts of Leeton (Figure 1-2). The development area is bound by Amato Road, Toorak Road, Hume Road, River Road, Yale Road and the Gogeldrie Branch Canal, and intersected by Research Road, Ronfeldt Road, Houghton Road and Juneey-Hay railway line. A proposed transmission line would connect the existing TransGrid Yanco Substation adjacent to the proposal located 1 km to the south-east.

Current agricultural land use is split via the following:

- Grapevines for wine production 99 ha (or 65% of the development footprint).
- Orange orchards 43 ha (or 28% of the development footprint).
- Vacant 10.5 ha.

The amended solar infrastructure footprint comprises Lots 145 – 152 DP 751745, Lot 1700 DP 1181161, Lot 10 DP 844961 and Lot 6650 DP 1197165. The railway is comprised of Lot 1700 DP 1181161 and will only be utilised for crossing of the transmission line to the adjacent Houghton's Road reserve. Additional council and rail owned land will be utilised for the proposed transmission line route (Figure 1-1).

The amended Yanco Solar Farm footprint will occupy around 152 hectares (ha) with an updated development site of 180 ha. Yanco Solar Farm involves the construction of a ground-mounted photovoltaic (PV) solar array generating around 60 megawatts (MW) alternating current (AC). The power generated would be exported to the national electricity grid.

- Key development and infrastructure components would include: Single axis tracker photovoltaic solar panels mounted on steel frames over most of the site.
- Battery storage units to store energy on site (approximately 81 MW/57 MW rated capacity).
- Electrical cables and conduits.
- Inverter/transformer units.
- One site switching station (control room and switchgear) to connect the solar farm to a new underground or overhead powerline, including synchronous condenser, other associated structures, lightening protection masts, control and protection equipment.
- Communications tower.
- Site office, compound, parking, access tracks and perimeter fencing.
- Operations and maintenance buildings with associated car parking.
- Access points via Research Road.
- Internal access tracks.
- Lighting, CCTV system, security fencing.
- Vegetative screening.
- An overhead or underground 33kv electrical transmission line to connect the proposal to the Yanco Substation.
- Subdivision.

Works would be required at the Yanco TransGrid substation, which would involve the construction of a new 33kV switchbay, comprising of the following:

- Standard support structures.
- Footings.
- High Voltage connections.
- Fitting and structure earthing.
- Conduits for 33 kV cabling.
- Associated secondary system works including control, monitoring, and protection equipment.

The works would be restricted to the existing concrete hardstand at the Yanco Substation, with no additional excavation or ground disturbance required.

The proposed amended solar farm infrastructure maps (Figure 1-1) illustrate the indicative layout, including a concept development footprint for the solar arrays. Detailed design would allow for avoidance of sensitive features on the site.

In total, the construction phase of the proposal is expected to take approximately 10 months, and the facility would be expected to operate for around 30 years. Two to three operations and maintenance staff and up to 6 service contractors would operate the facility. At the end of its operational life, the facility would be decommissioned. All above and below ground infrastructure would be removed in consultation with the landowner, and the site returned to its existing land capability.

