Department of Planning, Housing and Infrastructure

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Tallawang Solar Farm

State Significant Development Assessment Report (SSD-23700028)

July 2025

Acknowledgement of Country

The Department of Planning, Housing and Infrastructure acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and show our respect for Elders past and present through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Preface

This assessment report provides a record of the Department of Planning, Housing and Infrastructure's (the Department) assessment and evaluation of the State Significant Development (SSD) application for the Tallawang Solar Farm located in the Central-West and Orana Renewable Energy Zone (CWO REZ), approximately 8 kilometres north-west of Gulgong, lodged by Tallawang Solar Hybrid Pty Ltd as trustee for Tallawang Solar Hybrid Trust. The report includes:

- an explanation of why the project is considered SSD and who the consent authority is
- an assessment of the project against government policy and statutory requirements, including mandatory considerations
- a demonstration of how matters raised by the community and other stakeholders have been considered
- an explanation of any changes made to the project during the assessment process
- an assessment of the likely environmental, social and economic impacts of the project
- an evaluation which weighs up the likely impacts and benefits of the project, having regard to proposed mitigations, offsets, community views and expert advice; and provides a view on whether the impacts are on balance, acceptable
- Overall, the Department's assessment concludes that the project would result in benefits to the State of NSW and considers the project is in the public interest. As such the Department concludes that the project is approvable subject to conditions.

Executive Summary

Tallawang Solar Hybrid Pty Ltd as trustee for Tallawang Solar Hybrid Trust (TSH) proposes to develop the Tallawang Solar Farm (the project), a 500 megawatt (MW) solar farm and 500 MW / 1,000 MW-hour (MWh) battery, approximately 8 kilometres (km) north-west of Gulgong in the Mid-Western Regional local government area (LGA), within the Central-West Orana Renewable Energy Zone (CWO REZ).

Access to the site is proposed via an unnamed public road which runs directly off the Castlereagh Highway, a state road. The Castlereagh Highway/unnamed public road intersection is proposed to be upgraded as part of the project. The solar farm would connect to the CWO REZ Merotherie Energy Hub via a new 13 km long overhead 330 kilovolt (kV) transmission line approved as part of the CWO REZ Transmission Project, being developed by Energy Corporation of NSW to act as a connection point for renewable energy projects in the CWO REZ. It is noted that the Tallawang Solar project has been granted access rights to the CWO REZ transmission line.

The Department exhibited the Environmental Impact Statement for the project between 28 October 2022 and 24 November 2022 and received 56 unique public submissions (54 objections and 2 providing support). Mid-Western Regional Council (Council) provided an objection during the exhibition, which included concerns about cumulative impacts, accommodation, traffic and waste. Advice was also received from 13 government agencies.

The Department consulted with Council and relevant government agencies on key issues, inspected the site and visited nearby sensitive receivers. None of the agencies, or utility providers, objected to the project.

In response to agency and Council advice and public submissions received in November 2022, TSH amended the project in June 2024, including the following:

- a 400-person temporary workers accommodation (TWA) facility;
- an updated design for the proposed Castlereagh Highway/unnamed road intersection upgrade;
- removal of the proposed overhead electricity transmission line (noting this is covered by the CWO REZ project);
- increasing the BESS capacity from 200 MW / 400 MWh to 500 MW / 1,000 MWh; and
- a minor layout refinements and project area realignment.

These amendments required the preparation of additional project documentation, with the amended project designed to lead to better outcomes and address key concerns raised by the Department, Council, agencies and in public submissions.

The key assessment considerations are energy transition, land use compatibility, biodiversity, traffic and transport, visual amenity and cumulative impacts. The Department has also undertaken a comprehensive assessment of the full range of other potential impacts and recommended a range of detailed conditions, developed in conjunction with agencies and Council, to ensure all potential impacts are effectively minimised, managed or offset.

The majority of the site has been cleared and is currently used for sheep and cattle grazing, as well as dry land cropping. The site has been ground-truthed, confirming that it does not contain any Biophysical Strategic Agricultural Land (BSAL) and is categorised as containing Land and Soil Capability Class 4 (moderate to severe

limitations) and Class 6 (severe limitations) within the development footprint. The project would not significantly reduce the overall agricultural productivity of the region and the site could be returned to agricultural uses in the future. Separately, TSH has committed to entering into a grazing agreement (agistment contract) to allow the concurrent grazing of the site with the operation of the solar farm.

The project area is approximately 1,300 hectares (ha), with a development footprint of 1,016 ha and requires the clearing of 183.97 ha of native plant community types, however the vast majority of this is low quality land that has minimal biodiversity values and does not require offset - only 17.15 ha would require offsetting under the *NSW Biodiversity Offset Scheme*. The project has been designed and refined to effectively avoid and minimise biodiversity impacts to native vegetation. The Conservation Programs, Heritage and Regulation division within NSW DCCEEW (CPHR) provided comment on the project and has advised the Biodiversity Development Assessment Report (BDAR) met all relevant requirements. The Department considers that the biodiversity impacts of the project would not be significant, subject to a range of mitigation and management measures.

The Department considers the project would not result in unacceptable impacts on the capacity, efficiency or safety of the road network, and the site has direct access to the Castlereagh Highway via an unnamed public road. Potential traffic impacts would be largely restricted to the approximate 34-month construction period and would be suitably managed through road upgrades, restricting vehicles to approved routes, road maintenance and the implementation of a Traffic Management Plan.

The Department has also considered the potential cumulative impacts with other developments in the region and considers that there would be no significant cumulative traffic, visual or noise impacts due to distance, different haulage routes and capacity of the road network following the proposed intersection upgrade. The inclusion of a temporary workers accommodation (TWA) facility would also serve to mitigate potential cumulative impacts on traffic and local housing in the area.

The site is located in a sparsely populated rural area. There are 20 non-associated residences within 5 km of the development footprint that would have potential views of the project. TSH has demonstrated that the visual impacts of the proposed development are low for all non-associated residential receivers. The solar arrays are relatively low-lying structures and expansive views across the area are limited by topography and established vegetation. In addition, TSH has proposed additional vegetation screening to further reduce potential visual impacts. The operational noise levels are predicted to comply with criteria in the *NSW Noise Policy for Industry* (EPA, 2017) at all non-associated receivers.

The project is consistent with the *Commonwealth's Renewable Energy Target* and *NSW's Climate Change Policy Framework and Net Zero Plan Stage 1: 2020 – 2030*, as it would contribute 500 MW of renewable energy to the National Electricity Market, and a battery with a capacity of 500 MW / 1,000 MWh. Importantly, the battery would enable the project to store energy for dispatch to the grid outside of daylight hours and / or during periods of peak demand, which has the potential to contribute to increased grid stability and energy security.

The project is located in the CWO REZ, which was formally declared by the then Minister for Energy in 2022 under section 24(1) of the *Electricity Infrastructure Investment Act 2020* (the EII Act). The CWO REZ is aimed at encouraging investment in electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW. The Tallawang Solar project has been granted Access Rights under the CWO REZ Access Scheme.

The Department considers the site appropriate for the project as it has good solar resources, has direct access to the CWO REZ transmission network and is consistent with NSW's *Large-Scale Solar Energy Guideline*.

The project would also provide flow-on benefits to the local community, including up to 420 construction jobs at its peak, 7 operational jobs and contributions to local councils of 1.5% of the project's capital expenditure through a voluntary planning agreement. There would be broader benefits to the State through an injection of $1.3 billion in capital investment into the NSW economy.

The Department considers the project would not result in any significant impacts on the local community or the environment, and any residual impacts can be managed through the recommended conditions.

Overall, the Department's assessment concludes that the project would result in benefits to the State of NSW and considers the project is in the public interest. As such the Department concludes that the project is approvable subject to conditions.

Contents

1 Introduction

1.1 Project

1. Tallawang Solar Hybrid Pty Ltd as trustee for Tallawang Solar Hybrid Trust (TSH), proposes to develop a 500 megawatt (MW) State significant development (SSD) solar farm in the Central-West Orana Renewable Energy Zone (CWO REZ), approximately 8 kilometres (km) north-west of Gulgong within the Mid-Western Regional local government area (LGA) (see **Figure 1**).

2. The project would include a 500 MW / 1,000 MW-hour (MWh) battery energy storage system (BESS), an on-site temporary workers accommodation (TWA) facility and upgrading and decommissioning of equipment over time. The project would connect to the proposed CWO REZ Merotherie Energy Hub substation being developed by the Energy Corporation of NSW (EnergyCo). The transmission line connection to the project was assessed and approved as part of the CWO REZ Transmission Project (SSI-48323210).

3. Access to the site would be from an existing unnamed road that connects directly to the Castlereagh Highway. An upgrade of the Castlereagh Highway / unnamed road intersection is proposed to ensure safe entry and exit to the site. Construction of the project is expected to commence in 2027 with an anticipated construction period of approximately 34 months.

4. The key components of the project are summarised in **Table 1**, depicted in **Figure 2**, and described in detail in the Environmental Impact Statement (EIS) and supporting documentation (see **Appendix A, Appendix E** and **Appendix F**).

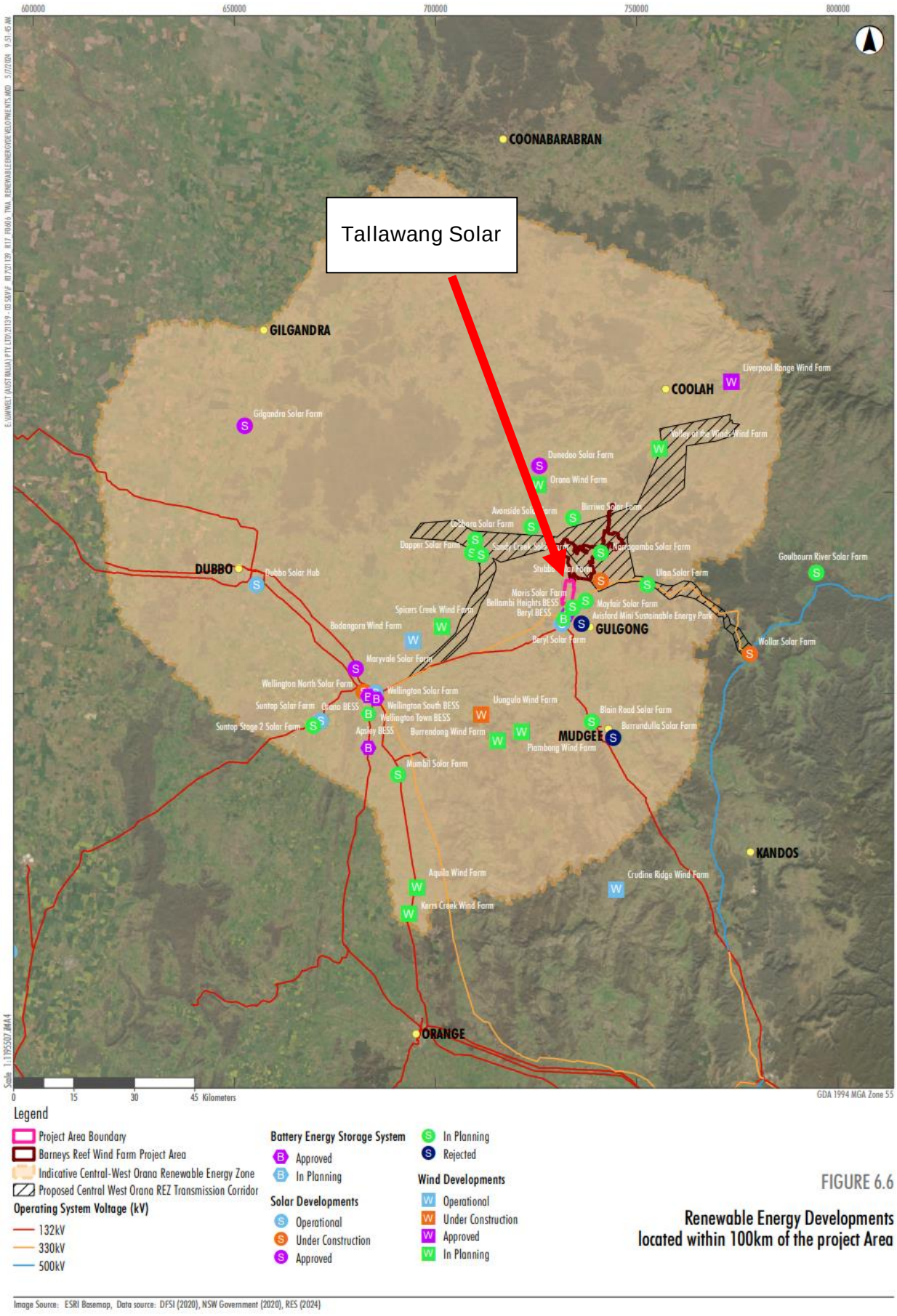


Figure 1 | Regional Context and nearby SSD Renewable Energy Projects

Table 1 | Main aspects of the project

Aspect	Description
Project Summary	The project has a generating capacity of 500 MW and includes: • approximately 1.1 million solar panels and associated mounting infrastructure (up to 5 m high) supported by approximately 160 transformer units, transformers and associated control equipment; • underground and aboveground cables connecting solar panels; • an on-site substation with a connection voltage of up to 330 kilovolts; • a BESS with a capacity of up to 500 MW and a storage duration of up to 2 hours (1,000 MWh); • an operational infrastructure area, including internal access tracks, parking, an onsite office, amenities, workshop, storage facility and security fencing; • a temporary construction compound and laydown areas (during construction, upgrading and decommissioning only); • a TWA facility with a capacity of up to 400 construction staff during the construction phase of the project.
Project Area	• Project Site: approximately 1,300 hectares (ha) • Development footprint: approximately 1,016 ha • TWA facility area: 5 ha
Site entry and access route	• Vehicular access would be via a new proposed access point from an unnamed Council road that runs between Castlereagh Highway and Puggoon Road. • Secondary (emergency only) accesses are proposed from Puggoon Road. • Transport of project materials would be from Port of Newcastle, via the Golden Highway and Castlereagh Highway. • An internal access track would be constructed from the project access point to the TWA. A dedicated emergency access point to the TWA is proposed from Puggoon Road for emergencies only.
Road upgrades	• Upgrade of the unnamed road intersection with Castlereagh Highway to include standard (full-length) channelised right turn (CHR) and short auxiliary left turn (AUL(s)) treatments. • Upgrade of the unnamed local road to Mid-Western Regional Council standards.
Construction	• The construction period would be approximately 34 months, including a construction period of 8 weeks for the TWA. • The peak construction period is for a duration of approximately nine months. • Construction hours would be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1 pm.

Aspect	Description
Operation	• The expected operational life of the infrastructure is approximately 35 years. However, the project could involve infrastructure upgrades that may extend the operational life. • The solar farm and BESS would operate 24 hours a day, seven days a week.
Decommissioning and rehabilitation	The project includes decommissioning at the end of the project life, which would involve removal of all infrastructure. above and below ground to a depth of 500 mm.
Subdivision	No subdivision of land is proposed as part of the project.
Employment	Up to 420 construction jobs during peak construction and up to 7 operational jobs.
Capital investment value	$1.3 billion

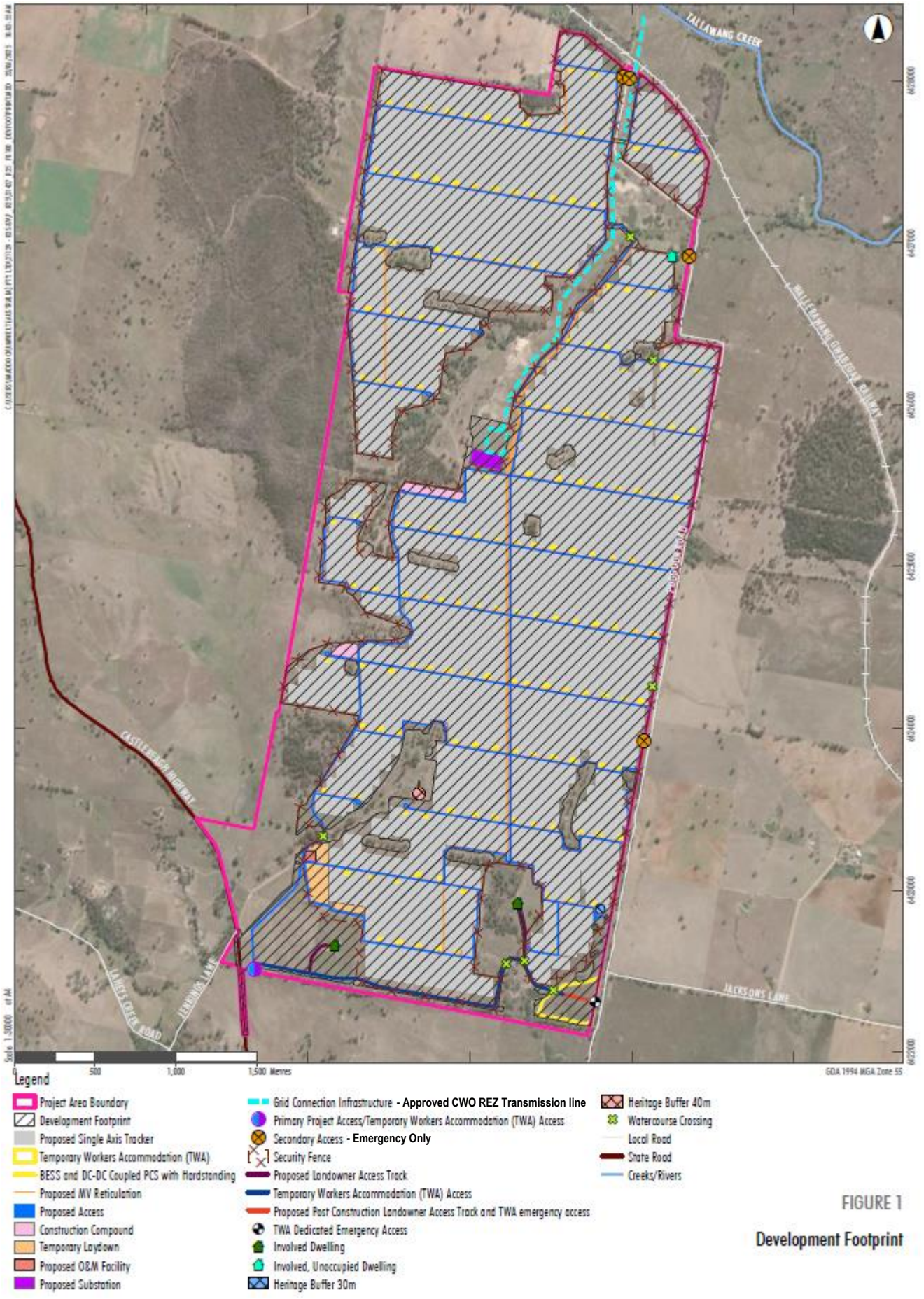


Figure 2 | Amended Project Layout

2 Strategic Context

2.1 Site and Surrounds

5. The site is largely cleared agricultural land zoned RU1 Primary Production, the majority of which is currently used for sheep and cattle grazing, as well as some dry land cropping. The site is also partially zoned SP2 Infrastructure (Classified Road). Surrounding land is also predominantly zoned RU1, with the exception of a section to the north which is zoned SP2 Infrastructure (Rail Infrastructure) and land to the south-west zoned R5 Large Lot Residential.

6. Access to the site would be via a new access point from an unnamed local road that intersects with the Castlereagh Highway to the south of the development footprint. The unnamed road's intersection with the Castlereagh Highway would be upgraded as part of the proposed development.

7. Land within the site is generally flat to gently undulating and has been predominantly cleared for agricultural use. While the project site is mapped as containing Biophysical Strategic Agricultural Land (BSAL), the Land, Soil and Agriculture Assessment found that mapped BSAL areas and areas outside the mapped BSAL were all verified as non-BSAL. Furthermore, while areas on the project site are mapped as containing Land and Soil Capability (LSC) Class 3 and 5, field surveys and laboratory results classify land within the project area as containing Class 4 (moderate to severe limitations) and Class 6 (severe limitations). DPI Agriculture raised no concerns about TSH's verification of the site as non-BSAL or the laboratory results classifying the project site as containing Class 4 and 6 lands.

8. Several ephemeral watercourses traverse the site, watercourses in the north discharge to Tallawang Creek and watercourses in the south discharge to Wyaldra Creek. There are approximately 35 farm dams located within the site.

9. There are four associated and 95 non-associated residences within 5 km of the site, 20 of which would have potential views of the project. The closest non-associated residences to the development footprint (R18 and R200) are located approximately 600 m to the east and 600 m to the west respectively. The closest non-associated residence (R001) to the TWA facility is located approximately 1.5 km to the north-east.

10. The key aspects of the project are provided in detail in the Project Description chapter of the Amendment Report and outlined in **Table 1**.

2.2 Other Energy Projects

11. There are 10 State significant renewable energy projects within 10 km of the project site (see **Table 2** and **Figure 1**) of which four development applications were lodged or approved prior to TSH's application:

- CWO REZ Transmission and Bellambi Heights BESS, have been approved;
- Stubbo Solar Farm is under construction; and
- Beryl Solar Farm is operational.

12. The Department notes that since the time of lodgement of the development application for this project, applications have also been lodged for Beryl BESS and Mayfair Solar Farm. As per the Department's *Cumulative Impact Assessment Guidelines* for State Significant Projects 2021, TSH and the Department's assessments of cumulative impacts has considered the relevant future projects to be those that have been exhibited and are currently under assessment.

13. Potential cumulative impacts at a regional level relate to agricultural land, traffic, services and workforce accommodation. The broader potential cumulative impact on agricultural land in the region is discussed further in **Section 5.2** and workforce accommodation and broader cumulative impacts are addressed in **Section 5.6**.

Table 2 | Nearby Renewable Energy Projects

Project	Capacity (MW)	Status	Approximate distance from the project (km)
Barneys Reef Wind Farm	441	Withdrawn	Immediately adjacent (north)
Bellambi Heights BESS	408	Approved	Immediately adjacent (south)
Mavis Solar	250	SEARs Issued	1 (south-east)
Puggoon Solar	264	SEARs Issued	1 (east)
Mayfair Solar	60	EIS Lodged	3 (east)
Beryl BESS	100	EIS Lodged	4 (south)
Beryl Solar	87	Operational	5 (south)
Orana Wind	524	SEARs Issued	5 (west)
Stubbo Solar	400	Approved	10 (east)
Narragamba Solar	320	SEARs Issued	10 (north-east)

2.3 Energy Context

14. In 2023, NSW derived approximately 36% of its energy from renewable sources. The rest was derived from fossil fuels, including 61% from coal and 3% from gas. NSW is one of the nation's leaders in large-scale renewables, with 47 major operational projects and 88 under construction or planned to be under construction.

15. The Commonwealth and State energy context is described in **Table 3**.

16. The project's alignment with existing Commonwealth and State policies and strategies are considered in **Section 5.1**.

Table 3 | Energy Context

Policy / Year	Summary
Australia's Long Term Emissions Reduction Plan (2021)	Sets a pathway to net zero emissions by 2050 and affirms Australia's commitment to meeting its revised 2030 target (43% below 2005 levels).
Australian Energy Market Operator's 2024 Integrated System Plan (ISP)	Notes that: • without coal, investment is needed to meet significantly increased electricity demand requiring a nine-fold increase in large-scale variable renewable energy generation (wind and solar); • a mix of solar and wind is needed, and they offer complementary daily and seasonal profiles; and • forecasts that there will be a demand for 83 GW of utility-scale wind and solar in the National Electricity Market by 2034-35, and 127 GW by 2049-50.
NSW: *Climate Change Policy Framework* (2016), *Transmission Infrastructure Strategy (2018),* *Electricity Strategy* (2019), *Electricity Infrastructure Roadmap* (2020), *Net Zero Plan Stage 1: 2020 – 2030* (2020) *and Implementation update* (2022), *Central West and Orana Regional Plan 2036 and 2041* *Mid-Western Regional Local Environmental Plan 2012*	Relevant aspects of these policy documents include: • aims to achieve net zero emissions in NSW by 2050 and reduce emissions by 70% below 2005 levels by 2035; • notes that all coal fired power plants in NSW are scheduled for closure within the next twenty years; • identifies REZs across NSW aimed at encouraging investment in new electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW; • Regional goals to support the State's transition to lower emissions and Council goals to promote renewable energy production; and • CWO REZ was declared in December 2022 and is the first step in formalising the REZ under the *Electricity Infrastructure Investment Act* (EII ACT).

