# SUBMISSIONS REPORT

## Jindera Solar Farm

March 2020

**Project Number: 17-323**

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# DOCUMENT VERIFICATION

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|---|---|
| Project Title: | Jindera Solar Farm |
| Project Number: | 17-323 |
| Project File Name: | Jindera SF Response to Submissions Final V1.0 |

| Revision | Date | Prepared by | Reviewed by | Approved by |
|---|---|---|---|---|
| Final V1.0 | 16/03/2020 | Sarah Hillis | Brooke Marshall | Brooke Marshall |

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AEMO | *Australian Energy Market Operator* |
| BC Act | *Biodiversity Conservation Act 2016* (NSW) |
| BESS | Battery energy storage system |
| CEMP | Construction environmental management plan |
| Cwth | Commonwealth |
| BCD | (NSW) Biodiversity and Conservation Division |
| DoEE | (Cwth) Department of the Environment and Energy |
| DPIE | (NSW) Department of Planning, Industry and Environment |
| EIA | Environmental impact assessment |
| EPBC Act | (Cwth) *Environment Protection and Biodiversity Conservation Act 1999* |
| EP&A Act | (NSW) *Environmental Planning and Assessment Act 1979* |
| GSA | Green Switch Australia |
| ha | hectares |
| Heritage Act | (NSW) *Heritage Act 1977* |
| JSF | Jindera Solar Farm |
| km | kilometres |
| m | metres |
| NSW | New South Wales |
| VPA | Voluntary Planning Agreements |

# FOREWARD

Jindera Solar Farm (JSF) thanks the Jindera and Glenellen community and the broader Greater Hume Shire for their involvement in the proposed Jindera Solar Farm. Submissions and feedback received are greatly appreciated, and it has helped JSF produce a proposal that is able to more positively affect the community, reduce impacts, and benefits across a range of areas.

Key changes to the proposal that have been made as a result of community and agency consultation include:

- Agreement of Voluntary Planning Agreement and Community Fund.
- Increase in separation buffer and vegetation screening on Glenellen Road.
- Additional vegetation screening site wide.
- Refined PV layout and inverter positioning.
- Commitment to remove cables and all underground infrastructure at decommissioning.
- Clarification of proposed works on Ortlipp Road.
- Additional investigation works within the TransGrid substation and proposed site access points.
- Further protection for Squirrel Gliders.

Additional studies were also undertaken to inform these proposed changes and address community concern.

- Agricultural Impact Statement.
- Soil Capability Mapping Assessment.
- Addendum Aboriginal Cultural Heritage Assessment.
- Updated Biodiversity Development Assessment Report.
- Updated Noise Assessment.
- Local Economy and Community Assessment.

These changes and additional investigations are detailed in full within the Amendment Report

Additional details that now form a commitment of the proposal now include:

- Reinforced commitment to co-locating sheep grazing with solar infrastructure.
- Stronger commitments regarding Community benefit sharing.
- Stronger commitments regarding screening.
- Additional buffer distances for residences along Glenellen Road.
- Stronger commitment to developing methods to improve local spend and local employment opportunities during construction and operational activity.
- Introduction of an apprenticeship scheme that will run during the currency of the operational phase.
- Commitment to zero operational noise exceedances during normal operations.
- Voluntary adoption of recommended 30 m boundary setbacks contained within the Victorian Planning Panel Recommendations Report.
- Commitment to commencing groundcover management one season prior to construction.
- Stronger commitments regarding replacing tree hollows that must be removed, as well as vegetation offsets.
- Stronger commitment for the protection and movement of Squirrel Gliders.
- Reinforced commitment for removal of all above and below ground infrastructure post-operations.
- Reinforced commitment that Klinberg, Nation and Ortlipp Roads will not be used for construction traffic.
- Commitment for a separate Construction and Environment Management Plan for transmission line works along Oprtlipp Road.
- Commitment to recycling PV Panels.

- Updated site access points as per the requirements of RMS.
- Commitment to ensure the VPA is fully delivered.

If successful in achieving Development Consent, Jindera Solar Farm are committed to being a good neighbour, a contributor to the local community and economy, and will to continue to involve the community through all aspects of the proposal. The project will provide a great deal of ongoing benefit to the community, including economic benefit, employment, local procurement and use of local services, and the direct benefit from the proposed Community Fund.

# 1. INTRODUCTION

## 1.1. BACKGROUND

### 1.1.1. Preparation of the Environmental Impact Statement (EIS)

An approximately 120 Megawatt (MW) Alternating Current (AC) photovoltaic (PV) solar farm is proposed at Jindera, southern NSW (equivalent to up to 150 MW Direct Current; DC). The 521-hectare (ha) Subject Land (337 ha Development Footprint) is freehold rural land approximately 4 kilometres (km) north of the township of Jindera.

NGH has prepared an Environmental Impact Statement (EIS) on behalf of the proponent, Jindera Solar Farm Pty Ltd (JSF). The EIS was prepared in accordance with Part 4 of the New South Wales (NSW) *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The Proposal is classified as State Significant Development (SSD).

Key environmental issues investigated in the EIS, based on the requirements of the Secretary's Environmental

Assessment Requirements (SEARs), included:

- Biodiversity (flora and fauna).
- Aboriginal heritage.
- Visual impact.
- Land use impacts.
- Noise impacts.

These issues were investigated in the EIS via specialist assessments. Lower risk issues were investigated primarily by desktop assessment. A set of mitigation measures were detailed to ensure that all environmental impacts identified could be managed appropriately.

### 1.1.2. Exhibition period and location

The EIS was placed on public exhibition between 16 October and 13 November 2019. It was exhibited online at https://www.planningportal.nsw.gov.au/major-projects/project/9811.

Hard copies were available at the following locations:

- Jindera Community Hub: 83 Urana Street, Jindera.
- Walla Walla Customer Service Centre: Commercial Street, Walla Walla.

During the exhibition period, submissions were received from members of the public, community groups and government agencies. These were collated and provided to JSF by Department of Planning, Infrastructure and Environment's (DPIE) on 20 November 2019.

## 1.2. PURPOSE OF REPORT

NGH has prepared this Submissions Report on behalf of JSF, to provide responses to the community and government agency submissions received during the public exhibition period.

The aim of this report is to fulfil the requirements of Section 85A of the *Environmental Planning and Assessment Regulation 2000*. It:

- Considers and responds to the matters raised in the submissions for the proposal.
- Describes changes to the proposal, including a revised set of proposed mitigation measures.
- Details the additional studies undertaken to respond to matters raised.

Particularly, it is noted that the submissions received have assisted to clarify the key community concerns regarding this project. Further investigations and consultation undertaken subsequent to the public exhibition period while preparing this report have assisted to make positive changes to the project to ensure that the revised proposal is one that can be better supported by the community.

The report is set out as follows:

- Section 1: Details an introduction to the proposal, and the purpose of the report.
- Section 2: Details the proposal as it appears within the EIS, prior to any amendments or additional studies.
- Section 3: Details the high-level summary of submissions, before briefly discussing any changes made to the proposal and additional studies undertaken. The section also details any additional consultation undertaken. This section should be read in conjunction with the Amendment Report.
- Section 4: Details responses to submissions, for all agencies, community groups and individuals. This section offers a consolidated summary of individual submissions, rather than individual responses.
- Section 5: Details a full list of updated mitigation measures.
- Amendment Report: Each additional study undertaken is summarised in the Amendment Report and included in full in the Appendix.

*Note: concurrent with the preparation of this Submissions Report, an Amendment Report has been prepared to set out in full, and assess where required, changes made to the project since the exhibition of the EIS. Where relevant, the results of Amendment Report are referenced in this report.*

## 1.3. HOW TO READ THIS REPORT

**Responses to Community Submissions** – A summary of responses to issues raised in submissions from the public are found in Section 4.1. These responses are typically brief and are based on information from:

- The EIS.
- Specialist studies.
- Additional specialist studies which are summarised in Section 3 of this report, and further detailed within the Amendment Report.

**Responses to Agency Comments** – A summary of responses issued by government agencies and Council are found in Section 4.2.

**Changes to the Proposal** – A summary of all changes to the project since the EIS was exhibited can be found in Section 3.3.2. More details can be found within the Amendment Report.

# 2. THE JINDERA SOLAR FARM PROPOSAL

The following is a summary of key information as presented in the EIS and subsequent Submissions Report.

## 2.1. THE PROPONENT

JSF (the proponent) is an Australian company registered in NSW.

It is managed as a development partnership involving Hanwha Energy Corporation (Hanwha Energy) and Green Switch Australia. Hanwha Energy is an owner of solar farms in Australia, the United States of America and Asia. Green Switch Australia is a developer that specialises in creating utility scale solar projects. Together they have many years' experience in developing, building and operating solar power projects. It is proposed that Hanwha will construct, own, operate and decommission the solar farm.

Both these companies are registered in Australia.

## 2.2. PROPOSAL SUMMARY

The proposal is in the Greater Hume Local Government Area (LGA) approximately 4 km north of Jindera township. The subject land comprises Lot 2 DP213465, Lots 70, 90, 133-136, 138-141, 147, 148, 153-155 DP753342, Lots 1-3 DP1080215, Lot 1 DP1252930 (former Crown road), Lot 1 DP588720 (45 m wide proposed transmission line easement for the grid connection corridor), Urana Road, Walla Walla Jindera Road, Ortlipp Road and Council Road (CADID 105338106).

The proposed Jindera Solar Farm, as described in the EIS, has the following characteristics:

- Single axis tracker photovoltaic (PV) solar panels, mounted on steel frames at about 3 m above ground level at maximum tilt.
- Battery Energy Storage System (BESS) with maximum capacity of 30MW/60MWh.
- Electrical cables and conduits.
- Inverter/Transformer stations which have an aggregate capacity of approximately 155 MVA.
- Weather station.
- On-site high voltage substation.
- Control room and storage facility.
- Site office, staff amenities, parking area and perimeter fencing, and CCTV.
- Overhead transmission line infrastructure on poles connecting the project's on-site high voltage substation to the existing TransGrid Jindera 330/132kV substation. A portion of the proposed grid connection inside the TransGrid substation boundary may be underground (as required).
- Internal access tracks.
- Access road entrances from public roads.
- Upgrade to existing roads.
- On-site vegetative screening.
- Other associated ancillary infrastructure.
- A native vegetation buffer to minimise visual impacts in specific locations.

The original proposed infrastructure map (Figure 2-1) demonstrated avoidance of sensitive features on the site. An updated layout giving consideration to submissions is detailed in Figure 3-2.

The solar farm would connect from the on-site high voltage substation to the existing TransGrid Jindera substation, via a new overhead 132kV transmission line adjacent to Ortlipp Road, crossing to the eastern side of the Ortlipp Road corridor to access the TransGrid substation property frontage, and continuing to the TransGrid Jindera 330/132kV substation switchyard inside the property. Works would be required inside the

TransGrid switchyard to facilitate the connection. A portion of the transmission line inside TransGrid property may use underground cabling (if required by TransGrid).

Major construction and operational access are proposed off Urana and Walla Walla Jindera Road. Urana Road forms the major haulage transport route to and from the site for construction. During operation, there would be additional maintenance and emergency access off Klinberg Road and Ortlipp Road. Construction access is not proposed off Klinberg or Ortlipp Roads.

The development site is proposed to be leased from the involved landowners for the life of the project, with all above and below ground infrastructure removed in consultation with the landowner, and the site returned to its existing land capability upon decommissioning.

**These key features of the project remain unchanged**.

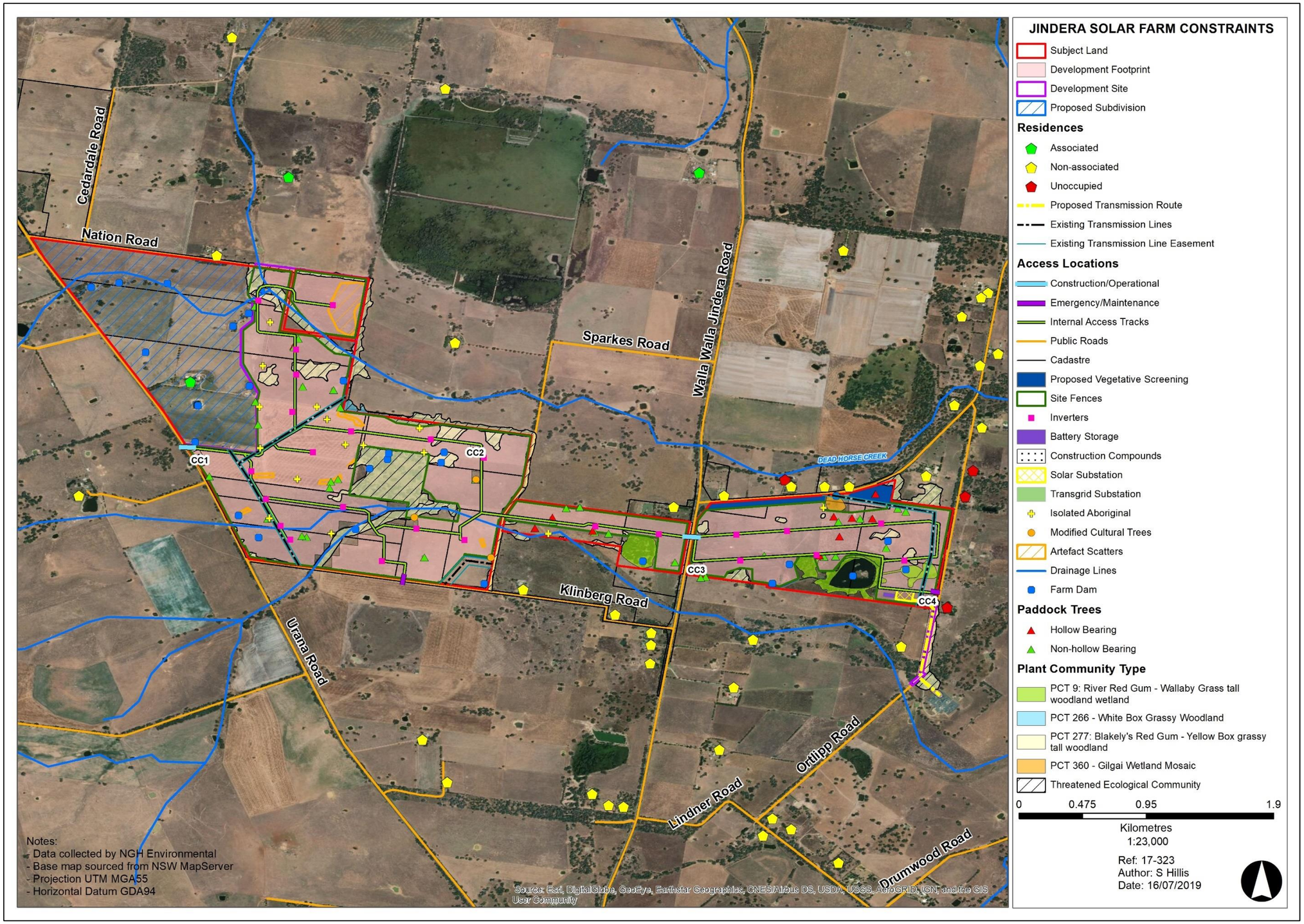


Figure 2-1 Constraints map and original proposed layout

## 2.3. PROJECT BENEFITS

### 2.3.1. Broad benefits

The broad project benefits remain as detailed within Section 2 of the EIS. Electricity generation is the largest individual contributor to greenhouse gas emissions in Australia (DEE 2017). Once constructed, the proposal would provide around 275,000 MWh per year of GHG emission-free electricity. This represents the power consumption of about 65,000 homes (assuming an average household consumption of 4,215 kWh pa). Generation figures may change subject to final site design and technology selection. The proposal would save about 92,000 tonnes of GHG emissions per year.

The proposal would assist in reducing GHG emissions from electricity generation and contribute to renewable energy targets committed to by the NSW and Federal Governments.

The proposal would contribute to the NSW Renewable Energy Action Plan (NSW Government 2013), which supports the achievement of the national target of 20% renewable energy by 2020 (NSW Government 2013). The proposal would also further the three goals of the Action Plan:

1. Attract renewable energy investment and projects.
2. Build community support for renewable energy.
3. Attract and grow expertise in renewable energy.

The proposal would also contribute to the Australian Government's objective to achieve an additional 33,000 GWh of energy from renewable sources by 2020 under the Large-Scale Renewable Energy Target (LRET). While the LRET target was met in September 2019, the scheme will continue to require high-energy users to meet their obligations under the policy until 2030.

### 2.3.2. Site suitability

As with any electricity power generating system, a solar farm needs to connect to the electricity grid in order to deliver the power it has created to consumers. Its location in proximity to the grid is a key determinant of site suitability.

The TransGrid substation located adjacent to the proposed solar farm offers an excellent route to the grid. The substation has sufficient capacity to permit a suitable connection and also, given its capacity and layout, there is only relatively minor technical work needed to complete the grid connection. The substation then allows access to both the 330 kV and 132 kV networks of transmission lines that serves NSW.

The associated landowners are also willing to allow the proposal on their properties, given the numerous advantages to their current agricultural practices. It is the intent of the landowners to continue their regular agricultural activities of grazing sheep on the Development Site and, more widely, their other agricultural activities will continue on land not the subject of the solar farm proposal.

In addition to this and as outlined in Section 2.5 of the EIS, the key considerations for site selection are detailed within the *NSW Large-scale Solar Energy Guideline for State Significant Development* (DPE 2018), which includes:

- The proposal is not highly visible, not located on high ground or within a valley. Homes on Urana Road have a slightly elevated view. Screening is proposed.
- Minimal impacts to biodiversity are expected due to historical disturbance and agricultural activities.
- There would be no land use conflicts due to zoning.
- The proposal is not located on Strategic Agricultural Land. Some of the proposed project land is currently classified as Class 3 Agricultural Land, however additional surveys and studies conducted

by third parties (detailed in Appendix A.2 of the Amendment Report and further detailed in Section 1.2 of the Amendment Report) suggest that the land is largely Class 4 Agricultural Land (not class 3). Further to this:
  - The proposal is not expected to adversely affect the biophysical nature of the land.
  - The proposal would positively affect soils by providing many of the benefits of long-term fallow, including increasing soil moisture, building soil carbon levels, allowing structural recovery and improving soil biota.
  - The proposal will not result in the permanent removal of agricultural land.
  - The proposal would not result in rural fragmentation given it will not permanently alter the existing or surrounding environment.
  - Adjacent farming operations are compatible.
  - Strategic sheep grazing may be used within the development site. Grazing would be used to reduce vegetation biomass and put grazing pressure on weeds adjacent to the solar panels.
- The site is not identified as flood prone land.
- Parts of the site are defined as category 2 vegetation bushfire prone land (low risk). Management measures are included in accordance with statutory requirements.
- The proposal is partly located on prospective resource developments (Exploration Licence EL8467) (2.6 % of the Development Footprint). Consultation was undertaken with the exploration licence holder in December 2018 and January 2019.
- The proposal is not located on Crown Land, with previous Crown Roads (CADID 105306258 and CADID 105338106) now having been purchased by the landowner and Council, respectively.

### 2.3.3. Local benefits

The local project benefits remain as detailed within Section 2.2.4 of the EIS. They include:

- Direct and indirect employment opportunities during the peak construction phase and operation of the solar farm. This includes up to 200 employees and three to five full time equivalent (FTE) staff for the life of the project. Maintenance contracts for panel cleaning, fence repair, road grading, security, etc. would also be required and would likely be met by local contractors.
- Direct business volume benefits for local services, materials and contracting (e.g. accommodation, food and other retail).
- Significant wage spending would be directed at local and regional businesses and service providers during the construction period. Spending would include housing expenditure, retail, recreational spending, and personal, medical and other services.
- Increased economic security to rural economies through diversification of employment opportunities and income streams.
- Council rates revenue associated with the solar farm would be subject to negotiations between Greater Hume Shire Council and JSF.

To minimise the environmental costs of achieving the above benefits, the proposal would respond appropriately to the environmental constraints of the site. It would be designed to:

- Preserve biodiversity features through minimising native vegetation removal and mitigating connectivity impacts.
- Managing impacts to items of Aboriginal significance.
- Minimise impacts to soil and water resources through pile driven panel mounts rather than extensive soil disturbance and excavation.
- Retain existing site topography.
- Minimise visual impacts to neighbours, incorporating buffers and vegetation screening and other measures located in consultation with any highly impacted neighbours.

- Retain some agricultural production value through managed stock grazing during operation.
- Preserve future agricultural production values, being highly reversible at the end of the project's life.

JSF takes its prospective role in the community very seriously and strives to be a good neighbour and supporter of the communities where it operates. JSF will seek opportunities to deliver economic and/or social benefits through its operations.

JSF have listened to the concerns of the community through their consultation efforts, read the submissions and are seeking to provide more proposals around community benefit, which are detailed in the Local Economy and Community Benefit Assessment in Section 1.7 of the Amendment Report.

## 2.4. JUSTIFICATION

In Australia, the NSW Government and the Australian Commonwealth recognise the change to renewables and, more specifically, non-fossil fuel-based power generation is coming. The effects created by solar farming (including in whole life terms) are significantly better than the whole life effects of fossil fuels and nuclear.

In addition to the above, there have been a number of independent published studies that demonstrate the comparative cost of renewables and fossil fuel-based generation. For example, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the AEMO prepared a report with a range of industry stakeholders, which details an up to date cost of electricity generation from a number of sources (Graham, 2018). It was found that existing fossil fuel power plants are competitive due to their sunk capital costs, but solar and wind generation technologies are currently the lowest-cost ways to generate electricity for Australia compared to any other new-build technology.

Whilst the Federal Government has failed to lead and provide a clear future energy policy, State level policies are providing good direction and strong support to developers of renewables. NSW Government has recognised that the transition to non-fossil fuel power generation and to alternative fuels is now something that we must all consider.

Across Australia, both global and country wide companies are recognising renewables and adapting their working practices and procurement strategies to reduce their reliance on fossil fuels. In some cases, financial institutions and even insurers are phasing out their work with companies in the fossil fuel sector.

A new report by the Climate Council details the increased speed of a business-led transition to renewables as power bills have increased, with almost half of Australia's large businesses' actively transitioning to cheaper renewable energy. Some examples of Australian businesses transitioning to renewables include:

- The Melbourne based Carlton and United Breweries.
- Townsville based zinc refinery, Sun Metals.
- South Australian Whyalla Steelworks.
- Telstra.
- Victorian factories and offices of Mars Australia.
- Unilever.

These are examples of companies that are key to the Australian economic fabric and strength that are leading the movement towards renewable power sources.

At the State level, the Jindera Solar Farm would contribute to Australia's renewable energy targets, supporting a global reduction in GHG emissions and meeting future energy demands. Specifically, the proposal site is advantageous for a solar farm development as:

- Its location allows for optimal use of existing powerline and energy infrastructure.
- It allows for diversification of land use and economic activity in regional NSW.

- It will enhance electricity reliability and security.
- It will generate approximately 275,000 MWh of renewable electricity per year.
- Supply enough power each year to service approximately 65,000 households.
- Save around 92,000 tonnes of carbon dioxide ($CO_2$) per year.

At a regional Greater Hume Shire level, the solar farm has the potential to contribute to economic development in Jindera and the surrounding region by:

- Diversifying land use opportunities in the Shire resulting in varying sources of income for both community members and the Council and, ultimately, improving economic resilience to agricultural commodity market fluctuations, or drought.
- Increased Council rates revenue associated with the solar farm.
- Council Voluntary Planning Agreement will provide capital funding to the Council and the associated Community Fund will provide direct community funding.
- Direct and indirect employment opportunities during construction and operation of the solar farm. This includes up to 200 employees and two to three operational staff for the life of the project. Maintenance contracts for panel cleaning, fence repair, road grading, security, etc. would also be required and would likely be met by local contractors.
- The proposal is consistent with the Greater Hume Shire Economic Development and Social Plan 2017 – 2022, which cites the exploration of options for solar powered installations across the shire to improve long term sustainability for community organisations.

At a local level:

- The proposal does not have a high visibility from urban hubs or major roads as it is in a prominent location or at an elevated or valley position in the surrounding landscape. For those residents along Urana Road whose properties are slightly elevated and, hence, have visibility of the site, visual mitigations proposed include development of a native vegetation screening.
- The proposal is not located on Strategic Agricultural Land, including industry clusters and biophysical strategic agricultural land. In addition to this, use of the land for a solar farm would positively influence soils into the future by providing many of the benefits of long-term fallow land, including increasing soil moisture, building soil carbon levels, allowing structural recovery and improving soil biota.
- The proposal is not classified as being ecologically sensitive as it has already been heavily disturbed from past and current agricultural activities. Although the final design avoids the majority of remnant native vegetation, habitat of threatened species and ecological communities, planned mitigation measures for vegetation screening could enhance ecological corridor creation (squirrel glider nest boxes, glider poles and bridges) around the proposal site.
- The community will benefit from a proposed Community Benefits Scheme (detailed in Section 2.1 within the Amendment Report).

# 3. CONSIDERATION OF SUBMISSIONS

## 3.1. RESPONSE SUMMARY

During the exhibition period, DPIE received submissions from two community groups, 109 members of the public, and eleven agencies (Table 3-1). While the Major Projects Portal notes 112 public submissions, 3 of these submissions were accidental repeat submissions by two members of the public. JSF have sought confirmation on these numbers from DPIE, with no response yet.

Table 3-1 Response summary for submissions received by the DPIE

| Category | Number of responses received |
|---|---|
| **Community groups**<br>• Country Women's Association of NSW<br>• Squirrel Glider Advisory Group | **(2)**<br>1<br>1 |
| **Individual members of the public**<br>• Support<br>• Objection<br>• Comment | **(109)**<br>11<br>96<br>2 |
| **Agency submissions**<br>• NSW Department of Primary Industries, including:<br>  – Strategy & Policy<br>  – Biodiversity and Conservation Division (BCD)<br>  – Water and Natural Resources Access Regulator (NRAR)<br>• NSW Crown Lands<br>• NSW Environmental Protection Authority<br>• NSW Greater Hume Shire Council<br>• NSW Planning Resource Assessments<br>• Heritage Council of NSW<br>• NSW Local Land Services<br>• NSW Roads and Maritime Services<br>• TransGrid | 11 |

The issues raised in each submission received are summarised below in Section 4.1 (public submissions) and 4.2 (agency submissions). The full submissions can be found on the Major Projects website: https://www.planningportal.nsw.gov.au/major-projects/project/9811

## 3.2. ADDITIONAL CONSULTATION

Further consultation was undertaken while preparing this report, to assist in understanding concerns and directing the investigations and proposed changes to the project. These are documented below.

### 3.2.1. Residences within 2 km of the proposal

Of the 109 responses received, ninety-six (96) individual objections were received:

- 6 objections were received from parties located outside of the Greater Hume Shire Council area.
- 41 objections were received from parties located within the Council area, but more than 2 km away from the project site.
- 49 objections were received from parties located within 2 km of the project site.
- It should be noted that 25 of these objections originate from 10 residences, meaning some properties had numerous individuals submitting objections.

Based on the community submissions received and the level of impact anticipated for specific receivers, NGH identified several nearby residents for further direct consultation:

- All receivers within ~2 km of the proposal who provided contact details were given a general update via email on 31/1/2020 of the proposal with the offer to meet and further discuss the proposal. Contact details of GSA were included in the correspondence.
- The 10 residences identified from the Submissions within 2 km (i.e. the 25 respondents detailed above) were contacted via email, phone or letter drop (whatever means was available and recorded) with targeted updates and an offer to meet.

GSA and Hanwha made themselves available for face to face meetings over the Response to Submission period at individual's request, meeting them at their homes or in the township of Jindera. 11 of these stakeholders took up the proponents offer to meet, which occurred over 3 days; 6 March 2020, 13 February 2020 and March 5 2020.

One of the residents was unable to meet, but submitted a further detailed letter containing feedback regarding the Project. JSF considered this feedback in the proposal, and will also reply to this letter directly as part of the Response to Submission.

The purpose of these meetings was:

- Discuss and clarify the main points of the individual's submissions (where applicable)
- Explain amendments proposed to the Project, EIS and additional investigation completed in response to submissions
- Discuss general queries and feedback regarding the Project
- Receive further feedback and amendments that could be implemented
- Engage and build relationships with nearby residents of the proposed project
- Explanation of the planning process going forward and next steps
- Invitation to continue engaging and sharing / reconfirmation of contact details of JSF team

Some of the individuals engaged in the meetings have completed submissions that will be adequately responded to in Section 4.1.3, Table 4-3 below as part of JSF's response to community submissions. The table below (Table 3-2) summaries the issues raised in these consultations, and how JSF incorporated the comments into their response.

