

Appendix A

SEARs

**Planning Services****Resource Assessments**

Contact: Diana Mitchell

Phone: (02) 9274 6331

Email: diana.mitchell@planning.nsw.gov.au

Mr Robert Ibrahim
Photon Energy SPV10 Pty Ltd
204/55 Grafton Street
Bondi Junction NSW 2022

Dear Mr Ibrahim

**Maryvale Solar (SSD 8777)
Environmental Assessment Requirements**

I have attached the Environmental Assessment Requirements for the preparation of an Environmental Impact Statement (EIS) for the Maryvale Solar Farm.

The requirements are based on the information you have provided to date, and have been prepared in consultation with the relevant government agencies. The agencies comments are attached for your information (see Attachment 2).

Please note that the Department may alter these requirements at any time, and that you must consult further with the Department if you do not lodge a development application and EIS for the project within the next two years.

If your proposal contains any actions that could have a significant impact on matters of National Environmental Significance, then it will also require approval under the Commonwealth's *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act).

This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Department of the Environment in Canberra (6274 1111 or www.environment.gov.au).

Please contact the Department at least two weeks before you plan to submit the development application and EIS for the project. This will enable the Department to:

- confirm the applicable fee (see Division 1AA, Part 15 of the *Environmental Planning and Assessment Regulation 2000*); and
- determine the required number of copies of the EIS.

It is important for you to recognise that the Department will review the EIS for the project before putting it on public exhibition. If it fails to adequately address these requirements, you will be required to submit an amended EIS.

Finally, the development application must be accompanied by the consent in writing of the owner of the land (as required in clause 49(1)(b) of the *Environmental Planning and Assessment Regulation 2000*).

Yours sincerely

13/10/17

Clay Preshaw

Director

Resource & Energy Assessments

as nominee of the Secretary

Environmental Assessment Requirements

State Significant Development

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*

Application Number	SSD 8777
Proposal	Maryvale Solar Farm which includes: <ul style="list-style-type: none">the construction and operation of a photovoltaic (PV) generation facility with an estimated capacity of 115 megawatts (MW); andassociated infrastructure.
Location	121 Maryvale Road, Maryvale
Applicant	Photon Energy Generation Pty Ltd
Date of Issue	13 October 2017
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must comply with the requirements in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none">a stand-alone executive summary;a full description of the development, including:<ul style="list-style-type: none">details of construction, operation and decommissioning;a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process);a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development;a strategic justification of the development focusing on site selection and the suitability of the proposed site;an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:<ul style="list-style-type: none">a description of the existing environment likely to be affected by the development;an assessment of the likely impacts of all stages of the development (which is commensurate with the level of impact), taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice;a description of the measures that would be implemented to avoid, mitigate and/or offset the impacts of the development (including draft management plans for specific issues as identified below); anda description of the measures that would be implemented to monitor and report on the environmental performance of the development;a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; andthe reasons why the development should be approved having regard to:<ul style="list-style-type: none">relevant matters for consideration under the <i>Environmental Planning and Assessment Act 1979</i>, including the objects of the Act and how the principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the development;the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses; andfeasible alternatives to the development (and its key components), including the consequences of not carrying out the development.

	<p>While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p> <p>In addition to the matters set out in Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>, the development application must be accompanied by a signed report from a suitably qualified person that includes an accurate estimate of the capital investment value of the development (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>), including details of all the assumptions and components from which the capital investment value calculation is derived.</p>
Specific Issues	<p>The EIS must address the following specific issues:</p> <ul style="list-style-type: none"> • Land – including: <ul style="list-style-type: none"> – an assessment of the impact of the development on agricultural land (including an investigation of the potential for the site to be used for agricultural purposes during operation of the solar farm) and flood prone land; – a soil survey to consider the potential for erosion to occur, paying particular attention to the compatibility of the development with the existing land uses on the site and adjacent land (e.g. operating mines, extractive industries, mineral or petroleum resources, exploration activities, aerial spraying, dust generation, and risk of weed and pest infestation) during operation and after decommissioning, with reference to the zoning provisions applying to the land; and – a decommissioning and rehabilitation plan to return the land to productive agricultural use at closure of the project. • Water – including: <ul style="list-style-type: none"> – an assessment of the likely impacts of the development (including flooding) on surface water and groundwater resources (including wetlands, riparian land, groundwater dependent ecosystems and acid sulfate soils), related infrastructure, adjacent licenced water users and basic landholder rights, and measures proposed to monitor, reduce and mitigate these impacts; – details of water requirements and supply arrangements for construction and operation; and – a description of the erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with <i>Managing Urban Stormwater: Soils & Construction</i> (Landcom 2004); • Biodiversity – including an assessment of the biodiversity values and the likely biodiversity impacts of the project in accordance with the <i>Biodiversity Conservation Act 2016</i> (NSW), a detailed description of the proposed regime for minimising, managing and reporting on the biodiversity impacts of the project over time, and a strategy to offset any residual impacts of the project in accordance with the <i>Biodiversity Conservation Act 2016</i> (NSW); • Heritage – including an assessment of the likely impacts of the development on Aboriginal and historic heritage (cultural and archaeological) (including the Sandy Hollow to Maryvale Railway Line), including adequate consultation with the local Aboriginal community; • Visual – including an assessment of the likely visual impacts of the development (including any glare, reflectivity and night lighting) on surrounding residences, scenic or significant vistas, air traffic and road corridors in the public domain, including a draft landscaping plan for on-site perimeter planting, with evidence it has been developed in consultation with affected landowners;