2.4 NSW Solar Guideline

17. The Department released the *Large-Scale Solar Energy Guideline* in December 2018 to provide the community, industry, and regulators with guidance on the planning framework for assessing large-scale solar projects and identifying the key planning considerations relevant to solar energy development in NSW.

18. The Guideline was revised in August 2022 following extensive consultation, to ensure the assessment of large-scale solar energy projects continues to be transparent, consistent and supported by the best available information. While the revised guideline does not strictly apply to this project as it was lodged prior to the transition period ending, the project is broadly consistent with the principles of the revised guideline.

19. TSH has considered the potential visual and landscape impacts of the project in accordance with the revised guideline and the Department considers the project is consistent with the principles set out in the revised guideline. The Department released an updated solar guideline in November 2024, which does not change the key outcomes of the assessment.

20. The Guideline recognises that large-scale solar projects could help to reduce reliance on fossil fuels, thereby contributing to reduction in air pollution and greenhouse gas emissions, while also supporting regional NSW through job creation and investment in communities that may not have similar opportunities from other industries.

3 Statutory Context

3.1 State significant development

21. The project is classified as SSD under section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This is because it triggers the criteria in clause 20 of Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP), as it is development for the purpose of electricity generating works with a capital investment value of more than $30 million.

22. Under section 4.5(a) of the EP&A Act and clause 1(b) of section 2.7 of the Planning Systems SEPP, the Independent Planning Commission (the Commission) is the consent authority for the development as the project has received more than 50 unique public submissions by way of objection and Mid-Western Regional Council objected during the exhibition period.

3.2 Amended application

23. In accordance with clause 37 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), a development application can be amended at any time before the application is determined. TSH sought to amend its application, the details of which are summarised in **Section 4.6** of this report. Under the delegation from the consent authority (i.e. the Commission for this development), the Director, Energy Assessments can agree to amendments to an application.

24. The Department accepted the amended application for the following reasons:

- the project amendments, while increasing the development footprint of the project, ultimately served to reduce the potential cumulative impacts of the project as a whole (traffic and accommodation in particular);
- the amended application directly responds to key issues raised in public submissions received by the Department during exhibition of the original application;
- TSH assessed the impacts of the amended project (see **Appendix E** and **Appendix F)**; and
- the Department made the additional information available online and sent it to Council and relevant government agencies for comment

3.3 Permissibility

25. The development site is zoned primarily as RU1 – Primary Production, with a small portion also zoned SP2 – Infrastructure (Classified Road) under the *Mid-Western Regional Local Environmental Plan 2012* (Mid-Western LEP).

26. The project is permissible with consent as electricity generating works are permissible with consent on any land in a prescribed non-residential zone, including RU1 and SP2 zones, under clause 2.36 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP).

3.4 Integrated and other approvals

27. Under section 4.41 of the EP&A Act, a number of other approvals are integrated into the SSD approval process, and therefore are not required to be separately obtained for the project. Under section 4.42 of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the project (e.g. approvals for any works under the *Roads Act 1993*).

28. TSH has proposed to implement an on-site wastewater management system or alternatively remove sewage from site via septic tank for disposal at a licensed treatment facility, for the TWA. If preferred, the proposed on-site wastewater management system, including advanced secondary treatment with land application / reuse through a surface irrigation of surrounding pasture, would be pursuant to section 68 of the *Local Government Act 1993* and would require approval from Mid-Western Regional Council.

29. The Department has consulted with the relevant government agencies responsible for the integrated and other approvals, including Transgrid and EnergyCo NSW as the future network operator, considered their advice in its assessment of the project, and included suitable conditions in the recommended conditions of consent to address these matters (see **Appendix G**).

3.5 Commonwealth Approvals

30. Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), assessment and approval are required from the Australian Government if a project is likely to impact on a Matter of National Environmental Significance (MNES), as it is considered to be a 'controlled action'.

31. On 27 April 2022, a delegate for the Commonwealth Minister for the Environment determined the project (EPBC 2022/9171) to be a 'controlled action' in accordance with the EPBC Act due to likely significant impacts to listed threatened species and communities (sections 18 and 18A).

32. Under section 45 of the EPBC Act the assessment process under the EP&A Act has been accredited under a Bilateral Agreement with the Commonwealth. Accordingly, the NSW Government has undertaken the assessment of MNES on behalf of the Commonwealth.

33. In accordance with the Bilateral Agreement, the Department has provided draft copies of this assessment report and the recommended conditions of consent to the Commonwealth, who raised no concerns or comments.

34. The Department's assessment of the potential impacts of the project on MNES under the EPBC Act is provided in **Section 5.3**. Further information on the matters that the Commonwealth Minister must consider under the EPBC Act is provided in **Appendix J**.

3.6 Renewable energy zone

35. The *Electricity Infrastructure Investment Act* (EII Act) coordinates investment in transmission, generation, storage and firming infrastructure in NSW and gives effect to the Electricity Infrastructure Roadmap. Under section 19 of the EII Act, the Minister for Energy may declare

a renewable energy zone comprising a specified geographical area of the State, and specified generation, storage or network infrastructure.

36. This project is located in the geographical area specified in the CWO REZ declaration, which would comprise all planned, new and existing network infrastructure, with an intended network capacity of 7.15 gigawatts.

3.7 Mandatory matters for consideration

37. Section 4.15 of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. The Department has considered all of these matters in its assessment of the project, as well as TSH's consideration of environmental planning instruments in its EIS, as summarised in **Section 5** of this report. The Department has also considered relevant provisions of the environmental planning instruments in **Appendix I**.

3.8 Objects of the EP&A Act

38. In determining the application, the consent authority should consider whether the project is consistent with the relevant objects of the EP&A Act (section 1.3) including the principles of ecologically sustainable development (ESD). Consideration of those factors is described in **Appendix I**. As a result of the analyses in **Appendix I**, the Department is satisfied that the development is consistent with the objectives of the EP&A Act and the principles of ESD.

3.9 Biodiversity development assessment report

39. Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all SSD applications to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless it is determined that the project is not likely to have any significant impact on biodiversity values (as identified in the BC Act and in the *Biodiversity Conservation Regulation 2017*). The BDAR (see **Appendix A**) and the overall impact of the project on biodiversity values is assessed in **Section 5.3**.

4 Engagement

4.1 Department's engagement on the EIS

40. The Department publicly exhibited the EIS from 28 October 2022 until 24 November 2022, advertised the exhibition in the *Mudgee Guardian* and *The Australian* and notified landowners adjacent to the project boundary.

41. The Department consulted with Mid-Western Regional Council and relevant government agencies throughout the assessment. The Department also inspected the site in June 2024 and visited surrounding receivers.

42. The Department notified and sought comment from Transgrid, EnergyCo NSW and Transport for NSW (TfNSW) in accordance with the Transport and Infrastructure SEPP, as discussed further in **Section 4.3** of this report.

4.2 Summary of Council's submissions

43. Mid-Western Regional Council provided a submission during the exhibition period which objected to the project, raising concerns around the accuracy of information used in EIS documentation, local accommodation impacts, impacts on agricultural land, waste management, cumulative impacts, and visual amenity.

44. Through this submission, Council requested additional supporting information around workforce accommodation and social impacts, as well as waste generation. Council also recommended conditions relating to road upgrades.

45. Following review of the submissions report and amendment report, Council indicated that they supported the introduction of a TWA facility, and sought some further detail around the operation of it, as well as its servicing.

46. TSH provided additional information to address Council's residual concerns, including clarification of water supply and wastewater treatment and use of Puggoon Road.

47. Council has since provided further input into the recommended conditions set, and has agreed to general terms for a voluntary planning agreement should the project be approved.

4.3 Summary of advice received from government agencies

48. During exhibition of the EIS, the Department received advice from 13 government agencies. A summary of the agency advice is provided in **Table 4**. A link to the full copies of the advice is provided in **Appendix C**.

49. The Department also consulted with the future network operator, EnergyCo NSW, who raised no concerns about the project.

Table 4 | Summary of agency advice

Agency	Advice summary
Australian Rail Track Corporation (ARTC)	Sought further detail regarding any potential impact the project may have on level crossings and works adjacent to the rail corridor and noted works within 25 metres (m) of the rail corridor would need to be carried out in accordance with ARTC requirements. TSH confirmed no project infrastructure is proposed within 25 m of the rail corridor as part of their Submissions Report and no level crossings would be used or impacted, noting the amended project layout removed electricity transmission lines that would have crossed the rail line.
NSW DCCEEW CPHR (Conservation Programs, Heritage and Regulation)	CPHR noted potential SAII entity impacts at the EIS exhibition stage and provided recommendations regarding updates to the Biodiversity Development Assessment Report (BDAR) to be submitted alongside the Submissions Report. TSH updated the BDAR as part of its Submissions Report/Amendment Report package addressing the matters raised. CPHR was largely satisfied with the updates made and provided final recommendations for the BDAR. Following the resolution of these matters within TSH's BDAR, CPHR provided advice on the recommended conditions set which would require appropriate mitigation measures be implemented, as set out within **Section 5.3** of this report.
Crown Lands	Crown Lands noted parcels of Crown Land within the subject site. An application to close and purchase Crown roads was lodged. In providing advice on draft conditions, Crown Lands confirmed no further comments.
Water Group within NSW DCCEEW	Water Group requested confirmation of the project's setback to the second order watercourse in the southeastern portion of the site. TSH confirmed the provision of setbacks in accordance with the *Controlled Activities – Guidelines for riparian corridors on waterfront land* and committed to preparing and implementing Soil and Water Management Plan prior to construction. Water Group also sought to confirm liquid waste disposal and water supply options had been secured. TSH has demonstrated liquid waste disposal options and viable water supply options. DPHI has provided recommended conditions of consent which require these options to be realised prior to the commencement of construction.

Agency	Advice summary
DPI Agriculture	Provided recommendations for operational and decommissioning measures to maintain agricultural use and land capability (primarily management of groundcover and stock grazing). DPHI has included conditions of consent that set out operational and decommissioning requirements which DPI Agriculture has noted and endorsed. TSH has also committed to developing and implementing a Sheep Grazing Vegetation Management Plan as part of their Construction and Operational Environmental Management Plan.
Department of Regional NSW - Mining, Exploration and Geoscience (MEG)	Noted the presence of two exploration licences overlapping the site, and the consultation held to date and need for ongoing consultation with the titles' holder. MEG's final advice confirmed they had reviewed the project information and had no issues to raise regarding the project.
Environment Protection Agency (EPA)	Noted an overarching waste management strategy is required for Central West Orana REZ and recommended development of a Waste and Resource Recovery Management Plan to manage waste. EPA also noted requirements for transportation of dangerous goods. TSH has committed to preparing a Waste Management Plan which would include a breakdown of waste types and quantities in accordance with relevant legislation and guidelines. The Department has considered EPA's advice and has recommended a condition requiring TSH prepare and implement a Waste Management Plan in consultation with MWRC and EnergyCo prior to commencing construction.
Fire & Rescue NSW (FRNSW)	FRNSW recommended preparation of a comprehensive Emergency Plan, Fire Safety Study and Emergency Services Information Package. DPHI has drafted recommended conditions which require TSH to fulfil these requirements. FRNSW has reviewed and endorsed the recommended conditions set.

Agency	Advice summary
Heritage NSW Group within NSW DCCEEW (Heritage NSW)	Requested updates to the Aboriginal Cultural Heritage Assessment (ACHAR) and clarification on the nature of Potential Archaeological Deposits (PADs) and site descriptions to ensure the appropriate level of assessment had been carried out. TSH updated the ACHAR to Heritage NSW's satisfaction. No further impacts were identified as part of the amended project but Heritage NSW sought clarification as to whether additional survey in unassessed areas had occurred. TSH justified the lack of surveys for those areas identified as having not been previously surveyed and committed to undertaking pre-clearance inspections for unsurveyed areas at the same time as undertaking surface collection for identified site artefacts. HNSW concurred this approach. Heritage NSW (ACH) recommended the preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP) and a minimum setback of 150 m of the TWA facility from drainage lines and additional surveys, which TSH has committed to. Additionally, Heritage NSW requested further information around potential historic archaeological significance on the site noting two items of local historic heritage significance. TSH has since committed to implementing a 40 m exclusion zone around PHI1 and a 30 m exclusion zone around PHI2 to avoid potential impacts on any items of historic archaeological significance, in keeping with HNSW recommendations.
NSW Rural Fire Service (RFS)	At EIS and RTS stages RFS requested that a suitably qualified bush fire consultant prepare an assessment of the project to demonstrate compliance with *Planning for Bush Fire Protection 2019* (PBP 2019). Accordingly, a Bushfire Assessment Report was prepared in accordance with the PBP 2019 guidelines and provided by a Bushfire Planning and Design (BPAD) accredited practitioner. RFS reviewed this report and recommended the development comply with it. RFS also provided recommended conditions of consent which DPHI has included within the recommended conditions.
NSW SES	NSW SES reviewed the project, noting the flood hazard on the site and the proposed TWA facility. TSH has committed to preparing a construction flood emergency response plan (CFERP). DPHI has included a condition within the recommended sets of conditions which sets out the requirements of the CFERP. NSW SES has reviewed the condition and has endorsed it as a suitable means of addressing potential flood hazards impacts on human safety associated with the project.

Agency	Advice summary
Siding Spring Observatory (SSO)	SSO reviewed the project and recommended additional conditions of consent be included. DPHI considered SSO's advice and included their recommended conditions.
Transport for New South Wales (TfNSW)	Noted construction traffic impacts, as presented in the EIS, had not been adequately assessed. TfNSW commented on proposed intersection upgrade and site access requirements, cumulative impacts, swept paths analysis and size of the largest design vehicle, consultation with ARTC and the necessity to prepare a Traffic Management Plan (TMP). TSH updated the Traffic Impact Assessment to provide greater consideration to the matters raised by TfNSW. This included commitment to constructing a revised and higher intersection treatment to meet TfNSW's requirements and greater consideration of cumulative impacts. TfNSW provided further comments on the proposed intersection upgrade and route assessment requirements for high risk OSOM. TSH has since provided an updated consolidated Traffic Impact Assessment which TfNSW has endorsed. TfNSW has also endorsed the recommended condition set.
DPI Fisheries	No comments or advice provided.
Transgrid	No advice provided.

4.4 Summary of public submissions

50. During the exhibition period of the EIS, the Department received 56 unique submissions from the public (including two interest groups and the neighbouring Warrumbungle Shire Council), of which 54 objected to the project and two supported the project.

51. Warrumbungle Shire Council objected to the project particularly noting a lack of information regarding cumulative impacts and requested opportunity to discuss a VPA. Warrumbungle Shire Council also raised concerns regarding traffic impacts and who pays for maintenance of local roads, accommodation of the workforce and destination of waste. The Department notes the project does not fall within the Warrumbungle Shire LGA and there are no proposed works within the LGA, therefore, there is no formal requirement for TSH to enter into a VPA with Warrumbungle Shire Council. Through the Submissions Report, TSH has provided responses to the points raised within Warrumbungle Shire Council's submission.

52. A summary of the proximity of public submissions is provided in **Table 5** and a link to all submissions is provided in **Appendix B**.

Table 5 | Public submissions on the EIS

Submitter distance to development footprint	Number of submissions
<5 km	9
5-100 km	18 + MWRC & WSC
> 100 km	24
Other*	3

** Interstate or not specified*

53. Around 17% of submissions were received from residents located within 5 km of the site, 37% were from residents located between 5 – 100 km from the site, and 46% were from residents located over 100 km from the site, interstate or not specified. Local submissions typically focused on impacts and matters related to the local community whereas submitters located at greater distances from the site raised broader concerns including ability of renewables to provide reliable power, loss of agricultural land and current NSW and national policies on managing these impacts.

54. The key issues raised in public submissions are summarised in **Figure 3**. The most common matters raised in submissions include the following:

- socio-economic impacts relating to property values, tourism impacts, mental health, accommodation impacts, local employment and the influx of the workforce to the local community
- land use compatibility: site selection, use of agricultural land, impacts on adjacent agricultural activities
- visual: impacts on the surrounding landscape, proximity to residents, effectiveness of vegetation screening and glare
- hazards and risk: bushfire risk and threat of fire due to the project

55. Other issues raised in objections included cumulative impacts, decommissioning, contamination, traffic, social, health, biodiversity, waste, noise and visual amenity impacts

56. A further breakdown and summary of key issues raised by the public is summarised in **Appendix H**. **Section 5** of this report provides a summary of the Department's consideration of these matters and recommended conditions.

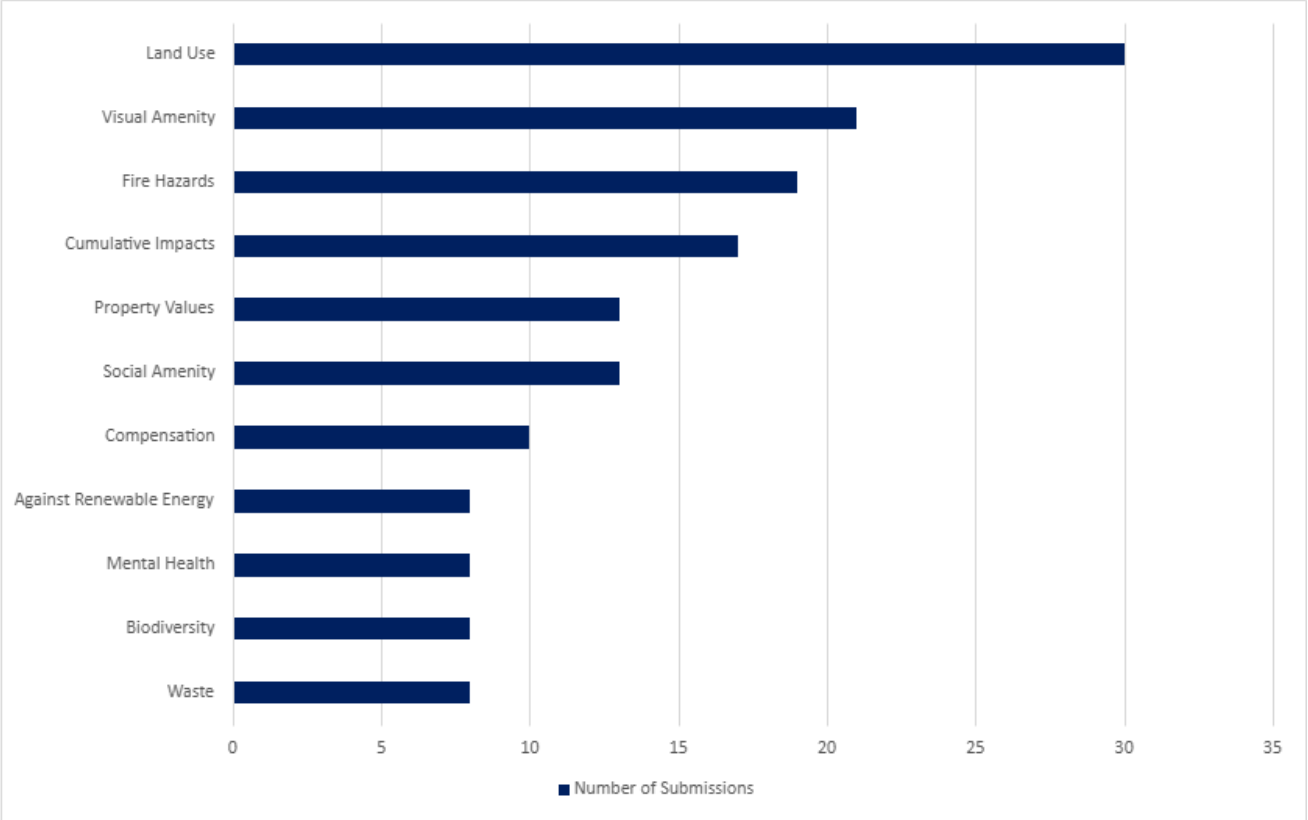


Figure 3 | Key Issues Raised in Public Submissions

4.5 Response to submissions

57. Following the public exhibition period, the Department asked TSH to respond to the issues raised in submissions and the advice received from government agencies.

58. TSH provided a Submissions Report (**Appendix D)** and provided additional information during the Department's assessment (see **Appendix F**).

59. The Department published the Submissions Report on the NSW planning portal and forwarded the Submissions Report to relevant government agencies and council for comment.

4.6 Amendment report

60. Following consideration of submissions on the project, TSH amended its application, as detailed in the Amendment Report (see **Appendix E**). In summary, the amendments included the provision of a TWA facility capable of housing 400 workers, updated treatment for the proposed intersection upgrade of the unnamed road and Castlereagh Highway, removal of the 13 km overhead electricity transmission line (noting this was already assessed as part of the CWO REZ project), increased BESS capacity, minor layout refinements and minor readjustments of the project area boundary to facilitate the aforementioned amendments.

These changes are captured within **Figure 2** above and a comparison between the original and amended project is detailed within **Table 6** below.

Table 6 | Amendment comparison

Aspect	EIS Project	Amended Project	Difference
Project Site	1,370 ha	1,300 ha	-70 ha
Development Footprint	866 ha	1,016 ha	150 ha
Schedule of lands	The project comprises (wholly or partly) 35 cadastral lots	The amended project comprises (wholly or partly) 19 freehold cadastral lots, two parcels of Crown Land, a section of the Castlereagh Highway and road reserve and the council road directly to the south	Difference in the land impacted, including a reduction in the number of cadastral lots
Targeted Capacity (Solar)	500 MW (AC)	500 MW (AC)	-
Targeted Capacity (BESS)	200 MW for 2 hours	500 MW for 2 hours	300 MW increase in capacity
BESS design	DC-coupled battery storage units (air cooled)	DC-coupled battery storage units (liquid cooled)	Change in cooling technology proposed
Substation	One onsite 330 kV substation and switchyard proposed at two possible locations	One onsite 330 kV substation proposed at a central location	Confirmed substation location
Intersection upgrade	A CHR (Short) and AUL treatment on Castlereagh Highway at its intersection with unnamed road	Standard (full sized) CHR & AUL treatments at intersection of the unnamed local road and Castlereagh Highway	Provision of full sized CHR and AUL treatment
Construction Duration:	Approximately 34 months commencing mid-2024	Approximately 36 months commencing 2027	8-week TWA facility construction period included in the construction period

Aspect	EIS Project	Amended Project	Difference
Construction Workforce	Up to 580 people at peak	Up to 420 at peak	- 160 people
Construction workforce accommodation	Use of available rental and motel accommodation in surrounding townships and regional centres	TWA facility proposed on site to accommodate up to 400 construction workers	400 person TWA facility introduced
Construction Staging	Five construction stages	Seven construction stages	Additional stages introduced
Operational lifespan	35 years	35 years (solar farm) The accommodation camp would be operational for the duration of the solar and battery project construction phase, which is anticipated to be approximately 36 months	TWA facility component included as separate to operational lifespan of the solar farm.
Decommissioning	Project infrastructure would be decommissioned at the end of its investment and operational life.	Solar farm unchanged. TWA facility may be dismantled or maintained for use by other developments in the region, if approved as part of future development applications.	TWA facility may be maintained for use by construction workforces associated with other REZ projects in the region subject to separate approval. Alternatively, the TWA facility would be decommissioned, and the area would be cleared of any temporary infrastructure and equipment and rehabilitated to its previous condition.

5 Assessment

61. The Department has undertaken a comprehensive assessment of the merits of the project. This report provides a detailed discussion of the key issues, namely the energy transition (**Section 5.1**), land use compatibility (**Section 5.2**), biodiversity (**Section 5.3**), traffic and transport (**Section 5.4**), visual (**Section 5.5**) and cumulative impacts (**Section 5.6**).

62. The Department has also considered the full range of other potential impacts associated with the project and has included assessment conclusions in **Section 5.7**.

5.1 Energy transition

63. The project aligns with a range of national and state policies, which identify the need to diversify the energy generation mix and reduce the carbon emissions intensity of the grid while providing energy security and reliability.

64. With a generating capacity of 500 MW, the solar farm would generate enough electricity to power approximately 212,000 homes. This is consistent with the *NSW Climate Change Policy Framework* of achieving net zero emissions by 2050. The inclusion of a battery would enable the project to store energy for dispatch to the grid outside of daylight hours and/or during peak demand as well as providing grid stability services and back-up capacity to ensure security of supply.