Table 3-2 Summary of community consultation post exhibition of the EIS

| Issue Raised | Number of individuals to raise issue | Proponent response |
|---|---|---|
| Agricultural value of land | 11 | An Agricultural Impact Statement has been undertaken, as well as Soil Capability. There has been a reinforcement in commitment to co-locate sheep grazing with solar infrastructure, and only a small portion of the lands agricultural capability will be lost to infrastructure.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 1. |
| Construction noise, traffic, dust suppression and other impacts | 11 | JSF is committed to being a good neighbour and to reduce construction impacts on the neighbouring properties as much as possible. It is acknowledged that some disruption is inevitable, but by continuing to engage with these neighbours throughout the Construction and Environmental Management Plan phase, these impacts can be mitigated and managed.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 8, 10, 11, 20 |
| Quality and maintenance of vegetation screening | 10 | Additional vegetative screening has been proposed by JSF around the perimeter of the proposal in key public locations and around sensitive receivers, to reduce any potential visual impacts.<br>Understanding that visual impacts are a key issue for the local community, stronger commitments around screening are now included.<br><br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 6, 16 |
| Visual and noise impact along Glenellen Road | 9 | Additional buffer distances have been designed along Glenellen Road in addition to the extensive visual screening. The solar farm layout has been redesigned to reduce overall noise impact, with modelling showing no impact during operation. These changes are highlighted throughout the document. |
| Site location and project justification | 8 | Please see full Project Justification response at Section 2.4 above. |
| Local benefit | 8 | Broad and local benefits are described above in Section 2.3 of this report, including employment, stimulus of local economy, wage spending, diversification and economic security, council rates, Voluntary Planning Agreement capital payment and a Community Find established by the project. |
| Recycling of panels | 6 | Stronger commitments to recycling PV panels have been made by the proponent.<br><br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 32 |
| Heat island effect | 6 | It is understood that solar panels will affect air temperatures within the solar array perimeter, but this dissipates outside this perimeter. JSF has voluntarily accepted the recommendations of the Victoria Planning Panel Report (2018) that sets out recommended buffers to ensure neighbouring properties are not affected.<br><br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 13 |

| Issue Raised | Number of individuals to raise issue | Proponent response |
|---|---|---|
| Farming practices of agrivoltaics | 6 | An Agricultural Impact Statement (AIS) has been undertaken and a reinforcement in commitment to co-locate sheep grazing with solar infrastructure has occurred, along with strategies to ensure the success of this.<br>The AIS outlines examples within Australia where success is achieved with an approximate 80% retention in stock rate.<br>See full proponent response in the Agricultural Impact Statement |
| Use of particular roads, access points, Crown Roads and access roads. | 5 | Clarification on the use of Ortlipp Road during the construction period, and that the use of Crown roads (Sparkes Road) would not be affected by the project.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 33 |
| Devaluation of land | 5 | No land value study has been undertaken specific to solar plant development in Australia or specific to the Jindera Solar Farm proposal. Existing studies in relation to wind farms (which are usually larger renewable energy developments, with taller structures which are generally more visually intrusive on the landscape than a solar plant, but which have the same reversible impacts on agricultural productivity after decommissioning), have found no conclusive evidence to support the claim that wind farms devalue nearby property on the basis of visual impacts.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 3 |
| Weeds management and related fire risk | 4 | Weed management is a standard requirement for projects such as this. There is a high degree of certainty in implementing and monitoring measures to management weed ingress.<br>Weed control extends to the proposed vegetative screening, not just areas where solar infrastructure will be required. Effective screening is a requirement and commitment of JSF, and competition from weeds is detrimental to the success of the Vegetation and Landscaping Plans.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 21 |
| Security Fencing | 4 | The proposed vegetative screening will be planted in front of all security fencing, to obscure views of infrastructure, softening and breaking up views of the site. The proposed species are a mixture of differing canopy heights, with the mid-stratum species fast growing and fast dispersing.<br>Further commitments around type of fencing, not including shade meshing and Squirrel Glider safety are outlined throughout the document. |
| Misinformation and rumour regarding the Project and proponent | 4 | There was a small amount of misinformation and rumour being discussed in the community regarding the project, the proponent and the solar industry in general. These points were clarified, and individuals were welcomed to continue to contact JSF should they have any further questions or concerns in the future. |
| Insurance | 4 | During 2019, in response to growing community-raised private insurance-related concerns around solar farm developments, NGH initiated discussions with the Insurance Council of Australia to determine feedback for these concerns.<br>The Insurance Council of Australia do not believe that there will be any effect on the ability of near neighbours to obtain cost competitive insurance premiums.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 14 |

| Issue Raised | Number of individuals to raise issue | Proponent response |
|---|---|---|
| Greater Hume Shire Councils objection | 4 | Discussion of GHSC objection. Please see full proponent response outlined in this document at Section 4.2.1. |
| Dams, water supply and run off | 4 | As detailed in the EIS, water would be sourced from a Council owned standpipe in Jindera. As such, any water sources specified under the WM Act are not required.<br>However, for clarity an additional mitigation measure **WA15** is provided in Section 5 to commit to this action.<br><br>Flood modelling was conducted and met the requirements of the BCD.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 14, and Section 4.2.2, Table 4-7, point No 14 |
| Risk of the proponent going bankrupt and leaving infrastructure in land | 3 | The proponent is backed by Hanwha Energy, one of the most trusted names in the global solar industry and has built an integrated solar value chain that includes manufacturing, system solutions, construction, operation and more Hanwha Energy Australia is a reputable and reliable company based in Sydney, Australia with the backing of a global conglomerate<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 23 |
| Issues on timing and length of public exhibition period | 3 | The exhibition of the EIS was within the statutory timeframes, outside of the Christmas and New Year period. JSF also notified all interested parties who had provided contact details and requested to be kept informed that the proposal was on public exhibition.<br>JSF has accepted late submissions, continued to engage throughout the Response to Submissions phase, and will continue to engage and take on feedback going forward.<br>See full proponent response outlined in this document at Section 4.1.3, Table 4-3, point No 26 |
| Effect on Jindera community | 3 | Local benefits are described above in Section 2.3 of this report, including employment, stimulus of local economy, wage spending, diversification and economic security, council rates, Voluntary Planning Agreement capital payment and a Community Find established by the project.<br>It is acknowledged that the proposal could give rise to impacts, which will need to be mitigated as set out in the EIS. Central to this are environmental, social and community commitments.<br>See full proponent response outlined in this document at Section 2.3, and throughout the document |
| Decommissioning | 3 | As per Section 3.8.2 Decommissioning and Rehabilitation within the EIS, JSF has already committed to the full removal of all posts and cabling associated with the proposal. |

All meetings were held in a positive and collaborative manner and were productive in informing changes to the project proposal and further investigations as outlined in the Amendment Report. Some of the suggestions and feedback provided in these meetings have been directly incorporated into the project design, showing the direct impact that consulting with these project neighbours can provide. Whilst it is acknowledged that these meetings did not materially change individual's reason for submitting feedback (objections or feedback) on the EIS, most residents saw the design amendments made, and clarity provided in the meeting as a step forward in reducing the impact and increasing community benefit of the proposed project. JSF will continue to place importance in engaging these important stakeholders as the project progresses.

## Conclusions from community analysis

The analysis identifies 62 potential receptors within a 2 km radius of the proposal Subject Land (i.e. the boundary of effected lots). 24 of these receptors are however located approximately 1.5 km or more from the nearest infrastructure of the proposed solar farm, none of which will have a view of the proposal due to existing onsite and offsite vegetative screening and distance.

In addition to this, 9 receptors are blocks of farming land that are not occupied for dwelling, and 3 receptors are unoccupied and potentially uninhabitable properties. For the purpose of this analysis, it is assumed they will have no view.

Of the remaining 28 receptors with a potential view of the proposal:

- 5 of these have a clear line of site, namely those along Glenellen Road with no roadside vegetation.
- 12 of these have a partial view of the proposal, broken by existing onsite and offsite vegetative screening and slight elevation in the landscape.
- 11 of these have views that are barely discernible or indistinct due to existing onsite and offsite vegetation screening and distance.

Section 6.6.3 of the EIS demonstrates that of the 62 potential receptors, 52 were unlikely to experience any exceedances of the Noise Management Levels (NML) during road and compound construction (i.e. those further than 330 m from development infrastructure), and 49 were unlikely to experience any exceedances of NML during pile driving of posts, erecting frames and installation of panels (i.e. those further than 460 m from development infrastructure).

Table 3-3 Analysis of receivers within 2 km of the proposal

| Receiver | Status | Closest Infrastructure (m) | Visual Impact (prior to mitigation) |
|---|---|---|---|
| **R01** | Occupied Residence | 329 | Partial line of site, broken by existing native vegetation screening. |
| **R02** | Occupied Residence | 467 | Partial line of site, broken by existing native vegetation screening. |
| **R03** | Occupied Residence | 522 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R04** | Occupied Residence | 612 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R05** | Occupied Residence | 749 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R06** | Occupied Residence | 1130 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R07** | Occupied Residence | 813 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R08** | Occupied Residence | 440 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R09** | Occupied Residence | 249 | Partial line of site due to existing native vegetation screening. |
| **R10** | Unoccupied Residence | 218 | Partial line of site due to existing native vegetation screening. |
| **R11** | Unoccupied Residence | 269 | Partial line of site due to existing native vegetation screening. |
| **R12** | Unoccupied Residence | 429 | Partial line of site due to existing native vegetation screening. |
| **R13** | Occupied Residence | 723 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R14** | Occupied Residence | 820 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R15** | Occupied Residence | 273 | Partial line of site, broken by existing native vegetation screening. |
| **R16** | Occupied Residence | 232 | Clear line of site, clear view of solar infrastructure. |
| **R17** | Occupied Residence | 179 | Clear line of site, clear view of solar infrastructure. |
| **R18** | Occupied Residence | 189 | Clear line of site, clear view of solar infrastructure. |
| **R19** | Unoccupied Residence | 243 | Clear line of site, clear view of solar infrastructure. |
| **R20** | Occupied Residence | 156 | Clear line of site, clear view of solar infrastructure. |
| **R21** | Occupied Residence | 121 | Partial line of site, broken by existing native vegetation screening. |

| Receiver | Status | Closest Infrastructure (m) | Visual Impact (prior to mitigation) |
|---|---|---|---|
| **R22** | Occupied Residence | 617 | Partial line of site due to elevation in the landscape, existing native vegetation screening. |
| **R23** | Occupied Residence | 336 | Barely discernible or indistinct views due to vegetative screening. |
| **R24** | Occupied Residence | 1909 | Partial line of site due to elevation in the landscape, existing native vegetation screening. |
| **R25** | Occupied Residence | 1702 | Partial line of site due to elevation in the landscape, existing native vegetation screening. |
| **R26** | Occupied Residence | 818 | Partial line of site due to elevation in the landscape, existing native vegetation screening. |
| **R27** | Occupied Residence | 1144 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R28** | Occupied Residence | 951 | Barely discernible or indistinct views due to vegetative screening and distance. |
| **R29** | Farmland / Property | 1527 | No view – vacant farmland |
| **R30** | Farmland / Property | 1048 | No view – vacant farmland |
| **R31** | Farmland / Property | 972 | No view – vacant farmland |
| **R32** | Farmland / Property | 590 | No view – vacant farmland |
| **R33** | Occupied Residence | 1679 | No view - due to vegetative screening and distance. |
| **R34** | Farmland / Property | 396 | No view – vacant farmland |
| **R35** | Farmland / Property | 387 | No view – vacant farmland |
| **R36** | Farmland / Property | 154 | No view – vacant farmland |
| **R37** | Farmland / Property | 1925 | No view – vacant farmland |
| **R38** | Occupied Residence | 1880 | No view - due to vegetative screening and distance. |
| **R39** | Farmland / Property | 2048 | No view – vacant farmland |
| **R40** | Occupied Residence | 1495 | No view - due to vegetative screening and distance. |
| **R41** | Occupied Residence | 1181 | No view - due to vegetative screening and distance. |
| **R42** | Occupied Residence | 1826 | No view - due to vegetative screening and distance. |
| **R43** | Occupied Residence | 1830 | No view - due to vegetative screening and distance. |

| Receiver | Status | Closest Infrastructure (m) | Visual Impact (prior to mitigation) |
|---|---|---|---|
| **R44** | Occupied Residence | 1767 | No view - due to vegetative screening and distance. |
| **R45** | Occupied Residence | 1760 | No view - due to vegetative screening and distance. |
| **R46** | Occupied Residence | 1288 | No view - due to vegetative screening and distance. |
| **R47** | Occupied Residence | 1137 | No view - due to vegetative screening and distance. |
| **R48** | Occupied Residence | 1130 | No view - due to vegetative screening and distance. |
| **R49** | Occupied Residence | 1264 | No view - due to vegetative screening and distance. |
| **R50** | Occupied Residence | 1306 | No view - due to vegetative screening and distance. |
| **R51** | Occupied Residence | 1475 | No view - due to vegetative screening and distance. |
| **R52** | Occupied Residence | 1637 | No view - due to vegetative screening and distance. |
| **R53** | Occupied Residence | 1899 | No view - due to vegetative screening and distance. |
| **R54** | Occupied Residence | 2101 | No view - due to vegetative screening and distance. |
| **R55** | Occupied Residence | 1937 | No view - due to vegetative screening and distance. |
| **R56** | Occupied Residence | 1553 | No view - due to vegetative screening and distance. |
| **R57** | Occupied Residence | 1787 | No view - due to vegetative screening and distance. |
| **R58** | Occupied Residence | 2450 | No view - due to vegetative screening and distance. |
| **R59** | Occupied Residence | 2508 | No view - due to vegetative screening and distance. |
| **R60** | Occupied Residence | 2525 | No view - due to vegetative screening and distance. |
| **R61** | Occupied Residence | 2566 | No view - due to vegetative screening and distance. |

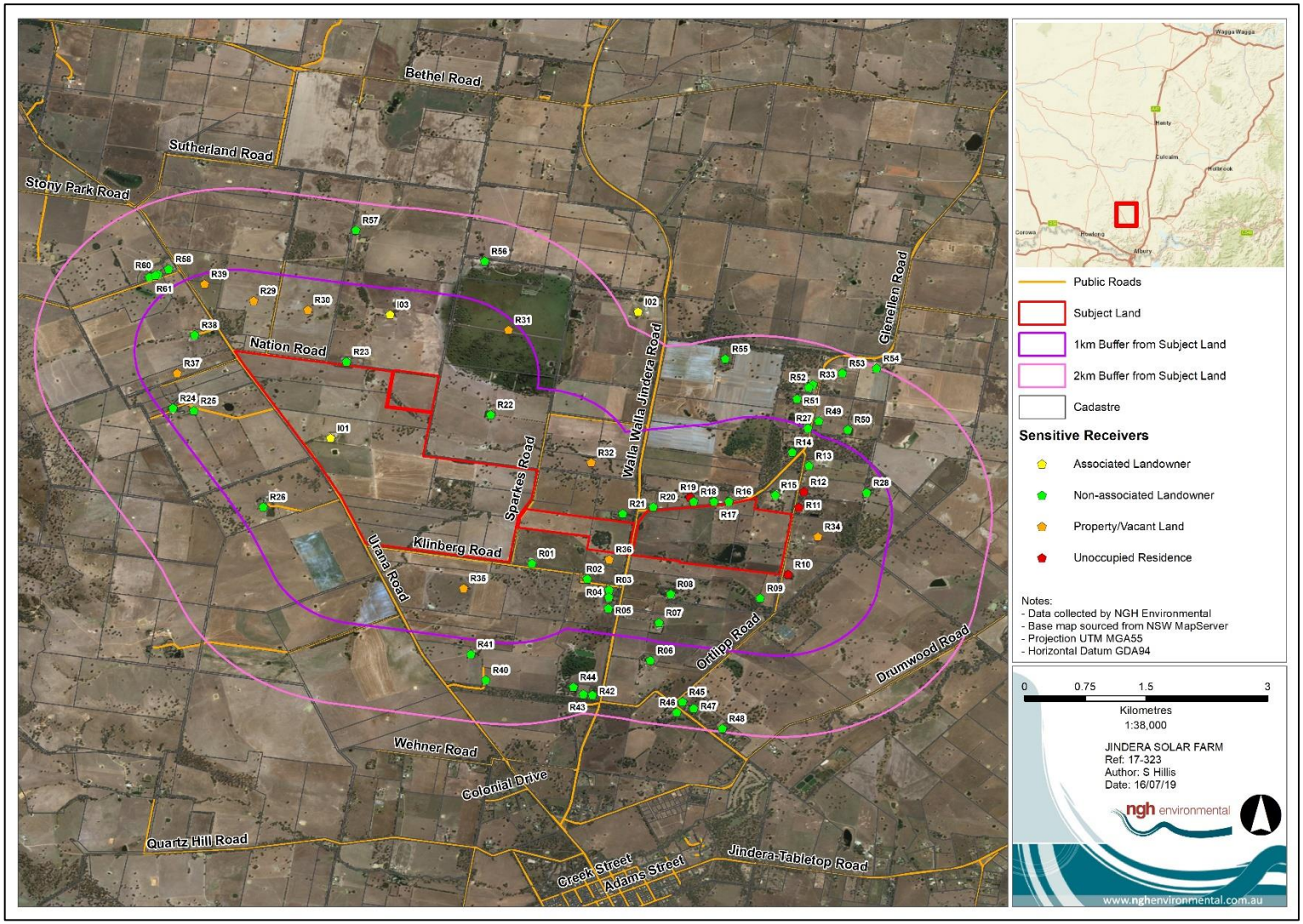


Figure 3-1 Location of sensitive receivers

### 3.2.2. Greater Hume Shire Council

Director of Environment & Planning, Greater Hume Shire Council, Colin Kane, was consulted by NGH on 16 December 2019, to ensure Council's submission would be addressed comprehensively. Specifically, NGH sought to understand the key concerns in the Council submission and those areas where additional investigation or commitments made by the project may be favoured by Council.

Mr Kane agreed that Council would be keen to see additional information provided regarding landscape treatments, heat island effects, ground cover management and dust, and a Council contribution. DPI's submission and, particularly the preparation of an AIS, were of interest. The lack of an RFS submission was also noted and NGH agreed to follow up on this matter[1]. Strong local community concern over solar farms and bush fires was noted.

Mr. Kane agreed that Council would be willing to meet to discuss the project further and an in-person meeting was organised between the Mayor, General Manager, Council staff and JSF for 19 December 2019.

From this meeting, the following points are highlighted:

- The meeting discussed some aspects of the Council's objection to the proposed solar farm. In general, the discussions focussed on areas where GSA were proposing to undertake more work to reduce potential impacts and improve project outcomes for the community:
    - Screening and management / establishment of planting for screening.
    - Local employment opportunities.
    - Local expenditure opportunities from the construction and operation of the solar farm.
    - Voluntary Planning Agreements (VPA).
- Discussion on the VPA was around the following:
    - GSA tabling the VPA sum that could be offered to the council.
    - How capital payments could be split so that they provide immediate benefit to council.
    - It was agreed that GSA should come forward with a proposal that contains a mix of immediate and deferred payments to form an overall payment profile to be applied over 6 years.
    - It was discussed that the first capital payment should be made on the commencement of commercial operations at the solar farm i.e. after construction.
    - It was discussed that a 30-year Community Fund which would annually distribute up to $25k to local community projects could be a way to deliver more local community benefit and ensure funding was directed towards community matters. The scheme is to actively favour applications form within close proximity to the solar farm project and exclude applications from anyone outside the Greater Hume Shire Council area.
    - The scheme to be administered by the council on behalf of Jindera Solar Farm.

Following the meeting, in December 2019 JSF provided a proposal for the VPA to the Council in the form of draft Heads of Terms.

JSF met the Council again on 13th February 2020 to discuss the responses that JSF intend to make, to discuss the changes to the project that were proposed and to discuss further the VPA.

The recent Ordinary Council Meeting held on 19 February 2020 recommended approval of the VPA Heads of Terms. The VPA is now being prepared for finalisation post-approval.

[1] NGH followed up with DPIE on 13 December 2019, regarding whether an RFS submission would be forthcoming. DPIE advised on 16 December 2019 that no response has been received and they would follow up again in the new year. Then, in an e-mail dated 13 January 2020 from the DPIE, subsequent follow-up with the FRNSW and RFS was noted, as was still a lack of their formal response on the proposal. However, in the e-mail this was assumed to understandably be due to the recent State bushfire crisis resulting in no foreseen capacity to respond.

This consultation has informed the response set out in Sections 1.7and 2.1 of the Amendment Report.

### 3.2.3. Aboriginal community representatives

The Albury Local Aboriginal Land Council was contacted in January 2020 regarding the need for additional onsite investigations within the TransGrid substation compound. One member from the Albury Local Aboriginal Land Council attended the additional investigations on 21 January 2020. No comment on the Aboriginal Cultural Heritage Assessment (ACHA) Addendum was received after the review period. The addendum ACHA is included in Appendix A.3 of the Amendment Report.

### 3.2.4. Department of Primary Industries

#### Agricultural land use planning

DPI contact Tamara Prentice, Manager Agricultural Land Use Planning, Grafton Branch was consulted on 16 December 2019, to ensure DPI comments would be addressed comprehensively. NGH sought to clarify the specific scope of the Agricultural Impact Statement (AIS) requested by the Department and any guidelines that could assist and discuss the Department's expectations regarding agro-voltaics outcomes for the site.

An example and general guidelines for an AIS were provided by the Department on 16 December 2019. The Department requested stronger justification for site selection, given the site is mapped as highly capable agricultural land recognised by the REP as having economic growth potential. The Department agreed that base line soil mapping would be more accurate than existing Land Capability Mapping, which would better define the extent of high value agricultural land being impacted. The Department stated that while they realised that agro-voltaics may not be feasible for the site, they wanted a more detailed investigation of its feasibility, noting good overseas results were being achieved.

NGH engaged Riverina Agri-Consultants who undertook further consultation with DPI on 19 and 20 December 2019 to ensure the content of the AIS would meet the Department's requirements. The AIS scope was confirmed by the Department on 20 December 2019 (full report included in Appendix A.2 of the Amendment Report).

The draft AIS was provided to DPI for their comment on 17 February 2020. DPI in their response (3 March 2020) notes that the AIS has made a good attempt at describing the impact on agriculture for the farm land immediately impacted by the proposal, and have asked if consideration were given to cumulative impacts from numerous large scale solar farms creating a threshold where farm land being taken out of full production would affect the broader viability of support businesses. Riverina Agri-consultants replied stating it would not be reasonable to extrapolate the findings of one farm to another, and a land use assessment of each farm would be required. No further response was received.

This consultation and additional investigation have informed the responses set out in Section 4.2.2.

#### Biodiversity Conservation Division

NGH noted to DPIE that contradictory advice had been received from BCD on several projects regarding the need to enter zones into the Biodiversity Assessment Method Calculator that would not be directly impacted by the proposal. NGH is in agreement with advice provided by Denise Wallace, OEH ROD BAM support that '*with regard to generating the offset requirement, you should only include those vegetation zones that are being impacted'* (e-mail advice to Julie Gooding, 7 November 2019).

However, to address comment from the BCD an additional Biodiversity Assessment Methodology Calculator (BAMC) calculation was completed in the BAM Credit Calculator to determine if there were any additional species that may be directly or indirectly impacted by the development. There were two flora and two fauna

species identified. The flora species are Floating Swamp Wallaby Grass (*Amphibromus fluitans)* and Claypan Daisy (*Brachyscome muelleroides*). The two fauna species are Sloane's froglet (*Crinia sloanei*) (as previously mentioned) and Southern Bell Frog (*Litoria raniformis*).

Swamp Wallaby Grass was surveyed around the artificial dams during additional January 2020 surveys and no target species were found. These areas are highly modified with exotic species. Clay-pan daisy was surveyed in the same location as the Swamp Wallaby Grass in January 2020. No target species were found.

Sloane's Froglet has been assessed as part of the targeted surveys in 2018. No Sloane's froglets were found. Southern Bell Frog was assumed present in the BAMC calculation with no species credits.

The updated BDAR with updated offset credits can be found as Appendix A.4 of the Amendment Report.

### 3.2.5. Squirrel Glider Advisory Group

DPIE supplied to NGH the contact for the Squirrel Glider Advisory Group. Initial contact was made in January 2020 with the group meeting in March 2020 to discuss NGH's proposed mitigation measures for Squirrel Gliders.

NGH's proposed mitigation measure includes a Squirrel Glider Management Plan to determine the location/s where the Squirrel Gliders cross the boundary between the development site and substation to connect to roadside vegetation or creek line areas. Once these locations have been confirmed, glider poles and ropeways over the boundary fence will be strategically installed. The top two strands of the boundary fence in these locations will be covered with PVC piping to prevent the gliders from becoming impaled on the barbed wire.

Internal fencing around the woodland areas will not have any barbed wire and will consist of basic stock fences.

In response to the consultation with the Squirrel Glider Advisory Group the measures above now form commitments of the project and are included in Section 8 of the updated BDAR, Section 2.9 of the Amendment Report and detailed in Section 5 of this report.

JSF will continue to engage with the Squirrel Glider Advisory Group to further develop the protection measures.

## 3.3. AMENDMENT REPORT - CHANGES PROPOSED TO THE PROJECT

Changes to the design, layout and infrastructure have been proposed as a result of community comments and the agency Submissions. These are summarised below and detailed within the Amendment Report.

### 3.3.1. Key areas of additional investigation

Specific additional investigations were undertaken in response to the feedback received as part of the EIS stakeholder reviews. The outcomes of these studies have been used to respond to specific issues raised and have assisted to inform the changes to the proposal as detailed below and summarised in Table 3-4.

Table 3-4 Key areas of additional investigation and outcomes for the proposal

| Additional investigation | | | | Resultant changes to the proposal, based on investigation outcomes |
|---|---|---|---|---|
| | **Study** | **Motivation** | **Outcome** | |
| 1 | Agricultural Impact Statement, January 2020 | To fulfil the requirement of the Department of Primary Industries submission (Section 4.2.2), to further investigate the proposal's impact on agricultural production, and the potential for continued agricultural income from the site (Appendix A.1 and Sections 1.3 and 1.7 of the Amendment Report).<br>To address and clarify points raised by Council (Section 4.2.1) and also by some public / community submissions | It was found that the proposal would not have any deleterious effects on current agricultural production. The emerging co-sheep grazing approach in Australia is the most suitable for solar farms. This approach reflects the intent of the Proposal. Other alterative production systems would not better mitigate the production ramifications of co-locating agricultural and solar energy production.<br>More information on the study can be found in Appendix A.1 and Sections 1.1 and 1.3 of the Amendment Report. | Although the assessments determined that the proposal would not have any deleterious impact on agricultural production, the project has sought ways to improve the project for the community and refinements have been made that reduce impacts. These include:<br>• Reinforcing the commitment to co-locate sheep grazing with solar infrastructure.<br>• Reinforced commitment to removing all cables and underground infrastructure.<br>Refer to Section 3.4 of this report for more details. |
| 2 | Soils Capability Mapping, January 2020 | To further investigate site-specific land capability on land mapped as Land and Soil Capability Class 3 (site inspection and baseline soil mapping) (Appendix A.2 and Section 1.2 of the Amendment Report). | Based on the decision tables for individual hazards within the Land and Soil Capability Assessment Scheme (OEH 2012) and the findings of the soil survey, the land previously mapped as Class 3 was determined to be Class 4.<br>More information on the study can be found in Appendix A.2 and Section 1.2 and 1.3 of the Amendment Report. | The assessment determined that land classification is likely to be Class 4.<br>Refer to Section 3.4 of this report for more details. |
| 3 | Aboriginal Cultural Heritage Addendum (ACHA), January 2020 | To fulfil the requirements of the BCD (Section 4.2.2) to further investigate TransGrid's compound works area, and the RMS (Section 4.2.8) requirements for intersection upgrades (Appendix A.3 of the Amendment Report). | No items of Aboriginal heritage were identified during the visual inspection and no undisturbed landforms of archaeological sensitivity were located.<br>More information on the study can be found in Appendix A.3 and Section 1.4 of the Amendment Report | Existing Heritage mitigation strategies are sufficient to manage impacts identified. |
| 4 | Updated Biodiversity Development Assessment | To fulfil the requirements of the BCD (Section 4.2.1), to further investigate TransGrid's compound works area, and the RMS (Section 4.2.8) | Contrary to assumptions in the EIS, field surveys determined that no Critically Endangered Ecological Communities (CEEC) under the EPBC Act would be impacted within | Although the assessments determined that the proposal would not have any impact on CEEC, the project has sought ways to improve the |

| Additional investigation | | | | Resultant changes to the proposal, based on investigation outcomes |
|---|---|---|---|---|
| | **Study** | **Motivation** | **Outcome** | |
| | Report (BDAR), January 2020 | requirements for intersection upgrades (Appendix A.4 of the Amendment Report), and to address the concerns of the Squirrel Glider Advisory Group (Section 3.2.5) | the TransGrid substation compound.<br>Additional credits required to be offset and mitigation strategies are detailed in the BDAR (Appendix A.4) and Section 1.5 of the Amendment Report. | biodiversity outcomes of the proposal and refinements have been made that reduce impacts. These include:<br>• Stronger commitments for additional vegetative screening.<br>• Stronger commitments regarding the placement of habitat features.<br>• Stronger commitments for the protection and movement of Squirrel Gliders.<br>Refer to Section 3.4 of this report for more details. |
| 5 | Updated Noise Assessment | Update the Noise Assessment completed due to the update to the project layout (Section 1.6 of the Amendment Report). | No operational noise exceedances are expected under normal operating conditions.<br>More information on the assessment can be found in Section 1.6 of the Amendment Report. | The changes to the layout of the proposal modelled within the updated noise assessment have been adopted. As such, a commitment to zero operational noise exceedances has been made (normal operations). Refer to Section 3.4 of this report for more details. |
| 6 | Local Economy and Community Benefits Assessment | Additional information and assessment of economic benefit to the community to address and clarify points raised by Council (Section 1.7 of the Amendment Report) and also by some public / community submissions | Additional benefit to the community will be seen through the implementation of a Voluntary Planning Agreement, Community Fund, and Local Sourcing Plan.<br>More information on the assessment can be found in Section 1.7 of the Amendment Report. | The project has sought ways to improve community and economic outcomes of the proposal. These include:<br>• Stronger commitments regarding benefit sharing.<br>• Stronger commitments to developing methods to improve local spend and employment opportunities.<br>Refer to Section 3.4 of this report for more details. |

These investigations are provided in full in Appendix A, summarised within the Amendment Report, and referenced in the responses to submissions in Section 4 where relevant.

