NSW GOVERNMENT

Maryvale Solar Farm

State Significant Development Assessment

(SSD 8777)

December 2019

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Executive Summary

Maryvale Solar Farm Pty Ltd (MSF) proposes to develop a new 125 megawatt (MW) solar farm approximately 11 kilometres (km) north of Wellington in the Central West and Orana region of NSW.

The project site is located in close proximity to the Mitchell Highway and has direct access to the electricity network via Essential Energy's transmission line which traverses the site. The site is located in a rural area, with the nearest non-associated dwelling located about 500 metres away.

Engagement

The Department exhibited the Environmental Impact Statement for the project and received advice from nine government agencies. All four submissions from the general public objected to the project. The Department also consulted with Dubbo Regional Council (Council) and the relevant government agencies throughout the assessment and inspected the site on 22 November 2017.

Council supports the project and none of the agencies object to the project, subject to the implementation of appropriate mitigation and management measures.

The public submissions were from residents of the Wellington area, the nearest of which is located approximately 8 km from the site. Concerns raised included land use compatibility and reduced agricultural output from the Wellington area.

MSF has responded to matters raised in all submissions. The Department has considered these matters in its assessment and incorporated requirements to address these in the recommended conditions where relevant.

Assessment

The Department has undertaken a comprehensive assessment of the merits of the project and considered all potential issues in accordance with the requirements of the *Environmental Planning and Assessment Act 1979*. The key assessment matters identified for the project are land use compatibility and the potential cumulative traffic impacts from other nearby solar farms.

The project site is currently used for agricultural purposes, including cropping and grazing, and the soils are classified as having Class 3 rural land capability under the *Land and Soil Capability Mapping in NSW* (OEH, 2017), meaning that the land is suited to grazing, but capable of sustaining cultivation on a rotational basis. Although the development footprint is mapped Biophysical Strategic Agricultural Land (BSAL), the loss of 375 hectares (ha) of agricultural land combined with the other approved solar farms in the region will result in total loss of 3,195 ha, which represents a small fraction (i.e. 0.04%) of the land being used for agricultural output in the region.

In addition, the project would not fragment or alienate resource lands in the local government area, as the land could be easily returned to agricultural land following decommissioning and the inherent agricultural capability of the land would not be affected by the project.

The Department considers that the project would not significantly reduce the overall agricultural productivity of the region and is satisfied that the site could be returned to agricultural uses in the future. The Department also notes that MSF intends to graze sheep on the site during operation of the project and that part of the site would be retained for agricultural purposes.

Construction impacts, including potential traffic impacts, would be relatively short-term, minor in nature and can be managed in accordance with applicable Government policy. The road upgrades have been designed to satisfy the relevant road safety standards, and the requirements of Council and Roads and Maritime Services. Although there are five other approved or proposed solar farms in the Wellington area, the construction periods of the

projects are unlikely to significantly overlap. Further, the Department has recommended strict conditions requiring restricted construction hours, relevant road upgrades and a comprehensive Traffic Management Plan.

The project has been designed to largely avoid impacts on vegetation and threatened species in the locality and all unavoidable impacts (including clearing 1.2 ha of native vegetation and 109 paddock trees) would be offset in accordance with the *Biodiversity Conservation Act 2016*. The layout of the solar farm has also been designed to avoid impacts on Aboriginal heritage and riparian zones.

The Department has recommended a condition requiring an accommodation and employment strategy be prepared and implemented by MSF, in consultation with Council, to ensure there would be sufficient accommodation to house construction workers, and to prioritise the employment of local workers.

To address the residual impacts of the project, including visual, noise, heritage, water, bushfire, hazards, salinity, erosion and the cumulative impacts of the other solar farms in the Wellington region, the Department has recommended a range of detailed conditions, developed in conjunction with agencies and Council, to ensure these impacts are effectively minimised or offset.

Summary

Overall, the Department considers the site to be appropriate for the project as it has good solar resources and available capacity on the existing electricity network and is consistent with the Department's *Large-Scale Solar Energy Guideline*.

The project is consistent with the Commonwealth's *Renewable Energy Target* and NSW's *Climate Change Policy Framework* and *Renewable Energy Action Plan* as it would contribute 125 MW of renewable energy to the National Electricity Market.

The project is located in the pilot Renewable Energy Zone in the Central West Region, as identified in the NSW Government's *Electricity Strategy*, with access to the electricity grid at a location with available network capacity.

The project would also provide flow-on benefits to the local community, including up to 150 construction jobs and a capital investment of about $190 million.

The Department considers that the project would result in benefits to the State of NSW and the local community, and is therefore in the public interest.

Contents

1. Project

Maryvale Solar Farm Pty Ltd (MSF), a joint venture owned by Photon Energy, Canadian Solar and Polpo Investments, proposes to develop a new State significant development solar farm at Maryvale, approximately 11 kilometres (km) north of Wellington in the Dubbo Regional local government area (LGA) (see **Figure 1**).

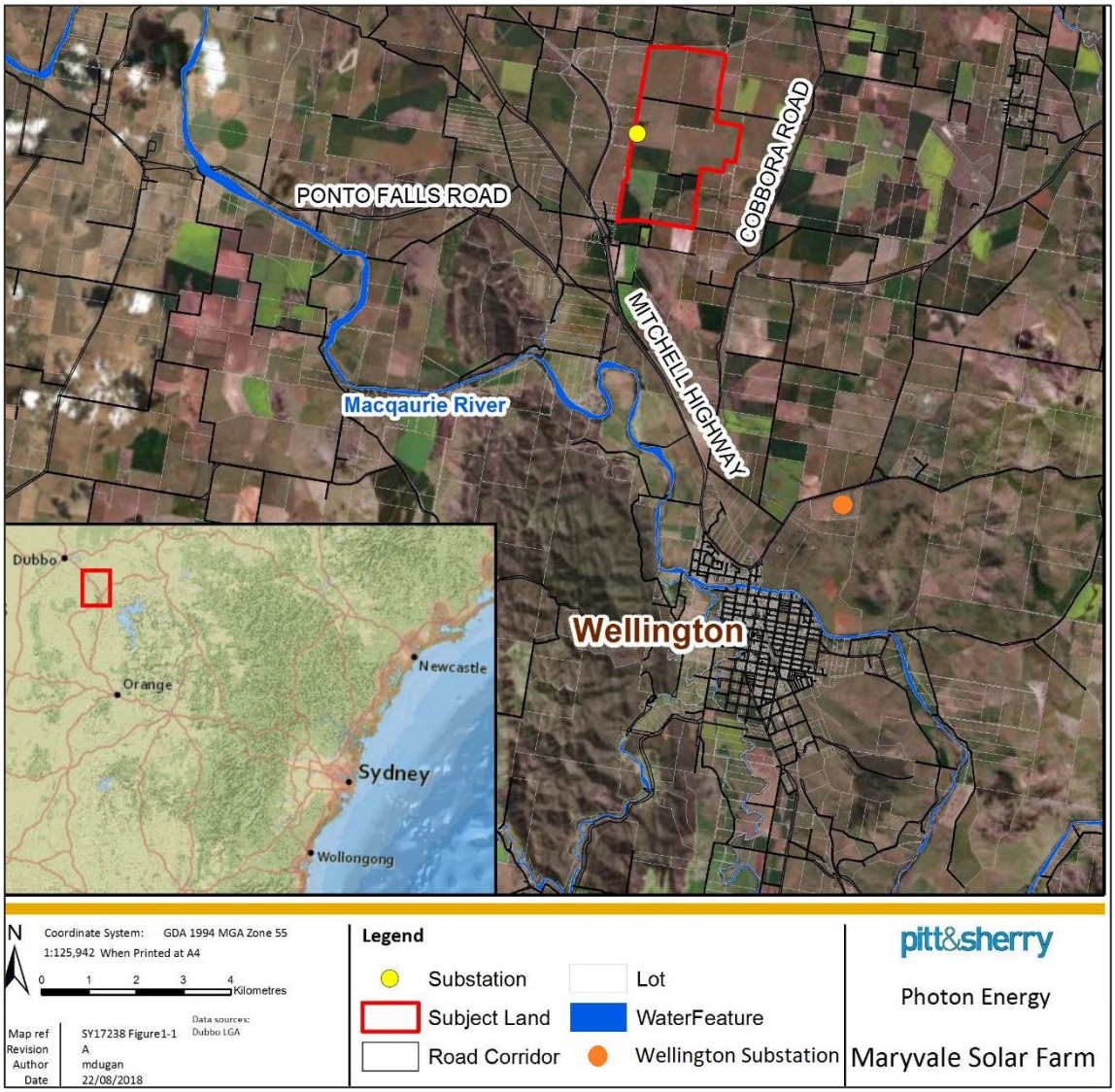

Figure 1 | Regional Context

The project involves the construction of a new solar farm with a generating capacity of approximately 125 megawatts (MW). It also involves the upgrading and decommissioning of infrastructure and equipment in the future. While the capacity of the project may increase over time as technology improves, the footprint of the development would not be permitted to increase without further planning approval.

The solar farm would connect to Essential Energy's existing 132 kilovolt (kV) overhead transmission line that transects the development site.

The key components of the project are summarised in **Table 1**, depicted in **Figure 3,** and described in detail in the Environmental Impact Statement (EIS) (see **Appendix B**), Submissions Report (see **Appendix F**) and additional information provided during the Department's assessment of the project (see **Appendix C**).