65. The project would be located within the CWO REZ, which has been identified for investment in new electricity infrastructure and unlocking additional generation capacity to ensure secure and reliable energy in NSW. As such, the project would play an important role in:

- increasing renewable energy generation and capacity;
- firming the grid by including 500 MW / 1,000 MWh of energy storage; and
- contributing to the transition to a cleaner energy system as coal fired generators retire.

66. The project would connect directly into EnergyCo's CWO Transmission Project which would link the project to the CWO REZ Merotherie Energy Hub, which itself would act as a connection point for renewable energy projects in the CWO REZ. The project would have direct access to the transmission network and abundant solar resources in the CWO REZ, on land where solar development is permissible (RU1 and SP2 zoned land) with consent under the Transport and Infrastructure SEPP.

5.2 Land use compatibility

5.2.1 Provisions of the LEP

67. The site is located on land within the RU1 Primary Production zone and the SP2 Infrastructure zone under the Mid-Western LEP. As discussed in **Section 3.3**, a solar farm is a permissible land use with consent on land zoned RU1 and SP2 under the Mid-Western LEP.

68. The Mid-Western LEP acknowledges that electricity generating works are regulated by the Transport and Infrastructure SEPP, rather than the LEP. As described above, a solar farm is permitted with consent on land zoned RU1 under the Transport and Infrastructure SEPP.

69. Additionally, the project is consistent with the objectives of the relevant RU1 and SP2 zonings under the LEP, particularly by:

- providing diversity in primary industry enterprises and systems appropriate for the area;
- minimising the fragmentation and alienation of resource lands;
- minimising conflict between land uses within this zone and within adjoining zones; and
- providing for infrastructure and related uses.

70. While the Mid-Western Regional LGA has traditionally relied upon agriculture and mining, the introduction of solar energy generation would contribute to a more diverse local economy, thereby supporting the local economy and community. In addition, the proposed solar farm would encourage renewable energy development which is consistent with key government strategic planning guidance, including the *Central West and Orana Regional Plan 2041*, which includes an objective to support the State's transition to net zero by 2050 and deliver the CWO REZ. The plan identifies renewable energy generation capabilities of the region and the opportunity to leverage the CWO REZ to provide economic benefit to communities.

71. Section 6.11 of the LEP provides for the development of a TWA facility if there is a demonstrated need to accommodate employees due to the nature of the work or the location of the land on which that work is carried out.

72. While the Department considers that the project is compatible with the LEP and broader strategic planning objectives for the site, the project's impacts on other land uses are further discussed below.

5.2.2 Potential Loss of Agricultural Land

73. Thirty submissions received during the EIS exhibition period raised concerns about establishing a solar farm on agricultural land.

74. The project has a development footprint of approximately 1,016 ha. The majority of which has been cleared and is currently used for grazing.

75. TSH's Land and Soil Capability (LSC) assessment concluded that the site contains no BSAL and the majority of the project site was Class 4 (1,093.35 ha) land with some areas of Class 6 land (201.34 ha) indicating agricultural uses are largely restricted to low-moderate impact uses such as grazing, cropping with restricted cultivation and pasture cropping. This is consistent with the *Large-Scale Solar Energy Guideline's* focus on identifying BSAL and land classes 1, 2 and 3 as constraints that should be considered in site selection.

76. The inherent agricultural capability of the land would not be affected by the project due to the relatively low scale of the development, and TSH has committed to developing a Sheep Grazing Vegetation Management Plan (SGVMP) to implement continued grazing activities on the project area and to restoring the LSC of lands disturbed (beyond those areas identified above) through decommissioning/rehabilitation to existing LSC. Accordingly, the Department has included requirements to maintain the site's current land capability, including ground cover.

77. Regarding potential cumulative impacts, TSH's assessment found that the project's development footprint (1,016 ha) accounts for less than 0.2% of the Mid-Western Regional LGA's total agricultural land. The combined development footprint with the other proposed, approved and/or operational SSD solar farms in the Central West and Orana region (15,837 ha) would be approximately 16,853 ha. The loss of 16,853 ha of agricultural land represents a small proportion (0.19%) of the 8.9 million ha of land currently used for agricultural output in the CWO region. It would result in a negligible reduction in the overall productivity of the region.

78. The Department notes that neither DPI Agriculture nor Council raised concerns that the project would compromise the long term use of the land for agricultural purposes, subject to the implementation of a recommended set of conditions which provide suggested management measures from construction to decommissioning, including the implementation of a Sheep Grazing Vegetation Management Plan (SGVMP). These recommended management measures consider biosecurity risks, pests, weeds, soil degradation and land degradation to avoid long-term impacts associated with large-scale development of traditionally agricultural land.

79. The potential temporary loss of a small area of grazing land in the region must be balanced against:

- the broader strategic goals of the Commonwealth and NSW governments for the development of renewable energy into the future;

- the environmental benefits of solar energy, particularly with reducing greenhouse gas emissions;
- the economic benefits of solar energy in an area with good solar resources and the access rights granted to the project to connect to the in the approved CWO Transmission network; and
- the benefits of dispatchable energy for grid stability and reliability.

80. Based on these considerations, the Department considers the proposed solar farm represents an effective and compatible use of the land within the region and that the site is suitable to accommodate the development.

81. The Department considers the development would not fragment or alienate any resource lands in the LGA and is capable of being returned to usable agricultural land following decommissioning.

82. The Department considers that the project represents an effective and compatible use of the land within the region and that the site is suitable to accommodate the development.

5.2.3 Crown Lands

83. The project area includes eight freehold properties and two parcels of Crown Land ('paper roads'). TSH consulted ongoingly with Crown Lands from mid-2021 through the respective stages of the development process. Through this process, Crown Lands provided advice on the Crown Roads closure process and clarified administrative details of the relevant land.

84. In September 2023, the two host landowners subject to the Crown Road closures were formally notified of the proposal by the Crown Lands office and were given 28 days to express an interest in purchasing and provide comments. The Crown Roads have been divided between the two landowners, and proposed sale maps for both landowners for the Crown Parcels within the project boundary have been received. Draft sale agreements are being prepared and it is anticipated that the application will be determined and the roads formally closed shortly.

85. DPHI provided the recommended condition set to Crown Lands to review and provide any feedback. Crown Lands reviewed and endorsed the recommended conditions, noting all previous items raised had been addressed.

5.2.4 Mineral Exploration Licenses

86. Approximately 1,145 ha of the project area is subject to mineral exploration licences (EL8160 and EL8405). DPHI notes that no part of the project area is subject to a mining/production lease. TSH carried out consultation with the holder of the two exploration licenses (Bowdens Silver) in May 2021, whereby Bowdens Silver supported the Tallawang Solar

project's development subject to Bowdens Silver being allowed to carry out further exploration activities on the site via section 31(1) of the Mining Act. TSH has provided correspondence between TSH and Bowdens Silver from March 2025 outlining Bowdens Silver's Geology team's prioritisation of work to the north and south of the Bowdens Silver Project site to date. TSH has committed to continue engaging with Bowdens Silver around potential options for undertaking low disturbance exploration activities on the site.

87. DPHI notes the ongoing consultation between the two parties and refers to DPIRD NSW Resources' final advice confirming it has reviewed the project information and has no issues to raise regarding the project.

5.2.5 Mitigation Measures and Recommended Conditions

88. The Department has recommended conditions requiring TSH to maintain the agricultural capability of the site, including establishing ground cover and maintaining grazing within the site where practicable. TSH would be required to fully reinstate the agricultural capability of the land following decommissioning of the project, including the requirement to return the development footprint to its existing land and soil capability. In addition, TSH has proposed a number of mitigation measures consistent with the NSW Large-Scale Solar Energy Guideline to reduce the potential impacts and minimise land use conflict, including:

- implementing measures to minimise soil disturbance and erosion; and
- implementing a SGVMP to allow for the continuation of agriculture activity at the site, during operations.

89. The Department notes that neither DPI Agriculture nor Council raised concerns that the project would compromise the long-term use of the land for agricultural purposes, subject to the implementation of a recommended set of conditions which provide suggested management measures from construction to decommissioning.

90. With the implementation of the recommended conditions and TSH's proposed mitigation measures, the Department considers that the project would not result in land use conflicts.

5.3 Biodiversity

91. The amended project has the potential to impact biodiversity through the clearing of 181.17 ha of native vegetation and 828.21 ha of Category 1 – exempt land, being land classified under the *Local Land Services Act 2013* as entirely cleared of native vegetation.

92. The development site predominantly comprises areas currently utilised for agricultural activities and also supports patches of remnant vegetation.

93. Public submissions expressed concerns about potential biodiversity impacts on the threatened species present on site. These issues are discussed further below.

94. A Biodiversity Development Assessment Report (BDAR) was prepared for the project under the *Biodiversity Conservation Act 2017* (BC Act) and Biodiversity Assessment Method (BAM). A revised BDAR was prepared in response to issues raised by CPHR, including Significant and Irreversible Impacts (SAII), BAM-C amendments, the need for further information on impacts to species and survey requirements. The revised BDAR was reviewed and accepted by CPHR subject to finalising an approach to assuming presence of one species (bluegrass), which TSH has since finalised.

95. The Department notes that while the subject site does contain potential SAII entities (see **Section 5.3.4**), TSH's assessment has determined that there is unlikely to be a SAII, and that there is no need for any additional and appropriate measures, which has been accepted by CPHR. The Department has also imposed strict limits on the clearing of native vegetation in the recommended conditions.

5.3.1 Avoidance and mitigation

96. TSH has generally focused on avoidance of impacts through site selection and avoidance of higher quality remnant native vegetation, as well as prioritising the inclusion of setback buffers from creeks and drainage lines. This is consistent with the Large-Scale Solar Energy Guideline's focus on avoiding or minimising impacts during site selection and design.

97. The initial design for the project, as presented in the EIS, included a 1,370 ha project area and an approximately 866 ha development footprint. Through the response to submissions stage of the assessment process, the project was amended to remove the transmission line connection (already covered by the CWO REZ project), added a TWA facility and made some minor boundary adjustments across the site. This resulted in a reduction of the project area from 1,370 ha to 1,300 ha, and an increase of the development footprint from 866 ha to 1,016 ha. While the amended project would result in a greater development footprint, the biodiversity impacts associated with the project would be reduced, as demonstrated by the reduction in required biodiversity offset credits from 1,124 credits (EIS design) to 493 credits (Amended design).

98. Overall, TSH has designed the project to avoid and minimise impacts on high quality vegetation and habitat, including:

- predominantly locating the proposed development footprint on Category 1 – exempt land;
- implementing development buffers from drainage lines through the project design;

- locating the project such that connectivity enabling movement of species and genetic material between areas of adjacent or nearby habitat is maintained (retention of the North-East/South-West biodiversity movement corridor within the site); and
- retention of approximately 107 ha of remnant woodland and derived native grassland within the amended project area (93.44% of all remnant woodland and derived native grassland in the project area), which is more than the 100 ha that was proposed to be retained in the initial EIS design.

5.3.2 Native Vegetation

99. The project would affect 181.17 ha of native vegetation distributed among several ecological communities, with varying conservation statuses and conditions:

- **PCT 81 (58.4 ha)**: Western Grey Box – cypress pine shrub grass shrub tall woodland in the Brigalow Belt South Bioregion. Under the *Biodiversity Conservation Act 2016* (BC Act) areas of PCT 81 classified as 'Moderate' condition are recognised as endangered. 2.99 ha of this PCT meets the threshold for offsetting under the BC Act, whereas 55.41 ha of this PCT is of a condition that does not require offsetting. Under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) 1.95 ha of PCT81 across the site meets the endangered threshold.
- **PCT 281 (121.85 ha)**: Rough-Barked Apple - Red Gum - Yellow Box woodland located on alluvial clay to loam soils in valley flats. It is listed as Critically Endangered under the BC Act and the EPBC Act, falling within the White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland category. The condition of this PCT varies across three zones: Moderate, DNG Low Condition, and Exotic Pasture. 13.24 ha of this PCT meets the threshold for offsetting under the BC Act (comprising 3.51 ha of moderate condition woodland and 9.73 ha of low condition woodland), whereas 108.61 ha of this PCT is of a condition that does not require offsetting. Under the EPBC Act, 3.51 ha of this PCT meets the critically endangered threshold.
- **PCT 318 (0.92 ha)**: Mugga Ironbark -Tumbledown Red Gum – Red Box – Black Cypress Pine open forest on shallow stony soils on hills in the NSW South Western Slopes Bioregion. Within this PCT, all 0.92 ha proposed to be impacted meets the condition threshold under the BC Act that necessitates offsetting. This PCT is not consistent with any listed TEC's under the BC Act or the EPBC Act.

100. **Table 7** provides a summary of the impacts of the project, and the relevant ecosystem credit liability under the NSW Biodiversity Offset Scheme.

Table 7 | Ecosystem credits

Plant Community Types (PCT)	Condition	Conservation Status		Disturbance Area (ha)	Ecosystem Credits Required
		BC Act	EPBC		
81 Western Grey Box – cypress pine shrub grass shrub tall woodland in the Brigalow Belt South Bioregion	Moderate	EEC	EEC	1.95	77
	DNG	Not listed	Not listed	1.04	15
	Exotic Pasture	Not Listed	Not Listed	55.41	0
281 - Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South Western Slopes Bioregion and Brigalow Belt South Bioregion	Moderate	CEEC	CEEC	3.51	179
	Low	CEEC	Not Listed	9.73	108
	DNG - Low	CEEC	Not Listed	108.61	0
318 - Mugga Ironbark - Tumbledown Red Gum – Red Box – Black Cypress Pine open forest on shallow stony soils on hills in the NSW South Western Slopes Bioregion	Moderate	Not Listed	Not Listed	0.92	24
Total				181.17	403

5.3.3 Threatened Flora and Fauna Species

101. The project has the potential to affect flora and fauna species listed in the BC Act and EPBC Act through direct habitat loss from vegetation clearing, and from indirect impacts.

Ecosystem Credit Species

102. Direct impacts resulting from the development footprint could include loss of habitat for 33 threatened species. These impacts are accounted for as ecosystem credit species.

103. Of the 9 dual-credit species that were surveyed, none were present.

104. Potential impacts on these predicted species would be offset via the ecosystem credit offsets detailed in **Table 8.**

Species Credit Species

105. Of the candidate species which were the subject of targeted threatened species surveys, no species were recorded within the development footprint. It is noted that no surveys were carried out for the Southern Myotis on the subject site. Accordingly, this species has been assumed present in all areas demonstrating potential suitable habitat on the site (1.88 ha of PCT 281 – moderate condition). It is also noted that while Bluegrass has not been detected on site, it has been assumed present in the additional 0.9 ha of PCT 81 DNG where the Castlereagh Highway upgrades are proposed. These are conservative approaches which have been established in consultation with CPHR. **Table 8** details the conservation significance and the species credit liability for these species.

Table 8 | Species Credit Species

Species Impacts	Occurrence on site	Conservation Status		Species Credits Required
		BC Act	EPBC Act	
Southern Myotis (*Myotis Macropus*)	Assumed Present	Vulnerable	Not listed	77
Bluegrass (Dicanthium setosum)	Assumed Present	Vulnerable	Vulnerable	13
Total				90

5.3.4 Serious and Irreversible Impacts

106. Through its assessment, TSH determined that the project site has candidate serious and irreversible impact (SAII) on biodiversity values, with the Red Gum - White Box- Box Gum Woodland TEC considered a SAII entity. TSH also considered six species-credit species at risk of SAII, which required no further assessment due to no recordings of the nominated species on site, as well as no mapping of 'important habitat' within the subject site. The project would impact up to 121.84 ha of Box Gum woodland CEEC which is a SAII entity.

107. The Department has considered the principles for determining SAII in its assessment, as set out in clause 6.7 of the *Biodiversity Conservation Regulation 2017*, including the Guidance to assist a decision-maker to determine a serious and irreversible impact.

108. The Department notes that in the context of its BDAR and SAII assessment, TSH has assessed the development footprint within which all direct impacts (both construction and

operation) would occur. While this area is less than the site area, this methodology is consistent with the *Biodiversity Assessment Method 2020*.

109. The development footprint was amended through the Response to Submissions stage of the assessment process, reducing the original EIS project area of 1,370 ha to 1,300 ha and increasing the 866 ha development footprint to 1,016 ha. The placement of the development footprint has centred around the area of lowest biodiversity value that have had the highest historic grazing activities and aimed to minimise impacts to CEEC and species habitat by avoiding higher quality, more intact remaining vegetation surrounding the development footprint. The Department considers the project would not contribute to further decline of the ecological community (Principle 1) and will not materially reduce the population size (Principle 2) noting that the community is widespread across several bioregions across NSW. The Department considers the impacts on Box Gum Woodland to be consistent with Principles 3 and 4, and that these principles require no further assessment.

110. TSH has set out that there is an estimated 436.65 ha of Box Gum woodland (excluding DNG) in a 1,500 m area surrounding the project area. The Department notes that of this area, TSH proposes to remove 3.51 ha of Box Gum Woodland (moderate condition), which represents approximately 0.76% of Box Gum Woodland in the local area. The Department also notes that TSH has sought to retain a corridor of connectivity for the CEEC by implementing an avoidance strategy which limits clearing to those areas which will not unreasonably reduce the ability of fauna to move east-west.

111. The Department also notes that the Threatened Species Scientific Committee (TSSC) estimate that the current extent of Box Gum Woodland would now be approximately 234,694 ha when combined with estimated annual losses since 2006. The Department understands that many ecologists consider this estimate is out-of-date, and that the actual extent is far greater. Dr Col Driscoll recently provided relevant information in relation to the Moolarben Coal Project estimating that there is approximately 7,103,743 ha of Box Gum Woodland in NSW.

112. As Box Gum Woodland is listed on the basis of 'population size' and 'rate of decline', it is particularly relevant to consider the project's potential impacts on Box Gum Woodland against the total area remaining in NSW. While the Department considers the estimates of total area based on the recent SVTM are likely to be more appropriate for the NSW listing, it has also considered the updated TSSC figure for comparative purposes. Using the updated estimate from the TSSC and Dr Driscoll's estimate, the project would represent an impact of 0.052% or 0.0017% of the total remaining area in NSW, respectively.

113. The Department considers that it would be very difficult to conclude that an impact in the 0.052% to 0.0017% range is likely to contribute significantly to the extinction of Box Gum Woodland.

114. The Department considers that the impacts of the proposed development on SAII entities can be adequately minimised through the required offsets, and would not result in serious and irreversible impacts.

5.3.5 Significant impacts on Commonwealth-listed species and communities

115. TSH identified and addressed all threatened species and communities included in the Commonwealth Referral Decision (EPBC 2022/09171) (Referral Decision).

116. Assessments of significance were undertaken for threatened species and communities that were recorded during field surveys or were identified as having a moderate or higher potential to occur within the project area, including two threatened ecological communities and five threatened fauna species, noting that no threatened flora species were considered likely to occur.

117. Assessments of significance concluded that the project would be unlikely to result in a significant impact on any of the ecological communities or fauna species assessed.

118. The Department considered Commonwealth matters in consultation with CPHR and the Commonwealth DCCEEW, including consideration of TSH's assessments of significance.

119. A summary of this assessment is provided in **Appendix J.**

5.3.6 Biodiversity offsets

120. TSH has committed to delivering a biodiversity offset strategy that appropriately compensates for the unavoidable loss of ecological values as a result of the project. The biodiversity offset strategy for the project consists of the following:

- retirement of 90 species credits; and
- retirement of 403 ecosystem credits.

5.3.7 Recommended Conditions

121. The Department has recommended TSH retire the ecosystem and species credits outlined in **Table 7** and **Table 8** in accordance with the *NSW Biodiversity Offsets Scheme* prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset.

122. Further, the Department has recommended conditions requiring TSH to prepare and implement a Biodiversity Management Plan which would include a description of measures undertaken to:

- protect vegetation and fauna habitat outside the approved disturbance areas;
- manage and enhance the remnant vegetation and fauna habitat on site;

- minimise clearing and avoid unnecessary disturbance of vegetation that is associated with the construction and operation of the development;
- minimise the impacts to fauna on site and implement fauna management protocols;
- protect downstream aquatic habitat including key fish habitat through exclusion zones and revegetation;
- maximise the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or rehabilitation of the site; and
- control weeds, feral pests and pathogens.

123. With these measures, the Department is satisfied that all issues raised during the assessment by CPHR have been adequately addressed. Accordingly, the Department considers that the project is unlikely to significantly impact the biodiversity values of the locality.

124. Overall, the Department considers the project appropriately minimises impacts to biodiversity values through project design and appropriate mitigation measures, and, subject to the implementation of recommended conditions, would not result in a significant impact on biodiversity values, including no serious or irreversible impacts.

5.4 Traffic and transport

125. Ten submissions received across the EIS exhibition period raised concerns about the potential traffic impacts on local roads during the construction period.

126. TfNSW initially raised concerns about the design of the intersection upgrade at the Castlereagh Highway. Council requested several engineering conditions relating to the upgrade of the unnamed local road and protection of public infrastructure and property.

127. Construction of the project involves delivery of plant, equipment and materials, including the movement of heavy vehicles requiring escort, which has potential to impact on the local and regional road network primarily during construction.

128. In response to submissions and advice received from TfNSW and Council, TSH updated its Traffic Impact Assessment with an updated cumulative impact assessment, revised the intersection design for the Castlereagh Highway and provided additional information regarding project traffic generation. The updated intersection design has been agreed to by TfNSW and no concerns were raised by Council.

5.4.1 Traffic routes and site access

129. Most of the components for the project would be transported from Port of Newcastle. The haulage route for the project is via the Golden Highway and Castlereagh Highway. Heavy

vehicles requiring escort would need to obtain and implement relevant permits under Heavy Vehicle National Law (NSW) for use of heavy vehicles requiring escort on the road network.

130. All vehicles associated with the project would access the site via the proposed new site access point from the unnamed local road, located at the southwest corner of the site (see **Figure 4**). This includes all traffic to and from the TWA facility, located on the south-eastern part of the site. The TWA facility would be accessed via internal roads through the site, with an emergency exit from the TWA facility to Puggoon Road.

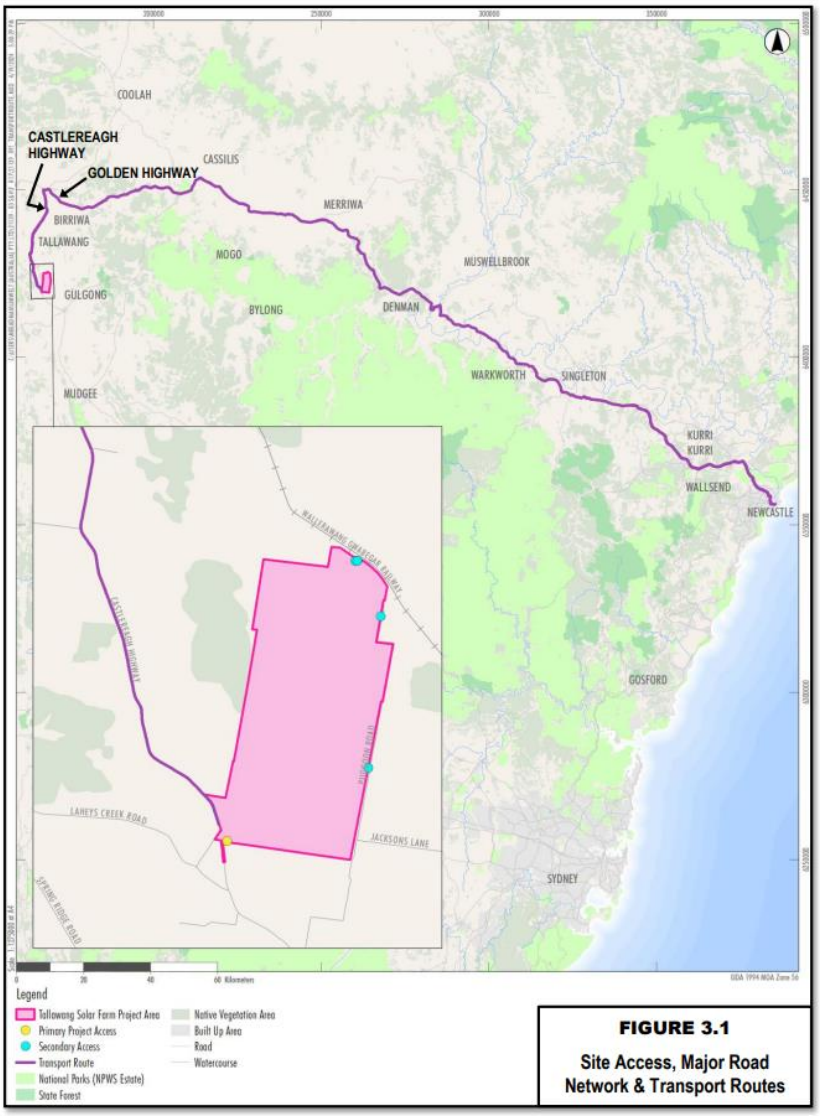


Figure 4 | Access route and site access point

5.4.2 Traffic volumes

131. The main increase in project related traffic would occur during the 36-month construction period, with a peak period of nine months. The construction of the TWA facility would occur prior to construction of the solar farm and BESS, over a period of approximately 8 weeks.