### 3.3.2. Infrastructure and development amendments

Key changes to the proposal as a result of community and agency consultation include:

- Agreement of Voluntary Planning Agreement and Community Fund.
- Increase in separation buffer and vegetation screening on Glenellen Road.
- Additional vegetation screening site wide.
- Refined PV layout and inverter positioning.
    - Greater setback for PV Panels from neighbouring boundaries.
    - Refinement of inverters solution.
    - Quieter inverters.
    - Strategic placement of trackers.
    - Commitment to 30 m setback for panels to neighbouring property boundary.
- Commitment to remove cables and all underground infrastructure at decommissioning.
- Clarification of proposed works on Ortlipp Road.
- Additional investigation works within the TransGrid substation and proposed site access points.
- Further protection for Squirrel Gliders.

Key changes are summarised below and detailed within the Amendment Report.

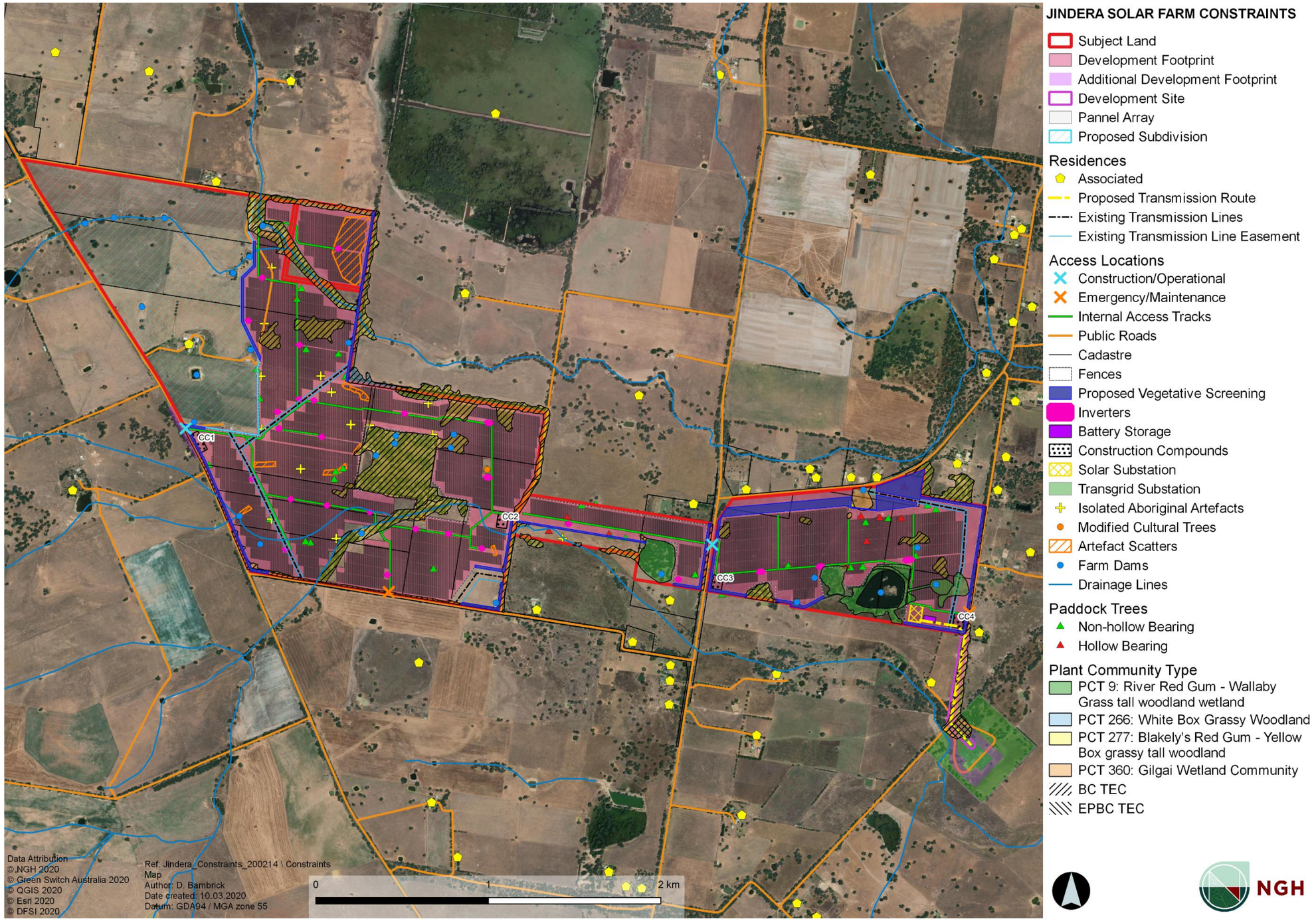


Figure 3-2 Updated constraints map

## 3.4. ADDITIONAL DETAILS THAT NOW FORM COMMITMENTS

Based on recent consultation with landowners and agencies, the following summarised details now form a commitment of the proposal:

- Reinforced commitment to co-locating sheep grazing with solar infrastructure (Sections 1.1 and 1.3 of Amendment Report).
- Stronger commitments regarding Community benefit sharing – JSF is finalising their commitment for a Voluntary Planning Agreement with Greater Hume Shire Council and a Community Fund Sections 3.3.2 of this report and Sections 1.7 and 2.1 of the Amendment Report).
- Stronger commitments regarding screening – Additional screening and effective dispersing and quick growing plants to be used in landscaping for more immediate mitigation of visual impacts. A commitment to an effective screen within 3 years of commencement of operation (Section 2.3 of the Amendment Report).
- Additional buffer distances for residences along Glenellen Road (Section 2.2 of the Amendment Report).
- Stronger commitment to developing methods to improve local spend and local employment opportunities during construction and operational activity. Development of Local Sourcing Plans to identify and develop opportunities to work with local business to source local supplies of materials and services. The Local Sourcing Plan will be developed in consultation with the Council and other representatives of local business (Section 1.7 of the Amendment Report).
- Introduction of an apprenticeship scheme that will run during the currency of the operational phase (Section 1.7 of the Amendment Report).
- Commitment to zero operational noise exceedances during normal operations (Sections 1.6 and 2.4 of the Amendment Report).
- Commitment to a 30 m buffer from panels to adjacent private landowner property boundaries (Section 2.4 of the Amendment Report).
- Commitment to commencing groundcover management one season prior to construction (Section 5 of this report).
- Stronger commitments regarding replacing tree hollows that must be removed, as well as vegetation offsets. Specific habitat resources will be replaced, one for one, in or near the Subject Land. Any hollow bearing trees removed will require a qualified wildlife handler present to supervise and strategically place hollows in vegetation exclusion areas. Other measures include appropriate nest boxes suitable for squirrel gliders replaced one for one for each hollow identified during vegetation removal. Vegetation removal should be timed outside of breeding season (Appendix A.4 and Section 2.9 of the Amendment Report).
- Stronger commitment for the protection and movement of Squirrel Gliders (Appendix A.4 and Section 2.9 of the Amendment Report).
- Reinforced commitment for removal of all above and below ground infrastructure post-operations (Section 2.5 of the Amendment Report).
- Reinforced commitment that Klinberg, Nation and Ortlipp Roads will not be used for construction traffic (other than works associated for the construction of the transmission line within the Ortlipp road corridor) (Section 2.6 of the Amendment Report).
- Commitment for a separate Construction and Environment Management Plan for transmission line works along Oprtlipp Road (Section 2.6 of the Amendment Report).
- Commitment to recycling PV Panels (Section 5).
- Updated site access points as per the requirements of RMS (Section 4.2.8 of this report and Section 1.4 and 1.5 of the Amendment Report).

Commitments are further outlined throughout Section 4 of this report and detailed in the updated Safeguards and Mitigation Measures in Section 5. Details supporting assessments and any proposed changes to the layout and development are provided in the separate Amendment Report.

# 4. RESPONSE TO SUBMISSIONS

## 4.1. PUBLIC SUBMISSIONS

The public submissions received have been divided into the following:

- Community group submissions;
- Individual community submissions, in support of the proposal;
- Individual community submissions, objecting to the proposal; and
- Individual community submissions, providing comment on the proposal, neither supporting nor objecting.

### 4.1.1. Community group submissions

Two community group submissions were received, as set out below. The issues raised are paraphrased and the proponent's response provided (Table 4-1).

Table 4-1 Community group submissions: issues raised and associated proponent responses

| Issue raised | Proponent's response |
|---|---|
| Country Women's Association of NSW | |
| The policy of the CWA of NSW shall be that the NSW Government planning and development approval process give specific consideration to the implications of loss of agricultural land for Australia's future food production and food security and the impact on our water supply when reviewing development applications.<br>We urge the Assessment team to give specific consideration to the importance of Australia's food and fibre productivity, as well as food security when considering this project. | Specific to the site and the Jindera Solar Farm proposal, NGH commissioned an Agricultural Impact Study (AIS) and Soils Capability Mapping, now included in Appendix A.1 and A.2 and detailed within Sections 1.1 and 1.2 of the Amendment Report. These were undertaken to better understand the potential agricultural impacts of the proposal.<br>Specific to food and fibre productivity, the key outcomes of the studies were that the land has a lesser capability rating than broadscale mapping suggests. It is likely classed as LSC Class 4 (not Class 3). The existing land use on the proposal is 90% livestock grazing and 10% cropping, with alternative land use options on the site limited due to a range of environmental constraints.<br>It has always been proposed to continue sheep grazing on the site by co-locating stock farming and solar farming, as detailed within Section 6.5 of the EIS. An Australian example within the AIS indicates success is achieved with an approximate 20% reduction in stock rate (Neoen – Dubbo). For the purpose of the AIS, a conservative 25% reduction in productivity is assumed. It was found that the rental income from the proposal would mitigate any reduction in annual gross revenue and help secure the family agricultural practices ensuring stability. |

| Issue raised | Proponent's response |
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| | The finding of the studies, which cite successful trials of co-locating grazing stock with solar developments presented within the studies include:<br>• Shading from panels can improve soil moisture and maintain pasture growth for longer periods at certain times of the year.<br>• Sheep grazing has proven to be a successful means to control vegetation among panels.<br>• Sheep grazing is already intrinsic to current land use on the proposed properties.<br>• Landowners both intend to continue to focus on farming as their primary source of revenue, and co-locating grazing with solar represents a practically feasible option across the life of the development.<br>• Paddock area available for stocking would only be reduced by 10% due to solar infrastructure (buildings, hardstands, substation, fenced areas etc.).<br>• The proposal is not anticipated to adversely affect the rural regional economy or agricultural resources. It provides several local benefits, including diversification of income streams for involved landowners; an important consideration in specific times of drought but important also in the wider context of global climatic change. |
| Squirrel Glider Advisory Group | |
| Any fencing that is to be installed needs to be wildlife friendly to avoid entanglement in barbed wire fencing. This would be particularly critical where there is habitat that is connected through the site to adjoining roadsides and corridors.<br>Any removal of existing hollow bearing trees concerning and ensuring connectivity is maintained within the landscape between habitat patches is vital.<br>There is a current project in the area focused on creating connectivity within the local landscape with the aim of doubling the current squirrel glider population. If anyone would like to make contact with us we would be really keen to help make this project squirrel glider friendly. | It is acknowledged that perimeter security fencing, as required for solar farm proposals, most often includes barbed wire. A current commitment of the project is that barbed wire would not be used on internal and external fences surrounding Sparkes Road, which provides known Squirrel Glider habitat. A current commitment also includes using Glider Poles to connect the central woodland patch to Sparkes Road.<br>NGH spoke with the Advisory Group and now propose stronger mitigation in relation to Squirrel Glider and arboreal mammal habitat and movement corridors (Section 5 below, and Section 2.9 of the Amendment Report):<br>• (**BD12**) Barbed wire would not be used on internal fences surrounding retained native vegetation. The boundary fence will have three strands of barbed wire for security |

| Issue raised | Proponent's response |
|---|---|
| | purposes and where glider poles and ropeways are installed, the top two wires will be covered with appropriate protection (such as PVC piping). The retained native vegetation would be considered as an offset site.<br>• (**BD15**) Completion of a Squirrel Glider Management Plan to determine the location/s where the gliders cross connecting corridors to adjacent vegetation. At these locations, glider poles, ropeways and protection on the top two wires of the boundary fence will be strategically installed.<br>• (**BD16**) Hollows removed during clearing would be salvaged where possible and remounted to allow continued use by hollow dependant fauna within or adjacent to the project site. A one to one (hollows removed to hollows or nest boxes mounted) would be achieved. |

### 4.1.2. Individual community submissions (in support)

Of the 109 individual submissions received, eleven submissions were in support of the project.

Figure 4-1 illustrates the main benefits raised in these submissions, with Table 4-2 summarising the key discussion points in submissions. The information for both this figure and table are provided in terms of the number of responses received for each issue. Note, many submissions noted more than one issue.

JSF agrees that the points raised are positive aspects of the project; no additional response is provided.

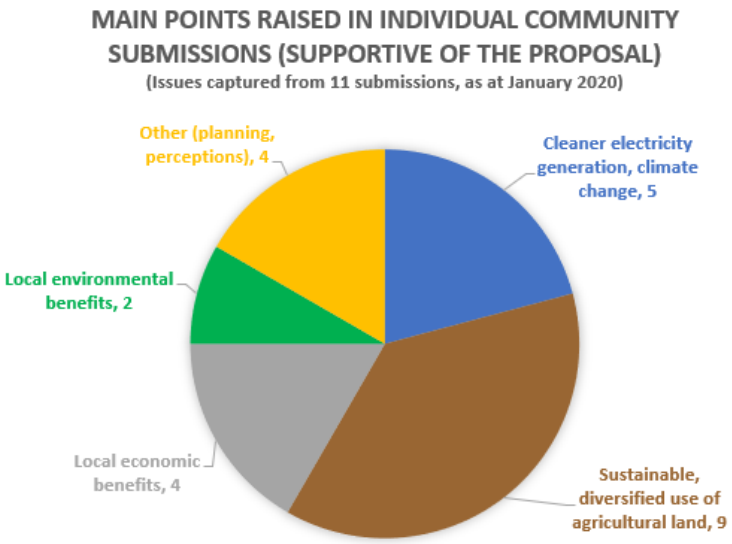


Figure 4-1: Distribution of the main benefits raised, as captured from individual community submissions in support of the Jindera Solar Farm proposal

Table 4-2 Individual community submissions (supportive of project): benefits raised and associated proponent responses

| Key benefits raised | Points raised in submission | No. of submissions |
|---|---|---|
| **Cleaner electricity generation, climate change** | • Long-term benefits of renewable energy generation as a 'cleaner' environmental alternative to coal-powered energy.<br>• Subsequent contribution of solar farms to the future energy needs of the State. | 5 |
| **Sustainable, diversified use of agricultural land** | • Non-agricultural land use that can be undertaken in parallel with agricultural land uses (which is often not possible), allowing for continued / sustainable agricultural use of the land.<br>• Land use diversification opportunities that could help local farmers counteract reliance on dryland agricultural practices that are significantly affected by droughts and extreme weather events, and so enhancing future agricultural sustainability. | 6 |
| | • Potential for improving / enhancing on-site farming practices by providing alternative areas for enhanced livestock management (e.g. shade offered by panels in heat; wind and rain protection in winter; and sheltered, safe areas for lambing ewes); and<br>• Provide enhanced mitigation against climatic events that can impact on cropping / pastureland activities (e.g. erosion minimisation). | 2 |
| | • Closer settlement (existing urban sprawl) is already affecting agricultural land use activities (such as limiting spraying boundaries), so a solar farm would be a more compatible land use for the agricultural area compared with urban development | 1 |
| **Local economic benefits** | • Economic diversification and strengthening opportunities the Jindera Solar Farm could bring to the local area, especially by harnessing the local economic benefits that the temporary influx of construction workers would offer for food, fuel, maintenance and accommodation requirements in and around Jindera, even if it is for 12 – 18 months. | 4 |
| **Local environmental benefits** | • Potential environmental benefits such as topsoil management and wind-blown erosion reduction (continual groundcover beneath panels, as opposed to cleared farmland during cropping) and soil | 2 |

| Key benefits raised | Points raised in submission | No. of submissions |
|---|---|---|
| | improvement (low-intensity fallow land management). | |
| **Other** | • Visual impact of the solar farm is not unpalatable, subject to the implementation of the landscaping that is proposed. | 2 |
| | • Project appears well planned. | 1 |
| | • Jealousy and self-interest may be getting in the way of factual information. | 1 |

No response is required from JSF to these submissions in support of the project.

### 4.1.3. Individual community submissions (objections)

Of the 109 responses received, ninety-six (96) individual objections were received:

- 6 objections were received from parties located outside of the Greater Hume Shire Council area.
- 41 objections were received from parties located within the Council area, but more than 2 km away from the project site.
- 49 objections were received from parties located within 2 km of the project site.
- It should be noted that 25 of these objections originate from 10 separate locations, that is to say a number of objections have been received from more than one property.

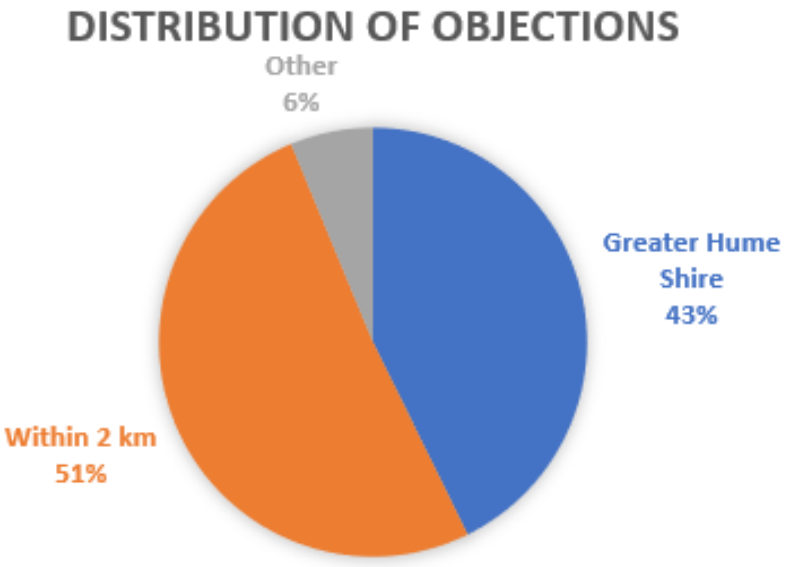


Figure 4-2 Distribution of Objections

All of the concerns/issues have been summarised in 33 main issues raised. Of these 33 main issues, 20 of them were raised within 9 or more submissions and are considered the key issues raised by the community.

For ease of reference, Figure 4-3 illustrates the top 20 issues raised in these submissions, with Table 4-3 summarising all 33 key points raised in the submissions across the main issues in order of those raised most. The table also notes number of submissions that raised the point and provides the response from the proponent. The information for both this figure and table are provided in terms of the cumulative number of responses received for each issue.

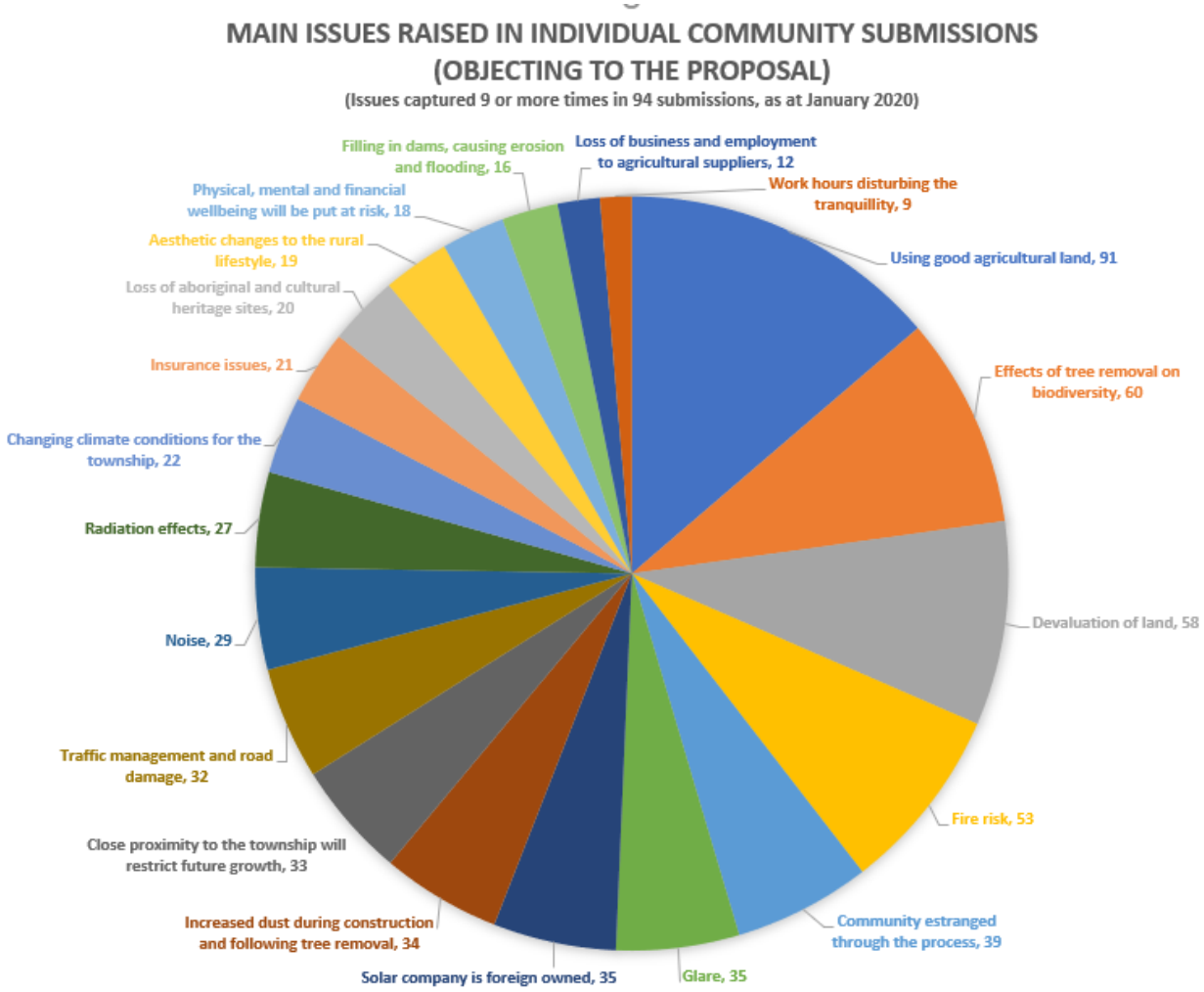


Figure 4-3: Distribution of the main issues raised, as captured from individual community submissions objecting to the Jindera Solar Farm proposal.