Table 1 | Main Components of the Project

Aspect	Description
Project Summary	The project includes: • approximately 450,000 single-axis tracking solar panels (up to 4 m high) and 40 inverter stations (up to 3 m high); • an on-site substation and connection to Essential Energy's 132 kV transmission line; • internal access tracks, staff amenities, two maintenance storage containers (up to 6 m high), offices, laydown areas, car park, fire breaks, vegetation screening and security fencing; and • subdivision of land within the site to be retained by the landowner and for the substation.
Project area	630 ha (with a 375 ha development footprint)
Access route	All vehicles would access the site via the Mitchell Highway, Cobbora Road, Maryvale Road and Seatonville Road.
Site entry and road upgrades	• Site entry would be via three access points on Seatonville Road (2 new, 1 existing), all of which would be designed with Rural Property Access type treatments; • Key roadworks include: – upgrading Seatonville Road, four sections of Maryvale Road and the Bodangora Creek crossing on Maryvale Road, to a standard that allows two-way heavy vehicle movements; – sealing Seatonville Road for 30 m from the intersection with Maryvale Road; and – upgrading the intersection of Cobbora Road and Maryvale Road, including a left turn deceleration lane on Cobbora Road (AUL (S) type upgrade).
Operational life	• The expected operational life of the infrastructure is approximately 25 years. However, the project may involve infrastructure upgrades that could extend the operational life. • The project also includes decommissioning at the end of the project life, which would involve removing all infrastructure.
Construction	• The construction period would last for up to 12 months. • Construction hours would be limited to Monday to Friday 7am to 6pm, and Saturday 8am to 1pm.
Hours of operation	Daily operations and maintenance would be undertaken Monday to Friday 7am to 6 pm, and Saturday 8 am to 1 pm.
Employment	Up to 150 construction jobs and 10 operational jobs.
Capital investment value	$188 million

Figure 2 | Project Site

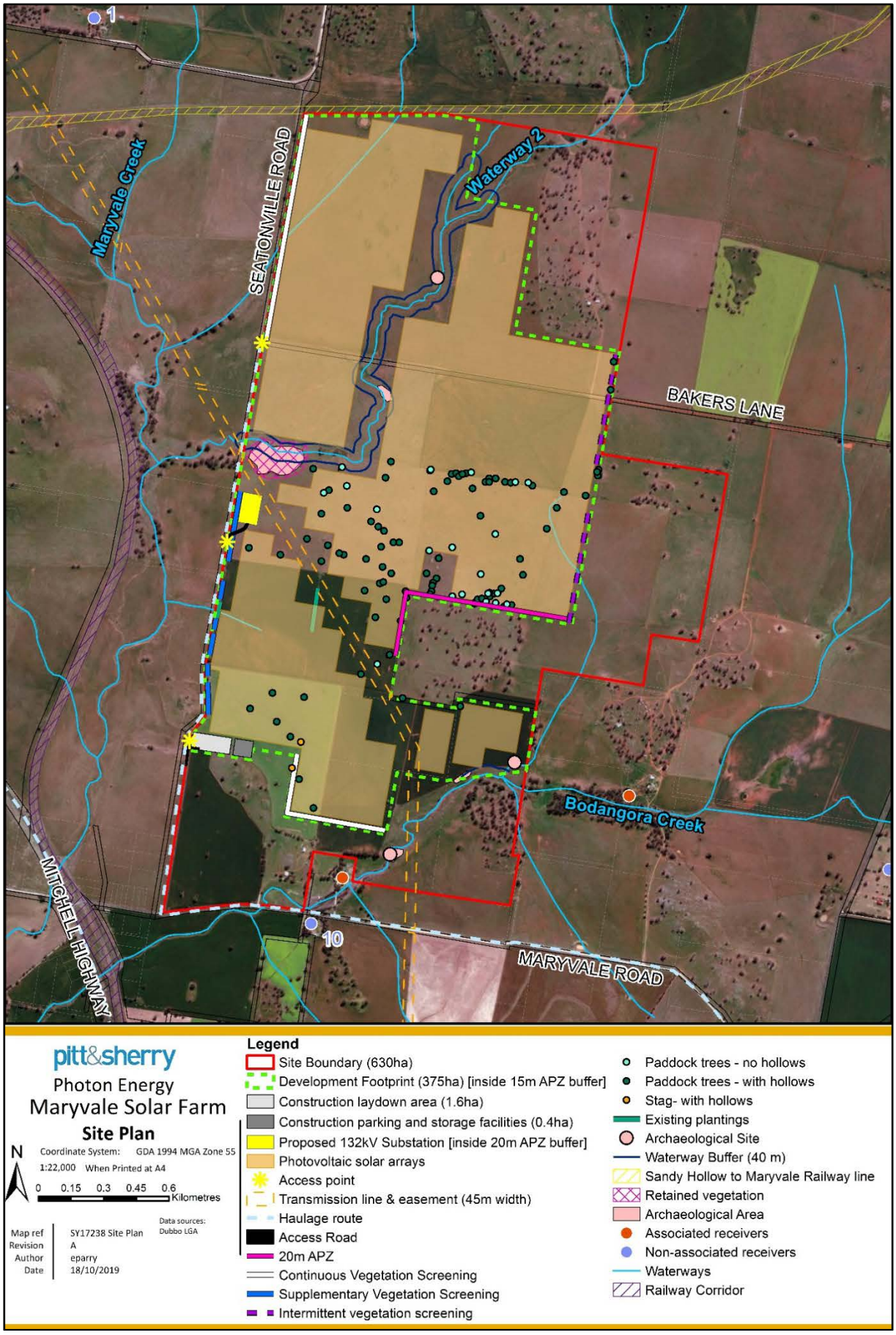

Figure 3 | Project Layout

2. Strategic Context

2.1 Site and Surrounds

The project is located on a 630 hectare (ha) site in the Central West and Orana region of NSW. The site is zoned RU1 – Primary Production under the *Wellington Local Environment Plan 2012* (Wellington LEP) and is used for agricultural purposes, including grazing of livestock and cultivation of dryland crops such as wheat and other cereals.

The site comprises low lying and gently undulating land, predominantly cleared of vegetation. The site lies within the Macquarie–Bogan catchment with ephemeral tributaries of Maryvale Creek and Bodangora Creek traversing the site. Seatonville Road runs along the western boundary of the proposal, with the Mitchell Highway approximately 900 m to the west at its closest point.

The proposed development footprint is 375 ha and is irregular in shape as it was designed to largely avoid site constraints, including the 132 kV transmission line easement, nearby residences, known Aboriginal heritage items, remnant native vegetation and watercourses (see **Figure 3**).

Land surrounding the site is also predominantly zoned RU1 and is primarily used for agricultural purposes, including grazing and cropping. Transport for NSW's (TfNSW) non-operational Sandy Hollow to Maryvale rail corridor is adjacent to a portion of the northern boundary of the site and has local heritage significance. Further, TfNSW's operational Orange Junction to Dubbo railway is approximately 500 m west of the site at its closest point. Both rail corridors are zoned SP2 (Infrastructure).

There are eight non-associated residences within 2 km of the project site, none of which objected to the project, with the closest dwellings located approximately 500 m south (VP10) and 1 km northwest (VP1) of the development footprint. VP10 is located on lower lying land to the south of the project and would have minimal views of the project. VP1 is at a slight elevation with mostly unimpeded views. The six other non-associated residences are between 1.3 km and 2 km from the site, with distance and topography limiting views of the project site.

An Essential Energy (EE) 132 kV transmission line transects the site. MSF has received confirmation from EE that the proposed connection into the electricity network via this line is feasible. The solar farm would connect directly into this transmission line.

2.2 Other Solar Farms

The Central West region has attracted considerable interest from solar developers given the presence of major transmission lines and existing electricity substations. There are two approved and three proposed State significant development solar projects within 50 km of the project, with the nearest proposed solar farm located 2.5 km southeast of the site (see **Table 2** and **Figure 4**).

Table 2 | Nearby Solar Farms

Project	Capacity (MW)	Status	Approximate distance from the project (km)
Wellington North Solar Farm	300	Proposed	2.5
Wellington Solar Farm	174	Approved	5
Suntop Solar Farm	170	Approved	13
Suntop Stage 2 Solar Farm	165	Proposed	13
Mumbil Solar Farm	140	Proposed	18