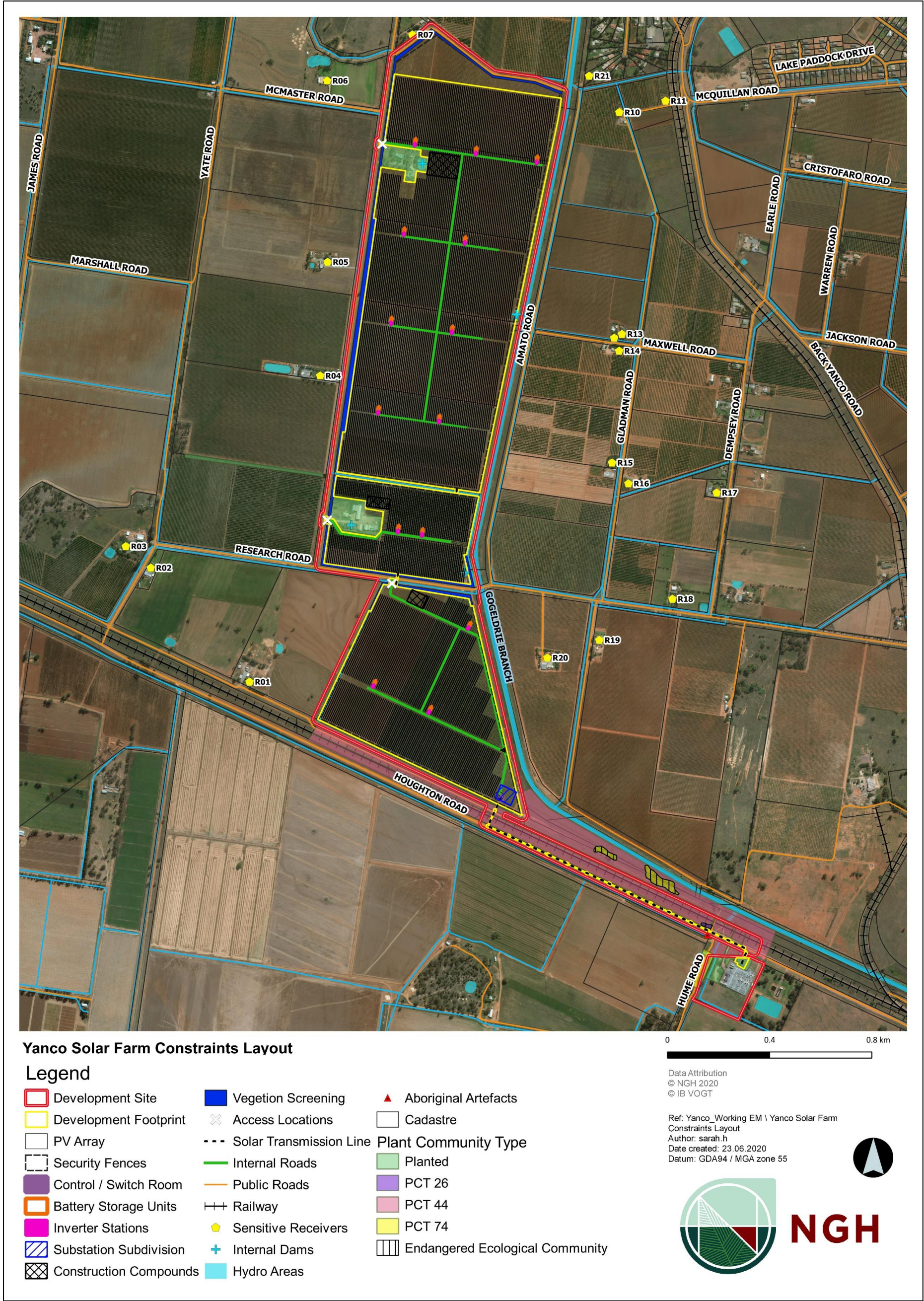


Figure 1-1 Yanco Solar Farm Constraints Layout

1.3. AMENDMENT PROPOSAL

Key changes to the proposal as a result of community and agency consultation are described in the following sections.

1.3.1. Subject Land

The EIS for Yanco Solar Farm proposed a site layout including Lots 142, 145 – 152 DP 751745, Lot 1700 DP 1181161, Lot 10 DP 844961 and Lot 6650 DP 1197165.

The proposed has been modified to exclude Lot 142 DP751745 from the development area and proposal footprint (Figure 1-3).

1.3.2. Development Footprint

The amended design will decrease the development footprint by approximately 21 ha through the removal of Lot 142 DP751745.

1.3.3. Solar Panels

Recent developments in PV technology have allowed the Proponent's design team to consider a PV module with a higher watt rating than was originally anticipated during the preliminary design stages of the project.

Higher efficiency solar panels will be used and total installed capacity of up to 72MW (DC) will remain the same. This reduces the quantity of panels installed from approximately 205,000 to 170,000 modules, representing a reduction of approximately 17%. The reduction justifies the removal of Lot 142 DP751745.

1.3.4. Inverter and Battery Storage Units

As per the original EIS, the number of inverter stations and battery units has been reduced back to 14 (in line with the original Renzo Tonin Noise and Vibration Assessment (NVA)). These were increased to 17 inverters within the Amendment Report 1 (submitted September 2019). All inverters and battery units have also been removed from Lot 142 DP751745.

1.3.5. Internal Road Layout and Access

All internal roads have been removed from Lot 142 DP751745. In addition, the right-hand turn from Toorak Road into the western portion of the site (Lot 142 DP751745) has also been removed.

1.3.6. Landscape Plantings

Due to the removal of all infrastructure within Lot 142 DP751745, the proposed landscape plantings in the south-western development site adjacent to Yate Road and residential receptors (R03 and R02) is no longer proposed.

1.3.7. Intersection treatment

The intersections from Toorak Road and Research Road into the Development Site will be upgraded to a Basic Left Turn and/or Basic Right Turn if required by the Section 139 Permit with Leeton Shire Council. However, advice from Stantec from the Traffic Impact Assessment (TIA) suggests that the current intersections and proposed traffic management is sufficient (refer Section 6 of the TIA)