132. The estimated peak daily vehicle movements during construction would be up to 160 heavy vehicles and 70 light vehicles. This is a significant reduction in the number of light vehicle movements that were originally proposed for the project (from 150 to 70), as a result of the introduction of the TWA facility. 20 of these light vehicle movements represent vehicle movements of the workforce that would be drawn from the local area and not residing in the TWA facility, with the remaining 50 required during the operation of the TWA facility.

133. Additionally, on the day of the designated fortnightly shift change (i.e. one day per fortnight) up to 163 light vehicle movements would be required, for which the roads authorities did not raise concern.

134. It is anticipated that there would be one heavy vehicle requiring escort (including high risk heavy vehicles requiring escort) per day during construction. As construction activities would be restricted to daytime hours, construction related vehicles would be using the local road network during the day only. Heavy vehicles up to 26 m in length would be used for transporting materials and components to the site.

135. Traffic generation during operations would be significantly less than the construction phase (i.e. up to 10 light vehicles per day would be required during operations, with heavy vehicles only occasionally required for replacing larger components of project infrastructure).

5.4.3 Road upgrades and maintenance

136. The intersection of Castlereagh Highway and the unnamed local road would be upgraded to provide an Austroads type Channelised Right Turn (CHR) and Short Auxiliary Left Turn (AUL(s)) to accommodate the turning movements of the largest heavy vehicles required by the project.

137. TSH has consulted with both Council and TfNSW about the proposed road upgrades, and has committed to preparing road dilapidation surveys, regular inspection regimes and repairing any damage resulting from the construction traffic.

138. TSH has also committed to removing and then replacing concrete pedestrian refuge islands in Bettington Street, Merriwa to accommodate OSOM vehicles passing through the town to site, if required. The temporary removal of the concrete pedestrian islands has been agreed with Upper Hunter Shire Council (UHSC) and TfNSW. These works are subject to separate *Roads Act 1993* UHSC approval and TfNSW concurrence.

139. Council and TfNSW have confirmed they are satisfied with the proposed road design and upgrades, subject to the recommended conditions of consent.

5.4.4 Recommended conditions

140. The Department has recommended conditions of consent requiring TSH to:

- undertake the relevant road upgrades prior to the commencement of construction;
- restrict project related vehicles to the use of the approved access route only;
- restrict the number of vehicles during construction, upgrading and decommissioning to the peak volumes identified in the final Traffic Impact Assessment;
- ensure the length of vehicles (excluding heavy vehicles requiring escort) does not exceed 26 m; and
- prepare and implement a Traffic Management Plan (TMP) in consultation with TfNSW and Council, including provisions for dilapidation surveys and details of the measures that would be implemented to address road safety.

141. Subject to the recommended conditions, and noting no outstanding concerns from TfNSW and Council regarding the traffic and transport measures, the Department is satisfied that the project would not result in significant impacts on road network capacity, efficiency or safety.

5.5 Visual

142. Twenty-one submissions were received during the EIS exhibition period that raised concerns about potential visual impacts. These concerns included potential impacts on the visual landscape and scenic quality of the region, as well as glint and glare impacts.

143. TSH provided a Landscape and Visual Impact Assessment (LVIA) with the EIS, as well as two addendums to the LVIA. The first LVIA addendum was provided with the project amendment to account for the amended project design. The second LVIA addendum provided an updated assessment of those viewpoints initially assessed as experiencing moderate/low-moderate visual impacts against the *Large-Scale Solar Energy Guideline (2022)* and accompanying Technical Supplement - *Landscape and Visual Impact Assessment.*

144. The Department visited the site and nearby non-associated residences to assess visual impacts and to further understand residents' concerns.

145. *NSW's Large-Scale Solar Energy Guideline (2018)* applies to the assessment as it was in force at the time of the development application.

146. However, to ensure its assessment is in line with contemporary landscape and visual requirements, the Department has also considered the content of the revised *Large-Scale Solar Energy Guidelines* (2022 and 2024) and accompanying Technical Supplement - *Landscape and Visual Impact Assessment*, which provides a detailed description of the landscape character and visual impact assessment process for largescale solar energy

development in NSW. In line with the NSW's *Large Scale Solar Guidelines* and the NSW *Cumulative Impact Assessment Guidelines for State Significant Projects*, the Department's assessment considers approved projects and projects that have been exhibited and are currently under assessment.

5.5.1 Visual context

147. The site and surrounding land have been subject to extensive vegetation clearing associated with historic agricultural land uses and is predominately utilised for grazing activities, with some discrete areas of cropping. Much of the development footprint has been cleared of trees and has been highly modified by historic farming practices. The landscape typical of the region is predominantly cleared, open grazing land with scattered groupings of remnant native trees.

148. The main transport infrastructure in the surrounding area comprises the Castlereagh Highway to the south-west and Puggoon Road along the eastern boundary of the site. The Wallerwang Gwabegar Railway line is also located directly north of the solar farm site.

149. There are 20 non-associated residences within 5 km of the project site that would have potential views of the development (see **Figure 5**), with the closest residence being VP18, which is located 600 m east of the proposed solar array.

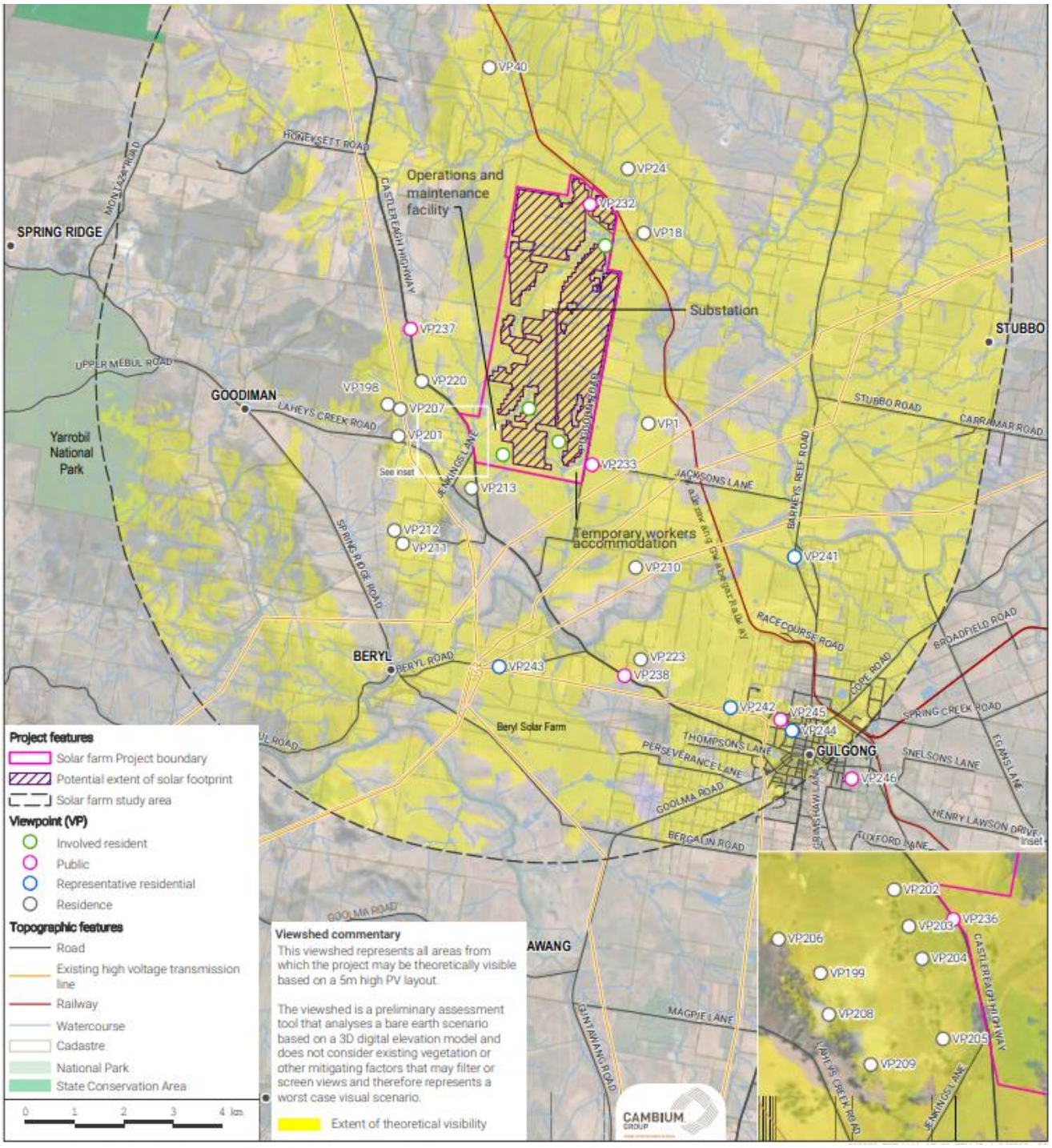


Figure 5 | Nearby Receivers

5.5.2 Visual mitigation

150. The applicant has designed the project footprint to minimise potential visual impacts from the outset. Mitigation measures were introduced as part of the original EIS, primarily involving the establishment of screen planting between the project site from public views and nearby non-associated receivers. Following the project amendment, further mitigation measures were incorporated to account for the potential visual impacts associated with the amended project design.

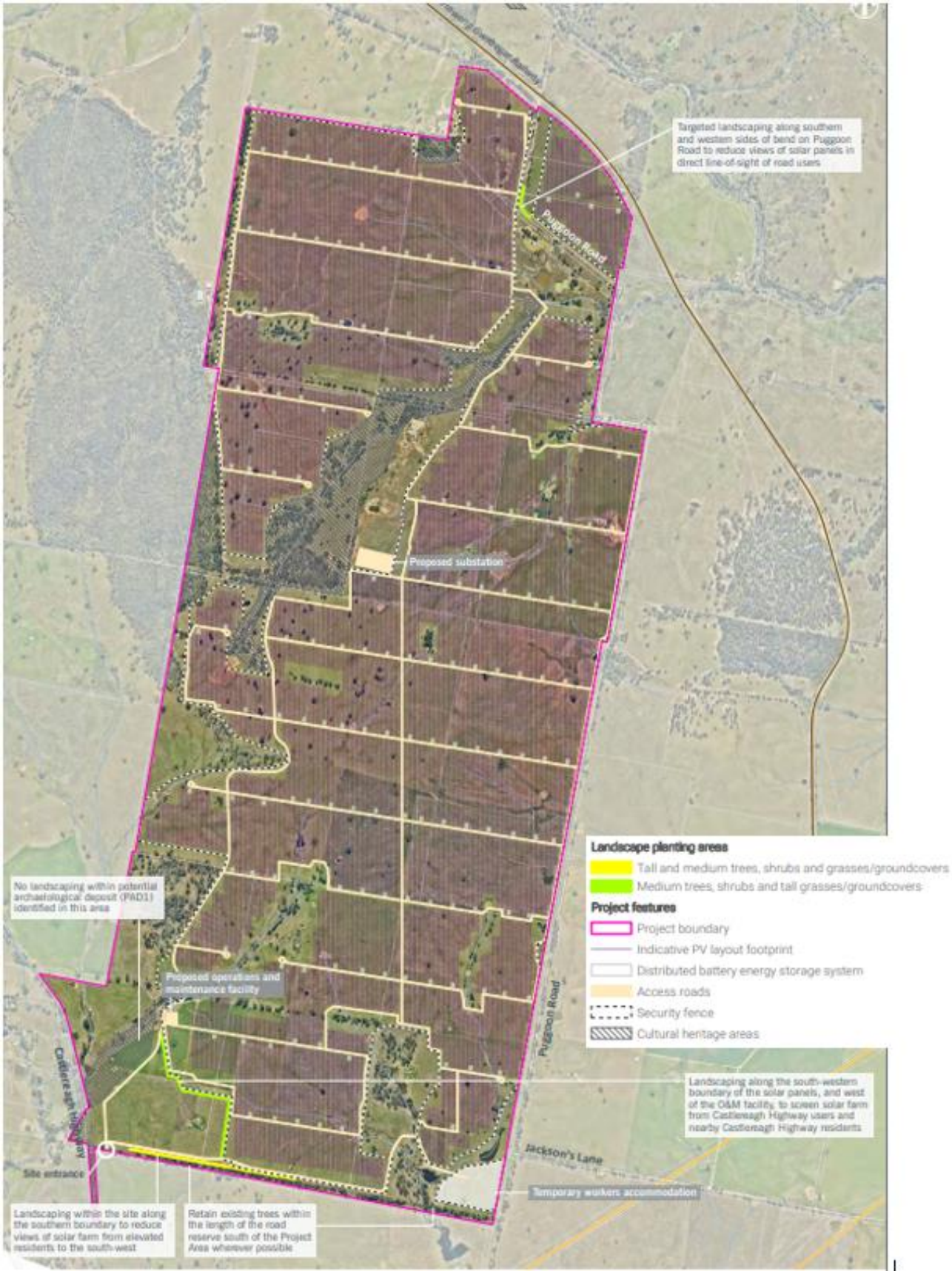


Figure 6 | Concept Landscape Plan

151. TSH has committed to implementing the following mitigation measures to reduce the potential visual impacts on surrounding receivers:

- preparing and implementing a Detailed Landscape Plan;
- locating the TWA to retain all surrounding large trees and strands of trees;
- installing lighting in accordance with *AS4228-1997 - Control of Obtrusive Effects of Outdoor Lighting* and be designed and installed to follow best practice lighting principles identified within the *Dark Sky Planning Guidelines* and to minimise off-site lighting impacts;
- using non-reflecting/colour treated materials in ancillary components of the project to reduce prominence and glint/glare; and
- monitoring visual impacts and effectiveness of proposed mitigations.

152. Significantly, all potential residential receivers which were initially assessed as experiencing moderate/low-moderate visual impacts have since been assessed against the 2022 and 2024 versions of the *Large-Scale Solar Energy Guideline's Technical Supplement - Landscape and Visual Impact Assessment* as experiencing low visual impacts.

5.5.3 Assessment

Landscape

153. Some public submissions state that the landscape is valued by the community for its scenic value and agricultural history. However, the Department notes that the low-lying nature of the development, topography and existing and proposed vegetation screening, would limit views of the project from the surrounding area.

154. Potential impacts on the local landscape have been reduced through project design, including proposed screen planting.

155. The solar farm would have low visibility from vehicles travelling along Castlereagh Highway, as it would be largely screened by existing vegetation.

156. The Department recognises that the introduction of the proposed solar farm to a rural area would result in a change to the local landscape, but considers the development would have a limited impact beyond the project's immediate vicinity. Accordingly, the Department considers the project would have a limited impact on the visual landscape of the region as a whole.

Residences (Direct and Cumulative Impacts)

157. The nature of the proposed development would serve to minimise its visibility from surrounding residences as the solar panels would be relatively low lying (up to 5 m high) and the BESS, power conversion units and substation would be a similar size to agricultural sheds commonly used in the area (3.5 m high).

158. Of the 20 non-associated residences within 5 km of the project site that would have potential views of the project, the visual reports concluded that all receivers would experience low visual impacts when assessed against the 2022 *Large Scale Solar Energy Guideline* Technical Supplement - *Landscape and Visual Impact Assessment*, prior to mitigation. The Department's assessment of the direct visual impacts of the project on nearby residences is provided within Table **7** below. Residences further than 5 km from the project site would experience lower visual impacts than those within 5 km of the site, per the TSH's VIA. The Department has also considered the 2022 Guideline and Technical Supplement which provides additional guidance around the assessment of visual impacts in a more objective and standardised manner.

159. The Department's assessment of visual impacts on non-associated residences within 5 km of the project site, including the potential for cumulative impacts associated with nearby renewable energy developments, is summarised in Table **7**. The Department considers that while some residences would potentially experience cumulative visual impacts from nearby approved and proposed renewable energy projects, TSH has proposed suitable mitigation measures which would adequately reduce the visual impacts of the proposed Tallawang Solar Farm. This is consistent with the objectives of the *Large-Scale Solar Guideline* (2018) and broadly consistent with the requirements of the *Large-Scale Solar Energy Guideline* (2022) and accompanying Technical Supplement - *Landscape and Visual Impact Assessment.*

Table 7 | Summary of visual impacts to residences

Residence ID and distance from development footprint	TSH visual impact rating (pre-mitigation)	Department's assessment
VP1 (1.13 km)	Low	• Due to topography the receiver would experience low visual impacts. • Low cumulative impacts with limited filtered views of Bellambi Heights BESS to the south. • The Department notes that the receiver is host of the proposed Puggoon Solar Farm (SEARs issued June 2025).
VP18 (600 m)	Low - Moderate	• Existing intervening vegetation on the receiver's property would largely screen the proposed solar array and associated infrastructure, resulting in low visual impacts. • Due to distances and intervening vegetation, VP18 would not experience views of other nearby projects.
VP202 (700 m) VP203 (700 m) VP204 (700 m) VP205 (700 m)	Low - Moderate	• Existing vegetation on receiver's property and between the receiver and proposed solar array would largely screen views of panels, resulting in a low overall impact. • Proposed landscaping would further reduce any potential visual impacts. • Due to distances and intervening vegetation, VP202, VP203, VP204 and VP205 would not experience views of other nearby projects.

Residence ID and distance from development footprint	TSH visual impact rating (pre-mitigation)	Department's assessment
VP24 (750 m)	Low	• Assessment against the *Large-Scale Solar Energy Guideline (2022)* shows that due to the flat topography, and without accounting for any existing intervening vegetation, the proposed development would experience low visual impacts
VP220 (1.3 km)	Low	• Existing vegetation and topography between the receiver and proposed solar array would largely screen views of panels, resulting in low visual impacts.
VP40 (2.5 km)	Low	• Receiver would experience partial views of the solar array behind existing vegetation to be retained. • Due to the distance of the receiver from the solar array and existing intervening vegetation, the receiver would experience low visual impacts associated with the proposed development.
VP222 (4 km)	Negligible	• Originally assessed as having a low visual impact due to potential views east of the proposed transmission line, with no views of the solar array identified. • Due to the distance and intervening vegetation, VP222 would have no views of the amended project.
VP198 (1.7 km) VP201 (1.7 km) VP207 (1.7 km)	Low	• Due to topography and existing intervening vegetation, the receivers would have filtered views of the solar array, resulting in low visual impacts • Due to distances and intervening vegetation VP198, VP201 and VP207 would not experience views of other nearby projects.
VP206 (1.1 km) VP208 (1.1 km) VP209 (1.1 km)	Low - Moderate	• Located 1.1 km from the solar array, a photomontage was prepared which demonstrated filtered views of the solar array pre-mitigation, noting some existing vegetative screening. When considered against the 2022 Technical Visual Supplement, the receivers would experience low visual impacts. • **Figure 7** below shows the EIS analytical photomontage of project • Additional proposed vegetative screen planting on site would further reduce potential visual impacts. • TSH also identified potential low cumulative visual impacts with views of Bellambi Heights BESS, Beryl Solar Farm and Stubbo Solar Farm.
VP199 (1.1 km)	Low - Moderate	• Located 1.1 km from the solar array, a photomontage was prepared which demonstrated filtered views of the solar array pre-mitigation, noting some existing vegetative screening. When considered against the 2022 Technical Visual Supplement, the receivers would experience low visual impacts. • Additional proposed vegetative screen planting on site would further reduce potential visual impacts. • V199 would also have potential views of Beryl Solar farm and Bellambi Heights BESS

Residence ID and distance from development footprint	TSH visual impact rating (pre-mitigation)	Department's assessment
VP210 (2.5 km)	Low	• Located 2.5 km from the project site, the receiver would have limited potential views of the proposed development, and would experience low visual impacts • May also have views of Bellambi Heights BESS beyond the proposed Mavis Solar farm
VP211 (2.8 km) VP212 (2.8 km)	Low	• Due to distance, topography and existing intervening vegetation, the receivers would experience low visual impacts. • VP211 and VP212 would also have potential filtered views of Bellambi Heights BESS

160. The Department notes TSH's assessment of VP213 indicating moderate visual impacts. TSH has since entered into a neighbour agreement with this receiver, with the receiver accepting visual impacts. Accordingly, DPHI has removed VP213 from its assessment of visual impacts.

161. It is noted that all residences beyond 5 km from the development footprint are assessed as having low visual impacts. While potential cumulative impacts associated with Bellambi Heights BESS, CWO REZ Transmission lines and Beryl Solar are recognised for some residences, the overall visual impact on these properties would remain low.

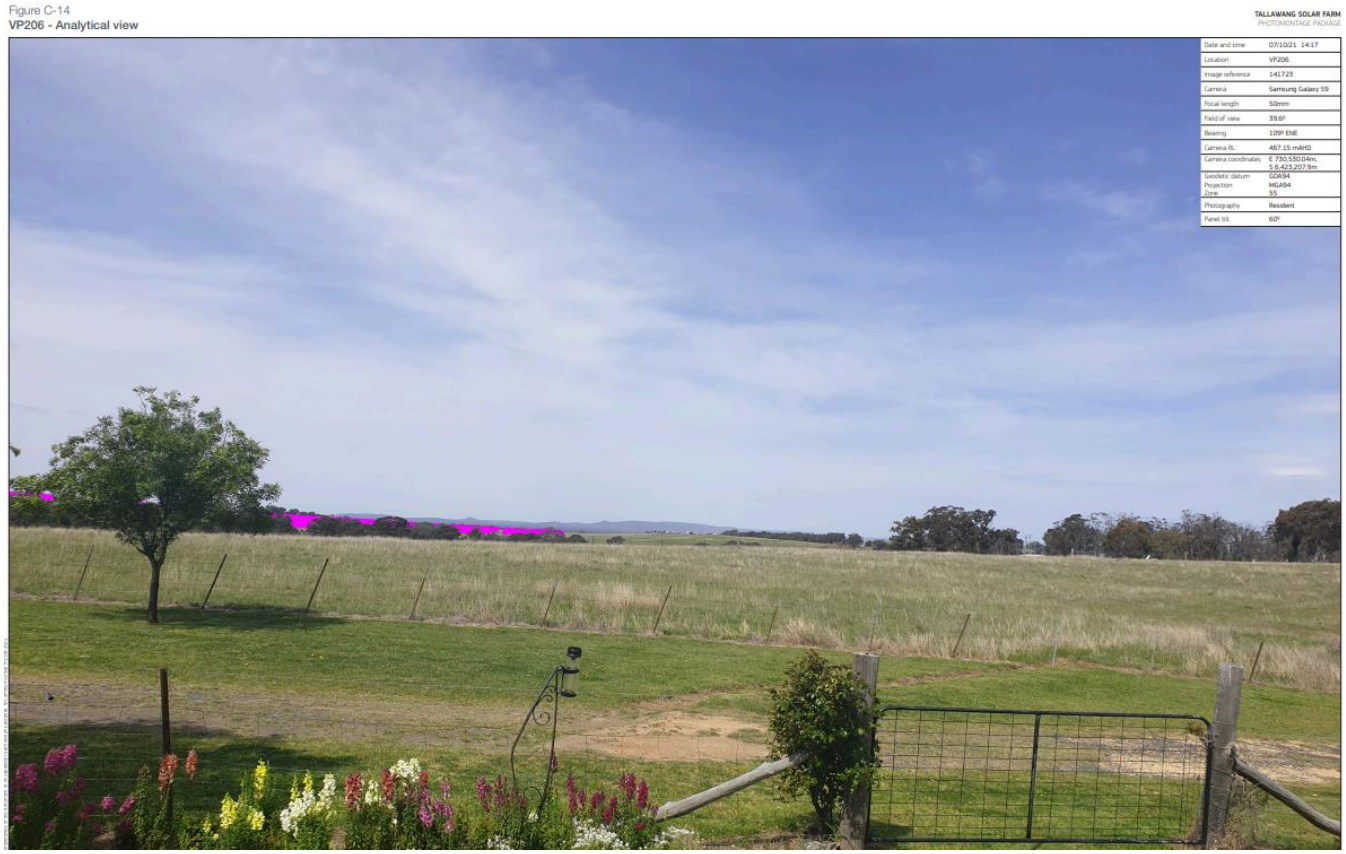


Figure 7 | VP206 Analytical Photomontage

Public viewpoints

162. TSH has indicated a potential moderate cumulative visual impact anticipated from Flirtation Hill (VP246), with two solar farms (Beryl Solar Farm and Stubbo Solar Farm) currently in view from the location. The Department considers the potential cumulative visual impacts to be low and acceptable in the context of the area as a growing renewable energy zone.