Table 4-3 Individual community submissions (objections): issues (in order of those raised most frequently)

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
|---|---|---|---|---|
| **1** | Using good agricultural land | • The proposal will take a large amount of highly productive land out of production.<br>• Agricultural capacity will be reduced.<br>• Highly productive land is needed now due to the drought for fodder production.<br>• Less food for the Nation.<br>• Land will be locked up in solar development for at least 30 years.<br>• Area has good yields without any government financial support or additional irrigation.<br>• No reliable plans for rehabilitation. | The Agricultural Impact Study and Soils Capability Mapping (now included in Appendix A.1 and detailed within Sections 1.1 and 1.2 of the Amendment Report) have been completed for the Jindera Solar Farm proposal. Key outcomes of these studies in relation to using good agricultural land are as follows:<br>• Based on the decision tables for individual hazards in Section 5 of the LSC Assessment Scheme (OEH 2012), areas previously marked as Class 3 can be reclassified to Class 4. The land is not as high value as broadscale mapping shows.<br>• Shading from panels can improve soil moisture and maintain pasture growth for longer periods at certain times of the year. This will improve rather than reduce agricultural capacity.<br>• Sheep grazing has proven to be a successful means to control vegetation among panels and is already intrinsic to current land use on the proposed properties (10% cropping, 90% grazing). Fodder cropping is not a sustainable practice on this site, given soil and other environmental limitations.<br>• Landowners both intend to continue to focus on farming as their primary source of revenue, and co-locating grazing with solar represents a practically feasible option across the life of the development. Therefore, co-locating solar farm with agricultural sheep grazing is a viable way to ensure that farm activity and farm output is not lost.<br>• Paddock area available for stocking would only be reduced by 10%, with a likely assumed 25% overall reduction in productivity.<br>• No direct loss of farm-based employment is anticipated.<br>• Agricultural expenditure in the land will continue to occur concurrently with the operation of the solar farm. Additional services not normally associated | 91 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
|---|---|---|---|---|
| | | | with agriculture will also be utilised, such as panel cleaning and fencing contractors.<br>The following have also already been considered as part of the proposal, as documented in Section 6.5 of the EIS:<br>• The proposal has a 30-year operational life. Should it be agreed to decommission the site after this time (as opposed to upgrading and continuing solar energy generation), all surface and underground infrastructure will be removed, the footprint rehabilitated, and an agricultural land use returned. Hence, as opposed to permanent infrastructure and other developments, there is the potential to seamlessly reverse the solar farmland use back to one of agricultural activities.<br>As a result, only 10% of the development site will be removed from production, not the entire site, with capacity expected to reduce by an estimated 25%. The Landowners intend to continue to farm the land for both meat and wool to "feed the nation", with pasture maintained for sheep feed as well as additional benefits such as dust and erosion control.<br>Solar farms, while relatively new in NSW, have a longer history in other countries. As such, there is a high degree of confidence in the environmental management framework that they operate within. During operation, ground cover management and monitoring will proactively address any issues identified. The proposal is highly reversible at the end of its operational life, with a Rehabilitation and Decommissioning Management Plan required to be approved by the relevant departments prior to construction of works. Monitoring and comparison to base line (pre solar farm) soil and vegetation data ensure that the rehabilitation objectives will be met by the proponent.<br>The following mitigation measures are provided in the EIS:<br>• (**SO2**) The planned Groundcover Management Plan will require maintenance | |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | of at least a 70% grass groundcover to protect soils, landscape function and water quality.<br>• (**LU3**) A Rehabilitation and Decommissioning Management Plan is to be prepared in consultation with NSW Department of Primary Industries and the landowner prior to decommissioning. | |
| **2** | Effects of tree removal on biodiversity | • Loss of established mature aged trees.<br>• Loss of natural flora and fauna – in particular birds and squirrel gliders.<br>• Tube stock not sufficient to replace mature vegetation lost. | NGH prepared a BDAR for the proposal. The aim of this report was to assess the potential impacts and minimise and avoid impact where possible. It must be in strict accordance with the prescriptive survey and assessment methodology set out under the Biodiversity Conservation Act and its regulation.<br>The development site has been selected to avoid or minimise impacts to biodiversity where possible through the BDAR process. Most areas of conservation significant vegetation in the development site have been avoided through the iterative design process. Where biodiversity impacts could not be avoided, an offset credit requirement has been generated that will ensure in perpetuity conservation of equivalent habitat, in accordance with the BC Act.<br>Updated credit requirements are detailed within Appendix A.4 and Section 1.5 of the Amendment Report. | 60 |

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| | | | A range of mitigation measures would be implemented to ensure that impacts on biodiversity during the construction phase are avoided where possible and minimised where they cannot be avoided.<br>In lieu of trees removed and while tube stock are maturing, it is a commitment of JSF to relocate habitat features into preserved vegetation to reduce any impact to threated flora and fauna. This can be in the form of relocating fallen timber, installation of nest boxes and movement corridors.<br>The following mitigation measure are provided in the BDAR and the EIS to minimise impacts to flora and fauna:<br>• (**BD2**) Implement clearing protocols during tree clearing works, including pre-clearing surveys, daily surveys and staged clearing, the presence of a trained ecological or licensed wildlife handler during clearing events, including:<br>– Pre-clearing checklist.<br>– Tree clearing procedure.<br>• (**BD3**) Relocate habitat features (fallen timber, hollow logs) from within the development site. Tree-clearing procedure including relocation of habitat features to adjacent area for habitat enhancement.<br>Updated commitments now made to further reduce impacts on Squirrel Gliders (developed in consultation with the SG Advisory Group) and other arboreal fauna include:<br>• (**BD12**) Barbed wire would not be used on internal fences surrounding retained native vegetation. The boundary fence will have three strands of barbed wire for security purposes and where glider poles and ropeways are installed, the top two wires will be covered with appropriate protection (such as PVC piping). The retained native vegetation would be considered as an offset site.<br>• (**BD15**) Completion of a Squirrel Glider Management Plan to determine the location/s where the gliders cross connecting corridors to adjacent vegetation. At these locations, glider poles, ropeways and protection on the top two wires of the boundary fence will be strategically installed. | |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
|---|---|---|---|---|
| | | | • (**BD16**) Hollows removed during clearing would be salvaged where possible and remounted to allow continued use by hollow dependent fauna within or adjacent to the project site. A one to one (hollows removed to hollows or nest boxes mounted) would be achieved. | |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
|---|---|---|---|---|
| **3** | Devaluation of land | • Devaluation as a result of loss of visual amenity, increased noise etc.<br>• Lifestyle blocks. | No land value study has been undertaken specific to solar plant development in Australia or specific to the Jindera Solar Farm proposal. Existing studies in relation to wind farms (which are usually larger renewable energy developments, with taller structures which are generally more visually intrusive on the landscape than a solar plant, but which have the same reversible impacts on agricultural productivity after decommissioning), have found no conclusive evidence to support the claim that wind farms devalue nearby property on the basis of visual impacts (e.g. refer Henderson & Horning Pty Ltd 2006 *Land Value Impact of Wind Farm Development – Crookwell New South Wales* and *OEH 2016 Review of the Impact of Wind Farms on Property Values*). It is acknowledged however, that renewable energy can be a polarising and subjective issue, and this may affect decisions made by individuals to purchase property.<br>The key economic drivers of land value in Jindera are currently agriculture and its close proximity to Albury. The proposal will not diminish the key drivers in that the land's agricultural capacity will not be removed and the proposal will not affect adjacent agricultural operations.<br>Construction impacts that may affect amenity for near neighbours will be temporary and mostly confined to peak construction period of 3 to 4 months.<br>Considering operational impacts, additional screening is proposed for the development site, obscuring views of the proposal. JSF has also committed to zero noise exceedances for all residents surrounding the proposal during normal operations of the proposal (including evening hours). In this way, the key impacts on nearby lifestyle blocks have been assessed and are considered manageable.<br>As detailed within the EIS, during decommissioning, all above ground infrastructure and materials would be removed from the site. The proposal is considered highly reversible in its ability to return to the pre-existing land use or alternative land use. As such, all amenity impacts would also be reversed at the completion of this stage. | 58 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| **4** | Fire risk | • Firefighters not allowed to enter solar panel area if fire breaks out as it would be a death-trap | JSF recognises the critical nature of access during a fire. Emergency protocols and defensible setbacks and adequate access, developed in consultation with relevant authorities, form part of the project.<br>As part of construction and operations, local firefighting services (NSWRFS and FRNSW) require the development and implementation of a Fire Management and Emergency Response Plan (FMERP) and Fire Safety Study (FSS) during construction, operation and decommissioning, with input from the local firefighting centres. Through this consultation, access to the site and firefighting measures will be confirmed as appropriate. Accordingly, mitigation measure **HA6** in the EIS commits to development of this FMERP and FSS.<br>Standard set-back and emergency protocols, as per consistent RFS advice on other solar farm projects, have been identified in the EIS (section 7.5.2 Fire). Specifically, these include the following:<br>• A minimum carriageway width of four metres for rural/residential areas, rural landholdings or urban areas with a distance of greater than 70 metres from the nearest hydrant point to the most external part of a proposed building (or footprint).<br>• In forest, woodland and heath situations, rural property access roads have passing bays every 200 metres that are 20 metres long by two metres wide, making a minimum trafficable width of six metres at the passing bay.<br>• A minimum vertical clearance of four metres to any overhanging obstructions, including tree branches.<br>• Internal roads for rural properties provide a loop road around any dwelling or incorporate a turning circle with a minimum 12 metre outer radius.<br>• Curves have a minimum inner radius of six metres and are minimal in number to allow for rapid access and egress.<br>• The minimum distance between inner and outer curves is six metres.<br>• The crossfall is not more than 10 degrees. | 53 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | • Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads. | |
| **5** | Community estranged through the process | • Fracture of friendships.<br>• Community collapse.<br>• Divide the district and neighbourhood.<br>• People may leave the district. | Throughout the Jindera Solar Farm community consultation, the local community's cohesiveness and high level of agricultural 'sense-of-place' has been evident. Many of the families have lived in the area for generations and plan to maintain a rural agricultural lifestyle into the future. It is accepted that due to varying personal opinions in the community about the proposal, as well as uncertainties about whether or not and when it may progress has resulted in some concern to members of the community.<br>The impact assessment and consultation process for large scale project such as this takes time to ensure the best possible project will be constructed. This can be perceived as opaque however, JSF has attempted to keep the community informed, as set out in Section 3.2 of this report, and Section 5 of the EIS.<br>It is also acknowledged that any new land development, such as this solar farm proposal, has the potential to divide and estrange members of the community and generate a level of anxiety, that may be exacerbated by other local stressors such as drought and fires. Taking this into consideration, JSF has undertaken the following as part of the post exhibition community consultation and submissions reporting process to try to identify and mitigate community concerns where possible:<br>• JSF has made contact with all residents within 2 km of the proposal who requested to be kept informed. Each resident was provided with an update to the proposal, and an opportunity to meet with JSF.<br>• Updates to the proposal have also been made available on the Project Website.<br>• For those who requested an additional meeting, a meeting was arranged that was convenient to the residents. The proposal was discussed, and any outstanding issues or concerns noted. JSF offered options to alleviate | 39 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | concerns, where possible, and mitigate any risks, such as relocating infrastructure to reduce operational noise impacts.<br><br>The community will also significantly benefit from the proposed VPA and Community Benefit Funds. The proposal has potential to stimulate the local economy and diversify local income streams that to the benefit of the whole community. It aims to contribute to the resilience of the local community in these ways. | |
| **6** | Glare | • Glare from solar panels and infrastructure. | Glare and glint are often raised as a concern in relation to solar development, due to a misunderstanding about the materials used. PV solar panels are designed to absorb as much sunlight (solar energy) as possible. Thus, they are designed to prevent reflection. Studies have suggested that potential for glare from PV solar panels is relatively limited (Spaven Consulting, 2011). It is documented that PV panels may reflect as little as 2% of the light they receive. The panels will not generally create noticeable glare compared with an existing roof or building surface. It is noted that the glint produced from metal panel mounts and structures may produce more visual impact than the panels. See Section 6.4.6 of the EIS for more details.<br><br>In order to determine site-specific glare conditions during the EIS JSF commissioned Clean Technology Partners to undertake a Glare Study (Appendix E of the Visual Assessment for the EIS). Assessment of 22 observation points around the site was undertaken, with '*no glare found to be present for any of the observation points or the flight path around the Jindera Solar Farm'*.<br><br>To mitigate potential glare from panel mounts and associated structures, the EIS commits to the following:<br>• (**VA3**) The materials and colour of onsite infrastructure will, where practical, be non-reflective and in keeping with the materials and colouring of existing infrastructure or of a colour that will blend with the landscape. | 35 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| **7** | Solar company is foreign owned | • Selling land to foreign countries.<br>• Economic benefit goes overseas, not into the community.<br>• Money better spend in the economy or struggling economies out west.<br>• Claim that local townsfolk would receive cheaper power is not true.<br>• Get rich quick scheme.<br>• Oppose subsidising foreign company for power. | The permit application has been made by Jindera Solar Farm Pty Ltd. This is a company registered in New South Wales, Australia. JSF is registered to pay tax on its earnings in Australia.<br>The proposal will also benefit the local community by:<br>• Generating rental income for the local landowner on which the farm will be located; and<br>• Stimulating additional work opportunities during the construction stage.<br>Refer to Section 1.7 of the Amendment Report for more details.<br>In addition to this, the proposal will contribute to cheaper power Australia wide by increasing competition in the National Energy Market and thereby driving down prices. The Australian Energy Market Commission's annual report on electricity prices forecasts the average Australia's electricity bill to be 2.1 per cent less in June 2021 than it was in June 2019. Solar is currently the cheapest form of new electricity generation.<br>JSF will not purchase any land for the proposal. The land for the proposed solar farm is leased. | 35 |
| **8** | Increased dust during construction and following tree removal | • Lack of groundcover causing dust.<br>• Removal of vegetation.<br>• Construction and dust control. | Dust generation could, without mitigation, accompany excavation and other earthworks as well as the movement of trucks and work vehicles along the unsealed, internal access road during construction and decommissioning of the proposed solar farm. Earthworks associated with construction and decommissioning are relatively minor and not likely to cause significant dust or emissions. During construction, this peak activity would be limited to 3 to 4 months.<br>The construction of the solar arrays uses a piling machine which is designed to reduce soil disturbance and corresponding dust pollution. The impact area for the piles would be less than 0.1% of the development site. Solar farms are therefore a | 34 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | minor contributor to soil disturbance and groundcover vegetation removal, in comparison to agriculture or many other developments.<br>'There is also a risk that unsealed access tracks may create dust during windy conditions. However, the access tracks will be regularly maintained. Dust creation is expected to be no more than the existing unsealed access roads that surround the site. As such, a noticeable increase in dust creation is unlikely.<br>Reduction of dust-causing agricultural activities will also temporarily cease over the development area, with groundcover maintained to reduce erosion and dust. As such, overall dust creation on the subject land will decrease.<br>Refer to Section 7.4.2 of the EIS for more information.<br>The requirement of an Adaptive Dust Monitoring Program is a current commitment of the project as Safeguard and Mitigation Measure **BD7**, while controlling dust in response to visual cues is a current commitment of the project as Safeguard and Mitigation Measure **VA4**.<br>Strong commitments are also part of the project to monitor and manage sustained ground cover beneath the panel modules during operation. This commitment is expected to reduce dust generation, in comparison to existing agricultural operations, particularly in dry or drought conditions.<br>Refer to the updated Safeguards and Mitigation Measures below in Section 5 for more details. | |
| **9** | Close proximity to the township will restrict future growth | • Reduction of potential for future subdivision. | The Greater Hume Shire Local Strategic Planning Statement (LSPS) that sets out the 20-year vision for land use in the local area identifies the following:<br>*"The southern towns and villages, such as Jindera, Walla Walla and to a lesser extent Culcairn and Holbrook, take advantage of the fast-growing Albury and Wodonga cities and they are expected to experience pressure for growth over the* | 33 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | *next 20 years. It is anticipated that with the population growth, there will be opportunities to grow and diversify the local business economy and upgrade existing community facilities to improve services to residents."*<br><br>It also indicates that from 2014-2019, Jindera grew by 129 dwellings, approximately 25 dwellings per year.<br><br>Page 20 of the LSPS, states "*Housing in Jindera is predominantly separate houses and sheds on generously proportioned standard residential allotments, large lot residential or larger rural residential lots that are situated to the south of Jindera and enjoy good access to Albury".* Additionally, on page 20 it states "*As Jindera continues to grow it is also important for Council to provide a variety of housing choices to cater for the changing demographic and household incomes. This will involve protecting land to the west of Jindera for more traditional urban residential expansion."*<br><br>This document suggests that, in terms of residential development, it would be critical for land to be set aside for future urban growth on the southern and western sides of Jindera.<br><br>Currently, there is no subdivision potential on land classed as Primary Production (RU1) under the Greater Hume LEP. Under its current classification, there is no growth potential on the Subject Land. As discussed, it is intended to continue farming practice on the subject land. | |
| **10** | Traffic management and road damage | • Roads not great, increased traffic will make it worse.<br>• Increased traffic/trucks through Jindera township. | The potential traffic, transport and road safety impacts associated with construction of the proposal relate primarily to the increased numbers of large vehicles on the road network (Section 7.3 of the EIS and Traffic Impact Assessment) for a limited period, mostly during 3 to 4 months of peak construction. To manage these potential impacts, the following mitigation measures are provided in the EIS:<br><br>• (**TT1**) The requirement of a Haulage Management Plan. | 32 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | • Two access points on the busy Walla Walla Jindera Road.<br>• Safety concerns as a result of increased truck movements through town. | • (**TT2**) The requirement of a Traffic Management Plan.<br>• (**TT8**) The requirement of a Road Dilapidation Report.<br><br>These plans provide certainty that safety, damage and delays will be carefully managed. They will be prepared in consultation with the relevant road authority and the appointed transport contractor and aim to reduce and manage any impact to traffic to and from the site, and through the township of Jindera.<br><br>As part of the Dilapidation Report and Safeguard and Mitigation Measure **TT9**, JSF has also committed to the upgrade and maintenance of any roads, their associated road reserve and any public infrastructure in that road reserve to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by the relevant road authority.<br><br>Due to the scheduling of construction and deliveries for each site, it is anticipated that only one of the three proposed access sites (one off Urana Road, two off Walla Walla Jindera Road) will be required to cater for deliveries at any one time, such that there would be no conflicting movements between heavy vehicle movements at different site accesses. All of these movements will be regulated in order to minimise simultaneous opposing heavy vehicle movements, thus reducing any potential risk.<br><br>Refer to the updated Safeguards and Mitigation Measures below in Section 5 for more details. | |
| **11** | Noise | • Peace, quiet and tranquillity loss.<br>• Families impacted during construction and operation. | As detailed in Sections 1.6 and 2.4 of the Amendment Report, the EIS runs scenarios for multiple construction and operational scenarios for noise compliance and exceedances. Originally, minor exceedances during normal operations (no maintenance) were expected during the evening in daylight savings (i.e. 6 pm until sunset). Infrastructure has since been relocated to reduce the overall operational noise impact. While noise exceedances during construction are unavoidable, all normal operational risk has been reduced to zero with no noise exceedances | 29 |

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| | | | expected. Maintenance works may see exceedances for 1-2 hours of day (slashing etc,).<br><br>A suite of Safeguards and Mitigation measures are committed within Section 6.6 of the EIS, which include:<br><br>• (**NS1**) Works will be undertaken during standard working hours.<br>• (**NS2**) A Construction Noise and Vibration Management Plan will be prepared and implemented.<br>• (**NS3**) Operate plant in a conservative manner.<br>• (**NS4**) All on-site staff informed of relevant procedures.<br>• (**NS5**) A letter box drop prepared and provided to residences within 1 km, with details on proponent and contacts for enquires/complaints.<br>• (**NS6**) Specific consultation with noise affected receivers 2 weeks prior to construction.<br>• (**NS7**) Regular inspection and maintenance of equipment.<br>• (**NS8**) One-off noise validation monitoring assessment.<br>• (**NS9**) Scheduling of activities to reduce simultaneous activities.<br>• (**NS10**) Use of localised mobile screens as required.<br>• (**NS11**) Time restrictions and periods of repose.<br>• (**NS12**) Time restrictions for noisy plant.<br>• (**NS13**) Consultation with receivers who may experience cumulative noise impacts with Glenellen Solar Farm.<br>• (**NS14**) Notify residences of any operational or maintenance works that may produce noise exceedances. | |
| **12** | Radiation effects | • Effects of radiation on agricultural land unknown. | There is extremely low potential for electric and magnetic fields (EMF) impacts during the construction and decommissioning phases of the project. The maximum magnetic | 27 |

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| | | | field of the proposed transmission line is well under the limits respectively recommended for public and occupational exposure.<br><br>Operationally, the site is surrounded by agricultural land. Public access would be restricted by fencing around the site including substation. Given the levels associated with the infrastructure components, and the distance to the site perimeter fence, EMFs from the solar farm are likely to be indistinguishable from background levels at the boundary fence. The underground cabling would not produce external electric fields due to shielding from soil, and its magnetic fields are expected to be well within the recommended public and occupational exposure levels.<br><br>Refer to Section 7.5 of the EIS for more details.<br><br>As detailed within the AIS, overseas trials and Australian examples of co-locating solar farms with sheep whilst maintaining ground cover for feed have been successful, with no known impact or irritation to the sheep or crop. In fact, the shading under the array is more likely to moderate conditions in this location. It should also be noted that agricultural activities have not been impacted by the existing TransGrid Jindera substation.<br><br>Aligned to the above, the EIS provides the following mitigation measures:<br>• (**HA4**) All electrical equipment would be designed in accordance with relevant codes and industry best practice standards in Australia.<br>• (**HA5**) Design of electrical infrastructure to minimise EMF through the solar array (underground). | |
| **13** | Changing climate conditions | • Effect on climate unknown.<br>• Township/heat island effect | Several studies have shown that PV panels convert incident solar radiation into heat, and this can alter the airflow and temperature profiles within and adjacent to the panels, or Photovoltaic Heat Island (PVHI) Effect. Barron-Gafford (2016) in his Statement of Evidence (SoE) to the Victorian Planning Panel included results on the radius of measured heat effects. This identified that the PVHI effect was | 22 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | indistinguishable from air temperatures over native vegetation when measured at a distance of 30 m from the edge of the PV array.<br>In conclusion of the Victorian Planning Panel Report (Panel Report 2018), the panel accepted that solar arrays will affect air and soil temperatures within the solar array perimeter, and that in relation to outside of the solar array perimeter a heat island effect is unlikely to occur. It identified that any temperature increase within the solar array will be marginal and recommended a 30 m setback from any neighbouring property boundary.<br>The Jindera Solar Farm proposal adheres to the Victorian Planning Panel Report recommendation, with JSF now committing to a minimum 30 m setback from the edge of the closest panel to the neighbouring property boundary.<br>In addition, the heat island effect was a concept originally associated with urbanised cities and towns with the prevalence of concrete and other heat retaining surfaces. Solar panels are not heat retaining surfaces, and they cool every night. They have no capacity to store or accumulate heat.<br>Multiple studies around the world on the heat effect have concluded that vegetation screening is very effective in reducing impacts. As a result, key areas of the subject land boundary have been identified for vegetative screening through consultation with landowners and the Visual Impact Assessment. This has resulted in the following existing mitigation measures in the EIS:<br>• (**VA1**) Screening would be required on-site, generally in accordance with the draft Landscape Plan provided in the VIA.<br>Furthermore, as stated above, the shading and microclimate effects under the array are more likely to moderate conditions in this specific location. | |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| **14** | Insurance issues | • Neighbouring landholders unable to get insurance cover required if Solar Company proves negligence.<br>• Inability for neighbouring landholders to secure public liability insurance post solar plant construction.<br>• Insurance cost increase for residents. | In response to concerns from stakeholders, NGH initiated discussions with the Insurance Council of Australia to determine feedback for these concerns.<br><br>In a written response received from the Insurance Council, the following was noted: "*The majority of underwriters signalled that the proximity of the solar farm would, on present understanding, not influence a decision to underwrite, nor would it impact the quantum of the risk premium.'*. The Insurance Council further noted that they are '*unaware of any mandated requirement for a rural policyholder to increase liability coverage in these instances.'*<br><br>As such, it is anticipated that there will not be any effect on the ability of near neighbours to obtain cost competitive insurance premiums. | 21 |
| **15** | Loss of aboriginal and cultural heritage sites | • Loss of cultural sites. | As per Section 6.3 of the EIS and the Aboriginal Cultural Heritage Assessment, the likelihood of harm and impact to Aboriginal Heritage values for the development is assessed as moderate. While the majority of the stone artefact sites are rated as having total loss of scientific value it is argued that there are likely to be a number of similar sites in the local area and therefore the impact to the overall local archaeological record is considered to be low. The stone artefacts have little research value apart from what has already been gained from the information obtained during the assessments.<br><br>The few cultural trees identified on the site will be retained and protected, while the identified artefacts will be salvaged and relocated. The edge-ground axe fragment recorded within AHIMS #55-6-0117/ Jindera 488942 was noted to be a practically uncommon artefact in the area and the representatives from the Albury Local Aboriginal Land Council (LALC) requested that the artefact is salvaged and retained | 20 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | by the Albury LALC to be used for training and educational purposes within the local Aboriginal community.<br><br>Safeguards and Mitigation Measures detailed below in Section 5 (**AH1** to **AH11**) are based on the following information and considerations:<br><br>• Results of the current archaeological survey and subsurface testing program of the area;<br>• Consideration of results from other local archaeological studies;<br>• Results of consultation with the registered Aboriginal parties;<br>• The assessed significance of the sites;<br>• Appraisal of the proposed development, and<br>• Legislative context for the development proposal.<br><br>As with the cultural heritage survey and assessment, the implementation of the cultural heritage management plan for the project will be undertaken in consultation with Representative Aboriginal Parties, registered for this project. | |
| **16** | Aesthetic changes to the rural lifestyle/visual | • The loss of visual amenity in a rural landscape.<br>• Who would want to live next to a solar farm?<br>• Eyesore.<br>• Proposed planting will not establish quick enough or be effective.<br>• Living beside an industrial zone. | As per the EIS and the Visual Impact Assessment (VIA), the proposal is located within the Rural Landscape Character Unit. The scenic quality in this unit and within the adjacent residential unit is considered to be moderate, given that "*built elements are production related and include linear fences, powerlines, roads, agricultural buildings and rural homes. Forms are typically uniform, of undulating elevation and linear… These areas have variety in colour and form normal in this character type. Elements include linear fences, powerlines, roads, agricultural buildings and rural homes*". It was determined with the proposed mitigation measures that the scenic quality of the landscape unit would not be substantively affected as a result of the proposal. | 19 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | Understanding that visual impacts are a key issue for the local community, stronger commitments around screening are now included. Specifically, the vegetation screening:<br>• It will be planted prior to commencement of operations.<br>• Will consist of species that will best facilitate visual screening.<br>• Be effective in screening view within 3 years of the commencement of construction.<br>• Be maintained to ensure successful establishment<br>As it stands, *electricity generating works* under the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) are permissible with consent under Part 4 of the *Environmental Planning and Assessment Act 1979* EP&A Act) within a permissible zone.<br>The proposal is located within Zone RU1 under the *Greater Hume Local Environmental Plan 2014*, which is a permissible zone under the ISEPP. As such, there is no requirement for re-zoning of land to Industrial. It is not the intention of the proposal to create an industrial character in the area or develop an industrial precinct, hence the commitment to a landscaping plan that will mitigate views from key locations. Habitat to be retained onsite will also be effective in breaking up and softening the overall visual impact of the site. | |
| **17** | Physical, mental and financial wellbeing will be put at risk | | Please see above response to issue No. 5. | 18 |
| **18** | Erosion and flooding | • Effects on drainage to surrounding properties unknown. | Because of the importance of managing erosion and flooding risks, a Surface Water Management Investigation was conducted by Strategic Environmental and Engineering Consulting (SEEC), designed to model the impacts to flow pre- and post-development of the solar farm (Appendix K of the EIS). Levels of imperviousness | 16 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | • Filling in dams could cause erosion and flooding<br>• Rainfall: sheeting the water, causing erosion | were modelled to account for the solar infrastructure and hardstands. Existing dams were not included in both the pre-and post-development models, as they were assumed to be full with little attenuation potential (i.e. filling of the dams would have very little effect on model results).<br>The model results from SEEC indicate that post-development peak flow for the sub-catchments combined is 0.3% increase for a 10% Annual Exceedance Probability (AEP) and 0.1% increase for a 1% AEP. AEP refers to the probability of a flood event occurring in any year. The probability is expressed as a percentage. For example, a large flood which may be calculated to have a 1% chance to occur in any one year, is described as 1% AEP.<br>The slight increase in peak flow during solar farm operation for a 10% AEP and 1% AEP are not expected to cause any impact downstream or be a nuisance for any downstream property owners. As such, there is little additional flood risk as a result of the proposal.<br>Erosion potential was also determined by the Soil Assessment conducted by DM McMahon (Appendix J of EIS). Through a series of soil tests it was determined that the risk of erosion on-site due to construction activities is considered low due to the low relief and generally low salinity and sodicity of topsoils and subsoils.<br>In addition to this, a commitment is made to develop and implement (**SO1**) a Soil and Water Management Plan and Erosion and Sediment Control Plan.<br>Erosion and flooding are considered highly manageable for the proposal. | |
| **19** | Loss of business and employment to agricultural suppliers | • Loss of agricultural jobs and local employment opportunities. | In response to community and agency submissions, and to provide certainty around local economic impacts on the rural economy, an Agricultural Impact Statement was commissioned. As detailed within the AIS (Appendix A.1 of the Amendment Report) and summarised in Section 1.1 of the Amendment Report: | 12 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | • Current economics from farming put back into the community.<br>• Wrecking businesses. | • Current direct employment from the proposal is not expected to be affected, with an additional three to five FTE jobs created through the operational life of the proposal, and up to 200 construction jobs.<br>• Minor reductions in employment roles associated with agricultural production may arise upstream and downstream, such as agronomy services, input providers, machinery sales etc. However, other industries that are not normally associated with agriculture will benefit, such as fencing contractors. Agronomist services, spray and seeding contractors may only experience marginal downturn, if at all.<br>• Current direct employment from the existing operations is not expected to change, mostly being family employment.<br>• The AIS indicated an economic reduction of $315,000 per year (farm gate and post-farm gate), however the proposal will still deliver $640,000 per year. This represents an overall annual loss of 0.085% of Shire wide output.<br><br>In addition to this, Safeguard and Mitigation Measure **SE2** has been updated to commit to the following:<br><br>A Local Sourcing Plan will be developed and implemented prior to construction and updated prior to Operation. The Plan will include (but not be limited to):<br>• Liaison with local industry representatives to maximise the use of local contractors, manufacturing facilities and materials.<br>• Liaison with Council.<br>• Liaison with local accommodation and real estate to maximise stays within the area.<br>• Implementation of methods to ensure maximum engagement with local businesses who wish to provide materials and services to the project.<br>• The proposal provides potential for local economic stimulus and economic diversification, without removing future agricultural enterprises on the project site. | |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| **20** | Work hours disturbing the tranquillity | • Eleven hours per weekday and five hours Saturday morning.<br>• Noise levels predicted to be quite high, compared to current quiet of the area. | As detailed in Sections 1.6 and 2.4 of the Amendment Report, infrastructure has been relocated to reduce overall noise impact. While noise exceedances during construction are unavoidable, all operational risk during normal operations (no maintenance works) has been reduced to zero with no noise exceedances expected.<br>A suite of Safeguards and Mitigation measures is committed within Section 6.6 of the EIS, and again detailed below in Section 5 of this Report.<br>As detailed within Section 6.6.3 of the EIS, receivers within 200 m of the proposal are expected to experience moderate exceedances above normal noise levels during construction. Works will be scheduled and conducted intermittently over the site to reduce any impacts. Works would move progressively through the site, meaning that at any one receiver, worst case construction noise is intermittent over 4-6 weeks.<br>Maximum predicted noise levels for construction at any given receiver is 66 decibels (Section 6.6 of the EIS). This is comparable to normal conversation, or busy traffic.<br>With the exception of specific temporary peak traffic periods during construction, local tranquillity would be preserved. | 9 |
| **21** | Weeds | • Question DPIE's compliance unit regarding weeds on site.<br>• Weeds in vegetation screening.<br>• Chemical herbicide use is a possible health hazard for local residences. | As mentioned in Section 6.5.2. of the EIS, the proposal would result in the increased movement of vehicles and people to the development site during the construction and decommissioning phases. The primary risk to biosecurity is the spread of weeds that may result from the increased movement of vehicles in and out of the development site. Weed seeds can be transported through and from the development site on the tyres and undercarriages of vehicles and on the clothing of staff. The risk of weed dispersal would primarily be mitigated by the establishment and use of formed access tracks.<br>Based on the above, the following mitigation measures are provided in the EIS: | 7 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | • Weed build up around panels causing fire risk. | • (**BD9**) Hygiene protocols to prevent the spread of weeds or pathogens between infected and uninfected areas. A Weed Management Procedure would be developed for the proposal to prevent and minimise the spread of weeds. This would include:<br>– Management protocol for declared priority weeds under the *Biosecurity Act 2015* during and after construction.<br>– Weed hygiene protocol in relation to plant, machinery, and fill.<br>– Any occurrences of pathogens such as Myrtle Rust and Phytophthora would be monitored, treated and reported.<br>– The weed management procedure would be incorporated into the Biodiversity Management Plan (BMP).<br>Weed management is a standard requirement for projects disturbing soils such as this. There is a high degree of certainty in implementing and monitoring measures to management weed ingress.<br>Weed control extends to the proposed vegetative screening, not just areas where solar infrastructure will be required. Effective screening is a requirement and commitment of JSF, and competition from weeds is detrimental to the success of the Vegetation and Landscaping Plans.<br>In addition to this, sheep grazing has been shown to be an effective measure to reduce overall biomass and control weeds. It is the intention of the proposal to continue grazing the site for the life of the proposal.<br>Additional control measures may be required for the control of weeds. These controls will not be too dissimilar to current control methods and agricultural practices. Herbicides that are safe for use for humans and stock will be used. The BMP will cover construction and operational monitoring and control of weeds, as well as protocols for the safe use of chemicals. | |