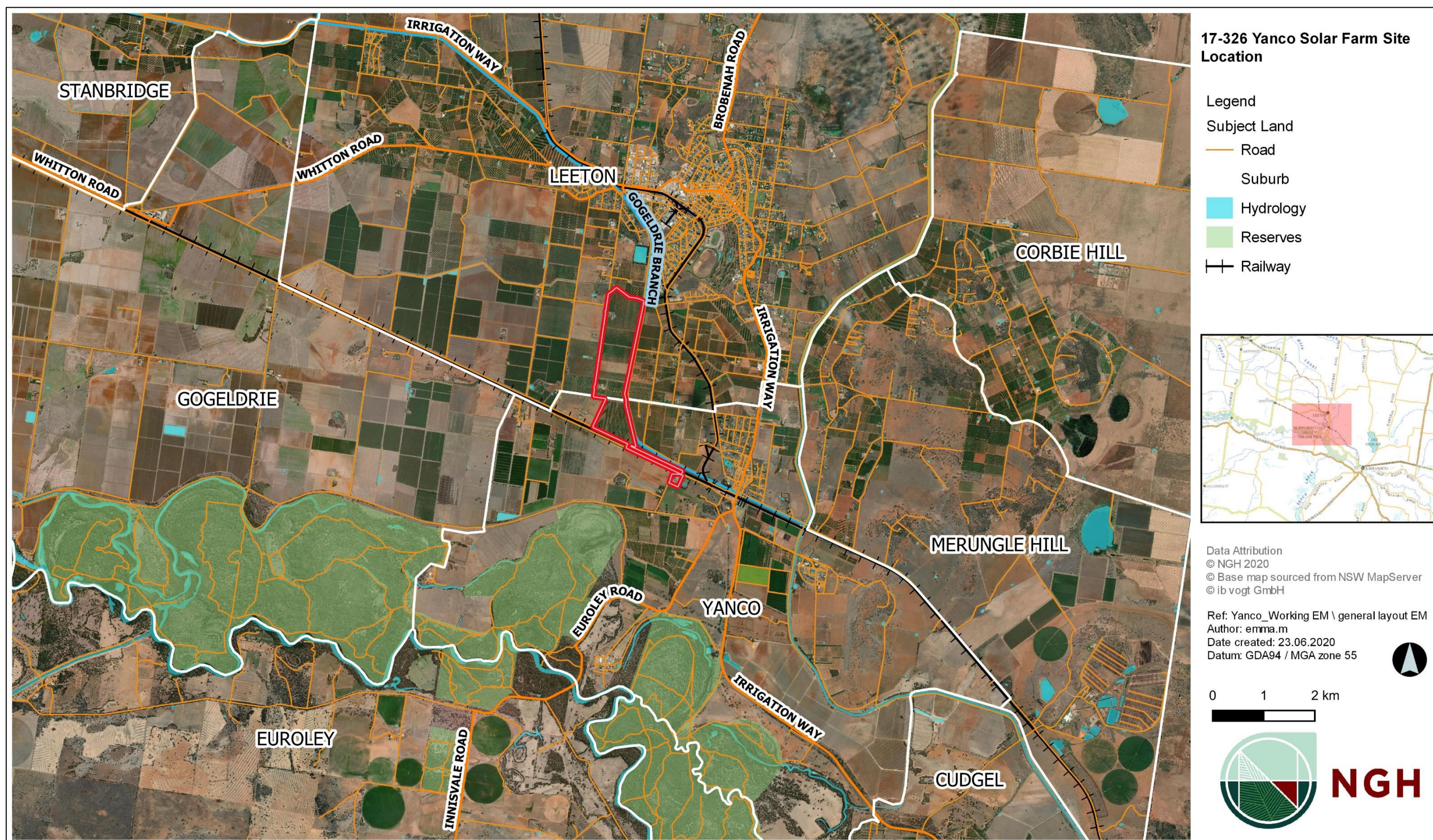


Figure 1-2 General site location



Figure 1-3 Subject Land

2. CONSULTATION

Consultation has occurred with agencies throughout the process leading to this amendment. Evidence of consultation is provided in Appendix B.

2.1. LEETON SHIRE COUNCIL

Ongoing consultation with Leeton Shire Council, the proponent and the design contractors has occurred for the location of Research Road Driveway.

In May 2020, Leeton Shire Council were supplied with a letter and layout plans outlining the changes to the proposal design and requesting confirmation that no road upgrades will be required due to the project, and approve the modified access point on Research Road.

A response was received on 4 June 2020 from Leeton Shire Council indicating that they would not object to the modification as proposed, and that no road upgrades are required for the project (Appendix B.1).

2.2. DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

The proponent initially raised the proposal of a modified proposal design with the Department of Planning, Industry and Environment (DPIE) in April 2020, and shared an overview of the change in design, and a map showing the approved area and area to be assessed under the modification. From this initial discussion DPIE confirmed the need for an Amendment Report to support the proposal (Appendix B).

3. ENVIRONMENTAL ASSESSMENT APPROACH

3.1. ENVIRONMENTAL IMPACTS OF THE APPROVED PROJECT

The key environmental impacts for the proposed Yanco Solar Farm Project included:

- Biodiversity
- Visual amenity
- Land use and resources
- Noise
- Socioeconomic and community
- Aboriginal Heritage
- Soil resources
- Water use and quality
- Climate and air quality
- Traffic, transport and road safety
- Hazards
- Resource use and waste generation
- Historic heritage
- Cumulative impacts

A review of these environmental impacts is considered in Section 4 of this Amendment Report to identify environmental aspects that may change the extent of impact of the approved project.

Mitigation measures set out by the EIS (NGH 2019) would be sufficient to manage all potential impacts for this Amendment.

4. ENVIRONMENTAL IMPACT ASSESSMENT

The environmental aspects from the original EIS are assessed in Table 4-1 to determine environmental impacts required for this Amendment.

Table 4-1 Assessment of environmental impacts for this Amendment.

EIS Environmental Impact	Comment
Biodiversity	<p>No native vegetation was proposed to be removed on Lot 142 DP751745. As such, there will be no additional impacts to biodiversity as a result of this amendment. The section of planted native vegetation to the north of Lot 142 DP751745 will remain, and no longer be adjacent to the proposed works. Clearing of agricultural land will be reduced by approximately 21 ha.</p> <p>The EIS mitigation measures and safeguards are sufficient to manage any impacts to biodiversity.</p>
Visual amenity	<p>Xurban completed the Visual Impact Assessment (VIA) for Yanco Solar Farm.</p> <p>Viewpoints 15, 16, 17, 19 and 20 (Receivers R01, R02 and R03) will have reduced visual impacts due to the exclusion of Lot 142 DP751745. Proposed 10 m wide landscape buffer planting areas have been altered to remove those surrounding Lot 142 (Figure 4-2).</p> <p>The proponent must implement the Landscape Strategy (with amendments) as outlined in the VIA and Figure 4-2.</p> <p>There will be no negative impacts to the landscape or visual amenity as a result of this amendment. The mitigation measures and safeguards in the EIS and VIA are considered sufficient.</p>
Land use and resources	<p>There were no land use and resources issues associated with this amendment. Lot 142 DP751745 will now not be impacted by the proposal and the well-established orange orchard which occupies this land will remain.</p> <p>The mitigation measures and safeguards in the EIS are considered sufficient.</p>