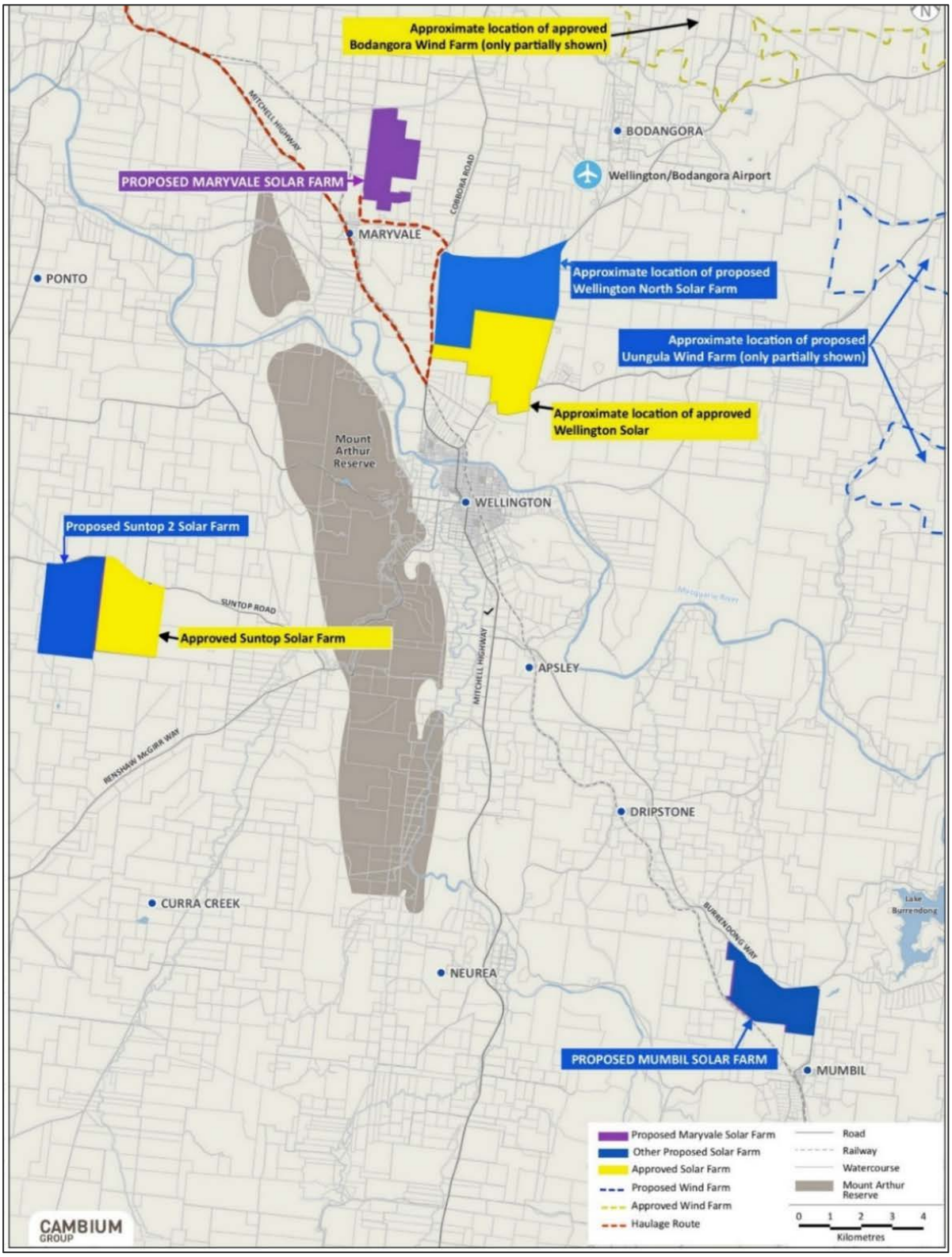

Figure 4 | Nearby Solar Farms

Potential cumulative impacts relate to loss of agricultural land, traffic, workforce accommodation and visual amenity.

Wellington Solar Farm and Suntop Solar Farm are approved, but are yet to commence construction. Wellington North Solar Farm is currently in the assessment process. Suntop Stage 2 Solar Farm and Mumbil Solar Farm are at a preliminary stage with no application yet submitted to the Department. There is the potential for construction of the project to overlap with the construction of the other projects in the Wellington region.

The broader potential cumulative impacts on agricultural land in the region is discussed further in **section 5.1**.

The project is proposing to use State network routes for heavy and light vehicles. The Mitchell Highway would not experience significant cumulative impacts and has sufficient capacity to absorb construction traffic of the project. The proposed Wellington North Solar Farm, if approved, has the potential to cause cumulative impacts to the regional road network should the construction periods overlap, due to proximity to the project site and common section of the construction haulage route particularly along Cobbora Road (see **Figure 4** and **Figure 6**), as discussed further in **section 5.2**. The project would not have a cumulative impact on local roads with the approved Wellington Solar Farm as the access to Wellington Solar Farm is off Goolma Road.

Potential cumulative visual impacts from the project and the proposed Wellington North Solar project have been considered in **section 5.3**.

Workforce accommodation for these solar projects would be sourced from the local and wider region, including neighbouring towns and LGAs, as discussed further in **section 5.3**.

2.3 Energy Context

In 2018, NSW derived approximately 17.4% of its energy from renewable sources. The rest was derived from fossil fuels, including 79% from coal and 3.1% from gas. However, there are currently no plans for the development of new coal power stations in NSW, and the development of renewable energy sources, like wind and solar farms, is experiencing rapid growth.

This is highlighted in the 2017 *Independent Review into the Future Security of the National Electricity Market* (the Finkel Review), which outlines a strategic approach to ensuring an orderly transition from traditional coal and gas fired power generation to generation with lower emissions. It notes that Australia is heading towards zero emissions in the second half of the century.

The *United Nations Framework Convention on Climate Change* has adopted the Paris Agreement, which aims to limit global warming to well below 2°C, with an aspirational goal of 1.5°C. Australia's contribution towards this target is a commitment to reduce greenhouse gas emissions by 26% to 28% below 2005 levels by 2030.

One of the key initiatives to deliver on this commitment is the Commonwealth Government's *Renewable Energy Target*. Under this target, more than 20% of Australia's electricity would come from renewable energy by 2020.

The *NSW Climate Change Policy Framework*, released in November 2016, sets an aspirational objective for NSW to achieve net zero emissions by 2050. The NSW Government also has a *Renewable Energy Action Plan*, which promotes the development of renewable energy in NSW.

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 the assessment of large-scale solar projects, and identify the key planning considerations relevant to solar energy development in NSW.

The Guideline aims to support the growth of the solar industry, whilst ensuring that impacts are adequately assessed, effective stakeholder engagement is undertaken, and that attracting investment is balanced with considering the interests of the community. Although MSF submitted its EIS in November 2018, prior to the release of the Guideline, its assessment is consistent with the principles of the Guideline.

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

NSW is one of the nation's leaders in large-scale solar, with nine major operational projects and an additional eight under construction.

In March 2018, the NSW Government's *Transmission Infrastructure Strategy* identified 10 potential Energy Zones across three broad regional areas, including the New England, Central West and South West regions of NSW. The

identified energy zones are aimed at encouraging "*investment in new electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW.*"

Building on this, the NSW Government announced the *NSW Electricity Strategy* in November 2019, which adopted the Central West region as the pilot Renewable Energy Zone (REZ) to support transmission upgrades in this zone. The strategy proposes NSW Government support for this REZ to unlock regional investment and new energy generation infrastructure and for the development of new transmission to connect low cost generation to the electricity system.

The project would be located within the Central West REZ and would have access to the electricity grid at a location with available network capacity. With a generating capacity of 125 MW, the project would generate enough electricity to power up to 46,750 homes and is therefore consistent with the Commonwealth's *Renewable Energy Target*, and NSW's *Renewable Energy Action Plan* and *Electricity Strategy*.

3. Statutory Context

3.1 State Significant Development

The project is classified as State significant development under Section 4.36 of the *Environmental Planning & Assessment Act 1979* (EP&A Act). This is because it triggers the criteria in Clause 20 of Schedule 1 of *State Environmental Planning Policy (SEPP) (State and Regional Development) 2011*, as it is development for the purpose of electricity generating works with a capital investment value of more than $30 million.

Consequently, the Minister for Planning and Public Spaces is the consent authority for the development. However, under the Minister's delegation of 11 October 2017, the Executive Director, Energy and Resource Assessments, may determine the development application as Council did not object, there were less than 25 objections from the general public and a political donations disclosure statement has not been made.

3.2 Permissibility

The site is located wholly within land zoned RU1 Primary Production under the Wellington LEP, which is discussed further in **section 5.1**. The RU1 zone includes various land uses that are both permitted with and without consent. As a solar farm is not expressly listed as permitted with or without consent, it is a prohibited land use under a strict reading of the LEP. However, the LEP expressly references the State *Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) and acknowledges that electricity generating works are regulated by the Infrastructure SEPP, rather than the LEP.

Under the Infrastructure SEPP, electricity generating works are permissible on any land in a prescribed rural, industrial or special use zone. Land zoned RU1 Primary Production is a prescribed rural zone pursuant to the Infrastructure SEPP. Consequently, the project is permissible with development consent.

3.3 Integrated and Other Approvals

Under Section 4.41 of the EP&A Act, a number of other approvals are integrated into the State significant development approval process, and therefore are not required to be separately obtained for the proposal.

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 proposal (e.g. approvals for any works under the *Roads Act 1993*).

The project may require the installation of a fibre optic communications cable along Essential Energy's existing 132 kV transmission line between the proposed on-site substation and the Wellington substation. Essential Energy have confirmed that the communications cable would be assessed and determined by Essential Energy under Part 5 of the EP&A Act.

The Department has consulted with the relevant government agencies responsible for the integrated and other approvals, 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**).

The project does not currently need to obtain approval from the Commonwealth Minister for the Environment and Energy under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as surveys have not identified any significant impacts on matters of national environmental significance listed under the EPBC Act.

3.4 Mandatory Matters for Consideration

Section 4.15 of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. These matters are summarised as:

- the provisions of environmental planning instruments (including draft instruments), development control plans, planning agreements, and the EP&A Regulations;
- the environmental, social and economic impacts of the development;
- the suitability of the site;
- any submissions; and
- the public interest, including the objects in the EP&A Act and the encouragement of ecologically sustainable development (ESD).

The Department has considered all of these matters in its assessment of the project, as well as MSF's consideration of environmental planning instruments in its EIS, as summarised in **section 5** of this report. The Department has considered relevant provisions of the environmental planning instruments in **Appendix D**.