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| **22** | The proposal is not a farm, it's a major industrial plant | • Involves multimillion-dollar infrastructure.<br>• In calling it a "farm," there has been a lack of due diligence in the planning of the project. | The term "solar farm" is used Australia wide to describe a large-scale solar installation where PV panels harvest the sun's power. The term is accepted in this context and can be used interchangeably with solar plant or solar park.<br>All of these terms described above are defined as *electricity generating works* under the *State Environmental Planning Policy (Infrastructure) 2007*,and are permissible with consent under Part 4 of the *Environmental Planning and Assessment Act 1979 (*EP&A Act).<br>The capital cost of the proposal determines the assessment framework under which the development application is considered.<br>*State Environmental Planning Policy (State and Regional Development) 2011* declares the proposal to be *State Significant Development (SSD)* as it is development for *electricity generating works* with a capital cost of greater than $30 million.<br>Section 4.12 of the EP&A Act requires a development application for SSD to be accompanied by an EIS prepared in accordance with the EP&A Regulation.<br>The EIS and subsequent Submissions Response has been prepared in accordance with Part 4 of EP&A Act and Schedule 2 of the EP&A Regulation. As such, due diligence has been demonstrated in the planning of this proposal. | 4 |
| **23** | Lack of research into the companies involved in the project | • Ability of company to remain viable.<br>• Financial guarantee for remediation if proponent becomes insolvent. | Hanwha Energy is one of the most trusted names in the global solar industry and has built an integrated solar value chain that includes manufacturing, system solutions, construction, operation and more Hanwha Energy Australia is a reputable and reliable company based in Sydney, Australia with the backing of a global conglomerate<br>It is in the best interest of JSF to manage the land, its infrastructure and its overall investment well. This is a long-term project (likely 30 years) and the early | 4 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | • If this was considered a major industrial enterprise, there would be far more planning, consultation, and research into the contracted companies. | establishment of positive relationships with the community and good environmental outcomes onsite will be rewarded over the duration of the project. This applies to hiring of qualified and experienced contractors for the project, and adherence to the management plans developed specifically for the project.<br>All works undertaken as part of the project (once approved) must be compliant with the Conditions of Consent imposed by NSW DPIE and any Statement of Commitment proposed within the EIS and subsequent management plans.<br>Failure to do so can result in large penalties and enforcement regimes under the *Environmental Planning and Assessment Amendment Act 2014*.<br>Compliance is ensured through independent auditing of the construction, operation and decommissioning of a proposal, which must be reported back to NSW DPIE. | |
| **24** | Salinity through tree removal | • Established trees maintain soil salinity – removal of these trees will impact soil | As detailed within the BDAR, 24.5 ha of native vegetation will be removed including up to 33 paddock trees. In addition to an in-perpetuity conservation offset commitment (paid to the BCT to administer), it is proposed to replant 17 ha of native vegetation, partly offsetting vegetation clearing on-site. This will consist of trees to replace those that are removed.<br>Salinity potential was considered specifically in the Soil Assessment conducted by DM McMahon (Appendix J of EIS). Through a series of soil tests it was determined that topsoils and subsoils found at the site were generally low in salinity and sodicity. This is not considered a key issue for the site. | 4 |
| **25** | Reduced efficiency due to heavy fogs in winter | • Site experiences heavy fog in winter – location produces less solar energy | Solar panels work by harnessing sunlight. Even in low light, cloudy or foggy conditions, the panels are able to capture the sun's energy albeit at a slightly lower capacity. As the fog clears during the day, the solar panels return to operating at full capacity. | 3 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | Seasonal weather conditions, including fog, are incorporated into the proposal's energy production calculations over its 30-year lifetime. Climatic data is obtained from the Australia Bureau of Meteorology to inform these calculations.<br><br>Should the proposal be approved, site-specific weather stations will be installed to measure existing irradiance and other relevant climatic data. This will be used to manage the Jindera Solar Farm's optimal productivity throughout its operational life | |
| **26** | Bad timing for review of documentation – more time needed | • Affected landholders are in busiest time of year and don't have adequate time or clarity to review materials<br>• Deprived of opportunity to make objection and have consultation | Under the *Environmental Planning Assessment Act (1979)*, the minimum statutory timeframe for exhibition of an EIS for State Significant Development is 28 days. Exclusions are made around the Christmas/new year periods, between 20 December and January 10.<br>It is also a requirement of JSF to notify residences and other interested stakeholders of the exhibition period of the Proposal.<br>The exhibition of the EIS was within the statutory timeframes, outside of the Christmas and New Year period. JSF also notified all interested parties who had provided contact details and requested to be kept informed that the proposal was on public exhibition.<br><br>Appropriate for large scale proposals such as this, the assessment timeframe can be lengthy and opportunities for feedback into this project have been provided prior to submission of the Scoping Report in August 2018, and throughout the ongoing consultation up the exhibition of the EIS in November of 2019. Multiple forums, including email, phone, website, and community open days, have been available. | 2 |
| **27** | Gas released from panels during lightning strike | • Poisonous gas that could ignite with lightning. | We are not aware of any incidence of toxic gas ignition on an occasion when a solar panel has been struck by lightning or during a period of lightening | 2 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | • Risk of toxic smoke produced if fire starts on site. | There is no inherent fire risk associated with solar panels themselves. Good land management needs to be practised in order to ensure that vegetation around the solar farm is not a potential fuel source in the event of fire / bushfire. | |
| **28** | Steel supports left in the ground after decommissioning will be hazardous | • No assurance that area will not be damaged at end of contract.<br>• Risk of infrastructure left behind if company goes broke. | As mentioned in Section 3.8 of the EIS, at the end of its operational life the solar farm will be decommissioned in terms of a dedicated Rehabilitation and Decommissioning Management Plan. All above and below ground infrastructure would be removed and, specifically:<br>• The solar arrays would be removed, including the foundation posts.<br>• Posts and cabling would be removed and recycled.<br>• Fencing would be removed.<br>It is however accepted that an oversight was noted within the Safeguards and Mitigation Measures, namely **LU3** and **LU7** (Section 5 of the RTS). **LU3** has since been updated to remove the words “above ground”, committing JSF to removal of all infrastructure (as originally intended), and **LU7** has been removed. There is a high degree of certainty surrounding this commitment. | 1 |
| **29** | Sediment run-off | • Impacts to neighbouring agricultural land. | No impacts on neighbouring agricultural land are anticipated during construction or operation or during decommissioning, with the exception of slight traffic delays during peak construction traffic (3 to 4 months).<br>In the case of Jindera, on the project site, most of the construction activities require only discreet earthworks or earthworks limited to a small defined area. Excavation of subsoils will be limited where possible, and excavated subsoils will be stockpiled and contained to avoid potential dispersion and sediment transfer.<br>However, the impacts are considered low for this proposal, and the following mitigation measures are provided in the EIS: | 1 |

| No. | Issue raised | Points raised in submissions | Proponent Response | No. of submissions |
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| | | | • (**BD13**) Sediment barriers and spill management procedures to control the quality of water runoff released from the site into the receiving environment:<br>  – An erosion and sediment control plan would be prepared in conjunction with the final design and implemented.<br>  – Spill management procedures would be implemented.<br>• (**WA6**) Erosion and sediment control measures would be implemented to mitigate any impacts in accordance with Managing Urban Stormwater: Soils and Construction.<br>• (**SO1**) A Soil and Water Management Plan and Erosion and Sediment Control Plan will be prepared.<br>• (**SO2**) A Groundcover Management Plan will be developed.<br>See Section 5 of this RTS for further details. | |
| **30** | Pest control | • Pest control limitations having impacts on neighbouring agricultural land | JSF has made a commitment to comply with the general biosecurity duties under the *Biosecurity Act 2015*. This includes the management of pests and weeds.<br>Accordingly, the following mitigation measures are provided in the EIS:<br>• (**LU4**) A Pest and Weed Management Plan would be prepared to manage the occurrence of noxious weeds and pest species across the site during construction and operation. The plans must be prepared in accordance with Greater Hume Shire Council and NSW DPI requirements. Where possible integrate weed and pest management with adjoining landowners.<br>There is no reason to expect that the site will generate any indirect impacts for neighbouring properties in this regard. In fact, the commitments are likely to provide a net benefit in term of local coordinated pest control. | 1 |

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| **31** | Soil contamination from panels | • Not enough known about the impacts of panels on soil.<br>• Contamination from toxic PV Solar Panels. | As mentioned above, the type of panel to be used for the Jindera Solar Farm will not contain heavy metals or other potentially toxic substances and hence they pose little threat of site (soil or other) contamination should they be exposed. | 1 |
| **32** | No toxic PV recycling for solar panels | • Not enough known on toxicity of PV panels.<br>• Not known if the concentration of solar farms and number of panels in a small area will cause health risk to residents.<br>• Recycling options. | The energy producing part of solar panels which do contain a mix of metal components and silicon, are enclosed in glass and as such the component parts are not able to mix with air or water in the atmosphere. Therefore, there is little if any risk of chemical release from a solar panel. Typically, PV panels are made of tempered glass. They pass tests that simulate impacts from things such as hail.<br>A study on the potential for leaching of heavy metals and metalloids from crystalline silicon PV systems from the Journal of Natural Resources and Development (Robinson, S. Meindl, G. 2019) was conducted to determine whether potentially toxic elements could have the potential to leach into the surrounding environment. Soils were analysed from beneath panels against a control site, away from panels. This was done to determine if soils were being enriched by metals such as lead, cadmium, lithium, strontium etc. and metalloids such as selenium.<br>The results of the findings concluded that there were no significant differences in lead or cadmium levels, with only minor concentration differences in other metals between soil samples under PV panels and the control sample. Despite the minor concentration differences, there would be no risk to nearby ecosystems (thereby no risk to residences) or to current (proposed) or future farming activity.<br>The Jindera Solar Farm will be constructed using the same solar panels as those installed on rooftops, including households, all around the Australia and the globe. | 1 |

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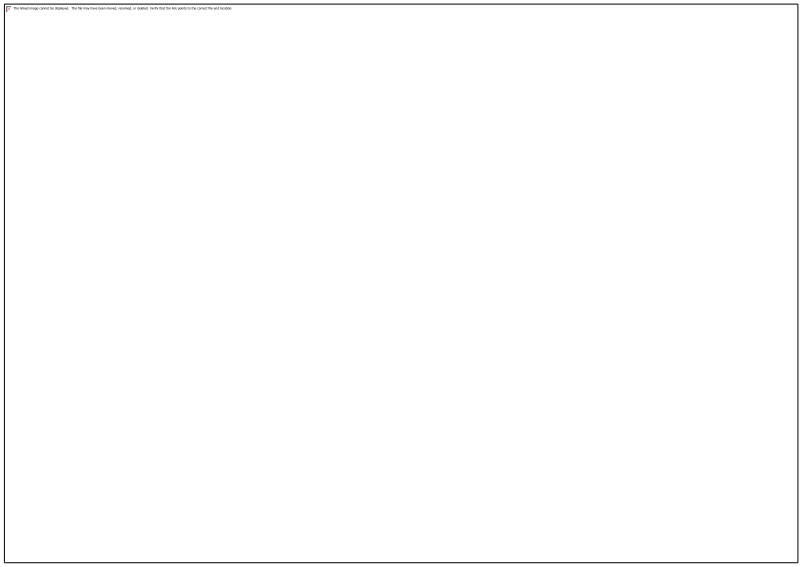
| | | | Australia has also just opened its very first PV Panel recycling centre, called Reclaim PV. Stronger commitments to recycling PV panels have been made in Safeguard and Mitigation Measure **WM1**.<br><br>In line with the mitigation measure outlined in the EIS, it is proposed that a Waste Management Plan (WMP) will be prepared and submitted prior to construction (**WM1**). The WMP would be prepared in accordance with the waste hierarchy below (NSW EPA, 2019).<br><br>  <br><br>In the event that the PV Recycling Centre cannot accept the volume of waste generated, commercial landfills and waste management companies would be engaged to dispose of the material legally at other facilities. | |

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| **33** | Crown Land | • Not enough information on what is happening with Crown Land used for horse riders and walkers. | As detailed above and within the EIS, A Crown road (previous CADID 105306258, new Lot/DP 1//1252930) has been purchased by Landowner 2, with an additional section of road (CADID 105338106) being purchased for Council. These two roads will form part of the overall development.<br>No impact is expected from the purchase of Lot/DP 1//1252930 as this is a “paper road” currently grazed by the landowner, with no public access. The area marked as CADID 105338106 forms part of Nation Road, within the creek line and riparian vegetation. No impact is expected from purchase.<br>The purchase of these two roads will not impact access for walkers or horse riders. | 1 |

### 4.1.4. Individual community submissions (comment)

Of the 109 individual submissions received, two provided general comments on the project, raising several points – these were neither in support of nor objecting to the proposal. These comments are provided in Table 4-4, and are arranged into the same themes presented in Section 4.1.3 Individual Community Submissions (Objections).

Table 4-4: Individual community submissions: general comments raised and associated proponent responses

| Issue raised | Points raised | Discussion point from JSF |
|---|---|---|
| **Community estranged through the process** | Threats made to involved landowners by some members of the community have been disgraceful. | It is acknowledged that new large development can be polarising for a community. The community consultation process has sought to provide accurate information and respond to community concerns to address this issue.<br>Refer to Point 5 in Table 4-3 above for more details. |
| **Community benefit** | Suggest free electricity as compensation | JSF will be entering into a Community Benefits Scheme. Free electricity as compensation is not considered.<br>Refer to Point 5 in Table 4-3 above for more details. |
| **Aesthetic changes to the rural lifestyle / visual** | Minimise tree clearing to assist visual impacts.<br>Include perimeter tree planting and maintain for life of project.<br>Fencing can be an eyesore, rather than the other infrastructure | The proposed layout of the solar farm has been designed in a way to avoid as much tree clearing as possible, both to address visual and biodiversity impacts.<br>Additional vegetative screening has been proposed by JSF around the perimeter of the proposal in key public locations and around sensitive receivers, to reduce any potential visual impacts (refer Appendix A)<br>The proposed vegetative screening (Appendix A) will be planted in front of all security fencing, to obscure views of infrastructure, softening and breaking up views of the site. The proposed species are a mixture of differing canopy heights, with the mid-stratum species fast growing and fast dispersing.<br>Refer to Point 16 in Table 4-3 above for more details. |
| **Traffic management and road damage** | Pay Council compensation for damaged roads | JSF has already made a commitment to upgrade intersections and pay for all |

| Issue raised | Points raised | Discussion point from JSF |
|---|---|---|
| | | damage to roads as a caused by the project.<br>Refer to Point 10 in Table 4-3 above for more details. |
| **Lack of research into the companies involved in the project** | There should be formal guarantees and warranties from developers as part of the approval process. | It is in the best interest of JSF to manage the land, its infrastructure and its overall investment. The land must be maintained and managed in compliance with the Conditions of Consent imposed by NSW DPIE and any Statement of Commitment proposed within the EIS and subsequent management plans.<br>Failure to do so can result in large penalties and enforcement regimes under the *Environmental Planning and Assessment Amendment Act 2014*.<br>Compliance is ensured through independent auditing of the construction, operation and decommissioning of a proposal, which must be reported back to NSW DPIE.<br>Refer to Point 23 in Table 4-3 above for more details. |

## 4.2. AGENCY SUBMISSIONS

In addition to the public submissions received, there were also submissions received from government agencies and other private companies. Of the 107 submissions received, 11 were from these agencies.

This section summarise the main issues raised per agency, as well as the associated proponent response.

### 4.2.1. Greater Hume Shire Council

The Greater Hume Shire Council '*resolved to formally object to the proposed development'* for the specific issues raised in Table 4-5.

Table 4-5: Agency submissions – Greater Hume Shire Council: issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| The development will result in adverse environmental, social and economic impacts for the local community | It is acknowledged that the proposal could give rise to impacts, which will need to be mitigated as set out in the EIS. Central to this are environmental, social and community commitments. |
| Loss of amenity within 2km and concern that landscaping proposed not timely in mitigating impact | As per the EIS and the Visual Impact Assessment (VIA), the proposal is located within the Rural Landscape Character Unit. The scenic quality in this unit and within the adjacent residential unit is |

| Issue raised | Proponent response |
|---|---|
| | considered to be moderate, given that "*built elements are production related and include linear fences, powerlines, roads, agricultural buildings and rural homes. Forms are typically uniform, of undulating elevation and linear… These areas have variety in colour and form normal in this character type. Elements include linear fences, powerlines, roads, agricultural buildings and rural homes*". It was determined with the proposed mitigation measures that the scenic quality of the area would not be reduced as a result of the proposal.<br>A Concept Landscape Plan as part of the EIS and the VIA has been developed for the proposal, detailing buffer widths, species type and layout. The information within has been best informed by a qualified Landscape Architect, who has local knowledge of species availability from nurseries and growth requirements to ensure best outcomes. This includes the selection of fast growing, fast dispersing mid-stratum species, which are expected to reach a suitable height and form an effective screen before the upper-stratum eucalypt species (pioneer species). A plan of succession for species will be included in the proposed Landscape Plan.<br>Additional buffer widths have also been proposed within the vicinity of potentially impacted receivers, and around all roads and intersections. Refer to Section 2.2 and 2.3 of the Amendment Report for more details.<br>JSF is also committed to achieving an effective vegetative screen within three (3) years of completion of works. Screening will commence on approval of the proposal and final approved Landscape Plan. **VA1** in section 5 below has been updated to include this requirement.<br>JSF has also incorporated a larger offset, and the proposed vegetative screening buffer will double on Glenellen Road. Refer to Appendix A of this report for more details. |
| Heat island impact within 1km, specific to Australia and Jindera site conditions, any mitigation besides setbacks. | As noted in Section 7.4.2 of the EIS and detailed above, several studies have shown that PV panels convert incident solar radiation into heat, and this can alter the airflow and temperature profiles within and adjacent to the panels, or PVHI Effect. Barron-Gafford (2016) in his Statement of Evidence (SoE) to the Victorian Planning Panel included results on the radius of measured heat effects. This identified that the PVHI effect was indistinguishable from air temperatures over |

| Issue raised | Proponent response |
|---|---|
| | native vegetation when measured at a distance of 30 m from the edge of the PV array.<br>In conclusion of the Victorian Planning Panel Report (Panel Report 2018), the panel accepted that solar arrays will affect air and soil temperatures within the solar array perimeter, and that in relation to outside of the solar array perimeter a heat island effect is unlikely to occur. It identified that any temperature increase within the solar array will be marginal and recommended a 30 m setback from any neighbouring property boundary.<br>The Jindera Solar Farm proposal adheres to the Victorian Planning Panel Report recommendation, with JSF now committing to a minimum 30 m setback from the edge of the closest panel to the neighbouring property boundary.<br>In addition, the heat island effect was a concept originally associated with urbanised cities and towns with the prevalence of concrete and other heat retaining surfaces. Multiple studies around the world on the heat effect have concluded that vegetation screening is very effective in reducing impacts.<br>As a result, key areas of the subject land boundary have been identified for vegetative screening through consultation with landowners and the Visual Impact Assessment. This has resulted in the following existing mitigation measures in the EIS:<br>• (**VA1**) Screening would be required on-site, generally in accordance with the draft Landscape Plan provided in the VIA.<br>Furthermore, as stated above, the shading and microclimate effects under the array are more likely to moderate conditions in this specific location. |
| Concern over ground cover maintenance to address dust | Multiple examples of solar farms within Australia and around the globe show successful pasture management under solar panels. As such, ground cover maintenance is entirely plausible for the proposal, and will be an effective means to control dust on site for the operational period given the right on-site management measures.<br>As detailed within the EIS and the AIS (Appendix A.1 of the Amendment Report), the following inferences were made from previous studies around the world and in Australia:<br>• Shading from the proposed panels can improve soil moisture retention and maintain pasture |

| Issue raised | Proponent response |
|---|---|
| | growth for longer periods, especially summer and autumn.<br>• Shade and soil moisture variability needs to be factored into the choices of pasture species mix and paddock rotation.<br><br>Strong commitments are part of the project to monitor and manage sustained ground cover beneath the panel modules during operation. This commitment is expected to reduce dust generation, in comparison to existing agricultural operations, particularly in dry or drought conditions.<br><br>The requirements of a Groundcover Management Plan developed in consultation with a soil scientist and agronomist form part of a current commitment of the project as Safeguard and Mitigation Measure **SO2**, with a commitment to maintain 70% groundcover over the life of the proposal. An additional commitment has been made in **SO2** to commence groundcover preparations one season prior to commencement of construction of the proposal.<br><br>As noted in Section 7.4.2 of the EIS and above, 'dust generation would accompany excavation and other earthworks as well as the movement of trucks and work vehicles'. During construction, peak activity would be limited to 3 to 4 months.<br><br>Section 7.4.2 of the EIA also notes that 'There is also a risk that unsealed access tracks may create dust during windy conditions. However, the access tracks will be regularly maintained. Dust creation is expected to be no more than the existing unsealed access roads that surround the site. As such, a noticeable increase in dust creation is unlikely'.<br><br>Reduction of dust-causing agricultural activities will also temporarily cease over the development area (such as canola and wheat harvesting), with groundcover maintained to reduce erosion and dust. As such, overall dust creation on the subject land will decrease.<br><br>Practical and demonstrated deliverable mitigation measures have been proposed. The requirement of an Adaptive Dust Monitoring Program is a current commitment of the project as Safeguard and Mitigation Measure **BD7**, while controlling dust in response to visual cues is a current commitment of the project as Safeguard and Mitigation Measure **VA4**. **LU7** also details the requirement for construction and operations personnel to drive carefully and below the designated |

| Issue raised | Proponent response |
|---|---|
| | speed limit according to the Traffic Management Plan to minimise dust generation and disturbance to livestock. |
| Low economic benefits to immediate community | Broad and local benefits are described above in Section 2.3 of this report, and Section 2.2 of the EIS.<br>Local and economic benefits are further detailed in Section 1.7 of the Amendment Report.<br>JSF has made stronger commitment to developing methods to improve local spend and local employment opportunities during construction and operational activity. Development of Local Sourcing Plans to identify and develop opportunities to work with local business to source local supplies of materials and services. The Local Sourcing Plan will be developed in consultation with the Council and other representatives of local business.<br>JSF has also committed to the introduction of an apprenticeship scheme that will run during the currency of the operational phase. |
| No engagement regarding payment of development contribution to Council | JSF discussed the requirements of a development contribution with council on 1 August and 19 December 2018, and additional subsequent meetings thereafter.<br>In line with these discussions, a basis for a VPA has now been agreed with Council and is outlined in Section 1.7 and 2.1 of the Amendment Report. |
| The proposed development will restrict the ability for Jindera to grow in the direction of the subject land | The subject land is located approximately 4 kilometres north of the township of Jindera on rural freehold land.<br>The Greater Hume Shire Local Strategic Planning Statement (LSPS) that sets out the 20-year vision for land use in the local area identifies the following:<br>*"The southern towns and villages, such as Jindera, Walla Walla and to a lesser extent Culcairn and Holbrook, take advantage of the fast-growing Albury and Wodonga cities and they are expected to experience pressure for growth over the next 20 years. It is anticipated that with the population growth, there will be opportunities to grow and diversify the local business economy and upgrade existing community facilities to improve services to residents."*<br>It also indicates that from 2014-2019, Jindera grew by 129 dwellings, approximately 25 dwellings per year.<br>Page 20 of the LSPS, states "*Housing in Jindera is predominantly separate houses and sheds on generous* |

| Issue raised | Proponent response |
|---|---|
| | *proportioned standard residential allotments, large lot residential or larger rural residential lots that are situated to the south of Jindera and enjoy good access to Albury".* Additionally, on page 20 it states "*As Jindera continues to grow it is also important for Council to provide a variety of housing choices to cater for the changing demographic and household incomes. This will involve protecting land to the west of Jindera for more traditional urban residential expansion."*<br><br>This document suggests that, in terms of residential development, it would be critical for land to be set aside for future urban growth on the southern and western sides of Jindera. This contradicts the concerns of Council, expressed in their submission to the proposal.<br><br>Currently, there is no subdivision potential on land classed as Primary Production (RU1) under the minimum lot size under the Greater Hume LEP. Under its current classification, there is no growth potential on the Subject Land. As discussed, it is intended to continue the current farming practice on the subject land. |
| Concerns in relation to the bushfire risk posed by the development. Council believes that the importance of addressing the bushfire risk warrants ascertaining the NSW Rural Fire Service's comments prior to the application being determined. | NGH followed up with DPIE on 13 December 2019, regarding whether an RFS submission would be forthcoming. DPIE advised on 16 December 2019 that no response has been received and they would follow up again in the New Year. Then, in an e-mail dated 13 January 2020 from the DPIE, subsequent follow-up with the FRNSW and RFS was noted, as was still a lack of their formal response on the proposal. However, in the e-mail this was assumed to understandably be due to the recent state bushfire crisis resulting in no foreseen capacity to respond.<br><br>The most recent submission for a solar farm by NSW fire services within the Greater Hume Shire is Walla Walla Solar Farm, received in November 2019. Safeguards and mitigation measures for bushfire risk detailed within the JSF EIS (Section 7.5 of the EIS) were compared with the most recent requirements from NSW fire services. As set out in their response to Walla Walla Solar Farm, minor additions to wording within the mitigation measures not initially recommended have now been adopted.<br><br>Requirements of NSW fire services are detailed in Safeguard and Mitigation Measures **HA6** to **HA9**. **HA6** and **VA1** in Section 5 below have been updated to include any additional requirements. |

| Issue raised | Proponent response |
|---|---|
| Loss of high-quality agricultural land, concern about maintaining vegetation beneath panels and cabling left in situ, derogates from LEP RU1 objectives. | The subject land is located wholly within the RU1 Primary Production zone under the provisions of the *Greater Hume Local Environmental Plan 2012* (GHLEP). The objectives of the zone are detailed in Section 4.2.3 of the EIS.<br><br>From a town planning perspective solar farms are compatible with agricultural land use given the only practical location that large-scale solar farms can be located is within a non-urban area.<br><br>Solar farms are not susceptible to adverse amenity impacts that are problematic and constrain agricultural uses (like dwellings), as they do not result in the generation of new dwellings or lead to the fragmentation of land. Other matters concerning amenity and off-site impacts can be adequately managed by the implementation of appropriate environmental mitigation measures.<br><br>The GHLEP permits industrial activities in the RU1 zone, with the consent of the Council. While the planning framework supports the protection of strategic agricultural land from non-agricultural uses, there are numerous examples of permitted non-agricultural uses within the RU1 zone. Whilst many of the listed permissible land uses do not contribute to primary production, they remain permissible uses in the zone that are considered to be acceptable.<br><br>The introduction of solar energy would contribute to a more diverse local industry, thereby supporting the local economy and community. The proposal is consistent with planning priorities cited in the Greater Hume Shire Local Strategic Planning Statement (LSPS) given it promotes the diversification of energy supplies through renewable energy generation in a suitable location. The proposal is also consistent with the Greater Hume Shire Economic Development and Social Plan 2017 – 2022, which cites the exploration of options for solar powered installations across the shire to improve long term sustainability for community organisations.<br><br>As per Section 3.8.2 Decommissioning and Rehabilitation within the EIS, JSF has already committed to the full removal of all infrastructure, including posts and cabling associated with the proposal.<br><br>Also as detailed above, the following have also already been considered as part of the proposal, as documented in the EIS: |