EIS Environmental Impact	Comment
Noise	<p>Renzo Tonin & Associates Pty Ltd were engaged to complete the Noise Assessment (NA) for the EIS. The NA concluded that noise emissions from the construction phase of the project were predicted to generally comply with the construction noise management levels for receivers, however, some exceedances were predicted for receivers R01 to R10 and R20 to R21 during construction of the solar farm while construction works are undertaken in close proximity to the receiver.</p> <p>The reduction in the footprint of proposed works would result in reduced noise impacts for some receivers including R03 and R02.</p> <p>It is anticipated that noise would be temporary, short term and manageable by implementing existing mitigation measures and safeguards from the EIS and NA.</p>
Socio-economic and community	<p>There are no socio-economic and community consideration issues associated with the proposed amendments. The mitigation measures and safeguards in the EIS are considered sufficient.</p>
Aboriginal Heritage	<p>There are no Aboriginal heritage issues associated with the proposed amendment. The mitigation measures and safeguards in the EIS are considered sufficient.</p>
Soils resources	<p>DM McMahon Pty Ltd prepared a soil report to provide an assessment of the existing landforms, and the soil types and characteristics of the proposed development site. This was intended to confirm land capability and characteristics that may affect design, construction or rehabilitation of disturbed soils. It included a desktop and field study for the development site.</p> <p>Appropriate mitigation measures include sediment control measures, appropriate soil management and spill management. This amendment would cause a decrease in impacts to soil resources. The EIS mitigation measures and safeguards are sufficient.</p>

EIS Environmental Impact	Comment
Water use and quality	The exclusion of Lot 142 DP751745 will result in a decrease of non-potable water required for dust control during construction, and panel washing and maintenance activities during operation. The EIS mitigation measures and safeguards are sufficient.
Climate and air quality	The exclusion of Lot 142 DP751745 will cause a slight decrease in the effects outlined in the EIS. The EIS mitigation measures and safeguards are sufficient.
Traffic and Transport	<p>The approved approach to traffic and transport identified in the EIS would be sufficient to manage the potential impacts from construction works. No road upgrades are considered necessary for this report (see section 2.1). The right hand turn from Toorak Road (to the western block of solar panels) is no longer relevant.</p> <p>Overall, traffic impacts from the proposal are expected to be low and manageable. It is important to note that traffic numbers will decrease during the operational phase of the proposal, due to the cessation of agricultural activities in the immediate area.</p>
Hazards	The EIS mitigation measures and safeguards are sufficient to manage any hazards.
Resource use and waste generation	The EIS mitigation measures and safeguards are sufficient to manage resource use and waste generation.
Historic Heritage	No impacts are considered likely on heritage values by the proposed solar farm development. The EIS mitigation measures and safeguards are sufficient to manage historic heritage.

EIS Environmental Impact	Comment
Cumulative impacts	<p>There are five active major projects listed on the Major Projects Register within the surrounding LGAs:</p> <ul style="list-style-type: none">• Griffith Solar Farm: 60 MW – Operational.• Yarrabee Solar Farm: 900 MW – Approved.• Avonlie Solar Farm: 200 MW – Approved.• Sandigo Solar Farm: 100 MW – Approved.• Darlington Point Solar Farm: 275 MW – Construction commenced. <p>Any adverse cumulative visual and noise impacts are anticipated to be manageable.</p>

4.1. IMPACT SUMMARY

Section 4 of this report assesses the environmental impact of key issues relevant to the amendment to the proposed Project. The assessment identified that no changes to the proposed mitigation measures are required for the proposed works.

Table 4-2. Impact Summary

Environmental factor	Any additional, increased or decreased impacts of the amended project?	Any changes to the mitigation strategies required?
Biodiversity	No	No
Visual amenity	Yes – decreased. Reduction in impacts to some receivers. See section 4.2.	No
Land use and resources	Yes – decreased. Lot 142 DP751745 will remain horticultural land. Land clearance will be reduced by approximately 21 ha.	No
Noise	Yes – decreased. Reduction in impacts to some receivers. See section 4.3.	No
Socioeconomic and community	No	No
Aboriginal heritage	No	No
Soil resources	No	No
Water use and quality	No	No
Climate and air quality	No	No
Traffic, transport and road safety	No	No
Hazards	No	No
Resource use and waste generation	No	No
Historic heritage	No	No
Cumulative impacts	No	No

4.2. VISUAL AMENITY

4.2.1. Approach

Xurban completed a Landscape & Visual Assessment (LVA) of the proposal, in compliance with the SEARs. This report assessed the visual impact implications of the proposal on viewers using the local road network and from residential properties, and the appropriateness of the proposed solar farm within the current landscape setting. The LVA also includes a Landscape Strategy to address identified impacts, including onsite vegetation screening and general design measures.

4.2.2. Amendment Assessment

Results of the initial LVA have been extrapolated to provide an amended estimate of the reduced visual impact for viewpoints and receivers situated near the excluded lot (detailed in Table 4-3).

The visual assessment is partly based on the impact and visual change at a number of selected locations. Figure 4-1 shows the location of the twenty viewpoints selected that demonstrate a range of views to the solar farm.

These viewpoint locations were selected to show the visual impact generally from locations close to the solar farm. The viewshed of the solar farm is around 300 m as the solar panels would be 2.2 m high. Apart from needing to be in relatively close proximity, viewpoints were also selected that would indicate the level of visual impact from nearby residential properties, either on adjoining farms or within the residential areas of Leeton and Yanco.