4. Engagement

4.1 Department's Engagement

The Department publicly exhibited the EIS from 21 November 2018 until 19 December 2018, advertised the exhibition in the *Wellington Times*, *Dubbo Mailbox Shopper* and *Dubbo Daily Liberal* and notified landowners adjoining the project boundary.

The Department also consulted with Council and the relevant government agencies throughout the assessment and inspected the site and surrounds on 22 November 2017.

The Department notified and sought comment from Essential Energy, the Roads and Maritime Services (RMS) and Transport for NSW (TfNSW) in accordance with the Infrastructure SEPP and this is discussed further in **section 4.4** of this report.

4.2 MSF's Engagement

MSF undertook engagement with the surrounding community as detailed in the EIS, including newspaper advertisements, community meetings and information sessions, individual meetings with adjacent landowners and made information about the proposal available via a project newsletter and its website. MSF also undertook consultation with the Department and relevant government agencies during the assessment process.

4.3 Submissions and Submissions Report

During the exhibition of the EIS, the Department received advice from nine government agencies, including Dubbo Regional Council. Four submissions were received from the general public objecting to the project.

Full copies of the agency advice and public submissions are attached in **Appendix E**.

MSF provided a response to all matters raised in submissions on the project (see **Appendix F**). MSF has also provided additional information during the Department's assessment (see **Appendix C**).

4.4 Key Issues – Government Agencies

Dubbo Regional Council supports the project, but initially raised concerns about subdivision of land, traffic and the cumulative impacts of several proposed large-scale solar projects within the Wellington area. These matters have been addressed by MSF in the Submissions Report, are discussed in **sections 5.1**, **5.2**, **5.3** and, where required, incorporated into the recommended conditions of consent. Council has also asked for development contributions of 1% of the capital investment value to be applied to the project. The Department has considered this further in **section 5.3**.

The **Department's Biodiversity and Conservation Division** (BCD) (formerly Office of Environment and Heritage) acknowledged MSF's effort to avoid impacts to remnant native vegetation and Aboriginal cultural heritage. However, initial concerns were raised regarding the adequacy of consultation undertaken with Registered Aboriginal Parties (RAPs). MSF has committed to further consultation with RAPs prior to commencing construction and BCD is satisfied with this outcome. The Department has incorporated this consultation requirement into the conditions of consent and considered further in **section 5.3**.

The **Department's Primary Industries Group** (DPIE Primary Industries) recommended that information on the current agricultural productivity of the site should be assessed to assist with providing agricultural indicators to guide the return of land back to agricultural production for decommissioning purposes. MSF addressed these matters in the Submissions Report and DPIE Primary Industries was satisfied with the response provided. Further, the **Department's Water Group** (DPIE Water) recommended a Soil and Water Management Plan, and Erosion and Sediment Control Plan be developed prior to construction. The Department has considered this advice and recommended conditions requiring MSF to minimise soil erosion associated with the development and addressed the remaining issues in **sections 5.1** and **5.3**.

Roads and Maritime Services (RMS) recommended that MSF develop a comprehensive Traffic Management Plan and undertake the relevant road upgrades prior to construction. These recommendations are considered further in **section 5.2** and have been incorporated into the recommended conditions of consent.

Transport for NSW (TfNSW) did not object to the project but requested further assessment of potential risks associated with the increased use of the level crossing on Cobbora Road during the construction period. MSF completed the Australian Level Crossing Assessment Model (ALCAM) data collection and TfNSW is satisfied that the increased usage of the level crossing by heavy vehicles during construction would not negatively impact the level crossing, as discussed further in **section 5.2**.

TfNSW also initially raised concerns on the potential impacts of the project on the adjacent non-operational Sandy Hollows to Maryvale rail corridor. MSF has addressed these matters in the Submissions Report and additional information provided, and TfNSW confirmed it has no residual concerns.

Essential Energy (EE) initially raised concerns regarding the project infrastructure encroaching on the existing transmission line easement. MSF has confirmed the development will adhere to the required 45 m easement for a 132 kV transmission line and EE confirmed it has no residual concerns. EE also confirmed that preliminary investigations indicate that connection to its network is feasible.

The **Rural Fire Service** (RFS) and **Fire and Rescue NSW** (FRNSW) recommended requirements related to bushfire and hazard preparation and management, which have been incorporated into the recommended conditions of consent.

The **Division of Resources and Geoscience** confirmed it is satisfied that the project would not sterilise any mineral resources and that MSF has provided sufficient evidence of consultation with the titleholder of Exploration Licences EL8357 and EL6178, which cover the entirety of the site.

The **Environment Protection Authority** raised no concerns about the project and provided recommendations on both water and waste management, which have been incorporated in the conditions of consent.

4.5 Key Issues – Community

The four public submissions objecting to the project were from residents of Wellington, with the nearest submitter located approximately 10 km from the site.

The key issues raised in the objections relate to land use compatibility, particularly the loss of BSAL, reduced agricultural output from the Wellington area, dryland salinity outbreaks and bushfire risk. Concerns were also raised regarding the cumulative impact of several solar farms in proximity to Wellington, including increased traffic on local roads, reduction in land values and visual impacts.

Section 5 of this report provides a summary of the Department's consideration of these matters and recommended conditions.

5. Assessment

The Department has undertaken a comprehensive assessment of the merits of the project. This report provides a detailed discussion of the two key issues, namely land use compatibility and construction traffic.

The key constraints for the project are depicted in **Figure 3**. The Department has also considered the full range of potential impacts associated with the project and has included a summary of the conclusions relating to these in **section 5.3**. A list of the key documents that informed the Department's assessment is provided in **Appendix A**.

5.1 Compatibility of Proposed Land Use

Provisions of the Wellington LEP

The site is located wholly within the RU1 Primary Production zone under the Wellington LEP. As discussed in **section 3.2**, a solar farm is a prohibited land use under a strict reading of the LEP.

However, based on a broader reading of the LEP, and consideration of the objectives of the RU1 zone and other strategic documents for the region, the Department considers that there is no clear intention to prevent the development of a solar farm on the project site.

Firstly, the LEP expressly references the Infrastructure SEPP and acknowledges that electricity generating works are regulated by the Infrastructure SEPP, rather than the LEP. As described above, a solar farm is permitted with consent on land zoned RU1 under the Infrastructure SEPP.

Secondly, the project is not inconsistent with the objectives of the RU1 zone, particularly in relation to:

- encouraging diversity in primary industry enterprises and systems appropriate for the area; and
- minimising fragmentation and alienation of resource lands.

While the Dubbo Regional LGA has traditionally relied upon agriculture, the introduction of solar energy generation would contribute to a more diverse local industry, thereby supporting the local economy and community. In addition, the proposed solar farm would encourage renewable energy development which is consistent with the *Dubbo Economic Development Strategy 2011*.

The project is also consistent with the Department's *Central West and Orana Regional Plan 2036*, which identifies the development of renewable energy generation as a future growth opportunity for the region.

The development would not fragment or alienate resource lands in the LGA, as the land could be easily returned to agricultural land following decommissioning as the inherent agricultural capability of the land would not be affected in the long term.

Further, one of the key actions in Council's *2016/17 LGA Economic Development Action Plan* is the promotion of alternative energy sources and infrastructure to support initiatives that attract low carbon investment in the LGA.

Finally, and most importantly, Council supports the project, subject to the implementation of appropriate environmental mitigation measures.

Subdivision

MSF proposes to consolidate and subdivide the existing 10 lots to facilitate lease agreements with the landowners (i.e. to excise the development footprint from the existing lots) and to transfer ownership of the proposed substation to Essential Energy. The proposed subdivision would result in 5 new lots. These lots would range in size from 1 ha (for the substation) to 374 ha (see **Figure 5** and **Table 3**).

All of the new lots would be under the minimum lot size of 400 ha and prohibited under a strict reading of the LEP. Notwithstanding, under Section 4.38(3) of the EP&A Act, development consent for the project as a whole can be granted despite the subdivision component of the application being prohibited by the LEP.

Table 3 | Proposed Subdivision

Lot	Purpose	Size (ha)
1	Solar Farm Development Footprint	374
2	Onsite Substation	1.04
3	Landowner's continued use	58
4	Landowner's continued use	84
5	Landowner's continued use	85

Broadly, the intent of the restrictions on minimum lot sizes in the LEPs are to:

- protect rural land for agriculture;
- minimise impacts on the characteristics of rural land and unplanned rural residential development on inappropriately sized land parcels.

The Department has considered the development application against the intent of the rural zoning and concluded that the proposed subdivision is in the public interest as:

- the project is a permissible use as energy generation works for land zoned primary production under the Infrastructure SEPP;
- the subdivided land would not be used for residential purposes;
- the subdivision would not adversely affect the use of the surrounding land for agriculture and would not cause any rural land use conflicts;
- the subdivision for the substation is necessary for the ongoing operation of the solar farm as it is required for the transfer of the substation to TransGrid;
- the subdivision for the purposes of long term leases are necessary for the operation of the solar farm as they are required to register the leases with the Office of the Registrar-General;
- the residual land would be used for continuing agricultural use; and
- the subdivided lot for the substation does not contain a dwelling and the subdivision would not change the existing dwelling entitlements.

Further, Council has not objected to the proposed subdivision.

The Department considers that on the basis of the above, the proposed subdivision would allow the solar farm to be developed and consequently provide net benefits to the National Electricity Market that can be realised in a timely manner, whilst not adversely affecting the use of surrounding land for agricultural purposes.