| Issue raised | Proponent response |
|---|---|
| | • The proposal has a 30-year operational life. Should it be agreed to decommission the site after this time, all surface and underground infrastructure can be removed, the footprint rehabilitated, and an agricultural land use returned. Hence, as opposed to permanent infrastructure and other developments, there is the potential to seamlessly reverse the solar farmland use back to one of agricultural activities.<br>• Also, farming activities can continue beneath the solar panels. Although there will be a limit in which crops can be grown and specific management measures will be required for livestock management, the solar farm proposal will not limit the site to one land use but could still be utilised for low-intensity agricultural activities.<br>• The lower level of agricultural land use on the proposal site will result in a lower level of soil (physical and chemical) disturbance beneath the panels, as compared to current high-intensity agricultural activities. This could enhance soil conditioning opportunities, improving land capabilities over the longer-term.<br>Details around the maintenance of vegetation under panels are addressed above in concerns about dust control. There is evidence to suggest that shading and panels can assist in pasture management to assist in maintaining ground cover. An Agri consultant has selected the best pasture options for success, which considers the requirements of both sheep grazing and height for infrastructure. The requirements of a Groundcover Management Plan developed in consultation with a soil scientist and agronomist form part of a current commitment of the project as Safeguard and Mitigation Measure **SO2**, with 70% of groundcover committed to be retained. |
| Impacts on Native Vegetation and Aboriginal Heritage | As per Section 6.3 of the EIS and the Aboriginal Cultural Heritage Assessment, the assessment of harm and impact to Aboriginal Heritage values for the development is assessed as moderate. While the majority of the stone artefact sites are rated as having total loss of scientific value, it is argued that there are likely to be a number of similar sites in the local area and therefore the impact to the overall local archaeological record is considered to be low. The stone artefacts have little research value apart from what has already been gained from the information obtained during the assessments. |

| Issue raised | Proponent response |
|---|---|
| | The few cultural trees identified on the site will be retained and protected, while the identified artefacts will be salvaged and relocated. The edge-ground axe fragment recorded within AHIMS #55-6-0117/ Jindera 488942 was noted to be a practically uncommon artefact in the area and the representatives from the Albury Local Aboriginal Land Council (LALC) requested that the artefact is salvaged and retained by the Albury LALC to be used for training and educational purposes within the local Aboriginal community.<br><br>As such, low impacts to Aboriginal Heritage are expected as a result of the proposal. These impacts and results of the ACHA are reviewed and agreed upon by the Registered Aboriginal Parties that registered interest in the site.<br><br>NGH prepared a BDAR for the proposal. The aim of this report was to assess the potential impacts and minimise and avoid impact where possible.<br><br>The following mitigation measures are provided in the BDAR and the EIS:<br>• (**BD2**) Implement clearing protocols during tree clearing works, including pre-clearing surveys, daily surveys and staged clearing, the presence of a trained ecologist or licensed wildlife handler during clearing events, including:<br>• (**BD3**) Relocate habitat features (fallen timber, hollow logs) from within the development site. Tree-clearing procedure including relocation of habitat features to adjacent area for habitat enhancement.<br><br>Updated commitments now made to reduce any impacts on biodiversity include:<br>• (**BD12**) Barbed wire would not be used on internal fences surrounding retained native vegetation.<br>• (**BD15**) Completion of a Squirrel Glider Management Plan.<br>• (**BD16**) Hollows removed during clearing would be salvaged where possible and remounted.<br><br>The development site has been selected to avoid or minimise impacts to biodiversity where possible through the BDAR process. Most areas of EEC in the development site have now been avoided through the iterative design process. Where biodiversity impacts |

| Issue raised | Proponent response |
|---|---|
| | could not be avoided, an offset credit requirement has been generated.<br><br>The retirement of credits for vegetation clearing will be carried out in accordance with the NSW Biodiversity Offsets Scheme, and will be achieved by either:<br><br>a) Retiring credits under the Biodiversity Offsets Scheme based on the like-for-like rules;<br>b) Making payments into the Biodiversity Conservation Fund using the offset payments calculator; or<br>c) Funding a biodiversity action that benefits the threatened entity(ies) impacted by the development.<br><br>Updated credit requirements are detailed within Section 1.5 and Appendix A.4 (BDAR) of the Amendment Report.<br><br>Potential direct and indirect impacts to biodiversity values of the site could result from the proposal and have been considered. A range of mitigation measures would be implemented to ensure that impacts on biodiversity during the construction phase are avoided where possible and minimised where they cannot be avoided. |
| Traffic improvements may be considered as part payment of Council development contribution. | Noted. |
| Traffic related recommended conditions are provided in the event of the approval of this application:<br><br>Road works are to be undertaken in accordance with the submitted traffic assessment.<br><br>For assessment by Council additional design plans are required for the access points 1, 2 and 3.<br><br>Under Section 138 of the Roads Act 1993 any works occurring within the road reserve require the consent of Council as the road authority. | These measures form part of a current commitment of the project as Safeguard and Mitigation Measure **TT3** and **TT4**.<br>JSF has committed to the design requirements imposed by RMS, detailed below and within Safeguard and Mitigation Measure **TT4**:<br>• A Channelised Right Turn-Short (CHR(s))/Basic Left Turn (BAL) for the intersection of the driveway to the development site with the Urana Road (MR125); and<br>• A Basic Right Turn (BAR)/Basic Left Turn (BAL) for the intersections of each of the 2 driveways to the development site with the Walla Walla – Jindera Road (MR547). |

### 4.2.2. Department of Primary Industries (DPI)

The following three divisions within the NSW Department of Primary Industries (DPI) provided a submission in response to the Jindera Solar Farm EIS.

- Strategy & Policy
- Biodiversity and Conservation Division (BCD)
- Water and Natural Resources Access Regulator (NRAR)

Specific issues raised and related proponent responses are provided in Table 4-6, Table 4-7 and Table 4-8, respectively.

Table 4-6: Agency submissions – DPI (Strategy & Policy): issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| DPI requested this proposal be amended to avoid as much as possible the land classified as highly capable agricultural land (Class 3), as per the map provided. It is noted however that this request was not included in the SEAR's. | The Agricultural Impact Study and Soils Capability Mapping (Appendix A.1 and A.2 of the Amendment Report) have been completed for the Jindera Solar Farm proposal. Key outcomes of these studies in relation to highly capable Class 3 Land are:<br>• Based on the decision tables for individual hazards in Section 5 of the LSC Assessment Scheme (OEH 2012), areas previously marked as Class 3 can be reclassified to Class 4.<br>• Current agricultural practices correlate with the findings of the additional Soil Capability Mapping, with land predominantly grazed (90% grazing 10% cropping).<br>As such, impacts to Class 3 Agricultural Land have been avoided as much as possible. No changes to the development footprint are proposed. Existing Land Use, Soil and Water mitigation strategies are sufficient to manage impacts identified. |

| Issue raised | Proponent response |
|---|---|
| DPI also notes that the proposal has a development footprint covering 245 ha of class 3 agricultural land with a history of cropping and grazing. It is located outside a priority renewable energy zone, and in an LGA recognised in the Riverina Murray Regional Plan as having economic growth potential based on access to global gateways such as the Port of Melbourne. | As detailed above, the land in question is likely not Class 3 land. Notwithstanding JSF agrees that it is important to retain agricultural production, with agriculture and solar farming having a beneficial co-existence as stated in both sections 6.5 and 7.1 of the EIS.<br>The NSW Government's Electricity Strategy sets out a plan to deliver three Renewable Energy Zones (REZ) in NSW. This builds on the NSW Transmission Infrastructure Strategy and supports the AEMO's Integrated System Plan. The NSW Government is in early stages of feasibility and planning, with a pilot expected in 2022 in the Central West. This plan was unveiled to the public in November of 2019, after the submission of the EIS for public exhibition.<br>While not within the REZ or at the same scale (with the pilot being 3,000 MW), "smaller" large-scale renewable energy projects such as the proposal are still required around the state to ensure reliability in the electrical network. In addition to this, the REZs do not preclude the development of energy projects in other parts of the state.<br>There is also a benefit of having the proposal outside of a REZ, as existing grid infrastructure has capacity to connect large scale renewable projects without the requirement of major upgrades.<br>Current land use sees 90% of the development site grazed, with only 10% cropped for commercial sale (not fodder for their own stock). Landowners both intend to continue to focus on farming as their primary source of revenue, and co-locating grazing with solar represents a practically feasible option across the life of the development.<br>Both landowners' intend to run merino wethers or weaner ewes in the development areas, as their temperament is better suited for grazing in and around solar infrastructure. This is evident from successful sheep grazing trials by Neoen at Dubbo and Numurkah.<br>Paddock area available for stocking would only be reduced by 10% (due to landscaping, fencing, buildings, hardstand, substation etc.), with a 20% overall reduction in productivity observed on the successful commercial operations. A conservative 25% reduction in production was assumed as the most likely scenario for the purpose of the AIS. No direct loss of farm-based employment is anticipated. |

| Issue raised | Proponent response |
|---|---|
| | The AIS concludes that there is some small loss of agricultural output due to co-locating the solar activity but that at least 75% of original agricultural output will be maintained.<br>The AIS indicates that the economic effect of the proposed solar farm is to reduce the farm gate output of the solar farm site by some $100,000 per year. This has a potential upstream and downstream effect of reducing post gate outputs by some $215,000 per year. Much of the post gate value measured is received outside the Greater Hume Shire Council Area. However, to give some context, the solar farm site area will continue to deliver $640,000 farm gate output from the co-location of solar farm and sheep grazing. To add further context, Greater Hume Shire produces an estimated annual output of about $371,000,000* from agriculture, forestry and fishing, so the lost value of production from the solar farm site equates to about 0.085% of Shire wide output.<br>As such, economic growth and agricultural practice in the region will not be significantly hindered by the proposal.<br>Refer to Appendix A.1 and Sections 1.1 and 1.3 of the Amendment Report for more details. |
| DPI does not support the complete loss of agricultural production on productive agricultural land, with access to key export markets. DPI recommends that further work should be undertaken to minimise the risks to agricultural production values both directly and in the region. This should include undertaking an Agricultural Impact Statement, which specifically considers agro-voltaics during the operation of the farm, as well as other means of multifunctional use of the land for agricultural purposes over the life of the development. | The proposal will not represent a complete agricultural loss on productive agricultural land. As detailed within Section 7.5 of the EIS, any temporary loss can be restored. The design and construction of the proposal is in such a way where impacts are highly reversible at the end of its operational life.<br>In addition to this, the existence of a solar farm does not prohibit agricultural use. It is a mutually beneficial relationship to co-locate solar farms and stock grazing, particularly in areas where the land has traditionally been used for these practices.<br>The Agricultural Impact Study (Appendix A.1 of the Amendment Report) compares multiple examples and trials of agro-voltaics, namely co-existence of sheep and solar infrastructure. The conclusions of the AIS are as follows:<br>• Alternative land use options, such as beef and goat grazing or high intensity horticulture, are limited due to a range of constraints and not feasible. As such, co-locating the proposal with sheep grazing represents the best option for agro-voltaics. |

| Issue raised | Proponent response |
|---|---|
| | • Current agricultural practices correlate with the findings of the additional Soil Capability Mapping, with land predominantly grazed (90% grazing 10% cropping).<br>• Landowners both intend to continue to focus on farming as their primary source of revenue, and co-locating grazing with solar represents a practically feasible option across the life of the development.<br>• 20% production loss has been directly observed on other solar farms co-locating sheep for grazing.<br>• No direct loss of farm-based employment is anticipated.<br>As is demonstrated in the report, the major part of the subject land is currently used for sheep grazing. Some of the land is used to grow crops which are in turn used to feed the livestock and a small amount of the land is traditionally cropped for sale.<br>The conclusions of the AIS is that sheep grazing is a highly viable agro-voltaic practice suitable for Australian solar farms where conditions are already conducive to grazing. The report makes recommendations around certain practical aspects of such a livestock operation, and states the emerging sheep grazing approach in Australia is the most suitable. This approach reflects the intent of the Proposal.<br>From the investigation, other alternative production systems such as cropping or other livestock grazing would not better mitigate the production ramifications of co-locating agricultural and solar energy production.<br>Sheep grazing is already intrinsic to current land use of the Proposal, and in the district generally. Shifting to agro-voltaics would not require major system upheaval as the landowners both intend to continue to focus on farming as their primary source of revenue.<br>There is a strong view that co-locating solar farms with sheep grazing has little or no deleterious effects on agricultural production.<br>As such, no changes to the proposal are proposed. Existing Land Use, Soil and Water mitigation strategies are sufficient to manage impacts identified.<br>For more information, refer to the Amendment Report. |
| DPI requests to be consulted with, and having an approval role in, the Rehabilitation and Decommissioning Plan when developed to | This measures form part of a current commitment of the project as Safeguard and Mitigation Measure **LU3**. |

| Issue raised | Proponent response |
|---|---|
| ensure the land is returned to a functional state for intensive production. | |

Table 4-7: Agency submissions – DPI (Biodiversity Conservation Division): issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| Flooding | |
| The BCD considers that the EIS does meet the Secretary's requirements for flooding. | Noted. |
| It is recommended that the detailed design phase will include the hydraulic modelling of a design flood event to demonstrate the extent of major flow paths that activate during intense local rainfall events, including the depth and velocity expected during such an event. The model will inform the detailed design. | An additional mitigation measure **WA17** is provided in Section 5 to commit to this action. |
| Aboriginal heritage | |
| The BCD considers that the EIS does not meet the Secretary's requirements for Aboriginal cultural heritage assessment (ACHA). The applicant must address issues 1 and 2 identified in Attachment A. Issues 3 and 4 may be completed post-determination but pre-construction. These are: | |
| 1. The Aboriginal Cultural Heritage assessment for works within the Jindera substation lot has not been completed. The results of the assessment including the proposed management of any ACH identified in accordance with the SEARs is to be provided to the BCD for comment. | NGH completed additional survey and assessment with RAPs during January 2020. An addendum has been completed. Refer Appendix A.3 of the Amendment Report.<br>No items of Aboriginal heritage were identified during the visual inspection and no undisturbed landforms of archaeological sensitivity were located. As such, it was concluded that the proposed works within the substation and proposed intersection works for the Jindera Solar Farm will not impact upon heritage items. The assessment of harm and impact to Aboriginal heritage values for the Additional Area is nil. Consequently, there are no mitigation methods proposed for the Additional Area beyond those noted in the original ACHA. |
| 2. The location of artefact site Jindera 488942 (site 55-6-0117) is recorded incorrectly in AHIMS. Maps in the Aboriginal Cultural Heritage Assessment Report (ACHAR) show this site is within the project area. The coordinates on AHIMS place the site several kilometres to the | NGH contacted AHIMS on 12 December 2019 and requested that they update the site card for 55-6-0117.<br>Confirmation was received on 31 January 2020 that the site card had been updated |

| Issue raised | Proponent response |
|---|---|
| north of the project area. The proponent is required to notify AHIMS to update the site coordinates in line with the results of the field assessment. | |
| 3. Possible retention of stone artefact under a Care Agreement. Albury and District Local Aboriginal Land Council has sought retention of an edge-ground axe fragment from site 55-6-0117 should it be salvaged from an area of proposed construction works. If this is to occur, a care agreement for the transfer of Aboriginal objects would be sought under Section 85A of the National Parks and Wildlife Act 1974. | An additional mitigation measure **AH11** is provided in Section 5 and in the Addendum ACHAR (Appendix A.3 of the Amendment Report) to commit to this action. |
| 4. Unexpected finds protocol. An unexpected finds protocol for Aboriginal cultural heritage, including human remains, must be developed and implemented prior to the commencement of construction, and to the satisfaction of the Department of Planning, Industry and Environment, that includes the following:<br>If any Aboriginal object is discovered and/or harmed in or under the land while undertaking the proposed development activities, the proponent must:<br>1. Not further harm the object<br>2. Immediately cease all work at the particular location<br>3. Secure the area to avoid further harm to the Aboriginal object<br>4. Notify the Department of Planning, Industry and Environment as soon as practical on 13 15 55, providing any details of the Aboriginal object and its location<br>5. Not recommence any work at the particular location unless authorised in writing by the Department of Planning, Industry and Environment,<br>If human skeletal remains are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access and contact made with NSW Police and the Department of Planning, Industry and Environment. | **AH8** has been updated to include the requirements of the unexpected finds protocol, and consultation with DPIE for the development of the CHMP (which includes the unexpected finds protocol). |
| Biodiversity | |

| Issue raised | Proponent response |
|---|---|
| The BCD considers that the EIS, including the BDAR at Appendix D, does not meet the Secretary's requirements for biodiversity. The applicant must address issues 5 and 6 identified in Attachment A. These are: | Noted |
| 5. The assessment for Section 6 of the BAM under-represents habitat suitability and the offset requirement. Specifically: | Noted. |
| The disregarding of Zone 10 needs to be justified as either category 1 (exempt) regulated land, or that the finding of non-native vegetation and poor habitat suitability is based on a sampling effort greater than one plot, and that the scattered paddock trees associated with Zone 10 have been considered as part of a general assessment of prescribed impacts (connectivity and movement across the development site). | NGH completed a Land Category Assessment, which has been included as an Appendix of the updated BDAR (Appendix A.4 of the Amendment Report). Based on aerial photographs and Category 1 Land approximately 338 hectares of the development site has been used for agricultural production since 1990. This is Zone 10.<br>Scattered trees have been appropriately assessed and offset calculated as per the BAM method. |
| If the survey timing requirements for predicted threatened species in the BAM Credit Calculator do not coincide with the field survey period, the assessor must either provide an expert report or assume the species is present | As per the BAM methodology and precautionary principle, any species that could not be surveyed for within the correct survey period, or otherwise ruled out by lack of habitat constraints, were assumed present in the BAM Credit Calculator.<br>Additional surveys of the TransGrid substation and intersection upgrades, inclusion of areas with zero impact and subsequent recalculation using the BAM Credit Calculator provided the following additional species:<br>• Sloane's Froglet.<br>• Southern Bell Frog.<br>• Floating Swamp Wallaby Grass.<br>• Claypan Daisy.<br>Floating Swamp Wallaby Grass and Claypan Daisy were surveyed in January 2020 (within the appropriate survey period), and no plants were found.<br>Sloane's Froglet was surveyed in 2018 during the appropriate survey period, and not found.<br>Southern Bell Frog was assumed present. However, as no wetland areas were impacted the Calculator did not generate any credits. |
| Not all zones in the development area, including PCT 360, have been entered into the BAM calculator. This under-represents the habitat suitability and credit obligations of habitat loss in subsequent parts of the BAM. | As detailed in the response above, the inclusion of areas with zero impact and subsequent recalculation using the BAM Credit Calculator provided the following additional species: |

<table>
<tr><th>Issue raised</th><th>Proponent response</th></tr>
<tr><td>Section 6 of the BAM must take into account all zones and PCTs on the development site. The threatened species listings and wider assessment in the EIS should reflect the output of the updated Section 6.</td><td rowspan="3">• Sloane's Froglet.<br>• Southern Bell Frog.<br>• Floating Swamp Wallaby Grass.<br>• Claypan Daisy.<br>An updated credit and impact summary is provided within Sections 7 to 11 of the updated BDAR (Appendix A.4 of the Amendment Report) and summarised in the Amendment Report.<br>Section 6 of the BDAR has also been updated to take into account all zones and PCT's on the site.<br>The changes resulting to the credit requirements are as follows:<br><table><tr><th>Ecosystem credits</th><th>Previous offset requirements</th><th>Updated offset requirements</th></tr><tr><td>PCT 277</td><td>201</td><td>255</td></tr><tr><td>PCT 277 paddock trees</td><td>26</td><td>26</td></tr><tr><td>PCT 9</td><td>26</td><td>33</td></tr><tr><td>TOTAL</td><td>253</td><td>314</td></tr></table><table><tr><th>Species credits</th><th>Previous offset requirements</th><th>Updated offset requirements</th></tr><tr><td>Squirrel glider</td><td>105</td><td>125</td></tr><tr><td>Southern Bell Frog</td><td>0</td><td>0</td></tr><tr><td>Eastern Pygmy Possum</td><td>63</td><td>59</td></tr><tr><td>Small Scurf Pea</td><td>93</td><td>96</td></tr><tr><td>Silky Swainson-pea</td><td>53</td><td>49</td></tr><tr><td>Small Purple-pea</td><td>53</td><td>49</td></tr><tr><td>Southern Myotis</td><td>7</td><td>0</td></tr><tr><td>TOTAL</td><td>374</td><td>378</td></tr></table></td></tr>
<tr><td>The adjustment to the BAM calculator be completed before impacts are identified and assessed in Sections 7 to 11 of the BAM as the offset requirement is likely to be underestimated as a result of the underpopulated BAM calculator.</td></tr>
<tr><td>Revise the BAM calculator and BDAR to ensure that the assessment of biodiversity impacts and offset obligation includes all zones on the development site, as per Section 6 of the BAM.</td></tr>
<tr><td>6. Impact assessments do not provide sufficient evidence to support the findings related to the prescribed impacts, risk of SAII on the candidate TEC or EPBC matters:<br>• The EIS and appendices describe construction and operation actions that either potentially impact or mitigate impacts to native vegetation or habitat. These have not adequately informed the assessment undertaken in the BDAR.<br>• The BDAR assessment of direct and</td><td>The updated BDAR is provided in Appendix A.4 of the Amendment Report has been supplied to BCD as a track change document to show the changes made to address these points clearly.<br>The changes resulting are:<br>• No areas in the development footprint meet the criteria for Box Gum Woodland to be EPBC listed.<br>• All Threatened Ecological Community mapping has been updated in the BDAR.</td></tr>
</table>

| Issue raised | Proponent response |
|---|---|
| indirect impacts, prescribed impacts, Matters of National Environmental Significance and the risk of serious and irreversible impacts on the candidate threatened ecological community (Box-Gum Woodland) is generally not informed by the EIS<br>Revise the BDAR to consider all the potential direct and indirect impacts of site management actions detailed in the EIS, including the range of assessments (SAII, direct and indirect impacts, prescribed impacts, and EPBC Matters). | • The BDAR and Submissions Report have been revised to ensure construction and operation actions do not impact or mitigate impacts to native vegetation.<br>BDAR SAII, direct and indirect impacts have been reviewed. |
| Additional comments:<br>• The BDAR section numbering be amended.<br>• Table 3.3 be amended.<br>• The area of Zone 6 is 2.2ha in Table 3.4, and 1.57ha in the BAM calculator – check plots sufficient<br>• Because the BDAR does not fully address the Matters of National Environmental Significance, we recommend that the applicant refer the proposal to the Australian Government Department of Environment for its consideration. | NGH is unsure of the requirements of section numbering. However, the updated BDAR section has been reviewed and the numbering confirmed to be correct.<br>Table 3.3 has been amended to reflect PCT 360, not PCT 9.<br>An additional plot was undertaken in Zone 6 to sufficiently meet the requirements of the BAM.<br>An additional Biodiversity Assessment to supplement the BDAR was completed in January 2020. Details of this report are also reflected in the updated BDAR. It was found that the vegetation community surrounding the substation meets the scientific determination criteria for White Box – Yellow Box – Blakely's Red Gum Grassy Woodland under the *NSW Biodiversity Conservation Act* (BC Act), however it does not qualify as the EPBC Box Gum Woodland. No referral is required to the Department of Environment and Energy. |
| All plans required as a Condition of Approval that relate to flooding, ACH or biodiversity should be developed in consultation and to the satisfaction of BCD to ensure that issues identified in this submission are adequately addressed. | An additional mitigation measure **WA17** is provided in Section 5 to commit to this action. |

Table 4-8: Agency submissions – DPI (Water and Natural Resources Access Regulator): issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| The proponent must obtain relevant approvals and licences under the *Water Management Act 2000* before commencing any works which intercept or extract groundwater or surface water | As detailed in the EIS, water would be sourced from a Council owned standpipe in Jindera. As such, any water sources specified under the WM Act are not required. |

| Issue raised | Proponent response |
|---|---|
| (including from on-site dams where necessary) or for any works which have the potential to alter the flow of floodwaters. | However, for clarity an additional mitigation measure **WA15** is provided in Section 5 to commit to this action. |
| The proponent should prepare a Construction Environmental Management Plan and an Operational Management Plan. This should address erosion and sediment control requirements, and water supply arrangements and associated infrastructure for the project. | As detailed in the EIS, a commitment to the preparation of a CEMP and OEMP has been made.<br>It is also a commitment to prepare a Soil and Water Management Plan and Erosion and Sediment Control Plans as per mitigation measure **SO1**.<br>However, for clarity **SO1** has been updated to include water supply arrangements and associated infrastructure for the project. |
| The proponent should ensure watercourse crossings and other works within waterfront land are designed in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018). | An additional mitigation measure **WA16** is provided in Section 5 to commit to this action. |
| Soil and Water Management Plan (SO1) and Erosion & Sediment Control Plan (BD13) as proposed are to be developed in consultation with DPIE Water. | **SO1** has been updated to include the requirements in consultation with DPIE Water. |

### 4.2.3. Crown Lands

Specific issues raised by Crown Lands, and related proponent responses are provided in Table 4-9.

Table 4-9: Agency submissions – Crown Lands: issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| Any Crown public road that may be required for access to the proposal area, either during the construction phase or in an ongoing capacity, should either be transferred to Council or the proponent should make application to close and purchase the Crown public road. | A Crown road (previous CADID 105306258, new Lot/DP 1//1252930) has been purchased by Landowner 2, with an additional section of road (CADID 105338106) being purchased for Council. The purchase and transfer of the Crown road to Council has not been finalised, with no Lot or Deposited Plan (DP) number assigned yet. It is not anticipated that any other Crown roads will be required for access to the proposal area.<br>An additional mitigation measure **TT11** is provided in Section 5 to commit to this action if required**.** |

### 4.2.4. Environment Protection Authority

Specific issues raised by the Environment Protection Authority (EPA), and related proponent responses are provided in Table 4-10.

Table 4-10: Agency submissions – Environment Protection Authority: issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| The EPA has no further comments to make in relation to this proposal and requires no further consultation in relation to this matter. | Noted. |

### 4.2.5. Planning Resource Assessments

Specific issues raised by the Planning Resources Assessments and related proponent responses are provided in Table 4-11.

Table 4-11: Agency submissions – Planning Resources Assessments: issues raised and associated proponent responses

| Issue | Response |
|---|---|
| Regarding biodiversity, the Biodiversity Development Assessment Report advises that the Proponent has generated Ecosystem Credits within the development site that will be retired under the Biodiversity Offset Scheme to help meet biodiversity impacts associated with the project. The Division requests it be consulted should changes be made to the proponent's Biodiversity Offset arrangements.<br>The Division has no further issues to raise. | • The retirement of credits is proposed to be carried out in accordance with the NSW Biodiversity Offsets Scheme and will be achieved by retiring credits under the Biodiversity Offsets Scheme.<br>Should there be changes to this arrangement, the Division will be contacted for ongoing consultation. |

### 4.2.6. Heritage Council of NSW

Specific issues raised by the Heritage Council of NSW and related proponent responses are provided in Table 4-12.

Table 4-12: Agency submissions – Heritage Council of NSW: issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| No further heritage comments are required. The Department does not need to refer subsequent stages of this proposal to the Heritage Council of NSW. | Noted. |

### 4.2.7. Local Land Services

Specific issues raised by the Local Land Services and related proponent responses are provided in Table 4-13.