	<ul style="list-style-type: none"> • Noise – including an assessment of the construction noise impacts of the development in accordance with the <i>Interim Construction Noise Guideline</i> (ICNG), an assessment of the operational noise impacts in accordance with the NSW <i>Industrial Noise Policy</i> (INP), and a draft noise management plan if the assessment shows construction noise is likely to exceed applicable criteria; • Transport – including an assessment of the site access route (Seatonville Road, Maryvale Road and the Mitchell Highway), site access points, and likely transport impacts (including peak and average traffic generation) of the development on the capacity and condition of roads (including on any Crown land), a description of the measures that would be implemented to mitigate any impacts during construction, and a description of any proposed road upgrades developed in consultation with the relevant road and rail authorities (if required); • Hazards and Electromagnetic Interference – an assessment of potential hazards and risks associated with bushfires and the proposed transmission line and substation against the International Commission on Non-Ionizing Radiation Protection (ICNIRP) <i>Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields</i>. • Socio-Economic – including an assessment of the likely impacts on the local community and a consideration of the construction workforce accommodation.
Consultation	<p>During the preparation of the EIS, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups, affected landowners, exploration licence holders, quarry operators and mineral title holders.</p> <p>In particular, you must undertake detailed consultation with affected landowners surrounding the development and Dubbo Regional Council.</p> <p>The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p>
Further consultation after 2 years	<p>If you do not lodge a development application and EIS for the development within 2 years of the issue date of these EARs, you must consult further with the Secretary in relation to the preparation of the EIS.</p>

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Biodiversity

Biodiversity Assessment Method (OEH)
 Threatened Species Assessment Guidelines - Assessment of Significance (OEH)
 Biosecurity Act 2015
 Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (DPI)
 Policy and Guidelines for Fish Habitat Conservation and Management (DPI)

Heritage

Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)
 Code of Practice for Archaeological Investigations of Objects in NSW (OEH)
 Guide to investigating, assessing and reporting on aboriginal cultural heritage in NSW (OEH).
 NSW Heritage Manual (OEH)

Land

Primefact 1063: Infrastructure proposals on rural land (DPI)
 Establishing the social licence to operate large scale solar facilities in Australia: insights from social research for industry (ARENA)
 Local Land Services Act 2013
 Australian Soil and Land Survey Handbook (CSIRO)
 Guidelines for Surveying Soil and Land Resources (CSIRO)
 The land and soil capability assessment scheme: second approximation (OEH)

Noise

NSW Industrial Noise Policy (EPA)
 Interim Construction Noise Guideline (EPA)
 NSW Road Noise Policy (EPA)

Lighting

Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring (DPE)

Transport

Guide to Traffic Generating Developments (RTA)
 Road Design Guide (RMS) & relevant Austroads Standards
 Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development

Water

Managing Urban Stormwater: Soils & Construction (Landcom)
 Floodplain Development Manual (OEH)
 Guidelines for Controlled Activities on Waterfront Land (DPI Water)
 Water Sharing Plans (DPI Water)
 Floodplain Management Plan (DPI Water)
 Guidelines for Watercourse Crossings on Waterfront Land (DPI Water)

Waste

Waste Classification Guidelines (EPA)

Electromagnetic Interference

ICNIRP Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields

Environmental Planning Instruments

State Environmental Planning Policy (State and Regional Development) 2011
 State Environmental Planning Policy (Infrastructure) 2007
 State Environmental Planning Policy (Rural Lands) 2008