As such, the Department has recommended conditions of consent requiring MSF to subdivide the proposed lots in accordance with requirements of section 157 of the *Environmental Planning and Assessment Regulation 2000.*

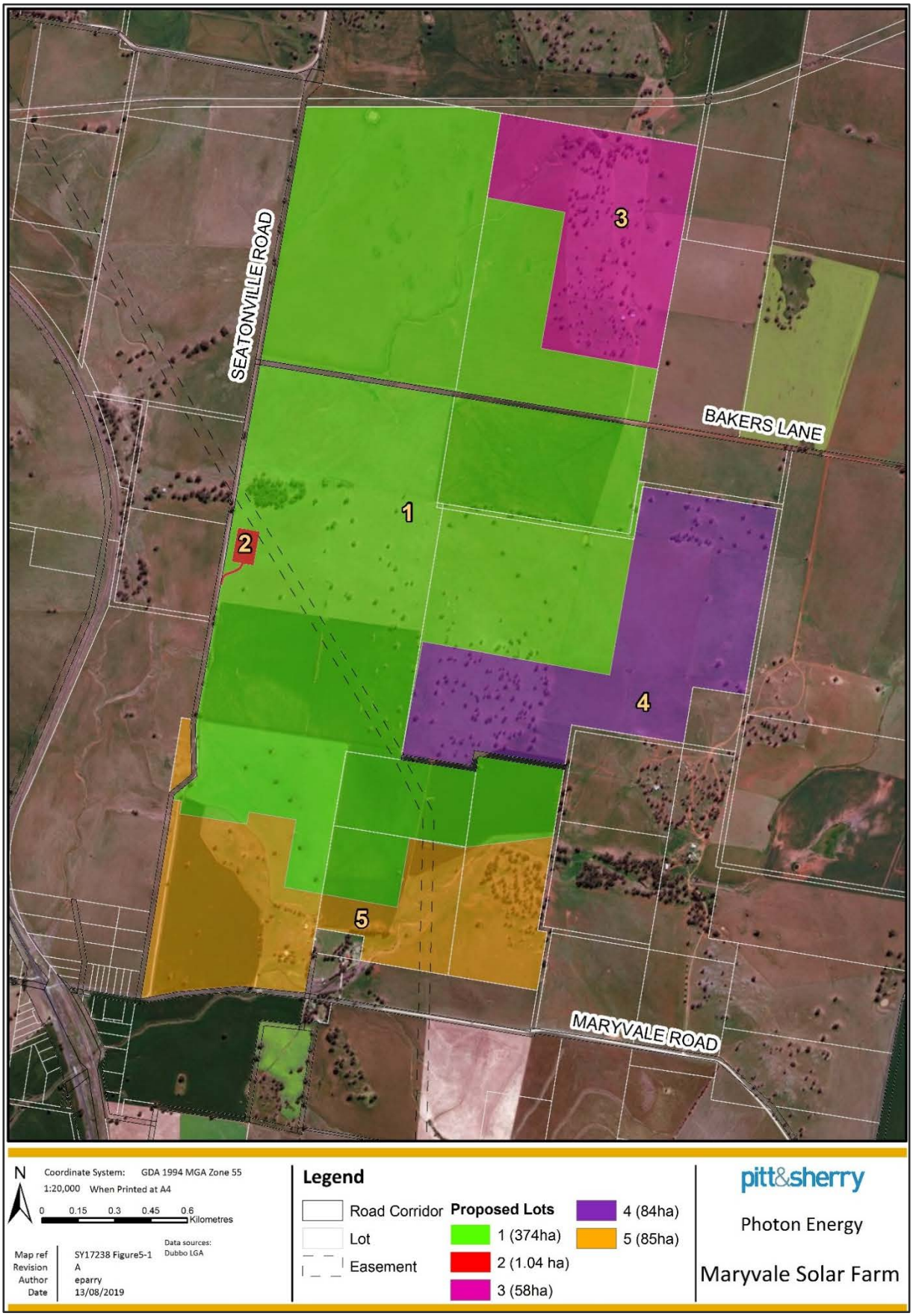

Figure 5 | Proposed Subdivision Plan

Potential Impacts on Agricultural Land

The four public submissions raised concern about the loss of agricultural land, particularly the loss of BSAL and reduced agricultural output.

The project site is located in the Central West and Orana region of NSW, which has a strong and diverse agricultural sector, with around 8.9 million ha of this region being used for agricultural output.

The project site is mapped as BSAL and the soils on the site are classified as having Class 3 Rural Land Capability under the *Land and Soil Capability Mapping in NSW* (OEH, 2017). As such, the land is suited to grazing, but capable of sustaining cultivation on a rotational basis. The site is currently used for agricultural purposes of livestock grazing, cultivation of cereal crops and occasional sowing of fodder crops. The development of the solar farm would therefore reduce the agricultural output of the site while the solar farm remains operational. However the Department notes that the development footprint occupies 60% of the site, allowing the current agricultural practices to continue on the remaining 40% (approximately 250 ha) of the site. The Department also notes that MSF proposes to manage the development footprint through sheep grazing during the operation of the project.

The development footprint of the project combined with the other approved and/or operational SSD solar farms in the Central West and Orana region would be approximately 3,195 ha. However, the loss of 3,195 ha of agricultural land represents a very small fraction (~0.036 %) of the 8.9 million ha of land being used for agricultural output in the Central West and Orana region[1] and would result in a negligible reduction in the overall productivity of the region.

The Department also notes that neither Council nor DPIE Primary Industries raised concerns that the operation of the project would compromise the long-term use of the land for agricultural purposes.

Furthermore, the inherent agricultural capability of the land would not be affected by the project due to the relatively low scale of the development.

The potential loss of a small area of cropping and 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 in relation to reducing greenhouse gas emissions;
- the economic benefits of solar energy in an area with good solar resources and available capacity in the existing electricity network; and
- the benefits of dispatchable energy for grid stability and reliability.

MSF would be required to return the land back to existing levels of agricultural capability and would be guided by the historic crop yield and stocking rates presented in the Submissions Report in response to DPIE Primary Industries' submission. The Department has included rehabilitation objectives in the recommended conditions to maintain the productivity of the agricultural land during the construction and operation of the project, and to fully reinstate the agricultural capability of the land following decommissioning of the project.

Based on these considerations, the Department considers that the proposed solar farm represents a compatible use of the land within the region.

5.2 Traffic and Transport

One public submission raised concerns about the potential traffic impacts of the project on local roads during the construction period.

Transport Routes and Site Access

Although Maryvale Road can be directly accessed from the Mitchell Highway, MSF's assessment identified that this intersection would not be suitable for use by construction traffic primarily due inadequate sight distances.

[1] Central West & Orana Agricultural Industries Final Report, Department of Planning and Environment, January 2016.

For this reason, all development related vehicles (including over-dimensional, heavy and light vehicles, and shuttle buses) would access the site via the Mitchell Highway, Cobbora Road, Maryvale Road and Seatonville Road (see **Figure 6**). Importantly, all heavy vehicles accessing the site would also avoid passing through Wellington township.

The site would be accessed via three access points on Seatonville Road. The southern and central access points would be new and provide access to the site and substation respectively, while the northern access point at the intersection with the former Bakers Lane would provide access to the north west portion of the site (see **Figure 3**).

An assessment based on the Australian Level Crossing Assessment Model (ALCAM) was undertaken for the railway level crossing on Cobbora Road, near the intersection with the Mitchell Highway. The assessment determined that the increased frequency of heavy vehicles usage on the level crossing during construction would not change the risk profiles of the crossing and TfNSW confirmed it is satisfied with the assessment undertaken.

Traffic Volumes

The main increase in project related traffic would occur during the 12 month construction period. The estimated peak daily movement would be 100 vehicle movements per day, comprising 80 light vehicles and 20 heavy vehicles. Additionally, there would be a total of 2 over-dimensional vehicles during construction. As construction activities would be restricted to daytime hours, construction related vehicles would only be using the local road network during the day.

The Department notes that the estimated number of light vehicles is very conservative as MSF has committed to use a shuttle bus service and carpooling arrangements to transport workers to and from the site to reduce light vehicle numbers. The Department has included a requirement within the Traffic Management Plan (TMP) in the recommended conditions for MSF to develop measures to encourage employee use of this service, which is supported by RMS and Council.

Traffic generation during operations would be negligible (i.e. up to 5 heavy vehicle movements per day).

Cumulative Traffic Volumes

Other than the Wellington North Solar Farm, no other approved or proposed project in the Wellington area shares a common haulage route, except for sections of Mitchell Highway, which is part of the State road network and has sufficient capacity to absorb the associated construction traffic. For this reason, the Department considers that there would be negligible cumulative traffic impacts on the State road network and no road upgrades would be required in relation to cumulative traffic volumes.

The Wellington North Solar Farm (if approved), located to the south east of the Maryvale Solar Farm, proposes a haulage route along Cobbora Road directly from the Golden Highway from the north and / or directly from Mitchell Highway from the south, as indicated in **Figure 6**. Cobbora Road is a sealed two-way regional road connecting Golden Highway and Mitchell Highway, which provides a relatively high standard of road infrastructure that is generally suitable for transport of heavy and over-sized vehicles.

The potential for cumulative construction traffic impacts would generally be limited to an approximately 5 km section of Cobbora Road between Mitchell Highway and Maryvale Road, which may be shared with the proposed Wellington North Solar Farm.

If the Wellington North Solar Farm is approved and constructed concurrently, the cumulative peak traffic movements for both projects would peak at around 125 heavy vehicle movements and 110 light vehicle movements per day. The Department has included conditions to address dilapidation surveys and any repairs to account for potential cumulative impacts with Wellington North Solar Farm.