Table 4-13: Agency submissions – Local Land Services: issues raised and associated proponent responses

| Issue raised | Proponent response |
|---|---|
| LLS has no further input from a native vegetation management and planning perspective. | Noted. |

### 4.2.8. Roads and Maritime Services

Specific issues raised by the Roads and Maritime Services and related proponent responses are provided in Table 4-14

Table 4-14: Agency submissions – Roads and Maritime Services: issues raised and associated proponent responses

| Issue | Proponent response |
|---|---|
| No objection, and would grant concurrence in accordance with Section 138 of the Roads Act subject to the Consent Authority ensuring that the development is undertaken in accordance with the information submitted as amended by the inclusion of the following as conditions of consent: | Noted. |
| Prior to the commencement of construction activities on the development site a Traffic Management Plan shall be prepared in consultation with the relevant road authorities (Council and Roads and Maritime Services) to outline measures to manage traffic related issues associated with the development, particularly during the construction and decommission processes. The appointed transport contractor shall be involved in the preparation of this plan. The plan shall address all light and heavy traffic generation to the development site and detail the potential impacts associated with the development, the mitigation measures to be implemented, and the procedures to monitor and ensure compliance. This plan shall address, but not necessarily be limited to the following;<br>i) Details of haulage, including transport routes, volumes, vehicle type and length, timing, and frequency,<br>ii) Finalise details of any required road-specific mitigation measures.<br>iii) Require that all vehicular access to the site be via the approved access route.<br>iv) Details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic,<br>v) Proposed hours for construction activities, as night-time construction presents additional traffic related issues to be considered.<br>vi) The management and coordination of the movement of vehicles for construction | These measures form part of a current commitment of the project as Safeguard and Mitigation Measure **TT1** and **TT2**. |

| Issue | Proponent response |
|---|---|
| and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times.<br>vii) The management of construction staff access to the works site is to include strategies and measures employed to manage the risks of driver fatigue and driver behaviour.<br>viii) Measures to address adverse climatic conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the facility (e.g. fog, dust, wet weather).<br>ix) procedures for informing the public where any road access will be restricted as a result of the project,<br>x) any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project,<br>xi) a Driver Code of Conduct to address such items as appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code,<br>xii) details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site. | |
| The Proponent must engage an appropriately qualified person to prepare a Road Dilapidation Report for transport routes, particularly intersections, to be used during the construction (and decommissioning) activities, in consultation with the relevant road authority. This report is to address all road related infrastructure. Reports must be prepared prior to commencement of, and after completion of, construction (and decommissioning). Any damage resulting from the construction (or decommissioning) traffic, except that resulting from normal wear and tear, must be repaired at the Proponent's cost. The applicant is accountable for this process, rather | These measures form part of a current commitment of the project as Safeguard and Mitigation Measure **TT8**. |

| Issue | Proponent response |
|---|---|
| than the proposed haulage contractor. Such work shall be undertaken at a time as agreed upon between the Proponent and relevant road authorities. | |
| Prior to the commencement of construction on-site, the Proponent must undertake all works to upgrade any road, its associated road reserve and any public infrastructure in that road reserve, to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by the relevant roads authority. The design and specifications, and construction, of these works must be completed and certified by an appropriately qualified person to a standard to accommodate the traffic generating requirements of the project. On Classified Roads the geometric road design and pavement design must be to the satisfaction of the Roads and Maritime Services. | This measure is mostly a current commitment of the project as Safeguard and Mitigation Measure **TT9**, to "upgrade any state road, their associated road reserve and any public infrastructure in that road reserve to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by RMS".<br>However, RMS have specified the following wording "any road, its associated road reserve and any public infrastructure…".<br>As such, **TT9** has been updated to include the RMS word changes. |
| As a minimum the following intersections shall be constructed in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by Roads and Maritime Services for the posted speed limit:<br>• a Channelised Right Turn-Short (CHR(s))/Basic Left Turn (BAL) for the intersection of the driveway to the development site with the Urana Road (MR125), and<br>ii) a Basic Right Turn (BAR)/Basic Left Turn (BAL) for the intersections of each of the 2 driveways to the development site with the Walla Walla – Jindera Road (MR547). | **TT4** has been updated to include the RMS design requirements for Urana and Walla Walla Jindera Roads. |
| As a minimum all access driveways connecting the development site to a Classified Road shall be constructed and maintained to the satisfaction of Roads and Maritime Services to comply with the following:<br>i) constructed as a "Rural Property Access" type treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by Roads and Maritime Services.<br>ii) constructed perpendicular (or at an angle of not less than 70 degrees) to the carriageway and with a minimum width of 6 metres to accommodate 2-way | **TT4** has been updated to include the RMS design requirements for driveways. |

| Issue | Proponent response |
|---|---|
| movement of the largest vehicle likely to access the subject site. The driveway shall be designed, line marked and maintained so that vehicles exiting the site do not interfere with the movement of vehicles entering the site from the main road.<br>iii) sealed for at least 10 metres from the edge of seal of the carriageway.<br>iv) shall not reduce the capacity of the existing roadside drainage network and to prevent water from proceeding onto, or ponding within, the carriageway of the main road. If a culvert is be installed and is to be located within the required clear zone of main road for the posted speed limit it is to be constructed with a traversable type headwall.<br>v) shall provide the required width and storage to accommodate the turning path of the largest vehicle that will be used to deliver materials to the site without obstructing the travel lanes of the main road. | |
| Any entry gate to the development site shall be located at least 30m from the edge of seal of the carriageway or at the property boundary whichever is the greater. This is to allow for storage of delivery vehicles when gates are to be opened. | **TT4** has been updated to include the RMS design requirements for site access. |
| A management plan to provide measures to suppress dust generation from the development site and the transportation route shall be prepared and implemented to the satisfaction of Council and Roads and Maritime Services. | These measures form part of a current commitment of the project as Safeguard and Mitigation Measure **BD7**, namely an Adaptive Dust Monitoring Program. The commitment requires:<br>• Daily monitoring of dust generated by construction and operation activities.<br>• Construction would cease if dust observed being blown from site until control measures were implemented.<br>• All activities relating to the proposal would be undertaken with the objective of preventing visible dust emissions from the development site.<br>The site access road and all internal tracks would be maintained throughout the construction and operation of the solar farm. If required, water trucks would be used to suppress dust on unsealed access roads and |

| Issue | Proponent response |
|---|---|
| | tracks during construction. Additional stabilising techniques and/or environmentally acceptable dust control would also be applied if required to suppress dust.<br>During construction, dust would be controlled in response to visual cues. Areas of soil disturbed by the project would be rehabilitated progressively or immediately post-construction, reducing views of bare soil.<br>Construction and operations personnel would drive carefully and below the designated speed limit according to the Traffic Management Plan to minimise dust generation and disturbance to livestock. |
| A landscaped buffer (at least 5 metres in width planted with a variety of species endemic to the area and growing to a mature height ranging from 2 metres to at least 5 metres) shall be established and maintained within the subject property along the frontages of the site to any road to a standard to minimise distraction of the travelling public. | These measures form part of a current commitment of the project as Safeguard and Mitigation Measure **VA1**.<br>Proposed vegetative screening has also been updated to include screening along all major road frontages. Refer to Figure 3-2 for more details.<br>**VA1** has been updated to include increased screening along Glenellen Road to 100 m in response to community concern. |
| Glint and glare from the solar panels shall not cause a nuisance, disturbance or hazard to the travelling public on the public road network. In the event of glint or glare from the solar plant being evident from a public road, the proponent shall immediately implement glare mitigation measures such as construction of a barrier (e.g. fence) or other approved device to remove any nuisance, distraction and/or hazard caused as a result of glare from the solar panels. | An additional mitigation measure **VA7** is provided in Section 5 to commit to this action if required**.** |
| Any damage or disturbance to the road reserve of any road shall be restored to match surrounding landform in accordance with Council requirements. | **TT7** has been updated to include the RMS and council requirements for damage and disturbance to road reserves. |
| No external lighting of any infrastructure associated with the project is permitted at night that may cause distraction to road users other than low intensity security lighting. | These measures form part of a current commitment of the project as Safeguard and Mitigation Measure **VA5**. |
| Any works within the road reserve of the Urana Road and Walla Walla Jindera Road require approval under Section 138 of the Roads Act, 1993 from the road authority (Council) and concurrence from Roads and Maritime Services prior to commencement of any such works. The developer is responsible for all public utility | These measures form part of a current commitment of the project as Safeguard and Mitigation Measure **TT3** and **TT10**. |

| Issue | Proponent response |
|---|---|
| adjustment/relocation works, necessitated by the development and as required by the various public utility authorities and/or their agents. | |
| Works associated with the development shall be at no cost to Roads and Maritime Services. | **TT9** has been updated to include the RMS requirements for cost for development. |

### 4.2.9. TransGrid

| Issue raised | Proponent response |
|---|---|
| The development is technically acceptable according to TransGrid's Easement Guidelines (see below), with the following conditions: | Noted |
| Fences:<br>As per the TransGrid Fencing Guidelines, fences parallel to a transmission line outside the easement:<br>• Metal fence within 10m of the easement must be earthed once in line with each structure and once in the middle of each span.<br>• Metal fence within 20m of the easement must be earthed once in line with each structure. | An additional mitigation measure **HA12** is provided in Section 5 to commit to these actions as required**.** |
| Excavation works and Earth works:<br>• Must not create excessive quantities of dust and must employ dust suppression.<br>• Must not alter the ground level / reduce clearance below that required in AS7000.<br>• At least 20 metres from any Transmission Line (TL) structure or supporting guy. Batter of no steeper than 1 in 6 required. Work within 20 metres of a structure may be permitted if structural and earthing assessments are performed and maintenance access is not impacted.<br>• Precautions must be in place to prevent damage to transmission line structures and guys<br>• During construction of any TransGrid approved development, plans and conditions of consent shall provide for the following considerations: | An additional mitigation measure **HA13** is provided in Section 5 to commit to these actions as required**.** |

| Issue raised | Proponent response |
|---|---|
| • Vehicles, plants or equipment having a height exceeding 4.3m when fully extended shall not be brought onto or used within the easement area without prior TransGrid approval.<br>• Where temporary vehicular access of parking during the construction period is within 16m of transmission line structure, adequate precautions shall be taken to protect the structure from accidental damage. Plans need to be submitted to TransGrid for prior approval.<br>• The easement area shall not be used for temporary storage of construction spoil, topsoil, gravel or any other construction materials.<br>• Any construction work for the proposed work within the easement shall maintain safety clearances to the exposed conductors.<br>• TransGrid is not to be restricted from undertaking normal maintenance and inspection activities, and at completion of works access to Transmission Lines and structures shall always be available for TransGrid plant and personnel.<br>• No metallic installations unless they form part of the approved plans. | |
| **TransGrid's guidelines** | |
| The statutory approval authority should obtain a written approval from TransGrid for all proposed activities within an easement area in accordance with regulation 45 of the SEPP. | Noted. |
| It is recommended that the development proponent consult with TransGrid prior to lodging a DA. | JSF has consulted with TransGrid on multiple occasions prior to lodgement of the EIS, with the most recent consultation detailed below:<br>• August 2019 – The Connection Process Agreement was signed and executed on 9 August 2019. A kick-off meeting also held on 27 August 2019.<br>• December 2019 – Progress between the Proponent and TransGrid made.<br>• January 2020 – Progress meeting held on 23 January 2020. |

| Issue raised | Proponent response |
|---|---|
| In consulting with TransGrid prior to submitting the DA, the following information must be provided:<br>1. Detailed specifications and plans drawn to scale and fully dimensioned, showing property boundaries and other relevant information. Survey plans must clearly identify TransGrid's easements; any high voltage transmission infrastructure located therein (including stanchions); and horizontal clearances;<br>2. Three-dimensional CAD file of the development, preferably in 3D-DXF format; and<br>3. TransGrid will also require an Impact Assessment of the development on TransGrid's infrastructure and associated interests (including easements). | Noted. |

# 5. UPDATED MITIGATION MEASURES

In response to community and agency submissions and as a result of more intensive investigations in several areas, a number of changes to the safeguards and mitigation measures detailed in the EIS are now proposed. Table 5-1 provides the full list of safeguards and mitigation measures with those amended highlighted in grey. New text is shown underlined and removed text shown with ~~strikethrough~~. Table 5-1 provides the full list of safeguards and mitigation measures as amended.

*C = Construction Phase, O = Operational Phase and D = Decommission Phase

Table 5-1 Revised safeguards and mitigation measures

| No. | Safeguards and mitigation measures | C | O | D |
|---|---|---|---|---|
| **BD1** | Timing works to avoid critical life cycle events such as breeding or nursing:<br>• Hollow-bearing trees would not be removed during breeding and hibernation season (June to January) to mitigate impacts on Superb Parrots, Major Mitchell's Cockatoo and Corben's Long-eared Bat.<br>• If clearing outside of this period cannot be achieved, pre-clearing surveys would be undertaken by an ecologist or suitably qualified person to ensure no impacts to fauna would occur. | **C** | | |
| **BD2** | Implement clearing protocols during tree clearing works, including pre-clearing surveys, daily surveys and staged clearing, the presence of a trained ecologist or licensed wildlife handler during clearing events, including:<br>• Pre-clearing checklist.<br>• Tree clearing procedure. | **C** | | |
| **BD3** | Relocate habitat features (fallen timber, hollow logs) from within the development site. Tree-clearing procedure including relocation of habitat features to adjacent area for habitat enhancement | **Pre-construction and construction** | | |
| **BD4** | Clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance; for example, removal of native vegetation by chainsaw, rather than heavy machinery, is preferable in situations where partial clearing is proposed;<br>• Approved clearing limits to be clearly delineated with temporary fencing or similar prior to construction commencing;<br>• No stockpiling or storage within dripline of any mature trees;<br>• In areas to clear adjacent to areas to be retained, chainsaws would be used rather than heavy machinery to minimise risk of unauthorised disturbance;<br>• Access to the Box-Gum Woodland EEC would not be permitted via vehicles to reduce understorey impacts and clearing; and<br>• Strict weed protocol must be observed at all times. | **C** | | |
| **BD5** | Noise barriers or daily/seasonal timing of construction and operational activities to reduce impacts of noise. Construction Environmental Management Plan would include measures to avoid noise encroachment on adjacent habitats such as avoiding night works as much as possible. | **C** | **O** | |
| **BD6** | Light shields or daily/seasonal timing of construction and operational activities to reduce impacts of light spill:<br>• Avoid night works.<br>• Direct lights away from vegetation. | **C** | **O** | **D** |
| **BD7** | Adaptive dust monitoring programs to control air quality:<br>• Daily monitoring of dust generated by construction and operation activities. | **C** | | |

| | | | | |
|---|---|---|---|---|
| | • Construction would cease if dust observed being blown from site until control measures were implemented.<br>• All activities relating to the proposal would be undertaken with the objective of preventing visible dust emissions from the development site. | | | |
| **BD8** | Temporary fencing to protect significant environmental features such as riparian zones should be installed prior to construction commencing. Exclusion fencing, and signage would be installed around habitat to be retained. | **C** | | |
| **BD9** | Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas. A Weed Management Procedure would be developed for the proposal to prevent and minimise the spread of weeds. This would include:<br>• Management protocol for declared priority weeds under the *Biosecurity Act 2015* during and after construction.<br>• Weed hygiene protocol in relation to plant, machinery, and fill.<br>Any occurrences of pathogens such as Myrtle Rust and Phytophthora would be monitored, treated, and reported.<br>The weed management procedure would be incorporated into the Biodiversity Management Plan. | **C** | **O** | |
| **BD10** | Staff training and site briefing to communicate environmental features to be protected and measures to be implemented:<br>• Site induction.<br>• Toolbox talks.<br>• Awareness training during site inductions regarding enforcing site speed limits; and<br>• Site speed limits to be enforced to minimise fauna strike. | **C** | **O** | |
| **BD11** | Preparation of a vegetation management plan to regulate activity in vegetation and habitat adjacent to the proposed development.<br>Preparation of a Biodiversity Management Plan that would include protocols for:<br>• Protection of native vegetation to be retained;<br>• Best practice removal and disposal of vegetation;<br>• Staged removal of hollow-bearing trees and other habitat features such as fallen logs with attendance by an ecologist;<br>• Weed management;<br>• Unexpected threatened species finds;<br>• Exclusion of vehicles through sensitive areas;<br>• Best practice clearing of overstorey vegetation for construction of the transmission line to avoid understorey impacts; and<br>• Rehabilitation of disturbed areas. | **C** | | |
| **BD12** | ~~Barbed wire would not be used on internal and external fences surrounding Sparkes Rd and retained native vegetation would be considered as an offset site~~<br>Barbed wire would not be used on internal fences surrounding retained native vegetation. The boundary fence will have three strands of barbed wire for security purposes and where glider poles and ropeways are installed, the top two wires will be covered with appropriate protection (such as PVC piping). The retained native vegetation would be considered as an offset site. | **Pre - construction and construction** | | |
| **BD13** | Sediment barriers and spill management procedures to control the quality of water runoff released from the site into the receiving environment:<br>• An erosion and sediment control plan would be prepared in conjunction with the final design and implemented.<br>• Spill management procedures would be implemented. | **C** | | |
| **BD14** | Appropriate landscape plantings of local indigenous species to replace loss of planted vegetation. | | **O** | |
| **BD15** | ~~Installation of Glider Poles to connect central woodland patch to Sparkes Road.~~ | **C** | | |

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| | Completion of a Squirrel Glider Management Plan to determine the location/s where the gliders cross connecting corridors to adjacent vegetation. At these locations, glider poles, ropeways and protection on the top two wires of the boundary fence will be strategically installed | | | |
| **BD16** | ~~Install hollows of felled trees onto younger trees or on ground in retained vegetation patches.~~<br>Hollows removed during clearing would be salvaged where possible and remounted to allow continued use by hollow dependent fauna within or adjacent to the project site. A one to one (hollows removed to hollows or nest boxes mounted) would be achieved. | **C** | | |
| **AH1** | The development avoids the three cultural tree sites Jindera 488918, Jindera 488995 and Jindera SF Cultural Site 1. A minimum 20 m buffer should be in place around each cultural tree to prevent any inadvertent impacts to the canopy and root system. | **C** | | |
| **AH2** | To ensure no inadvertent impacts occur to the three cultural tree sites no plantings for the vegetation screening or any form of ground disturbance during fencing activities can occur within the 20 m buffer zone. Any fencing wire installed will be a minimum of 1 m from physical contact with any part of the tree. | **C** | | |
| **AH4** | If complete avoidance of the 15 isolated find sites and 10 artefact scatters recorded within the proposal area is not possible the surface stone artefacts within the development footprint must be salvaged. The salvage of these objects must occur prior to the proposed work commencing. Until salvage has occurred a minimum 5 m buffer must be observed around all stone artefact sites. | **C** | | |
| **AH5** | The collection and relocation of the surface artefacts should be undertaken by an archaeologist with representatives of the registered Aboriginal parties and be consistent with Requirement 26 of the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales. The salvage of Aboriginal objects can only occur following development consent that is issued for State Significant Developments and must occur prior to any works commencing. | **C** | | |
| **AH6** | A minimum 5 m buffer should be observed around all sites with stone artefacts that are being avoided by the proposed development. | **C** | | |
| **AH7** | Subject to TransGrid defining the scope of any works within the Jindera Substation lot, further assessment of this area will be required. If Aboriginal cultural heritage sites are identified, they must also be subject to salvage collection and reburial as outlined in Recommendation 3 and 6 above. | **C** | | |
| **AH8** | ~~Jindera Solar Pty Ltd~~ The Proponent should prepare a Cultural Heritage Management Plan (CHMP) to address the potential for finding additional Aboriginal artefacts during the construction of the solar farm and management of known sites and artefacts. The Plan should include the unexpected finds procedure to deal with construction activity, which should include:<br>• Not further harm the object<br>• Immediately cease all work at the particular location<br>• Secure the area to avoid further harm to the Aboriginal object<br>• Notify the Department of Planning, Industry and Environment as soon as practical on 13 15 55, providing any details of the Aboriginal object and its location<br>• Not recommence any work at the particular location unless authorised in writing by the Department of Planning, Industry and Environment.<br>Preparation of the CHMP should be undertaken in consultation with the registered Aboriginal parties to the satisfaction of DPIE. | **C** | | |
| **AH9** | In the unlikely event that human remains are discovered during the construction, all work must cease in the immediate vicinity. OEH, the local police and the registered Aboriginal parties should be notified. Further assessment would be undertaken to determine if the remains were Aboriginal or non-Aboriginal. | **C** | | |
| **AH10** | Further archaeological assessment would be required if the proposal activity extends beyond the area assessed in this report. This would include consultation with the registered Aboriginal parties and may include further field survey. | **C** | | |

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| **AH11** | The option to salvage and retain artefacts should be made available to RAPs on the provision of a care agreement for the transfer of Aboriginal objects sought under Section 85A of the National Parks and Wildlife Act 1974. | **Prior to construction** | | |
| **VA1** | Screening would be required on-site, generally in accordance with the draft Landscape Plan provided in the VIA:<br>• Plantings would be more than one row deep and where practical, planted on the outside of the perimeter fence, to break up views of infrastructure including the fencing. The majority of proposed visual screening is 15 m wide, with a ~~50~~100 m buffer incorporating vegetative screening on the boundary of the proposal and Glenellen Road.<br>• The plant species to be used in the screen are recommended to be native, derived from the naturally occurring vegetation community in the area. They should be fast growing with mixed canopy height. Species selection could be undertaken in consultation with affected near neighbours and a botanist, horticulturist or landscape architect. Suitable species are listed within the VIA.<br>• The timing is recommended to be chosen to ensure the best chance of survival and can commence during the construction of the proposal if timing suits.<br>• The screen would be maintained for the operational life of the solar farm. Dead plants would be replaced. Pruning and weeding would be undertaken as required to maintain the screen's visual amenity and effectiveness in breaking up views.<br>• Proposed screening will be effective within three years of completion of construction.<br>• All landscaping within the site shall comply with the principles of *Planning for Bush Fire Protection 2019.* | **C** | **O** | **D** |
| **VA2** | Prior to the commencement of construction, a detailed landscape plan will be prepared including:<br>• Screening location.<br>• Species type.<br>• Planting density and spacing.<br>• Method for planting.<br>• Descriptive measures that would be implemented to ensure vegetative screening is successful (i.e. irrigation or other watering method).<br>A program to manage, monitor and report on the effectiveness of implemented measures. | **Design Stage** | | |
| **VA3** | The materials and colour of onsite infrastructure will, where practical, be non-reflective and in keeping with the materials and colouring of existing infrastructure or of a colour that will blend with the landscape. | **Design stage** | | |
| **VA4** | During construction, dust would be controlled in response to visual cues. Areas of soil disturbed by the project would be rehabilitated progressively or immediately post-construction, reducing views of bare soil. | **C** | | |
| **VA5** | Construction night lighting would be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations). It would be directed away from roads and residents so as not to cause light spill that may be hazardous to drivers. | **C** | **O** | **D** |
| **VA6** | If construction of the Glenellen Solar Farm occurs, a 15 m vegetative buffer for the full length of Ortlipp Road would be required. This would occur in consultation with the developers of Glenellen Solar Farm. | **C** | **O** | **D** |
| **VA7** | Glint and glare from the solar panels shall not cause a nuisance, disturbance or hazard to the travelling public on the public road network. In the event of glint or glare from the solar plant being evident from a public road, the proponent shall immediately implement glare mitigation measures such as construction of a barrier (e.g. fence) or other approved device to remove any nuisance, distraction and/or hazard caused as a result of glare from the solar panels. | | **O** | |

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| **LU1** | Consultation with adjacent landholders would be ongoing to manage interactions between the solar farm and other properties. | **C** | **O** | **D** |
| **LU2** | Consultation would be undertaken with TransGrid regarding connection to the Jindera Substation. | **C** | | |
| **LU3** | A Rehabilitation and Decommissioning Management Plan is to be prepared in consultation with NSW Department of Primary Industries and the landowner prior to decommissioning. The Rehabilitation and Decommissioning Management Plan is to include:<br>• Removal of all ~~above ground~~ infrastructure.<br>• Removal of gravel from internal access tracks where required, in consultation with landowner.<br>• Reverse any compaction by mechanical ripping.<br>• Indicators and standards to indicate successful rehabilitation of disturbed areas. These indicators and standards should be applied to rehabilitation activities once the solar farm is decommissioned. | | | **D** |
| **LU4** | A Pest and Weed Management Plan would be prepared to manage the occurrence of noxious weeds and pest species across the site during construction and operation. The plan must be prepared in accordance with Greater Hume Shire Council and NSW DPI requirements. Where possible integrate weed and pest management with adjoining landowners. | **C** | **O** | |
| **LU5** | The proponent would consult with GSNSW in relation to biodiversity offset areas or any supplementary biodiversity measures to ensure there is no consequent reduction in access to prospective land for mineral exploration, or potential for sterilisation of mineral resources. | **C** | | **D** |
| **LU6** | Construction and operations personnel would drive carefully and below the designated speed limit according to the Traffic Management Plan to minimise dust generation and disturbance to livestock. | **C** | **O** | **D** |
| ~~**LU7**~~ | ~~Underground cabling and other works to remain in situ following decommissioning of the solar farm would be installed deeper than 500 mm to allow cultivated cropping to resume following decommissioning.~~ | ~~**C**~~ | | |
| **LU8** | If possible and practical, managed sheep grazing would be used as a preferred option to control weeds and grass growth, and to maintain agricultural production at the site. | | **O** | |
| **NS1** | Works should be undertaken during standard working hours only (except for the connection to substation).<br>Monday – Friday 7am to 6pm.<br>Saturday 8am to 1pm.<br>No work on Sundays or public holidays. | **C** | **O** | **D** |
| **NS2** | A Construction Noise and Vibration Management Plan (NVMP) would be prepared and implemented as part of the CEMP. The CNVMP would generally follow the approach in the Interim Construction Noise Guideline (ICNG) (DECC, 2009).<br>The CNVMP would include the following:<br>• Acoustics-Description and Measurement of Environmental Noise-General Procedures.<br>• Noise measurements would be consistent with the procedures documented in AS1055.1-1997 Acoustics-Description and Measurement of Environmental Noise-General Procedures.<br>• Vibration measurements would be undertaken in accordance with the procedures documented in the OEH's Assessing Vibration-a technical guideline (2006) and BS7385 Part 2-1993 Evaluation and measurement for vibration in buildings.<br>• Valuation and measurement for vibration in buildings. | **Prior to construction** | | **D** |
| **NS3** | Operate plant in a conservative manner, which includes:<br>• Selection of the quietest suitable machinery.<br>• Avoidance of noisy plant working simultaneously where practical.<br>• Turning off plant and equipment that is not being used. | **C** | **O** | **D** |

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| | • Utilise broadband reverse alarm in lieu of high frequency type. | | | |
| **NS4** | All staff on-site should be informed of procedures to operate plant and equipment in a quiet and efficient manner. Provide toolbox meetings, training and education. | **C** | **O** | **D** |
| **NS5** | A letter box drop would be prepared and provided to residences in close proximity to the works (within 1 km). The letter would contain details of the proposed works including timing, duration, expected impacts and a contact person for any enquiries or complaints. | **Prior to and during construction** | **O** | **D** |
| **NS6** | For Sensitive Receiver 20, 21, 17, 18, 19, 16 and 10:<br>• Specific consultation at least 2 weeks prior to the commencement of highly noise affecting works would be undertaken. This aim of this consultation is to identify any management measures required to minimise impact at the receiver.<br>• Verification of noise and vibration levels following reasonable complaints should be undertaken within a period of 14 days from the commencement of construction activities.<br>• The residences would be provided a contact person for any enquiries or complaints.<br>• For other residences and other noise sensitive receptors likely to be noise affected (within 550 m) of the proposed:<br>• The residence would be provided a contact person for any enquiries or complaints.<br>• Receive a written notification letter which may consist of the details of the proposed works, anticipated noise impacts, and the time periods over which these will occur at least two weeks prior to the commencement of construction works.<br>• Verification of noise and vibration levels following reasonable complaints should be undertaken within a period of 14 days from the commencement of construction activities. | **C** | **O** | **D** |
| **NS7** | Regular inspection and maintenance of equipment to ensure that plant is in good condition. | **C** | **O** | **D** |
| **NS8** | Complete a one-off noise validation monitoring assessment to quantify emissions and confirm emissions meet relevant criteria. | **C** | **O** | **D** |
| **NS9** | Scheduling of activities to minimise the number of work fronts and simultaneous activities occurring within 200m of the project boundary to minimise noise levels. | **C** | **O** | **D** |
| **NS10** | Where possible use localised mobile screens or construction hoarding around plant to act as barriers between construction works and receivers, particularly where equipment is near the site boundary and/or a residential receiver (within 200m) including areas in constant or regular use (e.g. unloading and laydown areas). | **C** | | **D** |
| **NS11** | Where noise level exceedances cannot be avoided, then time restrictions and/or providing periods of repose for residents must be considered where feasible and reasonable. That is, daily periods of respite from noisy activities may also be scheduled for building occupants during construction hours. | **C** | | **D** |
| **NS12** | Some items of plant may exceed noise limits even after noise treatment is applied. To reduce the overall noise impact, the use of noisy plant may be restricted to within certain time periods, where feasible and reasonable. Allowing the construction activities to proceed, despite the noise exceedance may be the preferred method in order to complete the works expeditiously. | **C** | | **D** |
| **NS13** | Where noise level exceedances cannot be avoided during operation, sound barriers such as sound walls and acoustic fencing would be used to minimise noise levels. | | **O** | |
| **NS14** | In the event the proposed Glenellen Solar Farm commences construction and operation, sensitive receiver 10 would receive: | **C** | **O** | **D** |