State Environmental Planning Policy No. 44 – Koala Habitat Protection

State Environmental Planning Policy No. 55 – Remediation of Land

Central West and Orana Regional Plan 2036

Wellington Local Environmental Plan 2012



Department of Primary Industries

OUT17/40043

Ms Diana Mitchell
Resource & Energy Assessments
NSW Department of Planning and Environment

Diana.mitchell@planning.nsw.gov.au

Dear Ms Mitchell

Maryvale Solar Farm (SSD 8777)
Request for Secretary's Environmental Assessment Requirements (SEARs)

I refer to your email of 27 September 2017 to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant branches of DPI. Views were also sought from NSW Department of Industry – Crown Lands and Water that are now a division of the broader Department and no longer within NSW DPI. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

DPI has reviewed the Preliminary Environmental Assessment and the accompanying draft SEARs and recommends the following matters should also be addressed in the Environmental Impact Statement for the proposal:

Land

The SEARs should include a specific request for greater detail and exploration of:

- Confirmation of the agricultural value of the land, including baseline data, through the soil survey.
- Maintaining the agricultural productive capacity of the land post development due to the erosion potential and the need for mitigation measures to address that issue.
- Development of a rehabilitation and decommissioning plan to return the land to productive agricultural use at closure of the project.

Yours sincerely

Alison Collaros
A/Director, Planning Policy & Assessment Advice
11 October 2017

DPI appreciates your help to improve our advice to you. Please complete this three minute survey about the advice we have provided to you, here:

<https://goo.gl/o8TXWz>

Diana Mitchell
Senior Planning Officer
Resource Assessments - Planning Services Division
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Diana.Mitchell@planning.nsw.gov.au

Dear Diana

**Mumbil Solar Farm Project (SSD 8757)
Request for Input into Secretary's Environment Assessment Requirements (SEARs)**

I refer to your email dated 27 September 2017 inviting the Division of Resources & Geoscience (the Division) to provide comments on the Maryvale Solar Farm Project (SSD 8777) (the Project) SEARs submitted by Photon Energy Generation Pty Ltd (the Proponent).

The Division has reviewed the adequacy of information supplied in relation to the abovementioned Project and provides the following advice:

The Project site intersects Exploration Licence 8357 (Act 1992) (EL 8357) and Exploration Licence 6178 (Act 1992) (EL 6178), both granted under the *Mining Act 1992* to Modelling Resources Pty Ltd (Modelling Resources), a wholly owned subsidiary of Magmatic Resources Limited (figure 1). Modelling Resources are targeting copper-gold and base metal deposits in the highly prospective geological units and structures that regionally host the Commonwealth Mine, Galwadgere and Kaiser prospects.

In reference to the draft SEARs, the Division requires the following project specific requirements:

Land:

- Identify the authorities EL 8357 and EL 6178 on a LAND USE/CONSTRAINT map in relation to the proposed solar farm Project boundary, including electricity transmission infrastructure and potential biodiversity offset areas.

Current mining, and exploration titles and applications can be viewed at:

<http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/geoscience-information/services/online-services/minview>

Consultation:

- Consult with the titleholders to establish if the Project is likely to be incompatible with current or future mineral exploration, including by limiting access to, or impeding assessment of, geologically prospective land.

Evidence of consultation must include a letter of notification of the Project to the title holder, and a letter of response from the title holder to the Proponent, addressing the above considerations. To assist the Proponent, the Division provides the following contact details:

EL 8357 and EL 6178 - Modelling Resources Pty Ltd
Magmatic Resources Limited (Orange Exploration Office)
Unit 1, 2 Gateway Crescent
Orange NSW 2800

If responses to notifications of the Project are not received from the titleholders, the Proponent is to contact the Geological Survey of NSW – Land Use and Titles Advice within the Division on (02) 4931 6537.