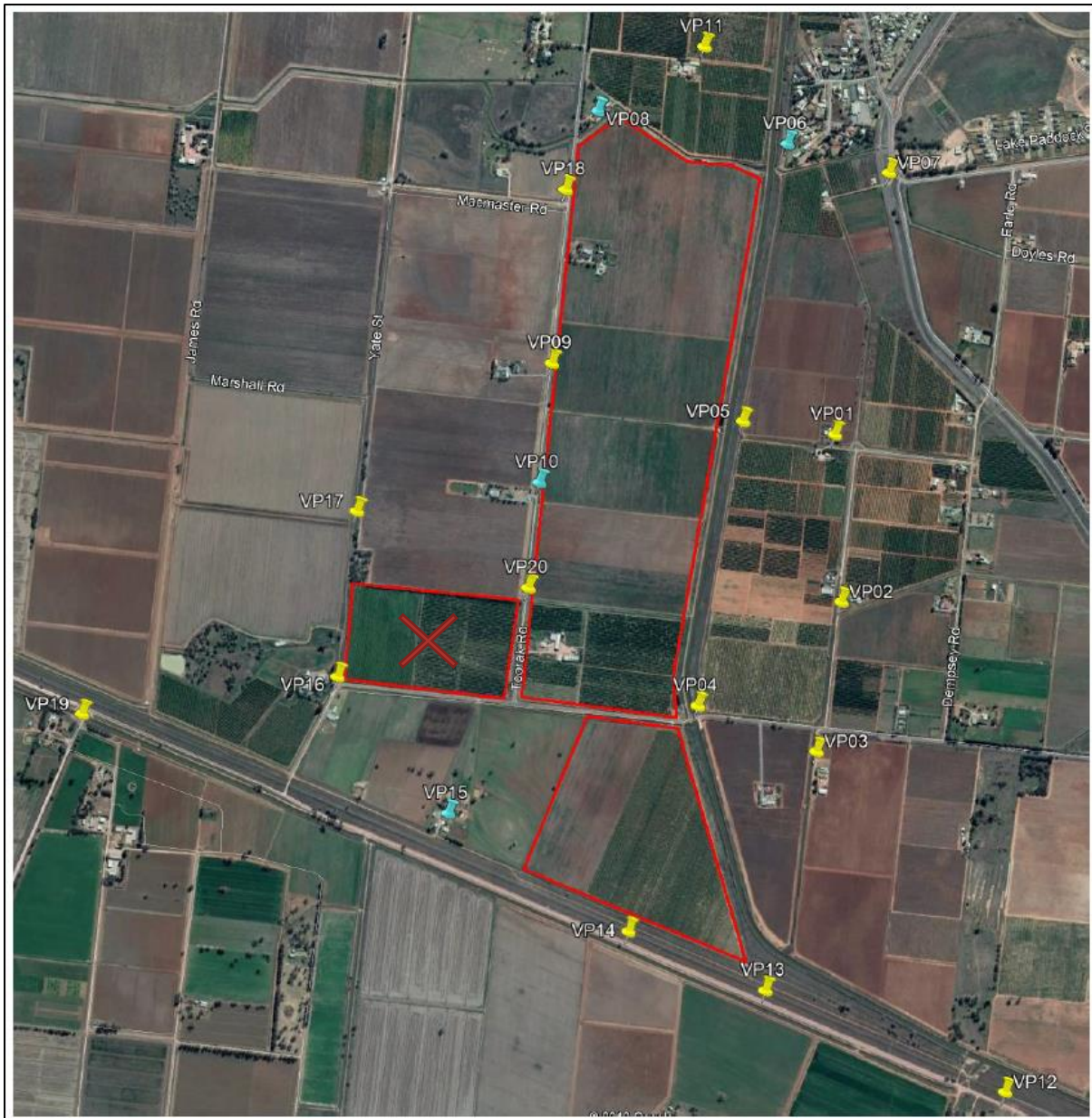


Figure 4-1 Location of representative viewpoints (Map source: Google Earth Pro). The lot to be excluded as part of this amendment is indicated with a cross.

Table 4-3 Visual impact at representative viewpoints affected by this Amendment Report

VIEWPOINT 15 – 649 Ronfeldt Road, House R01		
Summary of Viewpoint		Viewpoint Description / Impact
Land use type	Residential	Taken from the rear yard of a residence that is accessed from Ronfeldt Road. This viewpoint is around 320 m west of the southern section of the proposed solar farm and 400 m south of the northern section's location north of Research Road. The existing house is orientated towards the east, with a pathway leading from the house to the eastern paddocks and sheds. The viewpoint is located at the end of this path looking east to the closest solar panels.
Proximity	320 m	<p>The existing view is broken by many elements in the foreground including power lines and tanks. However, at a distance of 320 m, the proposed solar panels are at the edge of the viewshed and they would be difficult to discern.</p> <p>The colour change brought about by the solar panels is only discernible on close examination of the photomontage. The landscaping, as it is higher than the solar panels, is more evident. The receiver R01 will experience slightly reduced visual impacts due to the exclusion of Lot 142 DP751745 from the development area, which is located north west of the proposal area. Overall, the visual impact from VP15 would be assessed as Negligible, which would reduce to Nil once the vegetation was established to a height greater than the solar panels.</p> <p>Mitigation required.</p>

VIEWPOINT 16 – Intersection of Yate Road and Research Road, R02, R03		
Summary of Viewpoint		Viewpoint Description / Impact
Land use type	Rural	Taken from the intersection of Yate Road and Research Road, which was originally directly opposite the south-western corner of the solar farm.
Proximity	640m	<p>Research Road is visible turning right, parallel to the irrigation canal. Existing powerline infrastructure is visible. The orchard in Lot 142 DP751745 will remain the primary visual feature. Buffer planting is no longer proposed along both road frontages.</p> <p>Therefore, the visual impact from VP16 immediately after construction would be assessed as Negligible.</p> <p>No mitigation required.</p>

VIEWPOINT 17 – Yate Road		
Summary of Viewpoint		Viewpoint Description / Impact
Land use type	Rural	Taken from Yate Road, north from VP16, where the road is a “Dry weather access only” road. This viewpoint is around 650 m west of the proposed solar farm. This location has few viewers. Therefore, the visual impact from VP17 would be assessed as Negligible .
Proximity	650m	No mitigation required.
VIEWPOINT 19 – Rourke Road and Houghton Road intersection		
Summary of Viewpoint		Viewpoint Description / Impact
Land use type	Rural	Taken from Rourke Road south of the intersection with Houghton Road near the entry to the Yanco Agricultural Institute, Leeton Field Station. This viewpoint is around 1560 m south-west of the solar farm. The orchards to the north of the viewpoint are not visible. Therefore, the solar panels would also not be visible, and the visual impact from VP19 would be assessed as Nil .
Proximity	1560m	No mitigation required.
VIEWPOINT 20 – Toorak Road		
Summary of Viewpoint		Viewpoint Description / Impact
Land use type	Rural	Taken from Toorak Road on a slightly elevated bridge as Toorak Road crosses an irrigation canal. This viewpoint is around 30 m from the proposed solar panels to the east.
Proximity	30 m	The proposed solar farm would replace the existing grape vines in the area. The orchard would remain in the excluded lot and therefore no visual impact would be present to the west. The solar panels would be visible and the visual impact from VP20 would be assessed as Low immediately after construction and Nil to Positive once the landscaping was established to a height greater than the solar panels. Mitigation required.