The potential for cumulative impact on common intersections for the projects would be Mitchell Highway / Cobbora Highway to the south and Maryvale Road / Cobbora Road to the north. The Mitchell Highway / Cobbora Highway intersection currently has a sheltered right turn lane provided along the Mitchell Highway for north-westbound vehicles to turn into Cobbora Road, and an auxiliary left turn treatment for south-eastbound vehicles.

For the Maryvale Solar Farm, the intersection of Mitchell Highway / Cobbora Highway would not require upgrades but the Maryvale Road / Cobbora Road intersection does require upgrades to enable the left turn from Cobbora Road. Should Wellington North Solar Farm utilise the intersection of Mitchell Highway / Cobbora Highway, a cumulative assessment of the intersection performance would be undertaken by that Applicant.

Any potential traffic impacts on local road users would be minimised and managed through stringent measures developed as part of the Traffic Management Plan, including scheduling construction activities and deliveries to minimise road transport movements and avoid conflict with school buses, rail services and the construction traffic of other solar farms in the Wellington area. RMS and Council support this approach, and the Department has included this requirement in the recommended conditions.

Road Upgrades and Maintenance

The RMS and Council support the proposed transport route, provided the required road upgrades are undertaken to support the increased traffic associated with this project. These include:

- upgrade and widen the intersection of Cobbora Road and Maryvale Road, including short auxiliary left turn [AUL(s)] treatment on Cobbora Road;
- upgrade the intersection of Seatonville Road and Maryvale Road, including widening of approaches on Maryvale Road to a width of 7 m, and sealing Seatonville Road for a minimum of 30 m at the approach to Maryvale Road;
- widen four sections of Maryvale Road and three sections of Seatonville Road, to meet the curve radius requirements;
- strengthen the waterway structure on Maryvale Road over Bodangora Creek to a standard that allows two-way heavy vehicle movements;
- widen Seatonville Road to 6 m to allow for two way heavy vehicle movement, and 1 m shoulders, between the intersection with Maryvale Road and the former Bakers Lane; and
- construct the two new site access points off Seatonville Road, and upgrade the intersection of Seatonville Road and the former Bakers Lane, with Rural Property Access type treatments to cater for the largest vehicle accessing the site.

Additionally, MSF has committed to preparing road dilapidation surveys and repairing any damage resulting from the construction traffic.

Recommended Conditions

The Department has recommended conditions of consent requiring MSF to:

- undertake the relevant road upgrades prior to commencing construction;
- share the cost of relevant road repairs of the common haulage route (relevant sections of Cobbora Road between Mitchell Highway and Maryvale Road) with the applicant of the Wellington North Solar Farm, if both projects utilise the same section of Cobbora Road and are constructed, upgraded or decommissioned simultaneously;
- restrict the number of vehicles during construction, upgrading and decommissioning to the peak volumes identified in the EIS;
- ensure the length of vehicles (excluding over-dimensional vehicles) does not exceed 19 m; and
- prepare and implement a Traffic Management Plan in consultation with RMS and Council, including provisions for dilapidation surveys, details of the measures that would be implemented to address road safety, potential cumulative development-related traffic impacts of other solar farms and details of the employee shuttle bus service.

Subject to the recommended conditions, the Department, RMS and Council consider that the project would not result in significant impacts on road network capacity, efficiency or safety.

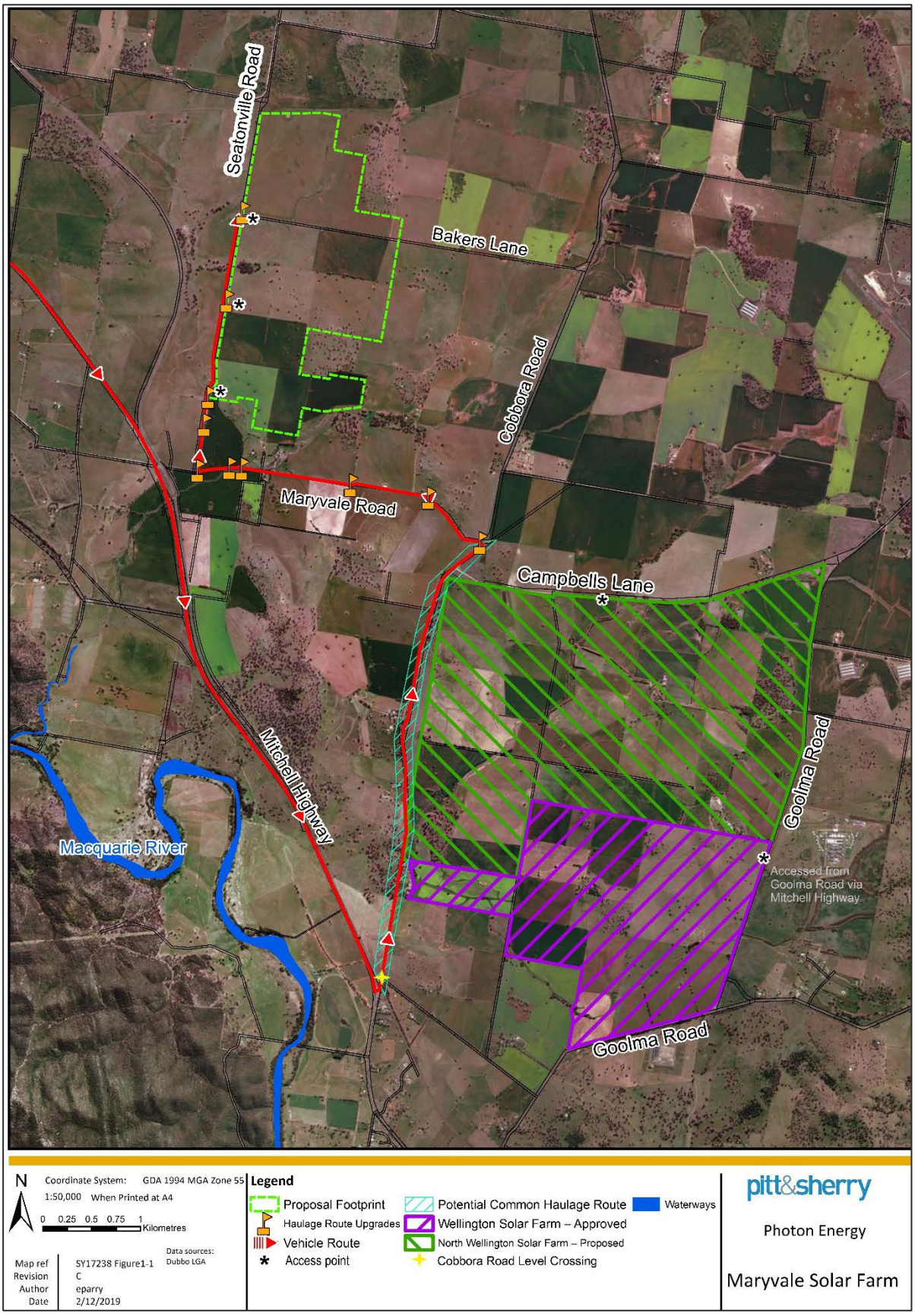

Figure 6 | Access route and road upgrades

5.3 Other Issues

The Department's consideration of other issues is summarised in **Table 4**.

Table 4 | Other Issues

Issue	Findings	Recommended Condition
Biodiversity	• The site is comprised of mostly cleared agricultural land with small patches of remnant native vegetation. • The project layout has been designed to avoid clearing of native woodland vegetation and threatened ecological communities, including a 3.1 ha patch of Yellow Box woodland on the western border of the site. • However, 0.4 ha of non-endemic eucalypt plantings, 0.8 ha of derived native grassland and 109 remnant paddock trees, of which 85 are hollow bearing, would be removed. • All native vegetation to be removed is assumed to represent White Box grassy woodland plant community type (PCT) 266 for the purpose of calculating credit offset requirements. This approach is supported by BCD. • PCT 266 is a threatened ecological community listed under the *Biodiversity Conservation Act 2016* (BC Act) and the impact to this PCT would generate 124 credits under the BC Act. • MSF would be required to retire these credits in accordance with the NSW Biodiversity Offset Scheme, which can be achieved by: – acquiring or retiring 'biodiversity credits' within the meaning of the BC Act; – making payments into an offset fund that has been developed by the NSW Government; or – funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme. • Removal of hollow-bearing trees would not occur during Spring to avoid the main breeding periods for hollow-dependent fauna. • The project is unlikely to have a significant impact on any threatened species. • Subject to the recommended conditions, the Department and BCD consider that the project is unlikely to result in a significant impact on the biodiversity values of the locality.	• Retire required offset credits in accordance with the *NSW Biodiversity Offsets Scheme* for Major Projects prior to the commencing the development. • Prepare a Biodiversity Management Plan in consultation with BCD.
Noise	• Noise generated by the proposed construction, upgrading and decommissioning activities was predicted to be 40 dB(A) at the closest non-associated receiver (R1) and less than 39dB(A) at all other non-associated receivers, and therefore well below the 'noise affected' criterion of 45 dB(A) in the EPA's *Interim Construction Noise Guideline* (ICNG) at all non-associated residences. • Notwithstanding, MSF has committed to implement the noise mitigation work practices set out in the ICNG, including scheduling activities to minimise noise, using quieter equipment and establishing a complaint handling procedure. • There would be negligible noise during operation.	• Minimise the noise generated by any construction, upgrading or decommissioning activities on site in accordance with best practice requirements outlined in the ICNG. • Restrict construction hours to Monday to Friday 7 am - 6 pm, and Saturday 8 am - 1 pm.