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| | • Specific consultation at least 2 weeks prior to the commencement of highly noise affecting works would be undertaken. This aim of this consultation is to identify any management measures required to minimise impact at this receiver.<br>• Verification of noise and vibration levels following reasonable complaints should be undertaken within a period of 14 days from the commencement of construction activities.<br>• Use of mobile screens or noise walls at the noise source (within 300 m of receiver 10) would be considered in consultation with receiver 10. | | | |
| **NS15** | For receivers located within 300 m of development infrastructure during maintenance activities including grass slashing, panel cleaning or major works/repairs:<br>• Receive a written notification letter which may consist of the details of the proposed works, anticipated noise impacts, and the time periods over which these will occur at least two weeks prior to the commencement of works.<br>• Verification of noise and vibration levels following reasonable complaints should be undertaken within a period of 14 days from the commencement of activities.<br>• Consider the use of mobilised screening or noise walls around the inverters to reduce the level of noise at the source for noise affected receivers if verification of noise levels finds an exceedance above the NML occurs. | | **O** | |
| **NS16** | No operational noise exceedances will be observed for any residence (normal operating conditions – no maintenance or upgrade works). | | **O** | |
| **SO1** | A Soil and Water Management Plan and Erosion and Sediment Control Plan would be prepared in consultation with DPIE Water, implemented and monitored during the construction and decommissioning of the proposal, in accordance with Landcom (2004), to minimise soil (and water) impacts. These plans would include provisions such as:<br>• At the commencement of the works, and progressively during construction, install the required erosion control and sediment capture measures.<br>• Regularly inspect erosion and sediment controls, particularly following rainfall.<br>• Maintain a register of inspection and maintenance of erosion control and sediment capture measures.<br>• Ensure there are appropriate erosion and sediment control measures in place to prevent erosion and sedimentation occurring within the stormwater channel during concentrated flows.<br>• Ensure that machinery arrives on site in a clean, washed condition, free of fluid leaks.<br>• Ensure that machinery leaves the site in a clean condition to avoid tracking of sediment onto public roads.<br>• In all excavation activities, separate subsoils and topsoils and ensure that they are replaced in their natural configuration to assist revegetation.<br>• During excavation activities, monitor for increases in salinity, reduce water inputs and remediate the site with salt tolerant vegetation.<br>• Stockpile topsoil appropriately to minimise weed infestation, maintain soil organic matter, and maintain soil structure and microbial activity.<br>Manage works in consideration of heavy rainfall events<br>• Details of water supply arrangements and associated infrastructure for the project.<br>• Areas of disturbed soil would be rehabilitated promptly and progressively during construction. | **Prior to and during construction** | | **D** |
| **SO2** | A Groundcover Management Plan would be developed in consultation with a soil scientist and an agronomist and taking account of soil survey results to ensure perennial grass cover is established across the site as soon as practicable after construction and maintained throughout the operational phase. The plan would cover:<br>• Soil restoration and preparation requirements.<br>• Species selection.<br>• Soil preparation (one season prior to commencement of construction).<br>• Establishment techniques. | **Prior to construction** | | |

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| | • Maintenance requirements.<br>• Perennial groundcover targets, indicators, condition monitoring, reporting and evaluation arrangements:<br>  ○ Live grass cover would be maintained at or above 70% at all times to protect soils, landscape function and water quality.<br>  ○ Any grazing stock would be removed from the site when cover falls below this level.<br>  ○ Grass cover would be monitored on a fortnightly basis using an accepted methodology.<br>• Contingency measures to respond to declining soil or groundcover condition.<br>• Identification of baseline conditions for rehabilitation following decommissioning. | | | |
| **SO3** | The array would be designed to allow sufficient space between panels to establish and maintain ground cover beneath the panels and facilitate weed control. | **Design Stage** | | |
| **SO4** | A comprehensive Emergency Response Plan (ERP) would be developed for the site and specifically address foreseeable on-site and off-site emergency incidents. It would detail appropriate risk control measures that would need to be implemented to safely mitigate potential risk to soil, health and safety of firefighters and first responders in the case of a hazardous spill. | **C** | **O** | **D** |
| **SO5** | A Spill and Contamination Response Plan (SCRP) would be developed and implemented during construction, operation and decommissioning to prevent contaminants affecting adjacent surrounding environments. It would include measures to:<br>• Manage the storage of any potential contaminants onsite.<br>• Mitigate the effects of soil contamination by fuels or other chemicals (including emergency response and EPA notification procedures and remediation).<br>• A protocol would be developed in relation to discovering buried contaminants within the development site (e.g. pesticide containers, if any). It would include stop work, remediation and disposal requirements. | **C** | **O** | **D** |
| **SO6** | Any area that was temporarily used during construction (laydown and trailer complex areas) would be restored to original condition or re-vegetated with native plants. | **C** | **O** | **D** |
| **SO7** | Sodic soil should be treated with gypsum where required. | **C** | | |
| **SO8** | Best Management Practices (BMPs) should be employed where applicable to reduce the risk of erosion and sedimentation control:<br>• Integrate project design with any site constraints.<br>• Preserve and stabilise drainageways.<br>• Minimise the extent and duration of disturbance.<br>• Control stormwater flows onto, through and from the site in stable drainage structures. Protect inlets, storm drain outlets and culverts.<br>• Install perimeter controls.<br>• Stabilise disturbed areas promptly.<br>• Protect steep slopes.<br>• Employ the use of sediment control measures to prevent off- and on-site damage.<br>• Protect inlets, storm drain outlets and culverts.<br>• Provide access and general construction controls.<br>• Inspect and maintain sediment and erosion control measures regularly. | **C** | **O** | **D** |
| **WA1** | All staff would be appropriately trained through toolbox talks for the minimisation and management of accidental spills. | **C** | **O** | **D** |
| **WA2** | All fuels, chemicals, and liquids would be stored at least 50 m away from any waterways or drainage lines and would be stored in an impervious bunded area. | **C** | **O** | **D** |
| **WA3** | Adequate incident management procedures would be incorporated into the Construction and Operation Environmental Management Plans, including requirement to notify EPA for incidents that cause material harm to the environment (refer s147-153 Protection of the Environment Operations Act). | **C** | **O** | **D** |

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| **WA4** | The refuelling of plant and maintenance of machinery would be undertaken in impervious bunded areas. | **C** | **O** | **D** |
| **WA5** | Machinery would be checked daily to ensure there is no oil, fuel or other liquids leaking from the machinery. All staff would be appropriately trained through toolbox talks for the minimisation and management of accidental spills. | **C** | | **D** |
| **WA6** | Erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with Managing Urban Stormwater: Soils & Construction (Landcom 2004). | **C** | **O** | **D** |
| **WA7** | Ensure appropriate drainage controls are incorporated into the design. | **Design stage** | | |
| **WA8** | If groundwater is to be intercepted at any stage of the development the proponent must obtain the relevant entitlement and approval where required prior to any extraction. | **C** | **O** | **D** |
| **WA9** | Infrastructure should not be located in the overland flow channels to preserve the alignment and capacity of any natural drainage corridors. | **Design stage** | | |
| **WA10** | Maintain minimal earthworks across the site and maintain the general slope of the land to reduce the potential of concentrated flows across the site. | **C** | **O** | **D** |
| **WA11** | Limit increases in runoff velocities and pollutants. | **C** | **O** | |
| **WA12** | Provide and maintain a stable coverage of grass / vegetation under and around the solar panels to encourage natural infiltration and prevention of flow concentration. | | **O** | **D** |
| **WA13** | Re-use of stormwater should be considered wherever possible. | | **O** | |
| **WA14** | Inspect stormwater control measures at least quarterly, and before and after rainfall of more than 10 mm in 24 hours. | **C** | **O** | |
| **WA15** | The proponent must obtain relevant approvals and licences under the *Water Management Act 2000* before commencing any works which intercept or extract groundwater or surface water (including from on-site dams where necessary) or for any works which have the potential to alter the flow of floodwaters. | **C** | **O** | **D** |
| **WA16** | The proponent should ensure watercourse crossings and other works within waterfront land are designed in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018). | **Design stage** | | |
| **WA17** | The detailed design phase will include the hydraulic modelling of a design flood event to demonstrate the extent of major flow paths that activate during intense local rainfall events, including the depth and velocity expected during such an event. | **Design stage** | | |
| **TT1** | A Haulage Plan would be developed and implemented during construction and decommissioning, including but not limited to:<br>• Assessment of road routes to minimise impacts on transport infrastructure.<br>• Direction of traffic flow (both heavy and light).<br>• Loads, weights and length of haulage and construction related vehicles and the number of movements of such vehicles.<br>• Scheduling of deliveries of major components to minimise safety risks (on other local traffic).<br>• Traffic controls (signage and speed restrictions etc.).<br>• All heavy vehicle movements to/from each access point are to be managed to ensure that only one inbound or outbound vehicle is travelling along the access route in the vicinity of the site at a time.<br>• Heavy vehicle movements into and out of Walla Walla Jindera Road will be controlled via traffic management means, including a traffic controller, temporary lowered speed limit and additional road signage alerting vehicles to truck movements in the area. | **C** | **O** | **D** |

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| **TT2** | A Traffic Management Plan would be developed and implemented during construction and decommissioning. The plan will be prepared in consultation with the relevant road authority and the appointed transport contractor. The plan would include, but not be limited to:<br>• Prior to construction, a pre-conditioning survey of the relevant sections of the existing road network to be undertaken in consultation with Council.<br>• Assessment of road condition prior to construction on all local roads that would be utilised.<br>• The designated routes and vehicular access of construction traffic (both light and heavy) to the site. This will include the management and coordination of movement of vehicles for construction and worker related access to limit disruptions to other motorists, emergency vehicles, school buses and other public transport.<br>• Procedure for informing the public where any road access will be restricted as a result of the project.<br>• The designated routes of construction traffic to the site.<br>• Carpooling arrangements to minimise vehicle numbers during construction.<br>• Scheduling of deliveries.<br>• Community consultation regarding traffic impacts for nearby residents.<br>• Consideration of cumulative impacts.<br>• Traffic controls (speed limits, signage, etc.), and any proposed precautionary measures to warn road users such as motorists about the construction activities for the project especially at the access site along Research Road.<br>• Procedure to monitor traffic impacts and adapt controls (where required) to reduce the impacts.<br>• Details of measures to be employed to ensure safety of road users and minimise potential conflict.<br>• A driver Code of Conduct to address such items as appropriate driver behaviour including adherence to all traffic regulations and speed limits, driver fatigue, safe overtaking and maintaining appropriate distances between vehicles, etc. and appropriate penalties for infringements of the Code.<br>• Details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site.<br>• Providing a contact phone number to enable any issues or concerns to be rapidly identified and addressed through appropriate procedures.<br>• Water to be used on unsealed roads to minimise dust generation through increased traffic use. Following construction, a post condition survey of the relevant sections of the existing road network to be undertaken to ensure it is of similar condition to that prior to construction.<br>• If the construction and operation of the proposed Glenellen Solar Farm coincides with the proposal the traffic management plan would address cumulative impacts. | **C** | | **D** |
| **TT3** | Obtain a Section 138 Consent from the relevant council/agency to perform works within the road reserve. | **C** | | |
| **TT4** | The proponent would consult with Greater Hume Shire Council and RMS regarding the proposed upgrade of Urana Road and Walla Walla Jindera Road for site access. RMS requires as a minimum:<br>• a Channelised Right Turn-Short (CHR(s))/Basic Left Turn (BAL) for the intersection of the driveway to the development site with the Urana Road (MR125); and<br>• a Basic Right Turn (BAR)/Basic Left Turn (BAL) for the intersections of each of the 2 driveways to the development site with the Walla Walla – Jindera Road (MR547).<br>• As a minimum all access driveways connecting the development site to a Classified Road shall be constructed and maintained to the satisfaction of Roads and Maritime Services to comply with the following:<br>o constructed as a “Rural Property Access” type treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by Roads and Maritime Services.<br>o constructed perpendicular (or at an angle of not less than 70 degrees) to the carriageway and with a minimum width of 6 metres to accommodate 2-way | **Design Stage** | | |

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| | movement of the largest vehicle likely to access the subject site. The driveway shall be designed, line marked and maintained so that vehicles exiting the site do not interfere with the movement of vehicles entering the site from the main road.<br>○ sealed for at least 10 metres from the edge of seal of the carriageway.<br>○ shall not reduce the capacity of the existing roadside drainage network and to prevent water from proceeding onto, or ponding within, the carriageway of the main road. If a culvert is be installed and is to be located within the required clear zone of main road for the posted speed limit it is to be constructed with a traversable type headwall.<br>○ shall provide the required width and storage to accommodate the turning path of the largest vehicle that will be used to deliver materials to the site without obstructing the travel lanes of the main road.<br>• Any entry gate to the development site shall be located at least 30m from the edge of seal of the carriageway or at the property boundary whichever is the greater. This is to allow for storage of delivery vehicles when gates are to be opened.<br>The upgrade would be subject to detailed design and would be designed and constructed to the relevant Australian road design standards. | | | |
| **TT5** | If the construction of the Glenellen Solar Farm coincides with the proposal, additional consultation will be undertaken with Greater Hume Shire Council, RMS and the developers of Glenellen Solar Farm, CTP. | **C** | | |
| **TT6** | If Glenellen Solar Farm and the proposal receive planning approval, consultation between both proponents would occur and would consider the option of cost sharing the road upgrades. | **Design Stage** | | |
| **TT7** | The proponent would repair any damage resulting from project traffic (except that resulting from normal wear and tear) as required at the proponent's cost. Any damage or disturbance to the road reserve of any road shall be restored to match surrounding landform in accordance with Council requirements. | **C** | | **D** |
| **TT8** | The proponent would engage an appropriately qualified person to prepare a Road Dilapidation Report for all road routes to be used during the construction (and decommissioning) activities, in consultation with the relevant road authority. This report is to address all road related infrastructure. Reports must be prepared prior to commencement and after completion of construction (and decommissioning). Any damage resulting from the construction (or decommissioning) traffic, except that resulting from normal wear and tear, must be repaired at the Proponent's cost. Such work shall be undertaken at a time agreed upon between the Proponent and relevant road authorities. | **Pre-construction** | | **D** |
| **TT9** | Prior to the commencement of construction on-site, the Proponent would undertake all works to upgrade ~~relevant state~~ any roads, their associated road reserve and any public infrastructure in that road reserve to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by RMS at the proponent's cost. The design, specifications and construction of these works must be completed and certified by an appropriately qualified person to a standard to accommodate the traffic generating requirements of the project. On Classified Roads the geometric road design and pavement design must be to the satisfaction of the RMS. | **Pre-construction** | | **D** |
| **TT10** | For works on the State road network the developer is required to enter a Works Authorisation Deed (WAD) with RMS before finalising the design or undertaking any construction work within or connecting to the road reserve. The WAD documentation is to be submitted for each specific change to the state road network for assessment and approval by RMS prior to commencement of any works within the road reserve. | **Pre-construction** | | |
| **TT11** | Any Crown public road that may be required for access to the proposal area, either during the construction phase or in an ongoing capacity, would either be transferred to Council or the proponent should make application to close and purchase the Crown public road. | **Pre-construction** | | |
| **TT12** | A Construction Management Plan will be development and implemented for the proposed transmission line route on Ortlipp Road in consultation and to the | | | |

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| | satisfaction of the relevant road authority, TransGrid, and affected landowners along Ortlipp Road. | | | |
| **AQ1** | Development of a complaints procedure to promptly identify and respond to issues generating complaints. | **C** | **O** | **D** |
| **AQ2** | Protocols to guide vehicle and construction equipment use to minimise emissions would be included in construction and operational environmental management plans. This would include but not be limited to Australian standards and POEO Act requirements. | **C** | **O** | **D** |
| **AQ3** | Dust will be monitored and managed to prevent dust leaving the development site. This includes covering loads and watering of unsealed roads and stockpiles. | **C** | **O** | **D** |
| **AQ4** | During construction, operation and decommissioning, dust would be monitored and managed to prevent dust leaving the development site. This includes dust from stockpiled materials. | **C** | **O** | **D** |
| **AQ5** | Monitor local weather conditions and manage the site if any conditions will exacerbate air quality (e.g. wind). | **C** | | |
| **AQ6** | Fires and material burning are prohibited on the development site. | **C** | **O** | **D** |
| **AQ7** | A minimum 30 m setback from all PV panels to the boundary of adjacent properties is ensured. | **Design Phase** | | |
| **HA1** | Dangerous or hazardous materials would be transported, stored and handled in accordance with AS1940-2004: *The storage and handling of flammable and combustible liquids,* and the ADG Code where relevant. All potential pollutants kept on-site would be stored in accordance with relevant HAZMAT requirements and bunded. | **C** | **O** | **D** |
| **HA2** | The design, storage, maintenance and transportation of new and waste lithium-ion batteries would comply with the requirements of the Dangerous Goods Code, including specific 'special provisions' and 'packing instructions' applying to the transportation of Li-ion batteries. | **C** | **O** | **D** |
| **HA3** | All design and engineering would be undertaken by qualified competent persons with the support of specialists as required. | **C** | | |
| **HA4** | All electrical equipment would be designed in accordance with relevant codes and industry best practice standards in Australia. | **C** | | |
| **HA5** | Design of electrical infrastructure to minimise EMFs through the solar array (underground). | **C** | | |
| **HA6** | A Fire Management and Emergency Response Plan (FMERP) would be developed and implemented during construction, operation and decommissioning, with input from the local RFS centre, and include but not be limited to:<br>• Operational procedures relating to mitigation and suppression of bush fire relevant to the solar farm.<br>• Addressing foreseeable on-site and off-site fire events or other emergency incidents.<br>• Detailing appropriate risk control measures that would need to be implemented to safely mitigate potential risk to the health and safety of firefighters and other first responders.<br>• Such measures will include the level of personal protective clothing required to be worn, the minimum level of respiratory protection required, decontamination procedures to be instigated, minimum evacuation zone distances and a safe method of shutting down and isolating the PV system (either in its entirety or partially, as determined by risk assessment).<br>• Other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site.<br>• Management of activities with a risk of fire ignition.<br>• Management of fuel loads onsite.<br>• Storage and maintenance of firefighting equipment, including siting and provision of adequate water supplies for bush fire suppression.<br>• 24-hour emergency contact details including alternative telephone contact. | **C** | **O** | **D** |

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| | • Site infrastructure plan.<br>• Firefighting water supply plan.<br>• Site access and internal road plan.<br>• Construction of asset protection zones, fire trails, access for firefighting and on-site suppression equipment and their continued maintenance.<br>• Location of hazards (physical, chemical and electrical) that will impact on the firefighting operations and procedures to manage identified hazards during the firefighting operations.<br>• Mitigation measures designed to prevent fires occurring within the site, and prevent fire escaping the site.<br>• Such additional matters as required by the NSW RFS District Office.<br>• The below requirements of Planning for Bush Fire Protection ~~2006~~ 2019:<br>• Identifying asset protection zones (APZ): The entire solar array development footprint shall be managed as an APZ.<br>• Providing adequate egress/access to the site.<br>• All internal roads shall comply with the design and construction specifications.<br>• Emergency evacuation measures.<br>Two copies of the FMERP will be stored in a prominent location in a position directly adjacent to the main entry point. | | | |
| **HA7** | To allow for emergency service personnel to undertake property protection activities, a 10 m defendable space managed as an APZ shall be provided around the buildings, switching station, BESS units, outside perimeter of the solar array, and all areas of unmanaged vegetation being retained within the site. | **C** | **O** | **D** |
| **HA8** | Two 20,000-litre water supply (tank) fitted with a 65mm Stortz fitting shall be located adjoining the internal property access road within the required APZ. | **C** | **O** | **D** |
| **HA9** | Once constructed and prior to operation, the operator of the facility will contact the relevant local emergency management committee (LEMC). | **C** | **O** | |
| **HA10** | All chemicals and fuels used on-site must be stored and handled in accordance with:<br>• The requirements of all relevant Australian Standards; and<br>• The NSW EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids*.<br>In the event of an inconsistency, the most stringent requirement must prevail to the extent of the inconsistency. | **C** | **O** | **D** |
| **HA11** | A Fire Safety Study (FSS) be prepared for the battery energy storage system facility (BESS) part of the site and submitted to FRNSW for review and determination prior to the construction of the BESS. The FSS should be developed in consultation with and to the satisfaction of FRNSW. | **C** | | |
| **HA12** | As per the TransGrid Fencing Guidelines, fences parallel to a transmission line outside the easement:<br>• Metal fence within 10m of the easement must be earthed once in line with each structure and once in the middle of each span.<br>• Metal fence within 20m of the easement must be earthed once in line with each structure. | **Design Stage** | | |
| **HA13** | Excavation works and Earth works in relation to Transmission Lines:<br>• Must not create excessive quantities of dust and must employ dust suppression.<br>• Must not alter the ground level / reduce clearance below that required in AS7000.<br>• At least 20 metres from any Transmission Line (TL) structure or supporting guy. Batter of no steeper than 1 in 6 required. Work within 20 metres of a structure may be permitted if structural and earthing assessments are performed and maintenance access is not impacted.<br>• Precautions must be in place to prevent damage to transmission line structures and guys | **C** | | |
| **HA14** | During construction of any TransGrid approved development, plans and conditions of consent shall provide for the following considerations:<br>• Vehicles, plant or equipment having a height exceeding 4.3m when fully extended shall not be brought onto or used within the easement area without prior TransGrid approval. | **C** | **O** | |

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| | • Where temporary vehicular access of parking during the construction period is within 16m of transmission line structure, adequate precautions shall be taken to protect the structure from accidental damage. Plans need to be submitted to TransGrid for prior approval.<br>• The easement area shall not be used for temporary storage of construction spoil, topsoil, gravel or any other construction materials.<br>• Any construction work for the proposed work within the easement shall maintain safety clearances to the exposed conductors.<br>• TransGrid is not to be restricted from undertaking normal maintenance and inspection activities, and, at completion of works, access to Transmission Lines and structures shall always be available for TransGrid plants and personnel.<br>• No metallic installations unless they form part of the approved plans. | | | |
| **SE1** | A Community Consultation Plan would be implemented during construction to manage impacts to community stakeholders, including but not limited to:<br>• Protocols to keep the community updated about the progress of the project and project benefits.<br>• Protocols to inform relevant stakeholders of potential impacts (haulage, noise etc.).<br>Protocols to respond to any complaints received. | **C** | **O** | |
| **SE2** | A Local Sourcing Plan will be developed and implemented prior to construction. The Plan will include (but not be limited to):<br>• Liaison with local industry representatives to maximise the use of local contractors, manufacturing facilities and materials.<br>• Liaison with Council.<br>• Liaise with local accommodation and real estate to maximise stay within the area. | **C** | **O** | |
| **SE3** | Liaison with local representatives regarding accommodation options for staff to minimise adverse impacts on local services. | **C** | | **D** |
| **SE4** | Liaison with local tourism industry and council representatives to manage potential timing conflicts or cooperation opportunities with local events. | **C** | | **D** |
| **SE5** | A Voluntary Planning Agreement and Community Fund will be finalised and implemented in consultation with Greater Hume Shire Council. | **Design Stage** | **O** | |
| **WM1** | A Waste Management Plan (WMP) would be developed and implemented during construction, operation and decommissioning to minimise wastes. It would include but not be limited to:<br>• Identification of opportunities to avoid, reuse and recycle, in accordance with the waste hierarchy.<br>• All PV Panels to be recycled.<br>• Quantification and classification of all waste streams.<br>• Provision for recycling management onsite.<br>• Provision of toilet facilities for onsite workers and how sewage would be disposed of (i.e., pump out to local sewage treatment plant).<br>• Tracking of all waste leaving the site.<br>• Disposal of waste at facilities permitted to accept the waste.<br>• Requirements for hauling waste (such as covered loads). | **C** | **O** | **D** |
| **HH1** | Should an item of historic heritage be identified, the Heritage Division (OEH) would be contacted prior to further work being carried out in the vicinity. | **C** | **O** | **D** |

# 6. REFERENCES

The following references were used to support compilation of this Submissions Report.


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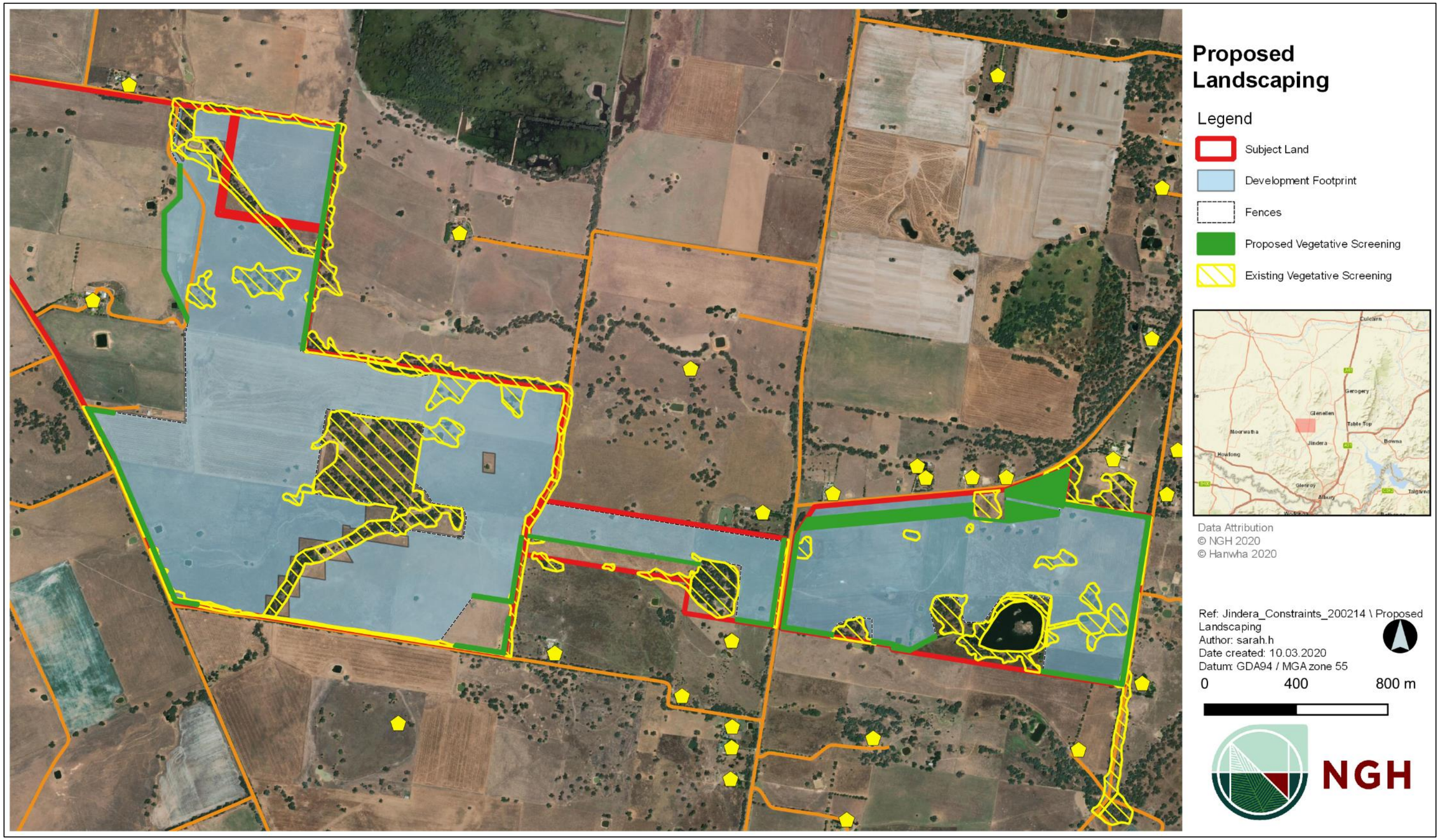
- Spaven Consulting, 2011, *Solar Photovoltaic Energy Facilities: Assessment of potential for impact on aviation*, report prepared January 2011, for RPS Planning and Development.

# APPENDIX A UPDATED MAPS AND DRAWING


Proposed Landscaping
Legend
Subject Land
Development Footprint
Fences
Proposed Vegetative Screening
Existing Vegetative Screening
Culcairn
Gerogery
Glenellen
Table Top
Moorwatha
Jindera
Howlong
Browna
Glenroy
Albury
Talgarno
Data Attribution
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Ref: Jindera_Constraints_200214 \ Proposed Landscaping
Author: sarah.h
Date created: 10.03.2020
Datum: GDA94 / MGA zone 55
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