4.2.3. Potential Impacts

Viewpoints 15, 16, 17, 19 and 20 will have reduced visual impacts due to the exclusion of Lot 142 DP751745. As a result, Receivers R01, R02 and R03 will also have a reduced view of the solar farm, being situated further away from panel infrastructure. The amount of vegetative screening required has been reduced as a result of the amendment (Figure 4-2).

4.2.4. Safeguards and mitigation measures

There will be no additional negative impacts to the landscape or visual amenity as a result of this amendment. Positive impacts can be seen for Receivers R01, R02 and R03. The mitigation measures and safeguards in the EIS and LVA are considered sufficient.

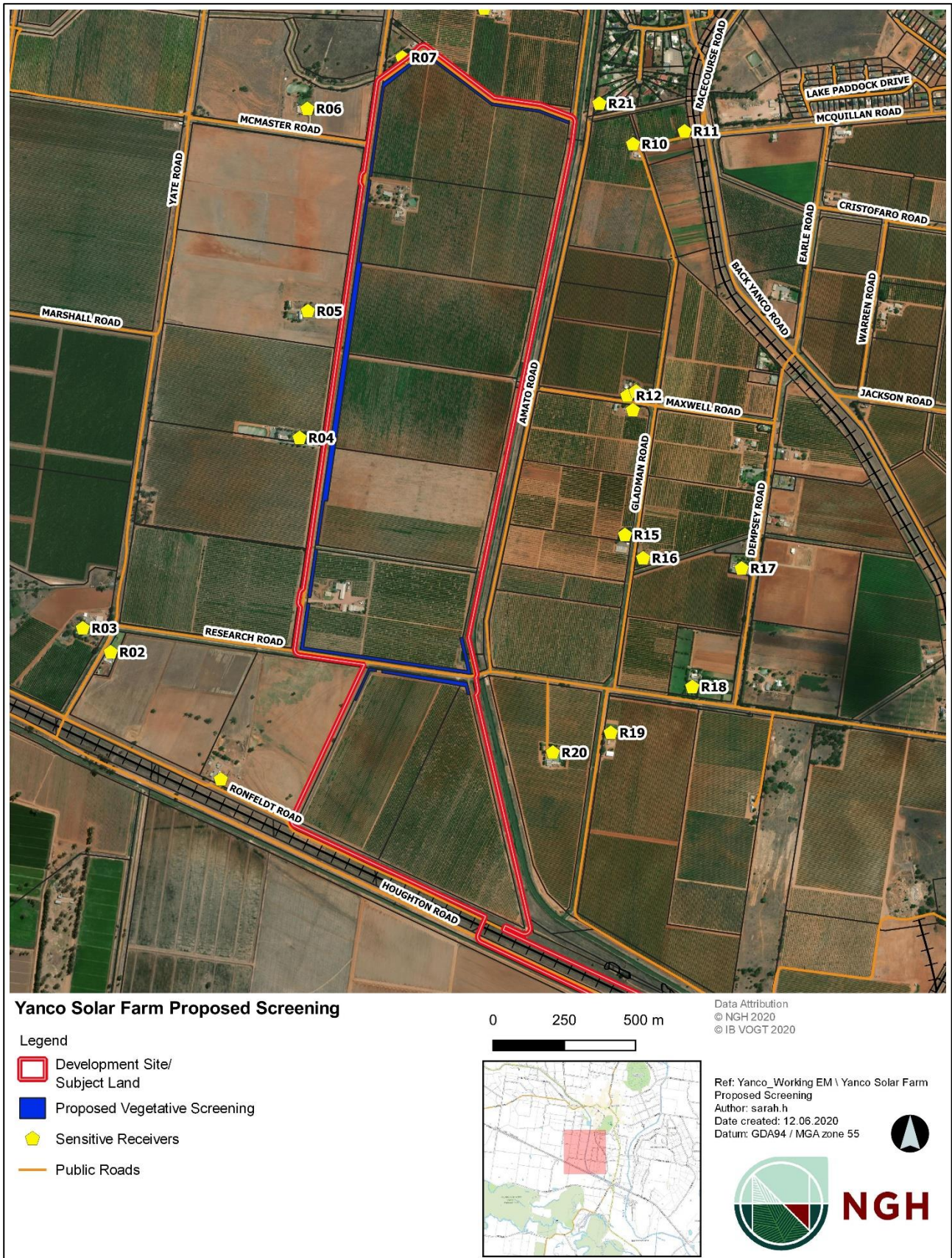


Figure 4-2 Yanco Solar Farm proposed vegetative screening

4.3. NOISE

4.3.1. Approach

Renzo Tonin & Associates Pty Ltd was engaged to complete a Noise and Vibration Assessment (NVA) for the proposal. As per the SEARs, the purpose of the NVA was to quantify potential environmental noise levels associated with the construction and operation of the proposal and identify mitigation measures, where required.

The NVA concluded that the noise management levels at Receivers R01 to R10 and R20 to R21 may be exceeded when construction works are conducted within close proximity to the receivers.