163. There is also likely to be cumulative visual impacts for travellers along the Castlereagh Highway and Puggoon Road. The overall visual impact for travellers along Castlereagh Highway however remains low due to existing vegetation screening and breaking up views of the respective nearby projects (Beryl Solar Farm, Mayfair Solar Farm, Mavis Solar Farm, Bellambi Heights BESS, the amended project, Birriwa Solar Farm and CWO REZ grid infrastructure connection).

Glint and Glare

164. While photovoltaic panels are designed to absorb rather than reflect sunlight, the Department recognises that some project components have the potential to generate glare or reflection, including the galvanised steel used for the solar panel mounting framework, but that this diminishes over time.

165. TSH's glint and glare assessment carried out through the EIS Visual Impact Assessment provided general commentary around the nature of glint and glare generated by solar projects, indicating that glare would unlikely be an issue for surrounding residents or road users.

166. Through the assessment process, DPHI requested an updated glint and glare assessment which accounted for potential impacts associated with the amended project. TSH proceeded to provide an updated glint and glare assessment which aligned with the latest *Large-Scale Solar Guideline* (2022). This assessment identified potential 'High' glare impacts per the original solar array scenario (scenario 1). The updated glint and glare assessment also identified one road receptor (Castlereagh Highway) and one Rail receptor (Wallerwang-to-Gwabegar Railway Line) within 1 km of the project, both of which would experience glare impacts requiring mitigation.

167. TSH developed a backtracking scenario (Scenario 2 in the glint and glare assessment dated 17 February 2025) whereby solar panel tilt angles are adjusted as a means of mitigating potential glare impacts on receivers (public and residential). This scenario would eliminate potential glare impacts on all receivers identified, excluding VP01, VP209, VP210 and VP213. A detailed assessment of these receivers, including viewshed analysis, concluded that the residential receivers would not have visibility of the PV array areas (PV arrays 16 and 17) and would therefore not experience any potential glare impacts. As per the updated glint and

glare assessment provided by TSH, scenario 2 would also effectively eliminate potential glare impacts on the road and rail receptors identified.

168. The Department has recommended conditions requiring TSH to minimise the off-site visual impacts of the development, including the potential for any glare or reflection through the implementation of 'scenario 2' backtracking scenario, and to ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape. Subject to the recommended conditions, the Department is satisfied that the project would not cause significant glint or glare to nearby receivers.

5.5.4 Recommended Conditions

169. The Department has recommended conditions of consent requiring TSH to:

- establish and maintain a vegetation buffer (landscape screening) as described in the EIS prior to commencing operation;
- limit the angle of solar panel backtracking in accordance with the scenario (scenario 2) set out within the additional information provided by TSH to the Department dated 17 February 2025;
- ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape;
- minimise the off-site visual impacts of the development, including the potential for any glare or reflection; and
- minimise the off-site lighting impacts of the development.

170. Subject to the recommended conditions, the Department is satisfied that the project would not result in significant visual impacts. The site selection and project design is consistent with the NSW *Large-Scale Solar Energy Guideline*, particularly in avoiding sites with high visibility such as those on prominent or high ground positions, or sites which are located in a valley with elevated nearby residences with views toward the site.

171. The Department considers that TSH has adequately reduced the potential visual impacts of the project to an acceptable level, while largely maintaining the proposed solar power generating capacity.

5.6 Cumulative

172. An assessment has been completed with reference to the *Cumulative Impact Assessment Guidelines for State Significant Projects.* TSH has considered the potential cumulative impacts with other nearby renewable energy projects, including biodiversity, Aboriginal cultural heritage, air quality and odour, noise and vibration, traffic and transport, hazards and risks, visual and social and economic impacts.

173. TSH identified 11 projects that may contribute to cumulative impacts of the project - Barneys Reef Wind Farm, Bellambi Heights BESS, Beryl Solar Farm, Beryl BESS, CWO REZ transmission project, Mayfair Solar Farm, Mavis Solar Farm, Birriwa Solar Farm, Stubbo Solar Farm, Spicers Creek Wind Farm and Valley of the Winds Wind Farm. The Department notes that of these projects, only Beryl Solar, Stubbo Solar and Valley of the Winds Wind Farm had been exhibited at the time of lodgement of the Tallawang Solar Farm EIS and considered in the Department's assessment in line with the NSW *Large Scale Solar Guidelines* and the NSW *Cumulative Impact Assessment Guidelines for State Significant Projects*.

5.6.1 Traffic

174. There are a number of approved and proposed energy projects in the region, given the project's location in the CWO REZ. TSH's Traffic Impact Assessment has considered the traffic volumes from the above mentioned projects.

175. Through their advice on the EIS, TfNSW and Council requested an assessment of cumulative traffic impacts associated with the project and surrounding large scale developments. TSH submitted an updated TIA with their Submissions Report which included a conservative assessment that considered the cumulative impact of all above mentioned projects being constructed simultaneously, which is beyond the requirements of the *Cumulative Impact Assessment Guideline for State Significant Projects*. The assessment found potential cumulative traffic impacts along the Castlereagh Highway and the Golden Highway, which could result in 'Level of Services' (a qualitative representation of quality of service ranked from A-F, A being free-flowing traffic scenario, F being flow break-down resulting in queuing and delays) of B and C respectively during off peak and C and D during peak. The assessment determined any potential short-term cumulative impacts would not result in inadequate road operating conditions during construction. Significantly, TSH's assessment noted that the simultaneous construction of all projects is unlikely to occur, and on this basis, the project would not result in unacceptable cumulative traffic impacts.

176. In the unlikely worst-case scenario of all projects being constructed at once, TSH has committed to preparing a Traffic Management Plan (TMP) which would assist with the scheduling of construction activities and deliveries to prevent overlap with construction movements for other projects, further mitigating potential impacts on the road network. TSH has also committed to establishing a carpool initiative for construction staff to limit light vehicle movements.

177. TfNSW and Council did not raised concerns with the cumulative assessment undertaken in their comments on the Submissions Report. On this basis, and in consideration of TSH's assessment and commitments, the Department considers there would be no material cumulative traffic impacts on the State or local road network as a result of the project.

Notwithstanding, the Department has included a requirement in the Traffic Management Plan to minimise potential cumulative traffic impacts and establish a carpool initiative to further minimise project related traffic movements. The conditions of consent also require an upgrade to the intersection of the unnamed Council Road and Castlereagh Highway.

5.6.2 Noise

178. TSH completed an assessment of potential cumulative noise impacts, which considered projects within 5 km of the project site, including Barneys Reef Wind Farm, CWO REZ Transmission Project and Bellambi Heights BESS, as Noise Policy for Industry noise limits are usually achieved within 3 km of a project. The Department notes the subsequent withdrawal of Barneys Reef Wind Farm from the planning system.

179. TSH has demonstrated that cumulative construction noise and vibration impacts of the Tallawang Solar Farm and each of CWO REZ transmission (north) and Bellambi Heights BESS (south) would be minimal noting the following:

CWO REZ Transmission Construction

- Construction scenario 1 would generate maximum exceedances of 5dB(A) at R018 and 4dB(A) at R024 for a duration of 1 month; and
- Construction scenario 2 would generate maximum exceedances of 6dB(A) at R018 and 5dB(A) at R024 for a duration of 1 month.

Bellambi Heights BESS

- Construction timeframes are unlikely to overlap (Bellambi Heights Q4 2026 – May 2027, Tallawang June 2027 – March 2030).

180. TSH has set out management and mitigation strategies to address the cumulative construction noise impacts, noting that affected receivers would be notified prior to commencement of any works associated with the activity that may have a noise impact.

181. TSH determined there would be no cumulative operational noise impacts with the adjacent CWO REZ Transmission Project and Bellambi Heights BESS.

182. TSH's assessment considered traffic volumes on the section of Castlereagh Highway to the north of the site through the township of Birriwa. Exceedances of noise limits and a noise level change up to 5.2 dB(A) higher than the 60 dB(A) limit within 20 m of the road corridor indicate elevated road traffic noise levels during the construction period.

183. TSH has committed to implementing driver training as part of the induction process, which would highlight the requirement to avoid excessive acceleration of trucks and use of truck engine brakes through the township of Birriwa. TSH has also committed to scheduling construction traffic deliveries to minimise impacts where reasonable and feasible. The

Department considers that the temporary impacts identified would be acceptable, subject to the applicant implementing the above mitigation measures.

5.6.3 Social

184. Concerns about the social impacts of the project were raised in 13 submissions during the EIS exhibition. These concerns related to anticipated negative impacts on privacy and safety, visual amenity, lifestyles, livelihoods and traffic, as well as the potential for the construction workers to increase demand for local public health services and accommodation.

185. TSH provided a Social Impact Assessment (SIA) and Addendum SIA assessing the social impacts of the proposed development as the project evolved. The social locality has been defined in accordance with the Social Impact Assessment Guideline (2021). The SIA considered impacts of the project locally and regionally, along with concerns that were raised during targeted stakeholder and community engagement efforts, including potential cumulative impacts on accommodation, amenity, land use and traffic.

186. TSH amended the project to include a 400 person TWA facility as a means of addressing concerns of potential cumulative impacts on local housing availability, services and traffic. As a means of addressing potential socio-economic impacts, TSH has committed to carrying out ongoing consultation with the Mid-Western Regional Council and ensuring community engagement is implemented and maintained to identify and address any emerging social issues. Security personnel on site would also serve to maintain safety of accommodation staff and nearby residents.

187. The Department is satisfied that the potential social amenity impacts can be effectively managed through conditions requiring monitoring and recording of complaints, and implementation of appropriate management plans to minimise impacts.

5.6.4 Temporary Workers Accommodation (TWA) Facility

188. TSH proposed a TWA facility through the Amendment Report to address potential impacts on accommodation availability in the area, which will also reduce the number of light vehicle movements entering and exiting the site, thereby reducing potential impacts on local road networks. The proposed TWA facility would house up to 400 construction staff during the construction phase of the project.

189. The addition of the TWA facility would reduce potential cumulative impacts on local traffic and the availability of short-term accommodation in the local and regional area.

190. Public feedback received during exhibition raised concerns about servicing of the site. Accordingly, TSH has provided the following details of intended servicing options:

- Water supply options and regulatory pathways have been identified to support the water requirements of the project. TSH has detailed the required water demands of the project and demonstrated that Ulan Water would be able to meet these demands.
- TSH has identified two sewage treatment options, being an on-site advanced secondary treatment system with land application / reuse via surface spray irrigation of surrounding pasture, pending approval from Council through a Section 68 application, or disposal of sewage directly to a Dubbo Waste Treatment facility, subject to availability and competing demand at the time of disposal. The Department is satisfied that feasible options for treating sewage are available and has drafted recommended conditions which require implementation of an option prior to the commencement of construction.
- TSH has consulted with Dubbo Regional Council confirming the Whylandra Waste and Recycling Facility is currently licensed to receive green waste and general solid waste for the construction and operational phases of the amended project. Dubbo Council also confirmed liquid waste may be able to be received by Council's sewage treatment plant subject to available capacity at the time should the applicant opt to transport raw sewage from the site. DPHI has recommended condition B43 within the draft conditions of consent which requires TSH to demonstrate final quantities and locations for disposal of waste streams prior to construction commencing.
- TSH has proposed that an on-site medical centre and first aid station would be established and resourced with a qualified nurse. Additionally, TSH has proposed the implementation of a telehealth service for workers, offering virtual access to a general practitioner.
- Electricity for the TWA facility would be generated on-site via diesel generators and solar panels. Electricity may also be sourced via the local distribution network, should a fixed connection be established.
- TSH has also committed to employing security personnel on site in response to concerns raised by the public around safety and security. TSH has consulted with NSW Police throughout the design of their project and has also committed to carrying out consultation with NSW Police as necessary when establishing on-site licensed facilities for the service of alcohol.

191. The Department is satisfied that the proposed TWA facility is capable of being effectively serviced, with final details of the provision of services to be determined through the post-approval stage of development, prior to construction. Accordingly, the Department considers the proposed TWA facility to be a suitable means of mitigating potential increased demand for housing and associated residential services in the region.

5.6.5 Recommended Conditions

192. The Department is satisfied that the project has been designed to minimise opportunities for potential cumulative social impacts, noting the project's location within the CWO REZ.

193. In addition to specific traffic, amenity and operating conditions, the Department has recommended conditions of consent requiring TSH to:

- prepare an Accommodation Camp Management Plan in consultation with Council prior to commencing construction of the TWA facility; and
- ensure utilities at the TWA facility, including water, wastewater, waste and electricity, are designed and located in accordance with Mid-Western Regional Council specifications.

5.7 Other issues

195. The Department's consideration of other issues is summarised in **Table 108.**

Table 108 | Assessment of other issues

Issue	Recommended conditions
Heritage	
Aboriginal Cultural Heritage • One public submission raised concerns about potential impacts on Aboriginal cultural heritage. • TSH commissioned a survey of the project site with representatives from Registered Aboriginal Parties (RAPs). • Twenty-three previously unrecorded sites (three areas of potential archaeological deposits (PAD) with associated surface artefacts, 11 artefact scatters and nine isolated artefacts) were identified in the amended project site. • TSH has committed to fencing the three PADs, all of low to moderate archaeological significance, prior to construction, subsequently no ground disturbance is to occur within their mapped extent. It is noted that the CWO REZ transmission line would span PAD2 and has been assessed as part of that project. Additionally, Tallawang Solar Farm would not require any ground disturbance of the area mapped PAD2. • Three sites (IF1-IF9, AS6 and AS12), all of low archaeological significance, would be subject to impact because of ongoing agricultural use that would occur concurrently with the project. Accordingly, these sites would be salvaged via surface collection prior to construction commencing in accordance with an approved Aboriginal Cultural Heritage Plan. • Sites AS1-5 (low/low to moderate archaeological significance), AS7-10 (low archaeological significance) would be avoided where possible through the establishment of appropriate fencing/site demarcation prior to commencement of construction and protected during operation. Where impacts would occur (i.e. works within	• Ensure the development does not cause any direct or indirect impacts on any items located within exclusion zones or outside the approved development footprint. • Salvage and relocate Aboriginal items in consultation with RAPs. • Prepare and implement an Aboriginal Cultural Heritage Management Plan, including procedures for unexpected finds in consultation with RAPs. • Cease any works and notify the NSW Police and Heritage NSW if human remains are identified over the life of the project • Setback TWA a minimum of 150 m from third order streams. • Implement a 40 m exclusion zone around PHI1 and a 30 m exclusion zone around PHI2 to avoid potential

Issue	Recommended conditions
10 m of recorded location) surface collection would occur prior to construction in accordance with an approved Aboriginal Cultural Heritage Plan. • If previously unknown Aboriginal artefacts or skeletal material are identified during construction of the project, all work would cease and an unanticipated finds procedure would be implemented, as committed to by TSH in the EIS. • With these measures, the Department and Heritage NSW consider that the project would not significantly impact the Aboriginal heritage values of the locality. Historic Heritage • There are no listed items of historical heritage within 2 km of the development area. • Two items of potential heritage significance were identified on the site and assessed to have local significance, both items would be retained and subject to exclusion zones (PHI1 being a c.1900 weatherboard cottage, PHI2 being a c.1870 single room hut). • TSH's assessment concluded that there would be no impact on any listed heritage item. • TSH has committed to implementing appropriate exclusion zones around PHI1 and PHI2 during construction. Heritage NSW has endorsed the implementation of the 40 m exclusion zone around PHI1 and the 30 m exclusion zone around PHI2. • The Department is satisfied that the project would not have any adverse impacts on State, National or World heritage items within or near the site. The proposed mitigation measures would also effectively minimise any potential impacts to items of local heritage significance located on the site.	impacts on any items of historic archaeological significance.
Erosion and sediment control	
• One public submission raised concerns about potential soil and erosion impacts. • The soil erosion hazard has been assessed as high due to the presence of sodic and dispersive soils. This hazard would be minimised to an acceptable level via adoption of appropriate drainage, erosion and sediment control practices, and management measures during construction.	• Prepare a Soil and Water Management Plan in consultation with the Water Group prior to construction.

Issue	Recommended conditions
• TSH has committed to preparing and implementing a Construction Environmental Management Plan and Operational Environmental Management Plan, both of which would contain relevant erosion and sediment control measures to manage any potential impacts on waterfront land (Soil and Water Management Plan, including Erosion and Sediment Control Plans and establishing/maintaining suitable groundcover). • The Department considers that any erosion and sedimentation risks associated with the project can be effectively managed through the implementation of a suitable Soil and Water Management Plan and by following the *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004).	• Minimise any soil erosion in accordance with the *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual and ensure the project is constructed and maintained to avoid causing erosion on site.
Water	
Surface Water and Flooding • The site falls within the Macquarie-Bogan River Catchment, the lower catchment of Tallawang Creek. Tallawang Creek is located to the north of the site. • Several ephemeral watercourses (first and second order) traverse the site, those in the north discharge to Tallawang Creek and those in the south discharge to Wyaldra Creek. There are approximately 35 farm dams located within the site. • THS has committed to designing and constructing all waterway crossings to the TWA Facility in compliance with the *Guidelines for riparian corridors on waterfront land* and *Guidelines for watercourse crossings on waterfront land* and up to the 1% AEP flood event. • TSH has demonstrated which areas of the site would be at risk of flooding during a flood event and has sited key project infrastructure clear of those areas that would be most affected. • The TWA facility has been located clear of flood waters up to the 0.2% AEP event, and would only experience up to 0.25 m of flood water during a PMF event. • TSH's post-development flood scenarios found that the primary site access is not flood affected up to the 0.2% AEP flood event, though the Castlereagh Highway both north and south of the project access would be impacted during flood events.	• Design, construct and maintain the project to reduce impacts on surface water and flooding at the site. • Ensure the solar panels and ancillary infrastructure do not cause any increased water being diverted off the site or alter hydrology off site. • Prepare a Soil and Water Management Plan in consultation with the Water Group. • Prepare and submit a Construction Flood Emergency Response Plan to DPHI for implementation during construction.

Issue	Recommended conditions
• Noting the potential flood impacts on site and potential constraints on safe evacuation routes, DPHI consulted with CPHR Water and NSW SES seeking advice around suitable emergency responses in the event of a flood that would inform an emergency management plan. • In response to advice received from NSW SES and CPHR Water, TSH prepared flood response options for NSW SES to review and provide feedback on. These options included the preferred option of evacuating the site if advanced warning of flood events was received. Failing that, TSH set out considerations for the provision of suitable shelter in place on the site. TSH has committed to preparing a Construction Flood Emergency Response Plan (CFERP) in consultation with NSW SES and CPHR Water which would detail each of the respective flood responses mentioned above. • CPHR Water provided no further comment, deferring to NSW SES. NSW SES was satisfied with the information provided and confirmed post-approval consultation would be a suitable means of preparing the final CFERP prior to construction. • Accordingly, DPHI has included a condition of the consent which would require the CFERP to be prepared prior to the commencement of construction. Subject to the preparation and implementation of the CFERP, the Department is satisfied that the flood risk could be appropriately managed. • The potential for adverse water quality impacts would be managed through a Soil and Water Management Plan and an Erosion and Sediment Control Plan. With the implementation of these measures the Department considers there would be limited impacts to surface water. Groundwater • Groundwater in the northern half of the site and surrounding creek systems are identified in the Mid-Western Regional LEP as 'Groundwater Vulnerability'. One groundwater bore (GW0805247) is located within the site adjacent to and east of the Castlereagh Highway, the last recorded groundwater depth of which was 12 m below ground. • High potential groundwater dependent ecosystems (GDEs) were identified approximately 400 m north of the site and moderate-low potential GDEs were identified within the site.	

Issue	Recommended conditions
• TSH's assessment found that impacts to groundwater resources, including Groundwater Dependent Ecosystems (GDEs) and bore users, are not expected given the groundwater table is unlikely to be intercepted during construction and operation of the project. • Water Group within NSW DCCEEW had no comments on the groundwater assessment undertaken by TSH. Water Supply • TSH's amended Water Resources Impact Assessment report identified the overall water demand of the project (3.4 ML per year during operation, 301 ML for the 36-month construction period). • TSH have consulted with Ulan Water who have confirmed they can provide water from sources that are not Mid-western Regional Council sources, including Windemere Dam (subject to a water use license). Non-potable water may also be sourced from farm dams (maximum harvestable right estimated to be 91 ML) or licensed groundwater bores located within site. • TSH has committed to not draw water from Mid-Western Regional Council via third party water providers and to continue to consult with Council regarding suitable water sources and to developing a water sourcing strategy so that water used during the construction phase does not cause issues to adjacent landowners or other stakeholders. • Should use of bore water be required for the project, TSH would be required to obtain a water supply work approval under the *Water Management Act 2000* through The Water Group. • The Department is also satisfied that TSH has demonstrated that sufficient access to viable water supplies is available. • Subject to the recommended conditions, the Department considers that the project would not result in significant impacts on water resources. Fish habitat • There is no key fish habitat within the development footprint.	

Issue	Recommended conditions
Dust	
• Construction of the project involves earthworks for site preparation, vegetation clearance, trenching for cables and construction of access tracks. Other sources of dust would include vehicles travelling on unsealed roads and wind-blown emissions during operations. • TSH has identified potential localised dust generation over the 36-month construction period. • TSH has committed to preparing and implementing a CEMP and OEMP that will manage potential dust impacts through the use of water trucks for dust suppression and minimising dust generating work in adverse conditions (dry, windy days). • TSH has committed to undertaking regular inspections/audits to monitor the effectiveness of dust controls on-site. • The Department is satisfied that the commitments made by TSH would suitably manage dust generated during construction and operation of the project.	• Monitor and minimise dust generated from the lifecycle of the project from construction, operation and decommissioning.
Waste	
Waste Management • The TWA facility would generate approximately 4,480 kg of waste per day during the peak of its operation (8 months of the 36-month construction period). • TSH has consulted with Dubbo Regional Council regarding waste treatment facilities capable of accepting most waste streams to be produced by the development and has confirmed that the Whylandra Facility is able and licensed to receive green waste and general solid waste (both non-putrescible and putrescible) for the construction and operational phases of the project. • Treated liquid waste may be able to be received by the Gulgong Sewerage facility, however this will need to be confirmed. Alternatively, TSH has confirmed potential capacity in Dubbo to receive raw sewage. The recommended conditions of consent require the applicant to nominate the waste treatment facility responsible for treating liquid waste prior to commencing construction. • Hazardous waste would be taken to a licensed facility in the LGA, subject to an agreement being made.	• Waste Management Plan to be prepared with final types and quantities of waste streams, along with waste treatment facilities responsible for their treatment prior to construction. • A Wastewater Treatment Plan setting out details of treatment is to be submitted to the Department and approved prior to the commencement of construction.