Further enquiries regarding this matter please contact: Adam Banister, Senior Advisory Officer (02) 4931 6439 or industry.coordination@industry.nsw.gov.au

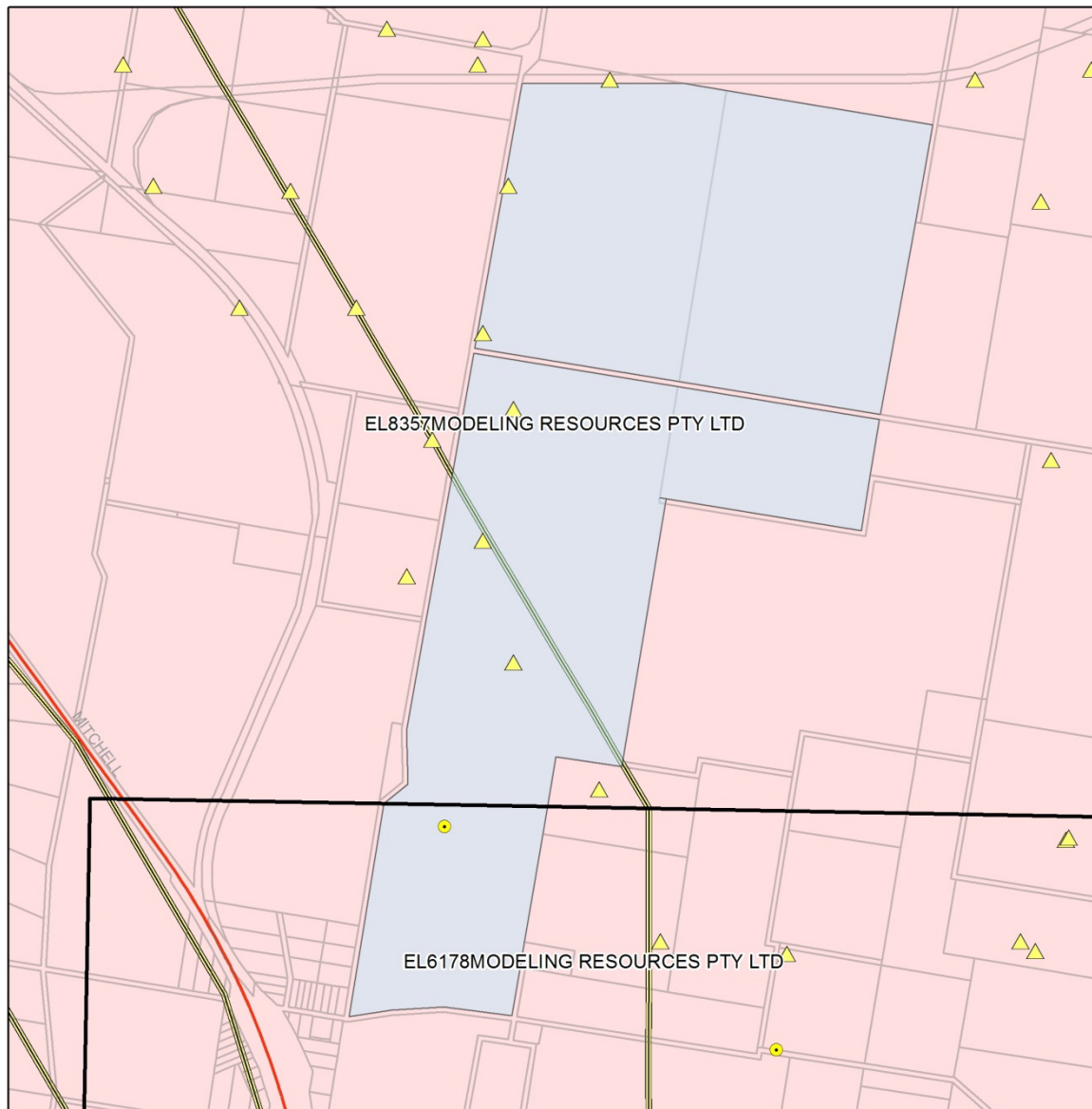
Yours sincerely



Adam W. Banister
Senior Advisory Officer

for
Manager Royalties & Advisory Services
6 October 2017

Maryvale Solar Farm proposal



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Kilometres



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Map produced by LUTA GSNSW

Legend

- Metallic & Industrial Mineral bores
- Metallic mineral occurrence
- Maryvale_Solar_Farm_proposal
- Cadastre
- Highway
- Electricity Transmission Line
- Mineral Exploration Licenses



**Planning &
Environment**
Resources & Geoscience

Figure 1.

Parcel 45600
AD17/38123
DQ:MC

Your ref: SSD 8777



11 October 2017

Ms D Mitchell
Senior Planning Officer
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Mitchell

**STATE SIGNIFICANT DEVELOPMENT 8777 – PROPOSED SOLAR FARM
PROPERTY: LOT 2 DP 573426; LOT 1 DP 1006557; AND LOTS 1 AND 2 DP 1095725, 87 AND 265
MARYVALE ROAD AND 801 COBBORA ROAD, MARYVALE**

I refer to your email dated 27 September 2017 inviting comments on the Preliminary Environmental Assessment (PEA) prepared by Pitt and Sherry for the proposed solar farm located at the abovementioned property.