The reduction in the footprint of proposed works would result in reduced noise impacts for receivers R03 and R02, and potentially R01 and R04.

The results of the amended assessment specifically relating to the proposed modified footprint are detailed below.

4.3.2. Amendment Assessment

Results of the initial NVA have been extrapolated to provide an amended estimate of the reduced noise impact for receivers situated close to the excluded lot (R02 and R03).

The amended distance between receivers and the new proposed solar farm boundary are shown in Table 4-4.

Table 4-4: Sensitive receivers adjacent to the development site. Receivers for which the distance has changed as a result of the altered development footprint are shaded in grey.

Receiver Identification	Distance to Development Site
Receiver R01 – 649 Ronfeldt Road, Yanco	Residential property located approximately 300m southwest of the project area
Receiver R02 – 405 Research Road, Yanco	Residential property located approximately 650m southwest of the project area (originally 110m).
Receiver R03 – 410 Yate Road, Leeton	Residential property located approximately 750m southwest of the project area (originally 130m).
Receiver R04 – 328 Toorak Road, Leeton	Residential property located approximately 110m west of the project area
Receiver R05 – 284 Toorak Road, Leeton	Residential property located approximately 140m west of the project area
Receiver R06 – 22 McMaster Road, Leeton	Residential property located approximately 250m northwest of the project area
Receiver R07 – 191 Toorak Road, Leeton	Residential property located approximately 30m northwest of the project area
Receiver R08 – 165 Toorak Road, Leeton (West)	Residential property located approximately 250m north of the project area

Receiver Identification	Distance to Development Site
Receiver R09 – 165 Toorak Road, Leeton (East)	Residential property located approximately 300m north of the project area
Receiver R10 – 32 Back Yanco Road, Leeton	Residential property located approximately 240m northeast of the project area
Receiver R11 – 30 Back Yanco Road, Leeton	Residential property located approximately 410m northeast of the project area
Receiver R12 – 50 Maxwell Road, Leeton (West)	Residential property located approximately 390m east of the project area
Receiver R13 – 50 Maxwell Road, Leeton (East)	Residential property located approximately 420m east of the project area
Receiver R14 – 55 Maxwell Road, Leeton	Residential property located approximately 420m east of the project area
Receiver R15 – 40 Gladman Road, Leeton	Residential property located approximately 480m east of the project area
Receiver R16 – 49 Gladman Road, Leeton	Residential property located approximately 560m east of the project area
Receiver R17 – 80 Dempsey Road, Leeton	Residential property located approximately 910m east of the project area
Receiver R18 – 186 Research Road, Leeton	Residential property located approximately 760m southeast of the project area
Receiver R19 – 215 Research Road, Yanco	Residential property located approximately 450m southeast of the project area
Receiver R20 – 235 Research Road, Yanco	Residential property located approximately 240m southeast of the project area
Receiver R21 – 13 Tecoma Street, Yanco	Residential property located approximately 130m northeast of the project area
Receiver R22 – 120 Houghtons Road, Yanco	Residential property located approximately 1,030m southeast of the project area, and approximately 430m south of the powerline easement
Receiver R23 – 26 Euroley Road, Yanco	Residential property located approximately 1,600m southeast of the project area and approximately 550m southeast of the powerline easement

4.3.3. Potential impacts

Construction

Table 4-5 presents construction noise levels likely to be experienced at the nearby affected receivers based on the construction activities and the three noisiest plant operating concurrently, associated with the works conducted within the development envelope. Table 4-6 refers to the noise levels likely to be experienced at the nearby affected receivers due to the construction of the transmission powerline. The noise level ranges represent the noise source being located at the furthest to the closest proximity to each receiver location.

Receivers with new results are shaded in grey. Results are estimates only, based on results from receivers at similar distances from the development footprint.

Table 4-5 Predicted LAeq,15min Solar Farm Construction Noise Levels at Receiver Locations, dB(A).

	Noise Management Level ¹	Up to 3 (noisiest) plant operating concurrently
R01	45	23-48
R02	45	25-41
R03	45	25-39
R04	45	28-59
R05	45	25-56
R06	45	21-50
R07	45	20-68
R08	45	<20-50
R09	45	<20-48
R10	45	22-50
R11	45	22-45
R12	45	28-42
R13	45	27-42
R14	45	28-42
R15	45	29-40
R16	45	28-40
R17	45	26-36
R18	45	25-39
R19	45	24-44
R20	45	24-51
R21	45	21-56
R22	45	<20-36
R23	45	<20-30

Table 4-6 Predicted LAeq,15min Easement Construction Noise Levels at Receiver Locations, dB(A).

	Noise Management Level¹	Up to 3 (noisiest) plant operating concurrently
R01	45	23-33
R02	45	29-35
R03	45	29-33
R04	45	<20-26
R05	45	<20-23
R06	45	<20
R07	45	<20
R08	45	<20
R09	45	<20
R10	45	<20-20
R11	45	<20
R12	45	21-26
R13	45	21-26
R14	45	22-26
R15	45	25-30
R16	45	25-30
R17	45	26-29
R18	45	29-33
R19	45	30-37
R20	45	29-39
R21	45	<20
R22	45	32-42
R23	45	27-40

The construction works would occur in a rural environment with a low level of background noise. Based on the construction noise levels presented in Table 4-5 for the construction of the solar farm, the noise management levels at Receivers R01, R04 - R10 and R20 to R21 may be exceeded when construction works are conducted within close proximity to the receivers. These exceedances would occur over a short-term, during normal working hours. The maximum duration that affected residents would be likely to experience worst case construction noise is 8 hours in a day. Such activities would move progressively across the site, meaning that at any one receiver, worst case construction noise would typically last for 3-4 weeks only.