Issue	Recommended conditions
• The Department is satisfied that waste produced in association with the development is capable of being effectively managed, subject to formal arrangements being finalised prior to construction commencing. Sewage • The TWA facility is anticipated to produce approximately 34 ML of wastewater over the duration of the construction period. TSH intends to service the proposed TWA facility via one of two options: 1. An on-site advanced secondary treatment system with land application / reuse via surface spray irrigation of surrounding pasture, subject to approval from Council via Section 68 of the *Local Government Act 1993.* 2. Delivery of liquid waste to a licensed facility with capacity to take sewage, with preliminary discussions undertaken with Dubbo Regional Council. Mid Western Regional Council has recommended a condition of consent which requires TSH to prepare a waste management plan to be provided to the Department which sets out final waste quantities, streams and management/treatment • A septic system would be installed for operational amenities and managed in accordance with the relevant Council requirements. • The Department is satisfied that, subject to TSH entering into an arrangement with a treatment facility with capacity to take the sewage produced on site, sewage is capable of being effectively managed.	
Noise and Vibration	
Noise • Seven public submissions expressed concern about the potential noise impacts of the project during construction and operation. • Noise generated during construction is predicted to be below the 'highly noise affected' criterion of 75dB(A) in the EPA's *Interim Construction Noise Guideline* (the ICNG) at all non-associated residential receivers and construction is limited to daytime hours. • Construction noise would exceed the noise management level of 45 dB(A) for 12 non-associated residential receivers ranging from 1 to 16 dB(A) over the management level, without mitigation. The highest predicted exceedances are anticipated to occur during the Castlereagh Highway intersection upgrade works, which	• Minimise noise generated by the construction, upgrading or decommissioning activities on site in accordance with best practice requirements outlined in the ICNG. • Comply with the noise management levels as derived from the *NSW Noise Policy for Industry* (EPA, 2017) at any non-associated residence.

Issue	Recommended conditions
would require the use of heavy machinery, water trucks and delivery trucks for a period of 2 months. 9 non-associated receivers would be impacted in construction scenario 7 (Intersection upgrades), with 2 of the 9 receivers subject to 16dB exceedances. • TSH has also identified 7 receivers which would experience noise levels above the noise management level for a total of approximately 4 months across the overall construction period of 36 months. • To mitigate the 4 months of exceedances identified above, TSH has committed to stage construction scenarios 1, 2 and 3 to provide respite for residents, ensuring 4 months of impacts do not occur over a consecutive 4-month period. • TSH's assessment predicted noise levels for the plant associated with the operation of the TWA facility to be below the night-time noise management level (NML) of 35 dB(A) LAeq (15 min). • TSH has also committed to developing a number of mitigation measures to minimise anticipated construction noise impacts, including preparing a Noise and Vibration Management Plan to implement noise mitigation work practices, notifying receivers likely to be impacted by noise 7 days prior to works commencing, scheduling high noise generating works during less sensitive daytime hours and turning off machinery when not in use. Road traffic noise during construction exceeds the daytime noise limit of 60 dB(A) and the relative increase criterion of 2 dB(A) for additional project traffic within 25 m of the road edge. Several receivers (R138, R139, R140, R141, R145, R146 and R214) within the township of Birriwa are within 25 m of the road and may experience elevated road traffic noise during construction. • TSH has committed to implementing mitigation measures to manage the identified exceedance by scheduling deliveries evenly, disperse noise impacts as best practicable and notification of residents prior to commencement of works. • The Department has recommended conditions restricting works to standard construction hours (i.e. 7 am to 6 pm Monday to Friday, and 8 am to 1 pm Saturday), with no works permitted on Sundays or NSW public holidays. • However, the Department acknowledges that there may be some instances where construction activities are required to occur outside of standard hours. Where these activities are inaudible at non-associated receivers,	• Prepare a Noise Monitoring Report to monitor noise levels at identified non-associated receivers. • Restrict construction hours to Monday to Friday, 7 am – 6 pm and Saturday, 8 am – 1 pm.

Issue	Recommended conditions
required for emergency or if agreed with the Planning Secretary, the Department has recommended conditions allowing these activities to be undertaken outside of standard hours. • The operational noise levels of the project are predicted to comply with criteria in the *NSW Noise Policy for Industry* (EPA, 2017) at all non-associated receivers for the day, evening and night-time periods during enhanced weather conditions. Vibration • TSH's assessment found that given the distance to non-associated receivers vibration impacts from construction works would be negligible. Safe working distances and supporting management measures have been proposed for the two potential heritage items identified at the site. TSH has updated their mitigation measures to include a commitment to adhere to identified safe working distances, where possible. In an event where works within safe working distances would be required, TSH has committed to preparing and implementing the findings of an independent specific structural assessment, dilapidation survey and vibration monitoring to ensure the safety of the identified items and structures that are to be protected. • The Department is satisfied that construction and operational noise and vibration impacts would be limited and has recommended conditions requiring TSH to minimise noise during the entire life cycle of the project.	
Hazards and risks	
• Nineteen public submissions raised concerns about potential fire hazards. Bushfire • While the site is not identified as bushfire prone land, TSH provided an assessment of the project against the provisions of *Planning for Bushfire Protection 2019*. • TSH's bushfire assessment report also considered the TWA facility and found that the potential for, or the severity of, bushfires would not be increased and that the risk of onsite activities igniting fire can be effectively minimised. The bushfire assessment report also prescribed suitable design provisions.	• The BESS must not exceed the proposed total energy storage capacity of 1,000 MWh across the project site or 7.5 MWh of energy discharge capacity collocated, and must be installed in an arrangement consistent with the EIS. • Prepare a Fire Safety Study and an Emergency Plan for the development.

Issue	Recommended conditions
• The Department considers that the bushfire risks can be suitably controlled through the implementation of standard fire management procedures and recommendations made by FRNSW and RFS, including: – implementation of suitable APZs in accordance with *Planning for Bushfire Protection 2019;* – preparation of a Fire Safety Study in consultation with FRNSW; and – development and implementation of a comprehensive Emergency Plan. • Accordingly, the Department has recommended conditions of consent which require TSH to prepare a Fire Safety Study and ensure that the TWA facility is designed in accordance with NSW RFS's *Planning for Bushfire Protection 2019.* Battery Storage • TSH undertook a preliminary risk screening in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive* Development. The screening concluded that the transport and storage of hazardous materials for the project would not exceed the relevant risk screening thresholds and the project is not considered to be potentially hazardous. • The Department is satisfied that the dispersed BESS separation distances from surrounding landuses, including the proposed on-site TWA facility, suitably minimise risk of hazards. • The potential for off-site impacts at the Wallerwang Gwabergar Railway Line and Puggoon Road was noted should a hazard event occur, resulting in the closure of Puggoon Road and the Wallerwang Gwabergar Railway Line. TSH has committed to a Fire Safety Study and Emergency Response Plan where site-specific plans and procedures be prepared to address the potential off-site impacts. ARTC and Council did not raise any concerns. • The project would comply with the *International Commission on Non-Ionizing Radiation Protection* (INCIRP) *Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic and Electromagnetic Fields (Up To 300 Ghz).* • The Department, in consultation with FRNSW and RFS, is satisfied that risks associated with the project would be managed through the implementation of the recommended conditions of consent.	• Comply with the relevant provisions of *Planning* for *Bushfire Protection 2019*. • All chemicals, fuels and oils to be stored in accordance with Australian Standards and EPA requirements. • Unexpected finds protocol to be implemented, • Remedial works to be completed prior to construction of TWA area.

Issue	Recommended conditions
Contamination • Seven submissions received during the exhibition period raised concerns regarding potential contamination. • TSH prepared a Preliminary Site Investigation (PSI) in 2022 and a PSI addendum in consideration of *State Environmental Planning Policy (Resilience and Hazards) 2021.* • The original PSI comprised a desktop review of site information, including published information on geological, topographical hydrogeological, soil salinity and acid sulfate soil conditions, a site walkover and soil sampling/testing of 61 test pits. • The PSI addendum also comprised of a site walkover, updated historical aerial photography review and preparation of an updated PSI report. • The PSI report addendum results identified a burnt-out tractor on the site that should be removed and disposed of accordingly. The tractor site should then be validated by a suitably qualified environmental consultant prior to construction of the TWA facility. • The PSI report also provides recommendations should unexpected finds occur, or should suspected asbestos be encountered on the site. • Noting the outcomes of the PSI, the Department considers the project site is suitable for development subject to the recommended conditions of consent which require TSH to implement the recommendations of the contamination report, including remedial works around the burnt-out tractor and implementation of an unexpected finds protocol.	
Community benefit	
• The Department considers that, in addition to its contribution to the energy transition, the project would generate direct and indirect benefits to the community, including: – up to 420 construction workers would be required during the 9-month peak construction period; – expenditure on accommodation and business in the local economy by workers who would reside in the area; and	• TSH implement its offer to enter into a planning agreement with Council. • Prepare an Accommodation and Employment Strategy for the project in consultation with both Councils,

Issue	Recommended conditions
– the procurement of goods and services by TSH and associated contractors. • Further, TSH has reached an in-principle agreement with Mid-Western Regional Council to enter into a voluntary planning agreement (VPA) consisting of a payment of approximately $425,000 paid annually and adjusted for consumer price index for the first 35 years of the project's operational life. • Noting the above, the Department considers that the project would have a positive socio-economic impact on the community.	with consideration to prioritising the employment of local workers.
Land Value	
• Thirteen public submissions received during the exhibition period raised concerns regarding potential property devaluation. • The Department considers that the project would not result in any significant or widespread reduction in land values in areas surrounding the project. • The Department notes that: – the project is permissible with development consent under both the Transport and Infrastructure SEPP and Mid-Western Regional LEP; – a detailed assessment of the merits of the project has found that the project is unlikely to generate significant economic, environmental or social impacts; – the impacts of the project can be further minimised by imposing suitable conditions on the project, and requiring a range of standard mitigation measures, such as vegetation screening, to be implemented; – the Department considers that the visual impacts of the project on the surrounding residences and road users would not be significant; and – the Land and Environment Court has ruled on several occasions that the assessment of the impacts of projects on individual property values is not generally a relevant consideration under the EP&A Act, unless the project would have significant and widespread economic impacts on the locality, which is not the case in this instance.	• No specific conditions required.

Issue	Recommended conditions
Insurance	
• One public submission received during the exhibition period raised concerns regarding potential increased insurance costs. • The Department notes that the Insurance Council of Australia is not aware of any instances where Insurance Council Members have been unable to provide insurance or have increased premiums as a result of a neighbouring property hosting energy infrastructure.	• No specific conditions required.
Decommissioning and rehabilitation	
• The operational life of the project is likely to be 35 years, however there is potential to operate for a longer period of time if solar panels are upgraded over time, which would be permitted under the recommended conditions of consent. • The *Large-Scale Solar Energy Guideline* identifies four key decommissioning and rehabilitation principles for circumstances where an applicant ceases operating a project, which are the removal of project infrastructure, returning the land to its pre-existing use, including rehabilitating and restoring the pre-existing LSC Class where previously used for agricultural purposes, and the owner/operator of the project should be responsible for the decommissioning and rehabilitation and this should be reflected in an agreement with the host landowner(s). • With the implementation of objective-based conditions and monitoring requirements, which are consistent with these key principles, the Department considers that the solar farm would be suitably decommissioned at the end of the project life, or within 18 months if operations cease unexpectedly, and that the site be appropriately rehabilitated.	• Include rehabilitation objectives requiring the site to be rehabilitated within 18 months of cessation of operations.

6 Evaluation

196. The Department has assessed the development application, EIS, Submissions Report, Amendment Report and additional information and has carefully considered:

- submissions received from members of the community;
- comments provided by Council;
- advice received from State and local Government agencies.

197. The Department has also considered the objectives of the EP&A Act, including the Ecologically Sustainable Development principles, and relevant considerations under section 4.15(1) of the EP&A Act. The Department has given consideration to TSH's evaluation of the project's merits against applicable statutory and strategic planning requirements.

198. The site is located on land zoned RU1 and SP2, where electricity generating works are permissible with consent. The site is located in an area traditionally associated with agricultural practices, whereby 20 non-associated residences located within 5 km of the development footprint would have potential views of the proposed development. The site is located in the CWO REZ, has good solar resources, good access to the regional road network and would have direct access to the electricity network via the approved CWO REZ transmission line.

199. The project has been designed to largely avoid key constraints, including amenity impacts to nearby non-associated residences, high value agricultural land, watercourses, remnant native vegetation and Aboriginal heritage sites. TSH also amended the project to further address concerns raised by government agencies and Mid-Western Regional Council. Any residual impacts would be relatively minor and can be managed through the recommended conditions of consent.

200. The project would not result in any significant reduction in the overall agricultural productivity of the region, and TSH has confirmed it would not impact any areas of BSAL. Following decommissioning, the site could return to agricultural land as the inherent agricultural capability of the land would not be affected in the long term. The Department considers that there would be no significant visual impacts on surrounding residences, due to the distance from non-associated receivers, intervening topography and vegetation providing screening, and setbacks of solar arrays.

201. To address the residual impacts, the Department has recommended a range of stringent conditions, developed in consultation with agencies and Councils, to ensure these impacts are effectively minimised, managed or offset.

202. The Department considered the submissions made through the exhibition of the project and the issues raised by the community and agencies during consultation. These matters have been addressed through changes to the project and the recommended conditions of consent.

203. Importantly, the project would assist in transitioning the electricity sector from coal and gas-fired power stations to low emissions sources and is consistent with the goals of the *NSW's Climate Change Policy Framework* and the *Net Zero Plan Stage 1: 2020 – 2030*. It would have a generating capacity of 500 MW of clean electricity, which is enough to power approximately 212,000 homes, and 500 MW of energy storage to dispatch energy to the grid when the energy generation from renewable resources is limited.

204. The Department considers that the project achieves an appropriate balance between maximising the efficiency of the solar resource development and minimising the potential impacts on surrounding land users and the environment. Through job creation and capital investment and a planning agreement with Mid-Western Regional Council, the project would also stimulate economic investment in renewable energy and provide flow-on benefits to the local community.

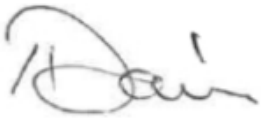
205. Overall, the Department's assessment concludes that the project would result in benefits to the State of NSW and considers the project is in the public interest. As such the Department concludes that the project is approvable subject to the recommended conditions of consent (see **Appendix G**).

206. This assessment report is hereby presented to the Commission to determine the application.

Prepared by:

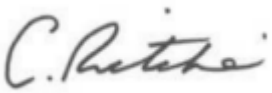
Nestor Tsambos, Team Leader
Cameron Ashe, Senior Environmental Assessment Officer

Recommended by:



18/7/25

Iwan Davies
Director
Energy Assessments



18/7/25

Chris Ritchie
A/Executive Director
Energy, Resources and Industry

Appendices

Appendix A – Environmental Impact Statement

Appendix B – Submissions

Appendix C – Agency advice

Appendix D – Submissions Report

Appendix E – Amendment Report

Appendix F – Additional Information

Appendix G – Recommended Development Consent

Appendices A to G available at: https://www.planningportal.nsw.gov.au/major-projects/projects/tallawang-solar-farm

Appendix H – Consideration of community views

The Department exhibited the EIS for the project from 28 October 2022 until 24 November 2022 and received 56 unique submissions from the public (including two interest groups), of which 54 objected to the project.

The Department consulted with government agencies and Mid-Western Regional Council throughout the assessment process.

The key issues raised by the community (including in public submissions) and considered in the Department's Assessment Report include land use compatibility, socio-economic impacts, fire hazards, visual impacts on surrounding landowners and cumulative impacts of projects in the CWO REZ.

Other issues are addressed in detail in the Department's Assessment Report.

Table 9 | Consideration of community views

Issue	Consideration
Compatibility of the proposed land use	Assessment • Thirty submissions received during the EIS exhibition period raised concerns about establishing a solar farm on agricultural land.

Issue	Consideration
• Loss of agricultural land • Impacts on neighbouring agricultural activities (including weeds, pests, soil and erosion)	• Siting of the project has avoided important agricultural land, with the project area being ground-truthed as Class 4 and 6 under the *Land and Soil Capability Mapping for NSW* (OEH 2017), indicating agricultural uses are largely restricted to low-moderate impact uses such as grazing and occasional cultivation for fodder crops. The combined development footprint with the other proposed, approved and/or operational SSD solar farms in the Central West and Orana region (15,837 ha) would be approximately 16,853 ha. The loss of 16,853 ha of agricultural land represents a tiny proportion (0.19%) of the 8.9 million ha of land currently used for agricultural output in the CWO region. It would result in a negligible reduction in the overall productivity of the region. • The site is intended to continue to be used for grazing purposes during operation and is to be returned to agricultural use following decommissioning. Accordingly, the Department is satisfied that the project would not result in any significant reduction in agricultural productivity of the region or of local agribusiness. • Agricultural operations of adjoining landholders would not be impacted as weeds would be controlled through strict land management measures, erosion and sediment risks can be managed effectively by implementing a control plan, water pollution is not permitted, and noise and dust would not be significant. • The site is located on land zoned RU1 Primary Production and SP2 Infrastructure under the Mid-Western Regional LEP. As such, the project is permissible with consent through the Transport and Infrastructure SEPP. • The site is located in the Central West and Orana REZ, which was declared due to its abundant solar resources and direct access to the electricity grid at a location with available network capacity. • The project is consistent with the Central West and Orana Regional Plan. Recommended Conditions: • Maintain agricultural land capability. • Maintain the groundcover of the site following construction or upgrading, maintain the groundcover with appropriate perennial species and manage weeds within the groundcover. • Minimise any soil erosion associated with the construction, upgrading or decommissioning of the development. • Ensure that the development does not cause any water pollution, as defined under section 120 of the *Protection of the Environment Operations Act 1997* (POEO Act). • Ensure that noise associated with the construction, operation, upgrading and decommissioning of the project complies with the relevant noise criteria. • Minimise dust generated by the development.

Issue	Consideration
Hazards • Risk of bushfire • Risk of contamination	• Twenty-six public submissions raised concerns about fire hazards/contamination **Bushfire** • TSH has provided an assessment of the proposed solar farm and TWA Facility against the provisions of Planning for Bushfire Protection 2019 (PBP 2019). • TSH's bushfire assessment found that the potential for, or the severity of, bushfires would not be increased and that the risk of onsite activities igniting fire can be effectively minimised by meeting the design requirements of PBP 2019. • The Department considers that the bushfire risks can be suitably controlled through the implementation of standard fire management procedures and recommendations made by FRNSW and RFS. **Contamination** • Community submissions raised concerns regarding contamination of the subject site. TSH prepared a Preliminary Site Investigation (PSI) report that was prepared in consideration of *State Environmental Planning Policy (Resilience and Hazards) 2021*. • The PSI report results identified a burnt-out tractor on the site that should be removed and disposed of accordingly. The tractor site should then be validated by a suitably qualified environmental consultant prior to construction of the TWA facility. • Regarding the possible contamination of the site from the solar farm itself, the Department's Frequently Asked Questions – Large Scale Solar Guideline document outlines that the use of metals in solar panels has not been found to pose a risk to the environment as they are enclosed in thin layers between sheets of glass or plastic within the solar panel. To readily release contaminants into the environment, solar panels would need to be ground to a fine dust. As such, contamination of soil resulting from the proposal is not expected. • The Department considers the project site is suitable for development subject to the recommended conditions of consent which require TSH to implement the recommendations of the contamination report, including remedial works around the burnt-out tractor and implementation of an unexpected finds protocol. **Recommended Conditions** • The BESS must not exceed the proposed total energy storage capacity of 1,000 MWh across the project site and must be installed in an arrangement consistent with the EIS. • A Fire Safety Study and Emergency Plan be prepared for the development • Ensure the project complies with the relevant asset protection requirements in the NSW RFS's *Planning for Bushfire Protection 2019* and Standards for APZs.

Issue	Consideration
	• All chemicals, fuels and oils to be stored in accordance with Australian Standards and EPA requirements.
Visual Amenity • Impacts on landscape views and rural character • Glint and glare impacts • Vegetation screening	Assessment • The closest non-associated residence (VP18) is located approximately 600 m east of the development footprint. • The project has been designed to minimise potential impacts on surrounding receivers and has been amended to increase the setback of solar panels from the nearest receiver. • Of the 20 non-associated residences within 5 km of the development footprint with potential views of the development, the visual impact assessment concluded that all 20 receivers would experience low to nil/negligible visual impacts. • TSH has committed to establishing and maintaining a vegetation buffer (landscape screening) prior to commencing operations. • TSH's assessment potential 'High' glare impacts per the original solar array scenario (scenario 1). The updated glint and glare assessment also identified one road receptor (Castlereagh Highway) and one Rail receptor (Wallerwang-to-Gwabegar Railway Line) within 1 km of the project, both of which would experience glare impacts requiring mitigation. • TSH developed a backtracking scenario (scenario 2) as a means of mitigating potential glare impacts on receivers (public and residential). This scenario would eliminate potential glare impacts on all receivers identified, excluding VP01, VP209, VP210 and VP213. A detailed assessment of these receivers including viewshed analysis concluded that the residential receivers would not have visibility of the PV array areas (PV arrays 16 and 17) and would therefore not experience any potential glare impacts. Per the updated glint and glare assessment provided by TSH, scenario 2 would also effectively eliminate potential glare impacts on the road and rail receptors identified. **Recommended Conditions:** • Minimise and mitigate the off-site visual impacts of the development, including the potential for any glare or reflection by implementing 'scenario 2' solar array backtracking. • Establish and maintain a vegetation buffer to minimise views from nearby receivers. • Implement the mitigation measures (vegetation screening and on-site boundary planting) to limit visual impacts to non-associated receivers within the project locality.

Issue	Consideration
	• Ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in with the surrounding landscape, where reasonable and feasible.
Social/ Accommodation Impacts • Amenity impacts • Workforce accommodation • Cumulative impacts	Assessment • TSH's SIA considered impacts of the project locally and regionally. Local impacts relate to local social infrastructure and services, workforce, business and industry, housing and accommodation, and community health and wellbeing. • TSH proposed a TWA facility through the Amendment Report to address potential impacts on accommodation availability in the area. TSH has demonstrated available means of servicing the TWA facility in relation to water, sewage, waste, electricity and medical services. • The Department is satisfied that the proposed TWA facility is capable of being effectively serviced and that it would be a suitable means of mitigating potential increased demand for housing in the region. • TSH has undertaken a cumulative impact assessment of the proposed development (including visual, traffic, servicing, workforce, amenity and housing). The TWA facility would substantially reduce the potential social cumulative impacts. • The Department is satisfied that the project has been designed to minimise opportunities for potential cumulative social impacts. Recommended Conditions • Prepare an Accommodation and Employment Strategy for the project in consultation with Mid-Western Regional Council for approval by the Planning Secretary prior to commencement of construction. • Prepare a Accommodation Camp Management Plan in consultation with both councils prior to commencing construction of the TWA facility. • Ensure utilities at the TWA facility, including water, wastewater, waste and electricity, are designed and located in accordance with Mid-Western Regional Council specifications.
Biodiversity Impacts • Impacts on native flora and fauna	Assessment • Public submissions raised concerns regarding potential biodiversity impacts associated with the project. • The project site predominantly comprises areas currently utilised for agricultural activities and also supports patches of remnant vegetation. • TSH designed the project to avoid and minimise impacts on high quality vegetation and habitat, retaining 93.44% of all remnant woodland and derived native grassland in the project area.

Issue	Consideration
	• TSH undertook an assessment of the project against the SAII principles. CPHR, and accordingly the Department, are satisfied that the project would not result in a SAII to any biodiversity values. • The impacts on native vegetation would generate 90 species credits and 403 ecosystem credits under the BC Act which would be retired through the NSW Biodiversity Offset Scheme. • Overall, the Department considers that the project is unlikely to result in a significant impact on biodiversity values. Recommended Conditions: • TSH must not clear any native vegetation or fauna habitat located outside the approved disturbance areas. • Retire the applicable biodiversity offset credits in accordance with the NSW Biodiversity Offsets Scheme. • Prepare and implement a Biodiversity Management Plan in consultation with CPHR, including measures to protect and manage vegetation and fauna habitat outside the approved disturbance area.
Traffic and Transport Impacts • Traffic volumes • Damage to local roads	Assessment • The traffic impacts associated with the development have been referred to MWRC Council and TfNSW for advice. • TSH has worked with TfNSW and has responded to matters raised by Council in preparing suitable road upgrades and in detailing suitable management of traffic generation associated with the development. • Council and TfNSW have provided input in draft conditions, with the proposed impacts and road upgrades considered acceptable. • Proposed road upgrades have been designed in consideration of cumulative transport impacts associated with further projects in the CWO REZ. Recommended Conditions: • Undertake the relevant road upgrades prior to the commencement of construction. • Restrict project related vehicles to the use of the approved access route only. • Restrict the number of vehicles during construction, upgrading and decommissioning to the peak volumes identified in the EIS. • Ensure the length of vehicles (excluding heavy vehicles requiring escort) does not exceed 26 m.