The following comments are provided to assist in the preparation of the XX Environmental Assessment Requirements (SEARs):

- Attachment 1 – Environmental Planning Instruments – Does not reference the Environmental Planning and Assessment Act, 1979 (the Act), the Environmental Planning and Assessment Regulation, 2000 (the Regulation) or Wellington Council's Section 94A Development Contributions Plan (DCP), 2012.
- With regard to Wellington Council's Section 94A Developer Contribution Plan 2012, it is noted that it applies to the entire former Wellington Local Government Area and levies are payable at the rate of 1% of the proposed development cost. Given the proposal is valued at \$150,000,000 the applicable levy would be \$1,500,000.
- The Preliminary Environmental Assessment (PEA) (2.2 and 2.3) discusses various watercourses through the site. The PEA discusses surface water and hydrology (6.2.5) however without a layout plan, those impacts are difficult to define. As such, the proposal may be designated as per Section 91 Integrated Development, of the Act. The NSW Office of Water should be contacted to provide advice accordingly.
- The PEA does not contain a 'layout plan' or a proposed/likely/indicative footprint of the proposed panels. This limits the response that Council is able to provide and may impact



All communications to: **THE GENERAL MANAGER**

ABN 53 539 070 928

PO Box 81 Dubbo NSW 2830

T (02) 6801 4000 F (02) 6801 4259 E council@dubbo.nsw.gov.au

Civic Administration Building Church St Dubbo NSW 2830

W dubbo.nsw.gov.au

evocities
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upon the quality of the Environmental Impact Statement. Consequently, it is not known what proportion of the site will be taken up with the proposed 394,000 PV panels, their set-backs from watercourses and existing overhead powerlines, and easements.

The absence of a layout/site plan also means that the access perimeter roads are not identified to provide for servicing of the onsite infrastructure and security fencing.

- The PEA in section 2.4.1 makes reference to the solar farm's construction in "*... one hectare stages – with up to 10 stages ...*". Given recent changes to the legislation regarding 'staged development' and Section 83 of the Act, this terminology needs to be clarified.
- The PEA in Table 2-2 Key Components of Proposal, refers to 2 x 40' shipping containers for storage and maintenance equipment. Council is not generally supportive of shipping containers however further details regarding location, screening, footings, etc may resolve such concerns.
- The PEA in section 2.4.6 relates to decommissioning of the site. While Council endorses the intention to decommission the site, the question arises as to how this will be achieved and enforced. Council could be unaware that a site is closing down and the site could be left in a condition not suitable for agricultural pursuits in accordance with the zoning of the land.
- The PEA in section 3.2 relates to alternative locations however no details have been provided.
- The PEA in section 5.1.4 Wellington Local Environmental Plan (WLEP), 2012 states that the proposal "*... can be considered a sustainable primary industry that extracts renewal energy (a natural resource)*". A solar farm is not a 'primary industry' nor is it defined as such under WLEP 2012 or the State Environmental Planning Policy (SEPP) (Infrastructure), 2007.
- The PEA in section 5.1.5 refers to SEPP 33 Hazardous and Offensive Development. Council is unsure why this legislation would be listed.
- Whilst only a portion of the subject property is mapped as being Bush Fire Prone Land, the land will still be at risk of bushfire by virtue of its existing grassland vegetation. Although the consultant's statement in the Table to clause 6.3 (PEA) that their search "*... did not identify the lane as fire prone*", it appears that each allotment subject to this development and within the holding has not been checked correctly.
- As is evident in the NSW version of the Building Code of Australia and commentary in Planning for Bush Fire Protection 2006, bushfire hazard exposure is not reliant upon the mapping by the NSW Rural Fire Service (RFS) Commissioner.

Consequently, bushfire exposure needs to be addressed. In this regard it is expected that a minimum 10 m fire break would be provided around the perimeter of the development and appropriate water storage provided onsite for use by the NSW RFS.

It is expected that the setback requirements specified under clause 45 of the Infrastructure SEPP will be addressed and that the fire radiant heat exposure and explosion setbacks imposed by the NSW electrical utility operators will be addressed for the facility's substations.