For the construction of the transmission powerline, Table 4-6 indicates that construction noise levels will comply with the noise management levels at all the identified receivers. It is noted that construction noise levels at all receivers are predicted to be less than the highly noise affected level of 75dB(A) for all construction stages of the solar farm project.

Operation

Table 4-7 below presents the predicted noise levels for the worst-case scenario based on concurrent operation of all the plant and equipment. The tracker motors were time corrected based on their operation of one (1) minute out of a 15-minute period.

Receivers with new results are shaded in grey. Results are estimates only, based on results from receivers at similar distances from the development footprint.

Table 4-7 Predicted LAeq,15min Operational Noise Levels at Residential Receiver Locations, dB(A).

Receiver Location	Project Noise Trigger Levels			Predicted Operational Noise Levels, LAeq, 15min			Comply? (Yes/No)
	Day	Evening	Night	Calm & Isothermal Conditions	Slight to Gentle Breeze	Moderate Temperature Inversion ¹	
R1	40	38	36	25	29	29	Yes
R2	40	38	36	22	27	27	Yes
R3	40	38	36	21	26	26	Yes
R4	40	38	36	30	33	34	Yes
R5	40	38	36	29	33	33	Yes
R6	40	38	36	24	29	29	Yes
R7	40	38	36	24	29	29	Yes
R8	40	38	36	22	27	27	Yes
R9	40	38	36	22	27	27	Yes
R10	40	38	36	25	29	29	Yes
R11	40	38	36	22	27	27	Yes
R12	40	38	36	24	29	29	Yes
R13	40	38	36	24	28	28	Yes
R14	40	38	36	24	28	28	Yes
R15	40	38	36	23	28	28	Yes
R16	40	38	36	23	28	28	Yes
R17	40	38	36	<20	25	25	Yes
R18	40	38	36	21	26	26	Yes
R19	40	38	36	24	29	29	Yes
R20	40	38	36	27	31	31	Yes
R21	40	38	36	24	29	29	Yes
R22	40	38	36	<20	<20	<20	Yes
R23	40	38	36	<20	<20	<20	Yes

Based on the predicted operational noise levels presented in the table above, predicted noise levels at the nearest receivers comply with the nominated criteria under all meteorological conditions. Therefore, no further reasonable and feasible noise mitigation measures are required to reduce operational noise impacts.

The assessment concludes that the proposed modification to the development footprint will not cause any additional noise impacts. Noise impacts for receiver R02 and R03 are reduced.

4.3.4. Safeguards and mitigation measures

It is anticipated that noise would be temporary, short term and manageable by implementing existing mitigation measures and safeguards from the EIS and NVA.


5. SUMMARY AND CONCLUSION

Based on the assessment presented in Section 4, the proposed amendment to remove Lot 142 DP751745 from the development area and proposal footprint will not increase any key environmental impacts. There will be a reduction of visual and noise impacts for some receivers. The safeguards and mitigation measures detailed in the EIS are considered adequate to manage all environmental impacts.

Removal of lot allows to remain viticulture and horticulture and reduce land use impacts.



APPENDIX B CONSULTATION


B.1 LEETON SHIRE COUNCIL




Thu 4/06/2020 10:51 AM

Matthew Vogele <matthewv@leeton.nsw.gov.au>
RE: Proposed Yanco Solar Farm

To  Simon Kerrison;  Chris Lashbrook

Cc  Lin Hwong

 Follow up.

Hi Simon


Thanks for sending that updated plan through. We had IT issues where the attachments were blocked so have only just been able to view them.

We are happy with the new proposed location of the Research Road driveway as it is in line with our previous correspondence. (your drawing Ref: 17-381 dated 24/03/2020)

We note that the Traffic Assessment has not been updated with this information. We assume this will be updated in the development process.

Council agree that road works are not required for the proposed development based on the information provided for assessment.

Regards



Matthew Vogele | Drainage & Development Engineer | **Leeton Shire Council**
P: 0269530917 | E: matthewv@leeton.nsw.gov.au | www.leeton.nsw.gov.au
23-25 Chelmsford Place, Leeton NSW 2705

B.2 DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

From: Nicole Brewer <nicole.brewer@planning.nsw.gov.au>
Sent: Dienstag, 26. Mai 2020 17:49
To: Simon Kerrison <Simon.Kerrison@ibvogt.com>
Cc: Tatsiana Bandaruk <Tatsiana.Bandaruk@planning.nsw.gov.au>
Subject: Yanco Solar (SSD 9515)

Simon

It would be appreciated if the proposed Amendment Report could provide the following information:

- Clearly detail the proposed project amendments and corresponding impacts (i.e. agricultural, biodiversity, visual).
- Confirm the revised
 - a. project layout figure including clearly delineating the project boundary (i.e. transmission line to TransGrid substation should be within the project site boundary).
 - o total project capacity in MW(AC)
 - o footprint in ha
 - o number of inverter units and battery units
- Clarify if you are proposing to remove Lot 142/DP751745 from the project site boundary. If so then please update the DA application form accordingly. If Lot 142/DP751745 is removed from the development footprint but not the project site no changes are need to the DA application.
- Confirm the separation distance between the development footprint and R3 and R4 residences
- Clarify if any of the proposed site access points are no longer needed
- Confirm any changes to the proposed vegetation screening
- Clarify, in consultation with Council, that no road upgrades are required for the project particular in relation to Toorak Road. The Department notes ib Vogt has not proposed upgrades but it is unclear if Council agreed with that position.

The Department understands that this information will supersede the information provided in your response request for information (RFI) dated 2 April 2020. On this basis, we understand that we can remove reference to this RFI response and close that workflow in the system.

Please call Tatsiana (on 02 8275 1349) or me if anything requires clarification.

Regards
Nicole

Nicole Brewer
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