Issue	Findings	Recommended Condition
Visual	• Concerns about visual impacts were raised in two objections, from submitters located beyond 10 km from the site. • The solar panels would be relatively low lying (up to 4 m) and the maintenance buildings and substation would be a similar size to agricultural structures commonly found in the area. • There are 8 non-associated residences within 2 km of the site. None of these land owners objected to the project. • VP10 is the closest residence to the site (500 m to the south). However as the residence is on lower lying land, views of the project would be limited. VP1, located 1 km north west of the site, is slightly elevated in relation to the site and would be the most visually impacted private residence with a rating of moderate-high. • To mitigate visual impacts at these residences, a vegetation buffer would be planted along sections of the western, southern and eastern site boundaries (see **Figure 3**). • One residence (VP7) would be located within 2 km of both the project and the proposed Wellington North Solar project. Due to the distance to both projects, the proposed vegetation buffer and the relatively low-lying nature of the developments, the Department considers the cumulative visual impacts would not be significant. • Similarly, existing vegetation, the relatively low height of the infrastructure, the presence of existing transmission line infrastructure, and the proposed vegetation buffer along the western, southern and eastern boundaries, would limit the visual impact of the project from other residences and most viewpoints within 2 km. • The photovoltaic panels are designed to absorb rather than reflect sunlight, and the Department considers that the project would not cause noticeable glint or glare compared to other building surfaces. • The project is located about 135 km from the Siding Spring Observatory, therefore falls inside the Dark Sky Region covered by the NSW Government's *Dark Sky Planning Guideline*. A consent authority must consider this guideline for a project that is likely to impact the night sky and is within 200 km of the Observatory. • There would be some night security lighting, however there would be negligible light spill beyond the horizontal plane. Consequently, the Department is satisfied that the project would not affect the observing conditions at the Observatory. • The Department considers the visual impacts of the project on the surrounding residences and road users would be minimal.	• Establish and maintain vegetation buffers. • Prepare and implement a Landscaping Plan. • Ensure that external lighting is minimised and complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* and the *Dark Sky Planning Guideline* (DPE 2018), or their latest versions. • Prohibit any signage or advertising on the development, unless for safety purposes
Decommissioning and Rehabilitation	• Some community submissions raised concerns about decommissioning, rehabilitation and the use of the land after its operational life. • The Department has developed standard conditions for solar farms to cover this stage of the project life cycle, including clear decommissioning triggers and rehabilitation objectives such as removing all above and below ground infrastructure and restoring land capability to its pre-existing agricultural use (ie. at least Class 3 Land Capability). • With the implementation of these measures, 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 would appropriately rehabilitated.	• Include rehabilitation objectives requiring the site to be rehabilitated within 18 months of cessation of operations.

Issue	Findings	Recommended Condition
Hazards	• The project would comply with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines for electric, magnetic and electromagnetic fields. • The site is not mapped as bushfire prone land. Notwithstanding, MSF has committed to maintaining the entire site as an Asset Protection Zone and preparing an Emergency Plan to manage fire risk. • MSF intends to manage ground cover and its associated fire hazard on site by using sheep grazing. • The Department is satisfied that the bushfire risks can be suitably controlled through the implementation of standard fire management procedures and recommendations made by the RFS and FRNSW, including: – managing the site as an Asset Protection Zone (APZ), including a defendable space of at least 10 m around the perimeter of the solar array areas; – a 20,000 litre water supply tank, fitted with a 65 mm Storz fitting and a FRNSW compatible suction connection, located adjacent to the internal access road; and – the development and implementation of a comprehensive Emergency Plan. • The site is not mapped as flood prone under the LEP and the undulating topography allows surface water to drain from the site without ponding or causing flooding. • Further, DPIE Water, BCD and Council raised no concerns about flooding.	• Ensure that the development complies with the relevant requirements in the RFS's *Planning for Bushfire Protection 2006* and *Standards for Asset Protection Zones*. • Ensuring the defendable space and solar arrays are managed as an APZ and the development is suitably equipped to respond to fires including water supply tank and appropriate connectors. • Prepare and implement an Emergency Plan in consultation with RFS and FRNSW.
Water and Erosion	• The project would require around 10 megalitres (ML) of water during construction (mainly for dust suppression) and 1.5 ML of water annually during operation. A static water supply (20,000 litres) would also be established and maintained for fire protection. • Water demands during construction and decommissioning would be met by potable water being trucked to the site. During operations, water would be sourced via the existing dams and bore water. Should water demands exceed the dams' capability, and availability of bore water, potable water would be trucked to the site. • The site includes four watercourses, however only the unnamed second order stream ('Waterway 2') is well-defined and a significant watercourse. MSF has designed the development footprint to incorporate a 40 m buffer distance for this stream (see **Figure 3**). The development footprint has been designed to also avoid Bodangora Creek to the south. • The other three watercourses are ephemeral flowlines and creeks would be suitably graded into a shallow and broad swale, revegetated, then developed with solar panels. • With these measures, the Department considers the project is unlikely to have a significant effect on surface water behaviour. • One public submission raised concerns about the potential for salinity outbreaks resulting from the clearing of vegetation on site. MSF undertook soil logs indicating that salinity is not a high risk given the site's location and that the infiltration rates are expected to be the same as present or lower. Further, DPIE Water, BCD and Council raised no concerns about salinity. • The project would not have any impact on groundwater sources or groundwater dependent ecosystems. • The Department considers any erosion and sedimentation risks associated with the project can be effectively managed using best practice construction techniques.	• Prohibit water pollution in accordance with Section 120 of the *Protection of the Environment Operations Act 1997*. • Undertake activities in accordance with BCD's *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual, *Guidelines for Controlled Activities on Waterfront Land* (DPI Water, 2018), and *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (2004).

Issue	Findings	Recommended Condition
Heritage	• Site surveys identified four artefact scatters, two isolated surface artefacts and one culturally modified tree. Of these, three were considered to be of moderate significance and four of low significance. • The development footprint has been designed to avoid all seven identified Aboriginal heritage items. • If Aboriginal artefacts or skeletal material are identified, all work would cease, and an unexpected finds procedure would be implemented. • MSF has committed to undertaking additional consultation with Aboriginal stakeholders prior to commencing construction, and BCD has advised that it is satisfied with this approach. The Department has formalised this commitment in the recommended conditions. • A section of the non-operational Sandy Hollows to Maryvale[2] railway corridor is adjacent to the site's northern boundary and has local heritage significance and is listed in the Wellington LEP (Item I47) . • The Department considers the project would not cause any impact to the heritage values of the railway corridor. • The Department and BCD consider that the project would not significantly impact the heritage values of the locality.	• Ensure the development does not cause any direct or indirect impacts on any Aboriginal heritage items located on the project site or outside the approved development footprint. • Undertake consultation with Aboriginal stakeholders prior to commencing construction. • Prepare and implement a Heritage Management Plan, in consultation with BCD and Aboriginal Stakeholders, including procedures for unexpected finds.
Workforce Accommodation	• Up to 150 workers would be required during the construction period and would be sourced from the local and regional community where possible. • There is the potential for construction of the project to overlap with the construction of the approved Wellington Solar Farm and Suntop Solar Farm, and the proposed Wellington North Solar Farm, Suntop 2 Solar Farm and Mumbil Solar farm (should they be approved). Should this occur, up to 1,000 construction personnel may be required in the region. However, the Department considers that it is unlikely the entire construction periods of these six projects would overlap, and notes that the applicant of Suntop Solar Farm and Suntop 2 Solar Farm (if approved) has committed to staging the construction of the two projects. • In addition to Wellington, the nearby regional centres of Dubbo and Orange (located 40 km and 100 km from the site respectively) would provide a source of workers and accommodation options. • MSF undertook an assessment of accommodation availability in Wellington and Dubbo, which indicated there is likely to be sufficient accommodation to house workers during the construction period, even if multiple solar farm projects are constructed in the region concurrently. • While the Department considers there to be sufficient workers accommodation available for this project, to manage the potential cumulative impacts associated with multiple projects in the region, MSF would be required to develop an Accommodation and Employment Strategy. The Strategy would require MSF to: – propose a strategy to ensure there is sufficient accommodation for the workforce associated with the project; – consider cumulative impacts with other projects in the area; – prioritise employment of local workers; and – monitor and review the effectiveness of the strategy, including regular monitoring during construction.	• Prepare an Accommodation and Employment Strategy for the project in consultation with Council, with consideration of the cumulative impacts associated with other State significant development projects in the area.