- The Dark Skies Guidelines have not been addressed or mentioned in the submission despite the site being located within the Siding Spring Observatory's Dark Sky Region (ie within 200 km of the observatory). This Dark Sky Region applies to State Significant Development and invokes clause 92 of the Regulation.
- The PEA makes no mention of State Environmental Planning Policy (SEPP) (Rural Lands), 2008. Whilst this proposal does not involve the subdivision of land or the erection of a dwelling on the subject RU1 land, it will remove prime agricultural land from production. Consequently, it would seem appropriate that any assessment should consider the proposed development in terms of the Aims and Planning Principles outlined under such SEPP, at least for the purposes of Section 79C of the Act.
- With regard to road infrastructure, Council would expect the Environmental Impact Statement to address:
 - The fact that Seatonville Road and Maryvale Road (site access) do not have the necessary geometric or structural capacity to handle the heavy vehicle traffic that is expected to be generated;
 - A breakdown of the vehicles by type, specifying gross vehicle mass, vehicle length and expected daily volumes travelling to the site;
 - The proposed B-Double route, given that the proposal is foreshadowing up to 90 heavy vehicle movements per day during the construction phase;
 - The possible upgrading of existing road pavements to accommodate the expected heavy traffic;
 - The possible upgrading of the Maryvale Road intersections to accommodate B-Double truck movements shall also be identified;
 - Seatonville Road may need to be gravelled and bitumen-sealed to make it all-weather accessible and reduce dust generation; and
 - Access to and from the Mitchell Highway may be an issue if trucks delivering materials to the site travel in convoy, given the short stacking distance at the Maryvale Road railway level crossing.

I trust this is of assistance and look forward to receiving the completed Environmental Impact Statement and making further comment.

If you have any enquiries in this matter, please do not hesitate to contact Council's Statutory Planning Services Team Leader, Darryll Quigley, during normal office hours, on 6801 4000.

Yours faithfully


Melissa Watkins

Director Planning and Environment



Office of
Environment
& Heritage

DOC17/493127
SSD 8777

Ms Diana Mitchell
Senior Planning Officer
Resource & Energy Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Mitchell

Maryvale Solar Farm – SSD 8777

I refer to your email dated 27 September 2017 seeking input into the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment (EIS) for the Maryvale Solar Farm (SSD 8777).

OEHS has considered your request and provides SEARs for the proposed development in **Attachments A and B**.

OEHS recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting
2. Aboriginal cultural heritage
3. Historic heritage
4. Water and soils
5. Flooding

If you have any questions regarding this matter further please contact Michelle Howarth on 02 6883 5339 or email michelle.howarth@environment.nsw.gov.au.

Yours sincerely

PETER CHRISTIE
Director North West
Regional Operations Division

6 October 2017

Contact officer: MICHELLE HOWARTH
6883 5339

Attachment A - Environmental Assessment Requirements

Attachment B - Guidance Material

ATTACHMENT A

Standard Environmental Assessment Requirements Maryvale Solar Farm (SSD 8777)

Biodiversity
<p>1. Biodiversity impacts related to the proposed Maryvale Solar Farm are to be assessed in accordance with the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the Biodiversity Conservation Act 2016 (s 6.12), Biodiversity Conservation Regulation 2017 (s 6.8) and Biodiversity Assessment Method including details of the measures proposed to address the offset obligation as follows;</p> <ul style="list-style-type: none"> • The total number and classes of biodiversity credits required to be retired for the development/project; • The number and classes of like-for-like biodiversity credits proposed to be retired; • The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; • Any proposal to fund a biodiversity conservation action; • Any proposal to conduct ecological rehabilitation (if a mining project); • Any proposal to make a payment to the Biodiversity Conservation Fund (Fund). <p>If requesting the application of the variation rules, the BDAR must contain details of what reasonable steps have been taken to attempt to obtain the required like-for-like biodiversity credits.</p> <p>The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under S6.10 of the Biodiversity Conservation Act 2016</p>
Aboriginal cultural heritage
<p>2. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the Maryvale Solar Farm project and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) and consultation with OEH regional officers.</p>
<p>3. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.</p>
<p>4. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.</p>
Historic heritage
<p>5. The EIS must provide a heritage assessment including but not limited to an assessment of impacts to <i>State and local heritage</i> including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views, trees should be</p>

assessed. Where impacts to State or locally significant heritage items are identified, the assessment shall:

- a. outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the mitigation measures) generally consistent with the NSW Heritage Manual (1996),
- b. be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria),
- c. include a statement of heritage impact for all heritage items (including significance assessment),
- d. consider impacts including, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, landscape and vistas, and architectural noise treatment (as relevant), and
- e. where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations (terrestrial and maritime as relevant) and include the results of these test excavations.