Issue	Consideration
	• Prepare and implement a Transport Management Plan (TMP) in consultation with TfNSW and MWRC Council, including provisions for dilapidation surveys, and details of the measures that would be implemented to address road safety.
Energy Transition • Impacts of renewable energy development	Assessment • Community submissions raised concerns regarding the impacts of renewable energy development. • The project aligns with national and state policies by diversifying energy generation, reducing carbon emissions, and enhancing energy security, with a solar capacity of 500 MW capable of powering about 212,000 homes and contributing to NSW's net zero emissions goal by 2050. • The inclusion of a 500 MW / 1,000 MWh battery would improve grid stability by storing solar energy for use during peak demand, while the project's location in the CWO REZ facilitates growth in renewable energy generation and storage. • As such, the project would play an important role in increasing renewable energy generation and capacity and contributing to the transition to a cleaner energy system as coal fired generators retire.
Decommissioning and Rehabilitation	Assessment • Five community submissions raised concerns regarding project decommissioning and rehabilitation. • The operational life of the large-scale solar project is projected to be 35 years, however solar projects have the potential to operate for a longer period of time if solar panels are upgraded over time, which would be permitted under the recommended conditions of consent. • The *Large-Scale Solar Energy Guideline* identifies four key decommissioning and rehabilitation principles for circumstances where an applicant ceases operating a project, which are the removal of project infrastructure, returning the land to its pre-existing use, including rehabilitating and restoring the pre-existing LSC Class where previously used for agricultural purposes, and the owner/operator of the project should be responsible for the decommissioning and rehabilitation and this should be reflected in an agreement with the host landowner(s). • With the implementation of objective-based conditions and monitoring requirements, which are consistent with these key principles, the Department considers that the solar farm would be suitably decommissioned at the end of the project life, or within 18 months if operations cease unexpectedly, and that the site be appropriately rehabilitated.

Appendix I – Statutory considerations

Objects of the EP&A Act

In line with the requirements of section 4.15 of the *EP&A Act*, the Department's assessment of the project has given detailed consideration to a number of statutory requirements. These include:

- the objects found in section 1.3 of the *EP&A Act*; and
- the matters listed under section 4.15(1) of the *EP&A Act*, including applicable environmental planning instruments and regulations.

The Department has considered all these matters in its assessment of the project and has provided a summary of this assessment in **Table 10** below.

Table 10 | Statutory considerations

Summary
Objects of the EP&A Act
The objects of most relevance to the Consent Authority's decision on whether to approve the project are found in section 1.3(a), (b), (c), (e) and (f) of the EP&A Act. The Department considers the project encourages the proper development of natural resources (Object 1.3(a)) and the promotion of orderly and economic use of land (Object 1.3(c)), particularly as the project: • is a permissible land use with consent under the provisions of the Transport and Infrastructure SEPP in RU1 and SP2 zones • is located in a logical location for efficient solar energy development • is able to be managed such that the impacts of the project could be adequately minimised, managed, or at least compensated for, to an acceptable standard • would contribute to a more diverse local industry, thereby supporting the local economy and community • would not fragment or alienate resource lands in the LGA • is consistent with the goals of NSW's *Climate Change Policy Framework* and *Net Zero Plan Stage 1: 2020 – 2030* and would assist in meeting Australia's renewable energy targets whilst reducing greenhouse gas emissions. The Department has considered the encouragement of Ecologically Sustainable Development (ESD) (Object 1.3 (b)) in its assessment of the project. This assessment integrates all significant socio-economic and environmental considerations and seeks to avoid any potential serious or irreversible environmental damage, based on an assessment of risk-weighted consequences. In addition, the Department considers that an appropriately designed SSD solar farm, in itself, is consistent with many of the principles of ESD. TSH has also considered the project against the principles of ESD. Following its consideration, the Department considers that the project can be carried out in a manner that is consistent with the principles of ESD.

Summary
Consideration of environmental protection (Object 1.3(e)) is provided in Section 5 of this report. Following its consideration, the Department considers that the project could be undertaken in a manner that would at least maintain the biodiversity values of the locality over the medium to long term and would not significantly impact threatened species and ecological communities of the locality. The Department is also satisfied that any residual biodiversity impacts could be managed and/or mitigated by imposing appropriate conditions and retiring the required biodiversity offset credits. Consideration of the sustainable management of built and cultural heritage (Object 1.3(f)) is also provided in Section 5.7 of this report. Following its consideration, the Department considers the project would not significantly impact the built or cultural heritage of the locality, and any residual impacts can be managed and/or mitigated by imposing appropriate conditions.
State significant development
Under section 4.36 of the EP&A Act the project is considered a State Significant Development. Under section 4.5(a) of the EP&A Act and clause 1(b) of section 2.7 of the Planning Systems SEPP, the Independent Planning Commission is the consent authority for the development as the project received more than 50 unique public submissions by way of objection and Mid-Western Regional Council objected during the exhibition period.
Environmental Planning Instruments (EPIs)
The *Mid-Western Regional Local Environmental Plan 2012* (Mid-Western LEP) applies to the extent of determining the permissibility of the project. The project is located in RU1 and SP2 land use zones under the LEP discussed in Sections 3.3 and 5.2 of this report, particularly regarding permissibility and land use zoning. As discussed in Section 5.2 the project would be permissible under the Infrastructure SEPP. In accordance with the Infrastructure SEPP, the Department has given written notice of the project to Transgrid and TfNSW (s2.48). The Department has considered the advice received and, where appropriate, developed conditions of consent to address recommendations and advice of these authorities. The project has frontage to the Castlereagh Highway, a classified road (s2.119). Through correspondence with TfNSW and MWRC, the Department is satisfied that safe, suitable vehicular access would be provided via the proposed site access on the unnamed road and that the proposed intersection upgrades would not compromise the effective and ongoing operation and function of the Castlereagh Highway. This is subject to the implementation of conditions requiring a Traffic Management Plan be prepared in consultation with TfNSW and the relevant Roads Authority prior to the commencement of road upgrades. The Department has also considered section 2.98 of the Transport and Infrastructure SEPP and has determined that subject to meeting the recommended conditions of consent, any adverse effects on rail safety associated with the development would be unlikely. TSH completed a preliminary risk screening in accordance with *SEPP Resilience and Hazards 2021* and *SEPP No. 33 – Hazardous and Offensive Development* and confirmed the project was not categorised as potentially hazardous or potentially offensive development. A preliminary hazard analysis (PHA) prepared for the project concluded that there was a risk of off-site consequences associated which would need to

Summary
be managed. TSH has committed to the development of site-specific plans and procedures to manage residual risk. Accordingly, the Department is satisfied that the proposed development is not potentially hazardous or potentially offensive development and does not pose an unacceptable risk to community or environment. The Department has also considered the provisions of *SEPP No. 55 – Remediation of Land*. TSH has prepared a contamination report that was prepared in consideration of *State Environmental Planning Policy (Resilience and Hazards) 2021*. The Contamination report results identified a burnt-out tractor on the site that should be removed and disposed of accordingly. Noting the outcomes of the PSI, the Department considers the project site would be suitable for development subject to TSH fulfilling the recommended conditions of consent which require TSH to implement the recommendations of the contamination report, including remedial works around the burnt-out tractor and implementation of an unexpected finds protocol.

Appendix J – Matters of National Environmental Significance

In accordance with the Bilateral Agreement between the Australian Government and NSW Government, the Department provides the following additional information required by the Commonwealth Minister, in deciding whether to approve a proposed action (i.e. the project) under the EPBC Act.

The Department's assessment has been prepared based on the assessment contained in the Tallawang Solar Farm Environmental Impact Statement (EIS), Response to Submissions Report, Amendment Report, Biodiversity Development Assessment Report (BDAR) and additional information provided during the assessment process, public submissions, and advice provided by the CPHR, other NSW government agencies and the Commonwealth Department of Climate Change, Energy, Environment and Water (DCCEEW).

This appendix is supplementary to, and should be read in conjunction with, the assessment included in **Section 5.3** of this assessment report, which includes consideration of impacts to listed threatened species and communities, and mitigation and offsetting measures for threatened species and communities, including Matters of National Environmental Significance (MNES).

Controlled Action Decision – EPBC 2022/09171

On 27 April 2022, the Tallawang Solar Farm was determined to be a Controlled Action by the Commonwealth Department of Climate Change, Energy, the Environment and Water for the controlling provision of listed threatened communities and species. The Commonwealth Referral Decision (EPBC 2022/09171) (Referral Decision) was based on likely significant impacts to:

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered
- Koala (Phascolarctos cinereus) (combined populations of Qld, NSW, and the ACT) – Endangered
- Spotted-tail Quoll (Dasyurus maculatus maculatus) (SE mainland population) – Endangered

Additionally, the Commonwealth DCCEEW identified there was some risk that there may be significant impacts on the following matters:

- Regent Honeyeater (Anthocaera phrygia) – Critically Endangered
- Large-eared Pied Bat (Chalinolobus dwyeri) – Vulnerable
- Corben's Long-eared Bat (Nyctophilus corbeni) – Vulnerable
- Grey Box Grassy Woodland and Derived Native Grassland of south-east Australia – Endangered

All entities identified above as requiring an assessment were considered in TSH's EIS as outlined in the following sections.

Impacts on EPBC Act Listed Threatened Species and Communities

Section 5.3 of this report describes the biodiversity assessment undertaken for the project and the resulting BDAR.

All entities that were identified as requiring an assessment of significance were assessed. **Table 11** provides a summary of the likelihood of occurrence for each of the species identified above by the Commonwealth DCCEEW as requiring consideration.

Table 11 | Likelihood of occurrence of MNES identified in Commonwealth DCCEEW SEARs

Entity	Conservation Status	Likelihood of Occurrence	Comments
Threatened Ecological Communities			
Box Gum Woodland	CE	Present	PCT 281 is associated with this TEC and was found present on the subject site, meeting condition threshold requirements.

Entity	Conservation Status	Likelihood of Occurrence	Comments
Grey Box Grassy Woodland	CE	Present	PCT 81 is associated with this TEC and was found present on the subject site, meeting the condition threshold requirements.
Threatened Fauna Species			
Koala (*Phascolarctos cinereus*) (Combined Population of QLD, NSW and the ACT)	E	Not recorded in surveys	Not recorded during targeted surveys conducted in accordance with relevant guidelines. However, removal of 17.79 ha of potential foraging habitat associated with PCT's 81, 281, and 318 which would be offset via ecosystem credits.
Spotted-tailed Quoll (*Dasyurus maculatus maculatus* (South-east mainland population))	E	Not recorded in surveys	Not recorded during targeted surveys conducted in accordance with relevant guidelines. Removal of 1,042 ha of low quality dispersal and potential foraging habitat associated with PCT's 81, 281, and 318 would be offset via ecosystem credits. The Department notes that this includes the removal of 1,017.53 ha of degraded and previously cultivated or otherwise disturbed (grazed) grasslands that, at most, represent dispersal habitat, and that only 7.5 ha of habitat proposed to be cleared is of a condition which requires offsetting.

Entity	Conservation Status	Likelihood of Occurrence	Comments
Regent Honeyeater (*Anthochaera phrygia*)	CE	Not recorded in surveys.	The subject land does not occur in the area mapped as 'important habitat'. This species was not recorded during any surveys across the Development footprint. Associated with PCT's 81, 281, and 318. The removal of 6.46 ha potential foraging habitat would be offset via ecosystem credits.
Large-eared Pied Bat (*Chalinolobus dwyeri*)	V	No further survey required	Habitat assessment undertaken – habitat constraint not present, no breeding or roosting features detected. Associated with PCT's 81, 281, and 318. The removal of 6.46 ha potential foraging habitat would be offset via ecosystem credits.
Corben's Long-eared Bat (*Nyctophilus corbeni*)	V	Subject land contains potential roosting and foraging habitat	Associated with PCT's 81, 281, and 318. The removal of 6.46 ha potential foraging and roosting habitat would be offset via ecosystem credits.

Impacts on threatened ecological communities

Box Gum Woodland

As described in **Section 5.3.1** of this report, TSH has generally focused on avoidance of impacts through site selection and avoidance of higher quality native vegetation and habitat during the preliminary design process. This work has focussed largely on avoiding impacts to areas of Box Gum Woodland CEEC.

Notwithstanding, the development would result in the clearance of approximately 3.58 ha of Box Gum Woodland (Moderate condition) which meets the conditions thresholds under the EPBC Act.

Design refinements from the original project have reduced the area of impact to this TEC from 28.06 ha to 3.58 ha. The removal of 3.58 ha that conforms to the box gum woodland CEEC within the

subject land would not be critical to the survival of the CEEC, however it does represent removal of CEEC vegetation.

As a result, the assessments of significance contained within the MNES Assessment concluded that the action is unlikely to have a significant impact on this community.

TSH would offset the residual biodiversity impacts of the action in accordance with the requirements of NSW Biodiversity Offset Scheme. The Department considers that impacts to this community would be appropriately offset via the ecosystem credit requirements detailed in **Section 5.3** of this report.

Grey Box Grassy Woodland

As described in **Section 5.3.1** of this report, TSH has generally focused on avoidance of impacts through site selection and avoidance of higher quality native vegetation and habitat during the preliminary design process. This work has focussed largely on avoiding impacts to areas of Grey Box Grassy Woodland EEC.

Notwithstanding, the development would result in the clearance of approximately 1.95 ha of Grey Box Grassy Woodland (Moderate condition) which meets the conditions thresholds under the EPBC Act.

The estimated total current extent of Grey Box Grassy Woodland EEC within the NSW South West Slopes IBRA Region is estimated to be approximately 312,000 ha within the Southwest Slopes bioregion (NSW Scientific Committee 2011). The permanent loss of up to 1.95 ha (0.0006% of regional extent) of woodland as a result of the amended project represents a negligible reduction in the estimated current extent of the community across its range.

As a result, the assessments of significance contained within the MNES Assessment concluded that the action is unlikely to have a significant impact on this community.

TSH would offset the residual biodiversity impacts of the action in accordance with the requirements of *NSW Biodiversity Offset Scheme*. The Department considers that impacts to this community would be appropriately offset via the ecosystem credit requirements detailed in **Section 5.3** of this report.

Impacts on threatened flora species

No threatened flora species listed under the EPBC Act were recorded or considered likely to occur within the action area.

Impacts on threatened fauna species

Assessments of significance were undertaken for threatened species that were recorded during field surveys or were identified as having a moderate or higher potential to occur within the project area, including five threatened fauna species.

TSH's assessments of significance for these species considers that the project is unlikely to have a significant impact on any threatened fauna species.

Notwithstanding, the development will have the following impacts on threatened species:

Regent Honeyeater

The action would impact approximately 6.46 ha of potential foraging habitat. Due to the dispersive and aerial nature of regent honeyeaters it is unlikely that there is any specific habitat critical for the survival of the species outside of their known breeding range. The subject land is unlikely to support habitat critical to the species' survival. The removal of this habitat is considered unlikely to lead to any long-term decrease in the size of the regent honeyeater population, particularly given the closest known breeding area is over 100 km in Capertee Valley.

Koala

The proposed works would include the removal of up to 17.79 ha of potential habitat. The habitats within the subject land currently contain fragmented woodlands surrounded by tracts of derived native grasslands and agricultural land. The subject land does not support a population of the koala, the action will not result in the fragmentation of an important population of koala into two or more populations. The amended project will not cause fragmentation of any remnant stands. The Department considers that the species identified would be appropriately offset via the ecosystem credit requirements detailed in **Section 5.3** of this report.

Spotted-tail quoll

The removal of 1,042 ha of potential foraging and dispersal habitat is unlikely to reduce the area of occupancy of a population. It is noted that the vast majority of this potential habitat is low-quality habitat, with grasslands across the subject land having experienced an extensive history of cropping, grazing, and pasture improvement activities (1,002.11 ha being Category 1 exempt land). Accordingly, only 7.5 ha of the potential foraging and dispersal habitat is identified as being of a condition which meets threshold requirements for offsets under the EPBC. The subject land is not known as an important area for the species and the species has not been recently recorded in the locality. It is considered unlikely that the amended project will lead to a long-term decrease in the size of a population of spotted-tailed quolls. The Department considers that the ecosystem credit requirements set out in **Section 5.3** of this report will adequately offset any potential impacts.

Large-eared pied bat

The project proposes to remove 6.46 ha potential foraging habitat for the species. This species is highly dependent on the presence of roosting habitat, with no potential cave or roosting habitat detected within the subject land, or within the wider project area. Accordingly, it is unlikely the large-eared pied bat would utilise the woodland habitat within the subject land. As such, the removal of 6.46 ha of potential foraging land (which have precautionarily been assumed for the purposes of this assessment) is unlikely to have a significant impact on large-eared pied bat.

Corben's Long-eared bat

The project proposes to remove 6.46 ha of fragmented potential foraging and roost habitat for the species associated with woodland vegetation. Due to the surrounding areas of protected remnant vegetation it is unlikely that the amended project will result in a reduction of the area of occupancy for the species. It is also noted that the species is known to use most roost sites just for a single night such that large distances are travelled at night with consecutive roost sites generally within 4 km. This is relevant given Goulburn River National Park, Cope State Forest and other reserves are located within 20 km of the subject land and support potential breeding habitat. Accordingly, the removal of up to 6.46 ha of foraging habitat as a result of the amended project is unlikely to have a significant impact on large-eared pied bat.

Conservation Advice

In its MNES assessment, TSH has appropriately referred to the Conservation Advice for White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland and (section 2.3.1 of the *Amended Assessment Of Commonwealth Matters*), and Grey Box Grassy Woodland and Derived Native Grassland TEC (section 2.3.7 of the *Amended Assessment Of Commonwealth Matters*) in relation to the relevant recovery and threat abatement actions for the CEEC and EEC.

Conservation Advice for Koala, Spotted-tailed Quoll, Regent Honeyeater, Large-eared Pied Bat, and Corben's Long-eared Bat are also appropriately referred to (sections 2.3.2 – 2.3.6 of the Amended Assessment of Commonwealth Matters) to inform habitat requirements for each species.

The Department's recommended conditions require TSH to prepare and implement a Biodiversity Management Plan detailing how risks would be minimised and managed, including measures to:

- Protect vegetation and fauna habitat outside the approved disturbance areas;
- manage and enhance the remnant vegetation and fauna habitat on site;
- minimise clearing and avoid unnecessary disturbance of vegetation that is associated with the construction and operation of the development;
- minimise the impacts to fauna on site and implement fauna management protocols;
- protect downstream aquatic habitat including key fish habitat through exclusion zones and revegetation;
- maximise the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or rehabilitation of the site; and
- control weeds, feral pests and pathogens

TSH would be required to prepare the Biodiversity Management Plan in consultation with CPHR, and ensure the plan is prepared by a suitably qualified and experienced biodiversity expert.

In addition, TSH is required to ensure impacts on species and communities are avoided and minimised, where practicable during detailed design, and offset the residual biodiversity impacts of the project in accordance with the *NSW Biodiversity Offset Scheme*.

Recovery Plans

Recovery plans for White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland TEC, Grey Box Grassy Woodland and Derived Native Grassland, TEC Koala, Spotted-tailed Quoll, Regent Honeyeater, Large-eared Pied Bat, and Corben's Long-eared Bat are referenced in section 2.3 of the *Amended Assessment of Commonwealth Matters*. Recovery Plans have generally been referenced to inform the identification of areas of important habitat for the above species.

Additional EPBC Act Considerations

Table 14 contains the additional mandatory considerations, factors to be taken into account and factors to have regard to under the EPBC Act that are additional to those already discussed.

Table 1412 | Additional considerations for the Commonwealth Minister under the EPBC Act

EPBC Act Section	Considerations	Conclusion
Mandatory considerations		
Part 1, 3A, 391(2)	Principles of ecologically sustainable development (ESD), including the precautionary principle, have been taken into account, in particular: • the long term and short term economic, environmental, social and equitable considerations that are relevant to this decision; • conditions that restrict environmental impacts and impose monitoring and adaptive management, reduce any lack of certainty related to the potential impacts of the project; • conditions requiring the project to be delivered and operated in a sustainable way to protect	The Department considers that the project, if undertaken in accordance with the recommended conditions of consent, would be consistent with the principles of ESD.

	the environment for future generations and conserving the relevant matters of national environmental significance; • advice provided within this report reflects the importance of conserving biological diversity, ecological and cultural integrity in relation to all of the controlling provisions for this project; and • mitigation measures to be implemented which reflect improved valuation, pricing and incentive mechanisms are promoted by placing a financial cost on the proponent to mitigate the environmental impacts of the project.	
Part 9 Division 1 Subdivision B 136(1)b	Economic and social matters are discussed in **Section 5.6** of this report.	The project would provide benefits for the local and regional economy and is of public benefit for up to 35 years. Up to 420 workers would be required during the construction period. Impacts on the local community would primarily occur during the construction period, which has been considered in the assessment report. The recommended conditions require TSH to minimise potential traffic and amenity impacts including noise, dust, and visual impacts.
136(2)(e)	Other information on the relevant impacts of the action.	The Department considers that all information relevant to the impacts of the project has been taken into account in its assessment.

139(1)	Requirements for decisions about threatened species and endangered communities	Australia's obligations under the Convention on Biological Diversity (Biodiversity Convention) include the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and technologies, and by appropriate funding. The recommendations of this assessment report are consistent with the Biodiversity Convention, which promotes environmental impact assessment (such as this process) to avoid and minimise adverse impacts on biological diversity. Accordingly, the recommended development consent requires avoidance, mitigation and management measures for listed threatened species, and all information related to the project is required to be publicly available to ensure equitable sharing of information and improved knowledge relating to biodiversity

Factors to have regard to

176(5)	Bioregional plans	There is no approved bioregional plan related to the activity.

Consideration on deciding conditions

134(4)	Must consider: • Information provided by the person proposing to take the action or by the designated applicant of the action; and	All project related documentation is available from the Department's website www.planningportal.nsw.gov.au The Department considers that the recommended conditions at Appendix Gare a cost-effective means of achieving their

	• The desirability of ensuring as far as practicable that the condition is a cost-effective means for the Commonwealth and the person taking the action to achieve the object of the condition.	purpose. The conditions are based on material provided by TSH that was prepared in consultation with the Department, CPHR and other government agencies.

Conclusions on Controlling Provisions

For the reasons set out in **Section 5.3** of this report and this appendix, the Department considers that the impacts of the action would be acceptable, subject to the avoidance and mitigation measures described in the EIS, Amendment Report, BDAR, and the recommended conditions of consent in **Appendix G.**

BCS GUIDANCE NOTE
PROJECT ASSESSMENT OF
EPBC ACT LISTED THREATENED SPECIES AND COMMUNITIES

1. Purpose and Scope

This Guidance Note is intended for use by Biodiversity, Conservation and Science Directorate (BCS) teams, in their review of project-related biodiversity assessment documentation and the provision of expert advice to the project assessment teams within Department of Planning, Industry & Environment (DPIE) on matters of national environment significance (MNES) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This Guidance Note applies to projects determined to be a 'controlled action' by the Australian Government Minister for the Environment and where the NSW Minister for Planning and Public Spaces (as delegated) has provided notice that the project will be assessed by an assessment process accredited under the Assessment Bilateral Agreement between NSW and the Commonwealth.

For these projects, the NSW Government has committed to undertaking an assessment of matters protected by Part 3 of the EPBC Act relating to the relevant controlling provisions and can include species and communities, world heritage values and ecological character of Ramsar sites. These matters are often described as MNES. Governments are working to streamline the assessment and where the NSW *Biodiversity Offset Scheme's* (BOS's) *Biodiversity Assessment Method* (BAM) (2020) can provide an adequate assessment of EPBC-listed threatened species and communities, this should be reflected in the Biodiversity Development Assessment Report (BDAR). Where the assessment of MNES cannot be assessed by applying the BAM, the assessment must be presented elsewhere in the assessment documentation in accordance with the Secretary's Environmental Assessment Requirements (SEARs).

To assist in this process, DPIE has developed this Guidance Note and the attached checklist templates for use by BSC teams when providing advice on EPBC-listed species and communities.

2. Role of BSC Officers

The key role for BCS teams in the Bilateral process is to provide comments and advice to DPIE on the adequacy of a proponent's assessment of the impacts and offsets for EPBC Act-listed threatened species and communities within an Environmental Impact Statement (EIS), or in the case of a modification to an approved project, a Modification Report, and associated Biodiversity Development Assessment Report (BDAR).

Additionally, BCS is required to verify whether the BAM has been appropriately applied. BCS is also required to advise whether projects are consistent with applicable Australian Government guidelines and policy statements.