[2] https://www.nswrail.net/lines/show.php?name=NSW:gulgong_maryvale

Issue	Findings	Recommended Condition
Land Values	• One public submission raised concern that the project would have an adverse impact on neighbouring land values, particularly as a result of visual impact. • The Department notes that: – property values are influenced by a number of factors; – there is no clear evidence to suggest that solar farms in NSW are adversely affecting property values; – the project is permissible with development consent under the Infrastructure SEPP; – a detailed assessment of the merits of the project has found that the project is unlikely to generate any 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 a vegetation screening, to be implemented; and – the Department considers the visual impacts of the project on the surrounding residences and road users would be minimal. • Accordingly, the Department considers the project would not result in any significant or widespread reduction in land values in the areas surrounding the solar farm.	• No specific conditions required.
Community Contributions	• Council requested a development contribution of 1% of the capital investment value of the project under Section 7.12 of the EP&A Act, which would equate to $1.88 million. • The Department considered the need for developer contributions in its assessment of this project and whether it would create any additional demand on public services and infrastructure. • The assessment found that the only material additional demand on services and infrastructure related to roads. • As such, the Department has recommended strict conditions of consent that would require MSF to pay for all the relevant road and intersection upgrades. Further, MSF would be required to pay for the repairs of any project-related impacts on the road network. These conditions have been agreed with MSF and Council and represent significant investment from MSF that will benefit the local community. • The Department also considered the demand created by the construction workforce (up to 150 workers). As noted above, to ensure there would be sufficient existing accommodation to house construction workers, MSF would be required to develop an Accommodation and Employment Strategy in consultation with Council. This condition is supported by Council. • Given the relatively low level of employment generated once it is operational (up to 10 workers), the project is unlikely to result in significant additional demand on community services and infrastructure during the operational stage of the project. • It is noted that Council has a Section 94A Development Contributions Plan. While the Contributions Plan is a relevant matter for consideration by the consent authority, it is not binding on State significant developments. Further, as outlined above, the Department has considered the demand on public services and infrastructure and is satisfied that its recommended conditions address the only material impact of the project on these matters (i.e. roads). Consequently, the Department does not consider that a Section 7.12 levy is either necessary or warranted in this case.	• No specific conditions required.

6. Recommended Conditions

The Department has prepared recommended conditions of consent for the project (see **Appendix G**).

The Department consulted with MSF and the relevant agencies on the conditions for the project, particularly Council and RMS in regard to the roads upgrades and maintenance requirements, and BCD to determine the appropriate biodiversity offset requirements for the project.

These conditions are required to:

- prevent, minimise, and/or offset adverse impacts of the project;
- ensure standards and performance measures for acceptable environmental performance;
- ensure regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

The recommended conditions use a risk-based approach that focuses on performance-based outcomes. This reflects current government policy and the fact that solar farms require relatively limited ongoing environmental management once the project has commenced operations.

In line with this approach, the Department has recommended operating conditions to minimise traffic, biodiversity, amenity, heritage, water and bushfire impacts, and that the following management plans be prepared and implemented:

- Traffic Management Plan
- Biodiversity Management Plan;
- Heritage Management Plan; and
- Emergency Plan.

The recommended conditions also require MSF to provide detailed final layout plans to the Department prior to construction.

Other key recommended conditions include:

- *roads* – requiring relevant road upgrades are undertaken prior to the commencement of construction;
- *biodiversity offsets* – retiring biodiversity offset credits in accordance with the NSW Biodiversity Offsets Scheme;
- *fire* - ensure that the development complies with the relevant asset protection requirements in the RFS's *Planning for Bushfire Protection 2006*; and
- *accommodation and employment* – requiring an accommodation and employment strategy be prepared and implemented to ensure there would be sufficient accommodation to house construction workers, and to prioritise the employment of local workers.

7. Evaluation

The Department has assessed the development application, EIS, submissions, Submissions Report and additional information provided by MSF and advice received from relevant government agencies. The Department has also considered the objectives and relevant considerations under Section 4.15 of the EP&A Act.

The project site is located in close proximity to the Mitchell Highway and has direct access to the electricity network via Essential Energy's transmission line, which traverses the site. The site is in a rural area, with the nearest non-associated dwelling located about 500 m south of the site.

The Department considers the site to be appropriate for a solar farm as it has good solar resources and available capacity on the existing electricity network. None of the surrounding landowners provided comments or objected to the project. Views from surrounding residences and roads would be screened by topography, existing vegetation, supplemented by vegetation screening and minimised by distance from the site.

The project has been designed to largely avoid key constraints, including the 132 kV transmission line easement, remnant native vegetation, Aboriginal heritage, riparian zones and nearby residences. Any residual impacts would be managed or offset through the recommended conditions of consent.

Potential cumulative traffic impacts resulting from solar farms in the Wellington region would be restricted to the construction period, where there is an overlap in the construction periods of these projects. There would be minimal localised cumulative impacts, including minimal visual and noise impacts.

Both the Department and Council consider a solar farm development to be a suitable land use for the site. The project would not result in any significant reduction in the overall agricultural productivity of the region and MSF intends to graze sheep on the site during operation of the project. Additionally, the site could be returned to agricultural uses after the project is decommissioned and the inherent agricultural capability of the land would not be affected.

To address the residual impacts of the project, the Department has recommended a range of detailed conditions, developed in conjunction with agencies and Council, to ensure these impacts are effectively minimised or offset. MSF has reviewed the conditions and does not object to them.

Importantly, the project would assist in transitioning the electricity sector from coal and gas-fired power stations to low emissions sources. It would generate up to approximately 276,000 megawatt hours (MWh) of clean electricity annually, which is enough to power up to 46,750 homes and save up to 265,000 tonnes of greenhouse gas emissions per year. It is therefore consistent with the goals of the Commonwealth's *Renewable Energy Target*, NSW's *Renewable Energy Action Plan* and the Department's *Large-scale Solar Energy Guideline*.

The project is located in the pilot Renewable Energy Zone in the Central West Region, as identified in the NSW Government's *Electricity Strategy*, with access to the electricity grid at a location with available network capacity.

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. The project would also stimulate economic investment in renewable energy and provide flow-on benefits to the local community, including up to 150 construction jobs and a capital investment of approximately $190 million.

On balance, the Department recommends that the project is in the public interest and should be approved, subject to the recommended conditions of consent.

8. Recommendation

It is recommended that the Executive Director, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report; and
- **accepts** and **adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant consent to the application;
- **agrees** with the key reasons for approval listed in the notice of decision;
- **grants consent** for the application in respect of Maryvale Solar Farm (SSD 8777); and
- **signs** the attached development consent and recommended conditions of consent (see **Appendix G**).

Recommended by:

3/12/19

Natasha Homsey
Environmental Assessment Officer
Energy Assessments

Recommended by:

3/12/19

Nicole Brewer
Director
Energy Assessments

9. Determination

The recommendation is: **Adopted / Not adopted by:**

Mike Young
A/ Executive Director
Energy and Resource Assessments

4/12/19.

Appendices

Appendix A – List of Documents

Maryvale Solar Farm - Environmental Impact Statement, pitt&sherry (2018).

Maryvale Solar Farm - Submissions Report, pitt&sherry (2019).

Maryvale Solar Farm - Additional Information received from pitt&sherry (March, July, September and October 2019).

Appendix B – Environmental Impact Statement

See the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/project/9531

Appendix C – Additional Information

See the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/project/9531

Appendix D – Statutory Considerations

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 of these matters in its assessment of the project and has provided a summary of this assessment below.

Aspect	Summary
Objects of the EP&A Act	The objects of most relevance to the Minister's decision on whether or not 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 on the subject land; • located in a logical location for efficient solar energy development; • 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; and • consistent with the goals of the Renewable Energy Action Plan, and would assist in meeting Australia's renewable energy targets whilst reducing greenhouse gas emissions. The Department has considered the encouragement of 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 appropriately designed SSD solar development, in itself, is consistent with many of the principles of ESD. MSF has also considered the project against the principles of ESD, particularly the principle of *intergenerational equity*, concluding that the proposal would benefit future generations by reducing the reliance on energy sources derived from non-renewable resources, which produce greenhouse gas emissions. Consideration of environmental protection (Object 1.3(e)) is provided in **section 5** of this report. MSF has applied both the *precautionary principle* and the *conservation of biological diversity and ecological integrity* having undertaken careful evaluation and assessment to avoid serious or irreversible damage to the environment wherever practicable. Following its consideration, the Department considers that the

Aspect	Summary
	project can be undertaken in a manner that would improve or 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 can 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 provided in **section 5.3** of this report. Following its consideration, the Department considers the project would not significantly impact the built or cultural heritage of the locality. The Department is satisfied that any residual impacts on heritage 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. The Minister for Planning and Public Spaces is the consent authority for the development. Under the Minister's delegation of 11 October 2017, the Executive Director, Energy and Resource Assessments, may determine the project.
Environmental Planning Instruments	The *Wellington Local Environment Plan* (LEP) 2012 applies and is discussed in **section 2.1, 3.2, 5.1** and **5.3** of this report, particularly regarding permissibility, land use zoning and subdivision. The Project is permissible under the Infrastructure SEPP. In accordance with the Infrastructure SEPP, the Department has given written notice of the project to: • Essential Energy as the electricity supply authority for the area; • RMS as the relevant roads authority for road upgrades (Section 95A); • TfNSW as the relevant authority for access of the site using a level crossing and development adjacent to a rail corridor The Department has considered the provisions of the *State Environmental Planning Policy No. 44 – Koala Habitat Protection*, however Dubbo Regional Council is not listed under SEPP No. 44. The Department has considered the provisions of the *State Environmental Planning Policy (Primary Production and Rural Development) 2019*. Of relevance to the project, the SEPP aims to facilitate the order economic use and development of lands for primary production, to reduce land use conflict and sterilization of rural land and to identify State significant agricultural land. While the location of State significant agricultural land has not been finalized, the Department has considered all of these matters in **section 5.1** of this report. The Department has considered the provision of *SEPP No. 55 – Remediation of Land*. A preliminary assessment of the land found no contaminated land within the project site, and the Department is satisfied the site is suitable for the development.

Appendix E – Submissions

See the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/project/9531

Appendix F – Submissions Report

See the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/project/9531

Appendix G – Recommended Conditions of Consent

See the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/project/9531