Water and soils

6. The EIS must map the following features relevant to water and soils including:
 - a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).
 - b. Rivers, streams, wetlands, estuaries (as described in s4.1 of the Biodiversity Assessment Method).
 - c. Wetlands as described in s4.1 of the Biodiversity Assessment Method
 - d. Groundwater.
 - e. Groundwater dependent ecosystems.
 - f. Proposed intake and discharge locations.
7. The EIS must describe background conditions for any water resource likely to be affected by the Maryvale Solar Farm project, including:
 - a. Existing surface and groundwater.
 - b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations.
 - c. Water Quality Objectives (as endorsed by the NSW Government <http://www.environment.nsw.gov.au/ieo/index.htm>) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
 - d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the [ANZECC \(2000\) Guidelines for Fresh and Marine Water Quality](#) and/or local objectives, criteria or targets endorsed by the NSW Government.
8. The EIS must assess the impacts of the project on water quality, including:
 - a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the project protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the

<p>mitigating effects of proposed stormwater and wastewater management during and after construction.</p> <p>b. Identification of proposed monitoring of water quality.</p>
<p>9. The EIS must assess the impact of the project on hydrology, including:</p> <p>a. Water balance including quantity, quality and source.</p> <p>b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.</p> <p>c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.</p> <p>d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (eg river benches).</p> <p>e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.</p> <p>f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options.</p> <p>g. Identification of proposed monitoring of hydrological attributes.</p>
<p>Flooding and coastal erosion</p>
<p>10. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:</p> <p>a. Flood prone land</p> <p>b. Flood planning area, the area below the flood planning level.</p> <p>c. Hydraulic categorisation (floodways and flood storage areas).</p>
<p>11. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.</p>
<p>12. The EIS must model the effect of the proposed project (including fill) on the flood behaviour under the following scenarios:</p> <p>a. Current flood behaviour for a range of design events as identified in 11 above. This includes the 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.</p>
<p>13. Modelling in the EIS must consider and document:</p> <p>a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.</p> <p>b. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazards and hydraulic categories.</p> <p>c. Relevant provisions of the NSW Floodplain Development Manual 2005.</p>
<p>14. The EIS must assess the impacts on the proposed project on flood behaviour, including:</p> <p>a. Whether there will be detrimental increases in the potential flood affection of other properties, assets and infrastructure.</p> <p>b. Consistency with Council floodplain risk management plans.</p> <p>c. Compatibility with the flood hazard of the land.</p>

- d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
- e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
- f. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.
- g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council.
- h. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council.
- i. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES.
- j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

ATTACHMENT B

Guidance Material

Title	Web address
<u>Relevant Legislation</u>	
<i>Biodiversity Conservation Act 2016</i>	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
<i>Coastal Management Act 2016</i>	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Fisheries Management Act 1994</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
<i>Marine Parks Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
<i>Wilderness Act 1987</i>	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
<u>Biodiversity</u>	
Biodiversity Assessment Method (OEH, 2017)	https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298079/Biodiversity-Assessment-Method-May-2017.pdf
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298198/Serious-and-Irreversible-Impact-Guidance.PDF
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies.-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)	http://www.environment.nsw.gov.au/protectedareas/developmntadjoiningdecc.htm
<u>Heritage</u>	
The Burra Charter (The Australia ICOMOS charter for places of cultural significance)	http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
Statements of Heritage Impact 2002 (HO & DUAP)	http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf

Title	Web address
NSW Heritage Manual (DUAP) (scroll through alphabetical list to 'N')	http://www.environment.nsw.gov.au/Heritage/publications/
<u>Aboriginal Cultural Heritage</u>	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/comconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	http://www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	http://www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
<u>Water and Soils</u>	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps via Data.NSW	http://data.nsw.gov.au/data/
Acid Sulfate Soils Manual (Stone et al. 1998)	http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding and Coastal Erosion	
Reforms to coastal erosion management	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/130224CZMPGuide.pdf
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1

Title	Web address
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



10 October 2017

SF2017/231533; WST17/00158

Manager
Resource & Energy Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Diana Mitchell

Dear Ms Mitchell,

SSD 8777: Lots 1 and 2 DP 1095725, Lot 2 DP 573426 and Lot 1 DP 1006557; 'Waroona' 121 Maryvale Road and 'Scarborough House' 801 Cobbora Road (MR353), Maryvale; Maryvale Solar Farm Request for Secretary's Environmental Assessment Requirements (SEARs)

Thank you for your email on 27 September 2017 seeking SEARs from Roads and Maritime Services for the proposed Maryvale Solar Farm. Roads and Maritime notes the proposal is for construction and operation of a 115 megawatt solar farm on land north-west of Wellington with frontage to Seatonville and Maryvale Roads and Bakers Lane. Vehicular access from the Mitchell Highway (HW7) is to be via its intersection with Maryvale Road.