During the assessment process, DPIE will typically seek expert advice from BCS in response to an EIS and/or a report prepared by a proponent.

In reviewing assessment documentation, it is particularly important for BCS assessment officers to provide expert advice in relation to the adequacy of evidence-based justifications for decisions about methods, techniques and outcomes. This is required to demonstrate the scientific rigor of the assessments and determine a level of confidence in DPIE's decision making process.

3. Reference Documentation

Key information typically required to be reviewed by BCS officers incudes the project EIS (or Modification Report), BDAR and the associated BAM Calculator (BAM-C) report, and any supplementary information provided during the assessment process (including any revisions of the BDAR and associated documentation). Officers may also need to refer to additional information, including but not limited to:

- Referral documentation from the Australian Government Department of Agriculture, Water and the Environment (DAWE), including the referral decision brief;
- Secretary's Environmental Assessment Requirements (SEARs) in relation to Commonwealth matters;
- Supporting databases and directories (such as the NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, NSW BioNet (Mitchell) Landscapes, Commonwealth Species Profile and Threats Database and the Directory of Important Wetlands in Australia, and Biogeographic Regionalisation for Australia);
- Australian Government plans and agreements (such as International environmental obligations, Recovery Plans, Approved Conservation Advice and Threat Abatement Plans) http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl ; and
- NSW and Australian Government policies and guidelines (such as DPIE's Guidance to Assist a Decision-Maker to Determine a Serious and Irreversible Impact and the Australian Government's Significant Impact Guideline).

4. Information Requirements

Tables 1 and **2** provide checklist templates for use by the BCS teams when providing project assessment advice to DPIE on Australian Government matters. The templates generally follow the minimum information requirements for BDARs (refer to Appendix K of the BAM) but focus on and include additional information relevant to MNES.

The **Table 1** template requires BCS officers to verify whether the assessment documentation includes relevant required information by crossing boxes and providing written advice on the adequacy of the information, and/or any additional information requirements. In addition, the **Table 1** template requires officers:

- to provide summaries of proposed impact avoidance, minimisation, mitigation and management measures;
- to confirm the EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity (i.e.. on land to which impacts may extend), that have been identified in the BDAR/EIS;
- for **each** EPBC Act listed threatened species and/or community, to provide summaries of the:
  - nature and consequences of impacts (i.e. direct and indirect);
  - duration of impact;
  - quantum of impact;
  - consequences of impacts on the species, the population and / or extent of the community at local, state and national scales, and
  - confirmation of the level of predicted impact (likely high risk or low risk of impact).
- to confirm impacts requiring offsetting, the number and class of biodiversity credits needed in accordance with the BAM and, if known, the proposed offsetting approach;
- to consider any relevant Australian Government guidelines and policy statements, and
- to recommend any conditions of development consent.

The BCS officer will need to add or delete dot points and rows in this table, as required for each MNES.

The **Table 2** template requires BCS officers to complete a MNES impact and offsets summary table. Information in both **Table 1** and **2** will provide the basis of the information to be included in the Secretary's Assessment Report.

TABLE 1: BCS OFFICER PROJECT ADVICE TO DPIE ON EPBC ACT LISTED THREATENED SPECIES AND COMMUNITIES

Requirement	Information	Reference (BAM / BLA[1])
Background & Description of Action	Does the EIS/BDAR[2]: ☒ clearly show how operational and construction footprints, including clearing boundaries, structures to be built and elements of the action are situated with regard to MNES ☒ depict stages and timing of the action that may impact on MNES ☒ provide a map(s) of the subject land boundary showing the final proposal/disturbance footprint with respect to location of MNES, including GIS shape files Include references to where this detail is provided.	BAM Chapters 3, 4, 5 and 8
	Provide advice on the adequacy of the background and action description with respect to MNES and identify any recommended additional information requirements: **Project description** The bilateral assessment for this project relates to the construction and operation of a solar farm with a development footprint of approximately 1,016 ha. The project, as described in sections 1.1-2, Table 1.1 and Figure 1.2 of the BDAR, consists of: • The 500MW solar farm site and 500MW Battery Energy Storage System (BESS). • An onsite 330kV substation. • A 400-person Temporary Workers Accommodation (TWA) facility. • An intersection upgrade on the Castlereagh Highway. **Project history** The footprint in the exhibited EIS was 866 ha. This has increased in the amended project due to the addition of a temporary workers accommodation, an intersection upgrade for site access, increase in battery storage system capacity, and minor changes to the project area and development footprint. An overhead transmission line, part of the original proposal, has been assessed as part of the Central West Orana transmission line project, so has been removed from the amended Tallawang Solar project.	

[1] Bilateral agreement (BLA) made under section 45 of the EPBC Act, including Amending Agreement No. 1 (2020)
[2] Or revisions of the BDAR and associated documentation made as a result of previous reviews or project changes post-exhibition.

Requirement	Information	Reference (BAM / BLA[1])
	The original BDAR dated July 2022 was submitted as Appendix 10 with the EIS. An amended BDAR (May 2024) was provided as Appendix 06 to the Amendment Report. After further submissions, an updated BDAR dated 22 August 2024 was provided. This bilateral assessment refers to the August 2024 BDAR. **Matters of National Environmental Significance (MNES) relevant to the project** The locations of recorded MNES in relation to the development are provided in **figure 3.2** of the BDAR. This includes the mapping of: • *White Box-Yellow Box- Blakely's Red Gum Grassy Woodlands and Derived Native Grassland* Critically Endangered Ecological Community (Box Gum Woodland CEEC) • *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands* Endangered Ecological Community (Grey Box Woodland EEC) This mapping does not include federally listed species assumed to be present, including ecosystem credit species (see Table 2 of this response). The EPBC referral (2022/9171) identified the following species as likely to be present in the area: • Koala (*Phascolarctos cinereus*) – surveyed for and found not present • Spotted-tail Quoll (*Dasyurus maculatus maculatus*) – assumed present as an ecosystem species • Regent Honeyeater (*Anthocaera p*hrygia) – assumed present as an ecosystem species only • Large-eared Pied Bat (*Chalinobilus dwyeri*) – determined not to be affected by proposal • Corben's Long-eared Bat (*Nyctophilus corbeni*) – assumed present as an ecosystem species Figure 3.3 of the BDAR provides mapping of species credit species polygons, including Bluegrass (*Dichanthium setosum*) (EPBC Act listing status – vulnerable). Bluegrass was not found during the threatened flora surveys and was assumed to be present in a 0.9ha area not surveyed. The proponent provided BCS with shapefiles for the maps in the BDAR. BCS has conducted a consistency review of the updated data with the August 2024 BDAR.	
Landscape Context of the MNES	**Provide advice on the adequacy of the landscape context information and identify any additional information requirements:** Section 3.1 of the BDAR provides the landscape context. This is consistent with BAM 2020. No further information is required.	BAM Section 3.1 BLA clause 7.4

Requirement	Information	Reference (BAM / BLA[1])
EPBC Act Listed Threatened Species & Communities	Verify that the EIS/BDAR includes relevant information on the identification of all EPBC Act listed threatened species and communities on the site or in the vicinity[3] via: ☒ field based survey effort ☒ published peer reviewed literature ☒ local data ☒ supporting databases (such as the NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, Commonwealth Species Profile and Threats Database search results) ☒ Verify that the EIS/BDAR includes appropriate mapping of all EPBC Act listed threatened species and communities in accordance with the relevant Commonwealth Listing Advice. The EIS/BDAR should include important populations and critical habitat as defined in Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans.	BAM Chapters 4 and 5
	Provide advice on the adequacy of the identification methods and mapping information / any additional information requirements: ***Field based survey effort*** Field surveys for threatened species and vegetation mapping occurred in October 2020, February, June and August 2021, and September 2023. The methods used for field surveys are outlined in section 2 of the BDAR. Detailed methodology is provided in Appendix A. Floristic and vegetation integrity data were collected in accordance with the minimum requirements under the BAM. The survey methodology for assessing native vegetation (vegetation integrity plots and native vegetation mapping) is described in Appendix A 1.2. Modified wet PCT benchmark data was applied as approved by BCS on 9 August 2024. This was to allow for above average rainfall for the 12 months before the floristic surveys. Species survey methodology and timing is provided in Table A.3. Results of the surveys are outlined in section 3.3.2 of the BDAR. No targeted threatened species were found within the development footprint. Surveys were conducted in accordance with BAM requirements.	

[3] On land to which impacts may extend

Requirement	Information	Reference (BAM / BLA[1])
	Targeted surveys for Bluegrass (*Dichanthium setosum*) were conducted across most of the project area. In an area that was not surveyed, the species has been assumed present and species credits have been calculated. This area covers 0.9 ha of PCT 81 (Western Grey Box – cypress pine woodland) in a derived native grassland condition, within roadside vegetation. Vegetation surveys identified *White Box-Yellow Box- Blakely's Red Gum Grassy Woodlands and Derived Native Grassland* CEEC ('Box Gum Woodland') and *Grey Box Grassy Woodlands and Derived Native Grasslands* ('Grey Box Woodland') EEC on site. Table 3.3 of the BDAR states that 3.51 ha of Box Gum Woodland and 1.95 ha of Grey Box Woodland listed under the EPBC Act, is present in the development site. Table 2.3 of Appendix H identifies 3.58 ha of Box Gum Woodland CEEC to be impacted, which is an error based on the May 2024 version of the BDAR. Spatial data indicates that the area is 3.5 ha. BCS is satisfied that the impact and calculated credit obligation is accurately captured in the August 2024 BDAR at 3.51ha of Box Gum Woodland. ***Published peer reviewed literature*** Section 5 of Appendix H provides a list of references for MNES matters including national recovery plans, conservation advice, and published research papers. BCS considers that the literature search is adequate to inform the assessment. ***Local data*** No local data was used in the assessment. ***Supporting databases*** The following databases were used for the MNES assessment: • Commonwealth DCCEEW Protected Matters Search Tool (PMST) Database (2024) • BioNet Atlas of NSW Wildlife (2024) • Threatened Biodiversity Data Collection • Vegetation Information System Classification Database ***Appropriate mapping of all EPBC Act-listed species and communities in accordance with relevant Commonwealth Listing Advice***	

Requirement	Information	Reference (BAM / BLA[1])
	Mapping of Box Gum Woodland CEEC follows guidance in DEH (2006) *White Box – Yellow Box – Blakely's Red Gum grassy woodlands and derived native grasslands.* EPBC Act policy statement. Photo 3.1 of the BDAR depicting a flow chart from this policy statement is incorrectly referenced as DEH 2004. Mapping of Grey Box Woodland EEC is in accordance with Threatened Species Scientific Committee (TSSC) (2010). *Commonwealth Listing Advice on Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*. The *Dichanthium setosum* species polygon has been created in an area of suitable potential habitat that has not been surveyed for the species. The species is assumed to be present and biodiversity credits have been calculated. This is a precautionary approach and is consistent with the BAM. A detailed list of impacted areas of MNES habit is provided in Table 2.3 of Appendix H. In summary, the project will generate biodiversity credits for direct impact on: • 3.51 ha of Box Gum Woodland CEEC • 1.95 ha of Grey Box Woodland EEC • 0.9 ha of assumed habitat for *Dichanthium setosum* ***Any important populations and critical habitat, as defined in Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans:*** There are no 'important populations' or 'critical habitat' likely to be impacted by the project.	
	Confirm that all EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity, have been identified in the BDAR/EIS including those that are ecosystem credit species. • Box Gum Woodland CEEC and Grey Box Woodland EEC have been identified on the subject land. • Targeted surveys for *Dichanthium setosum* were conducted across most of the site except for one 0.9 ha area. The species was not found during targeted survey. However, a precautionary approach is being taken, and the species is assumed to be present in the 0.9 ha unsurveyed area. • Targeted surveys were conducted for koala, spotted-tail quoll, regent honeyeater, large-eared pied bat, and Corben's long-eared bat. These species were not recorded on the subject land.	

Requirement	Information	Reference (BAM / BLA[1])
	BCS confirms that all EPBC Act listed threatened species and communities identified as protected matters relevant to the project have been identified in the BDAR.	
	Advise whether there is appropriate justification and supporting evidence for the addition and/or exclusion of any EPBC Act listed threatened species and/or communities from the list (if applicable): An additional species, *Dichanthium setosum*, has been identified as potentially occurring on the site and has been assessed. While targeted surveys have been conducted over most of the site, one area of 0.9 ha was not surveyed. The species was not found during targeted surveys but is assumed to be present in the unsurveyed 0.9ha area.	
Avoidance, Minimisation, Mitigation & Management	Verify that the EIS/BDAR demonstrates all feasible alternatives and efforts to avoid and minimise impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including an analysis of alternative: ☒ designs and engineering solutions ☒ modes or technologies ☒ routes and locations of facilities ☒ sites within the subject site ☒ Verify that the EIS/BDAR identifies any other site constraints in determining the location and design of the proposal (such as bushfire protection requirements, flood planning levels, servicing constraints, etc). Verify that the EIS/BDAR provides feasible measures to mitigate and/or manage impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including: ☒ techniques, timing, frequency and responsibility ☒ identify measures for which there is risk of failure ☒ evaluate the risk and consequence of any residual impacts ☒ any adaptive management strategy proposed to monitor and respond to impacts.	BAM Chapters 6, 7 and 8 BLA clause 7.1
	Provide advice on whether all feasible impact avoidance, minimisation, mitigation and management measures have been considered and are adequately justified: Section 4 of the BDAR addresses avoidance and minimisation of impacts. Maps in Figures 4.1A-C visually demonstrate the variations in project design from 2022-24. Avoidance has been demonstrated through: • Initial selection of a predominantly cleared / disturbed site	

Requirement	Information	Reference (BAM / BLA[1])
	• Designing the project layout to avoid as much native vegetation as possible and includes a 20-40m buffer around drainage lines • Moving a proposed access road to reduce impacts on Grey Box Woodland EEC by 5.5ha and Box Gum Woodland CEEC by 0.5 ha. Section 4.2 provides minimisation and mitigation measures that will be implemented. These are summarised in table 4.1 and include measures before, during, and after construction, such as: • Demarcating areas not proposed for clearing. • Pre-clearance inspection and supervision of tree felling. • Weed management. Detail of risks from indirect impacts, and actions to mitigate and minimise these, are provided in table 5.2 of the BDAR. All of the indirect impacts are expected to result in a low impact, except for the security fence. The security fence is a 2.2m high fence, topped with barbed wire to prevent unauthorised access. The fence will be a permanent barrier to fauna movement, can increase predation locally and is an entrapment risk. The fence is segmented into three separate areas to allow for fauna movement across the project area in east-west directions. These corridors will be at least 150m wide and consist of degraded vegetation and drainage lines. Impacts from the fence have been reduced through re-design to create the movement corridors, inclusion of escape routes into fence design and routine inspection of the fence for fauna. However, frequency of these inspections has not been quantified and would be a beneficial update to the risk management actions.	
Impact Assessment	Verify that the EIS/BDAR: ☒ identifies the residual adverse impacts likely to occur to **each** EPBC Act listed threatened species and/or community after the proposed avoidance and mitigation measures are taken into account ☒ provides adequate justification and evidence for the predicted level of impact, with reference to the: • Commonwealth's Significant Impact Guideline*:* *https://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf* • DPIE Guidance to Assist a Decision-Maker to Determine a Serious and Irreversible Impact (SAII): (*https://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf)*	BAM Chapters 8 and 9 BLA clauses 6.2(b)(i)-(ii) and 7.1

Requirement	Information	Reference (BAM / BLA[1])
	Section 4.1 of the BDAR 'Avoidance of impacts' describes the measures that have been taken to avoid impacts on native vegetation and habitat. This includes initial site selection and the design of the project in Figures 4.1A-C. Section 5.2 addresses prescribed impacts, concluding that no threatened entities are considered likely to be dependent upon or use habitat features associated with any of the prescribed impacts. While the security fence will impact habitat connectivity, this has not been discussed as part of the prescribed impacts. Instead, it is included with assessment of indirect impacts. Section 5.1.2 of the BDAR outlines indirect impacts, with table 5.2 describing the likelihood and consequences of these impacts. This includes assessment of the impact of the security fence on connectivity. **Complete the following information for each EPBC Act listed threatened species and/or community (add/remove rows as necessary):** • EPBC Act listed threatened species and/or community • nature and consequences of impacts (i.e. direct and indirect) • duration of impact (e.g. construction, operation, life of project) • quantum of impact • consequences of impacts on the species, the population and / or extent of the community at local, state and national scales Confirm the level of predicted impact (cross appropriate): ☒ high risk of impact (requiring offsets)[#] or SAII ☒ Low risk of impact (not requiring offsets) [#] For purposes of EPBC approval, as a minimum, significant adverse residual impacts **must** be offset (significant impact can be evaluated with reference to the significance impact guidelines) **EPBC listed ecological communities** Offsets are required, as detailed in Table 2 of this response, and have been calculated for: • White box – yellow box – Blakely's red gum grassy woodland, which is also a SAII entity. • Grey box grassy woodland and derived native grassland of south-east Australia Identification of the ecological communities follows EPBC advice and guidelines. Section 5.3.1 of the BDAR, specifically Tables 5.5 and 5.6 details the SAII assessment for Box Gum Woodland CEEC.	

Requirement	Information	Reference (BAM / BLA[1])
	Bluegrass (*Dichanthium setosum*) - assumed present in an area that has not been surveyed for the species. A precautionary approach has been taken, and species credits have been calculated. **Spotted-tailed quoll (Dasyurus maculatus)** Targeted surveys were conducted. No spotted-tailed quolls were detected, and no den habitat observed. The species has been retained as an ecosystem species in the BAM-C. **Regent honeyeater** Targeted surveys were conducted, and the species was not detected. The site is not in an area of Important Habitat Mapping for regent honeyeater. Regent honeyeater has been retained as an ecosystem species in the BAM-C. **Corben's long-eared bat** This is an ecosystem only species, which has an assumed presence for generating ecosystem credits as calculated in the BAM-C. Therefore, no targeted survey for this species was conducted or required by the BAM. **Provide advice on whether adequate justification and evidence is provided for species and communities that have been identified as being at low risk of impact.** **Koala** Targeted surveys were conducted for koala following suitable survey methods. No koalas were located on the site. On this basis, the species is considered as being at low risk of impact and no species credits are required. **Large-eared pied bat** Large-eared pied bat only generates species credits if potential breeding habitat is present. No breeding habitat will be impacted by the project. On this basis, the species is considered as being at low risk of impact and no species credits are required.	
Offsets	Verify that the EIS/BDAR: ☒ identifies any MNES that haven't been offset using the BAM ☒ identifies how impacts requiring offsets correlate to MNES impacts ☒ identifies the plant community types (PCTs) requiring offset and the number and type of ecosystem credits required for impacts to MNES ☒ identifies threatened species requiring offset and the number of species credits required for impacts to MNES	BAM Chapter 10 BLA clauses 7.1 and 7.2

Requirement	Information	Reference (BAM / BLA[1])
	☒ correctly uses the BAM (and BAM calculator) to identify the number and class of biodiversity credits that need to be offset to achieve a standard of 'no net loss' of biodiversity ☐ identifies if ecological rehabilitation and/or biodiversity conservation actions are proposed for offsetting ☐ if known, identifies any other offsetting approach proposed, such as land-based offsets, retiring credits by payment into the Biodiversity Conservation Fund and/or through supplementary measures[#]. [#] In accordance with the BAM there is no longer a requirement to define the offsetting approach at EIS stage. **Complete the Impacts and Offsets Summary table below (Table 2)**	
	Provide advice on the adequacy of the proposed offsets in meeting the requirements of the BAM: Offsets for the project have been correctly calculated in accordance with BAM and summarised in Table 7.1. Section 7 of the BDAR states that the proponent is still considering the proposed methods for the retirement of credits and offsetting. Land-based offsets secured through a stewardship agreement are being investigated. Other options available under the BAM are also being considered.	
Other Considerations	Verify if any relevant Commonwealth guidelines and policy statements are applicable to the action and listed threatened species and/or community, including but not limited to: ☐ International environmental obligations ☒ Recovery Plans ☒ Approved Conservation Advice ☐ Threat Abatement Plans *The relevant Commonwealth guidelines and policy statements for each species and community are available at: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl*	BLA clauses 6.2(b)(iv), 7.2(c), 7.3 and 7.4
	For each EPBC Act listed threatened species and/or community, provide advice on whether the assessment has been adequately informed by applicable Commonwealth guidelines and/or policy statements. For example, the interaction between the proposed action and important populations or critical habitat identified in policy documents and/or the interaction between the proposed action and threatening processes or recommended conservation actions outlined in Commonwealth policies and plans.	

Requirement	Information	Reference (BAM / BLA[1])
	Section 2.2 of Appendix H lists the relevant Commonwealth survey guidelines used to survey for orchids, bats, birds and mammals. Section 2.3 of Appendix H confirms the Commonwealth Threatened Species Scientific Committee Listing and Conservation Advice was reviewed to ensure surveys were performed appropriately for each affected MNES species and community. Section 2.4 of Appendix H details the habitat descriptions for each affected MNES species and community based on the relevant Commonwealth conservation advice and recovery plans. BCS considers that the assessment has been adequately informed by relevant Commonwealth guidelines. **Box Gum Woodland CEEC** • Conservation Advice on White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (DCCEEW, 2023). • White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland National Recovery Plan (2010). **Grey Box Woodland EEC** • Conservation Advice on Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (DEWHA, 2010). **Koala** • Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory (DoE, 2013). • EPBC Act Referral Guidelines for the Vulnerable Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) (DoE, 2014). **Spotted-tailed Quoll** • National Recovery Plan for the Spotted-tailed Quoll Dasyurus maculatus (DELWP, 2016). • Threatened Species Scientific Committee (TSSC) (2020b) Conservation Advice Dasyurus maculatus maculatus (southeastern mainland population) Spotted-Tailed Quoll, south eastern mainland (DAWE, 2021). **Regent honeyeater**	

Requirement	Information	Reference (BAM / BLA[1])
	• Draft National Recovery Plan for the Regent Honeyeater (Anthochaera phrygia) (DoE, 2015). **Large-eared Pied Bat** • National recovery plan for the large-eared pied bat Chalinolobus dwyeri (DERM, 2011). **Corben's Long-eared Bat** • Threatened Species Scientific Committee (TSSC) (2015) Conservation Advice Nyctophilus corbeni. South-eastern long-eared bat (DoEE, 2021).	
Recommended Conditions	**Provide advice on any recommended conditions and reasons for imposing the conditions:** The BDAR conforms to BAM requirements and no further field survey is required to identify impacts to threatened MNES entities. BCS has not received draft conditions for review as at the time of preparing this report, and therefore recommendations on potential conditions cannot be provided. BCS expects that at a minimum, retirement of biodiversity credits generated as an offset obligation and preparation of a Biodiversity Management Plan to manage biodiversity impacts throughout the life of the development, be required by way of condition.	BLA clause 6.2(c)(iii)

TABLE 2: MNES IMPACT AND OFFSET SUMMARY

Threatened Species / Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community (if applicable)	Area of Impact (ha)	Credits Required	Offsetting Approach	Reference (EIS, BDAR)
Box Gum Woodland CEEC	PCT 281	3.51	179 ecosystem credits		BDAR section 6 BDAR table 6.1 Table 2.3 of Appendix H
Grey Box Woodland CEEC	PCT 81	1.95	77 ecosystem credits		As above
Spotted-tailed quoll	PCT 81 PCT 281 PCT 318	1.95 13.24 0.93	77 ecosystem credits 287 ecosystem credits 24 ecosystem credits		Table 2.3 of Appendix H
Regent honeyeater	PCT 81 PCT 281 PCT 318	1.95 13.24 0.93	77 ecosystem credits 287 ecosystem credits 24 ecosystem credits		Table 2.3 of Appendix H
Large-eared Pied Bat **Koala**	Not an ecosystem credit species	0	0	Species credit species only. Therefore, no associated ecosystem credits are generated.	Table 2.3 of Appendix H
Corben's long-eared bat	PCT 81	1.95	77 ecosystem credits		Table 2.3 of Appendix H
Bluegrass	PCT 81	0.9	13 species credits		Table 7.1

Please note that figures from Appendix H are based on the May 2024 BDAR, therefore, are inconsistent with the August 2024 BDAR calculations of impact areas and credits required. Therefore, Table 2 data is sourced from the finalised BAM-C case (00031701) for Tallawang Solar Farm.