The preliminary information submitted in support of the proposed development has been reviewed. Roads and Maritime requests that the following issues be addressed in the Environmental Assessment:

- A traffic impact study prepared in accordance with the methodology set out in Section 2 of the RTA's *Guide to Traffic Generating Developments 2002* and including:
 - Hours and days of construction.
 - Schedule for phasing/staging of the project.
 - Traffic volumes:
 - Existing background traffic.
 - Project-related for each stage of the project including construction, operation and decommissioning.
 - Projected cumulative traffic volumes.

Roads and Maritime Services

- Traffic volumes are to also include a description of:
 - Ratio of light vehicles to heavy vehicles.
 - Peak times for existing traffic.
 - Peak times for project-related traffic.
 - Transportation hours.
 - Project related traffic interaction with existing and projected background traffic.
- The origin, destination and routes for:
 - Employee and contractor light traffic.
 - Heavy traffic.
 - Over size and over mass traffic.
- A description of all oversize and over mass vehicles and the materials to be transported.
- The impact of traffic generation on the public road network and measures employed to ensure traffic efficiency and road safety during construction, operation and decommissioning of the project.
- The need for improvements to the road network, and the improvements proposed such as road widening and intersection treatments, to cater for and to mitigate the impact of project-related traffic. The study is also to include a safety assessment of the existing rail crossing of Maryvale Road and measures required to be employed to provide a high level of safety for the increase in traffic volumes that will use this crossing during the construction, operation and decommissioning phases.
- Local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the project (eg fog, wet and dry weather).
- Proposed road facilities, access and intersection treatments are to be identified and be in accordance with *Austroads Guide to Road Design 2010* including Safe Intersection Sight Distance (SISD).
- The layout of the internal road network, parking facilities and infrastructure within the project boundary.
- A Traffic Management Plan (TMP) developed in consultation with Dubbo Regional Council and Roads and Maritime. The TMP is to identify and provide management strategies to manage the impacts of projected related traffic including:
 - Haulage of materials to site.
 - The safe transportation of construction workers from accommodation facilities to site and return.

Roads and Maritime appreciates the opportunity to contribute to the SEARs and requests that a copy of the SEARs be forwarded to Roads and Maritime at the same time they are sent to the applicant.

Should you require further information please contact me on 02 6861 1453.

Yours faithfully



Andrew McIntyre
Manager Land Use Assessment
Western



NSW RURAL FIRE SERVICE



The Secretary
Department of Planning & Environment
GPO Box 39
Sydney NSW 2001

Your reference: SSD 8777
Our reference: D17/3420
DA17092809515 KV
10 October 2017

Attention: Diana Mitchell

Dear Sir/Madam,

Request for input into Secretary's Environmental Assessment Requirements (SEARs) for Maryvale Solar Farm - 121 Maryvale Road Maryvale

Reference is made to the correspondence dated 27 September 2017 seeking input to the request for SEARs for the above State Significant Development in accordance with the *Environmental Planning and Assessment Act 1979*.

The New South Wales Rural Fire Service (NSW RFS) has reviewed the information provided and recommends the following condition:

- A 10 metre defendable space, managed as an asset protection zone (APZ), shall be provided around the perimeter of the solar farm infrastructure to allow for emergency service personnel to undertake property protection activities. Requirements for an APZ are outlined within section 4.1.3 and appendix 5 of *Planning for Bush Fire Protection 2006* (PBP) and the NSW Rural Fire Service's document *Standards for asset protection zones*.

If you have any queries regarding this advice, please contact Kalpana Varghese, Development Assessment and Planning Officer, on 1300 NSW RFS.

Yours sincerely,

Nika Fomin
Manager, Planning & Environment Services (East)

Postal address

NSW Rural Fire Service
Records Management
Locked Bag 17
GRANVILLE NSW 2141

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