

Appendix A: Secretary's Environmental Assessment Requirements and Agency Comments





Cédric Bergé
Development Manager
ESCO Pacific Pty Ltd
Level 4, 13 Cremorne Street
Richmond VIC 3121

Dear Mr Bergé

**Sandigo Solar (SSD 8872)
Environmental Assessment Requirements**

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

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.

Yours sincerely

30/11/17

Clay Preshaw
Director
Resource and 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 8872
Proposal	Sandigo Solar Farm which includes: <ul style="list-style-type: none">• the construction and operation of a photovoltaic generation facility with an estimated capacity of up to 300 MW; and• development of associated infrastructure, including a grid connection and battery storage facilities.
Location	Located on two separate sites both located in the Sandigo area. Sites are approximately 25 km southeast of Narrandera, within the Narrandera Shire local government area.
Applicant	ESCO Pacific Pty Ltd
Date of Issue	30 November 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 with respect to potential land use conflicts with existing and future surrounding land uses (including other proposed or approved solar farms, rural residential development and subdivision potential);• 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), including any cumulative impacts of the two sites and existing or proposed developments, 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); and– a 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; and• the 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

	<p>incorporated in the design, construction and ongoing operations of the development;</p> <ul style="list-style-type: none"> – the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses; and – feasible 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:</p> <ul style="list-style-type: none"> • 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; and • the consent in writing of the owner/s of the land (as required in clause 49(1)(b) of the <i>Environmental Planning and Assessment Regulation 2000</i>).
<p>Specific Issues</p>	<p>The EIS must address the following specific issues:</p> <ul style="list-style-type: none"> • Biodiversity – including an assessment of the biodiversity values and the likely biodiversity impacts of the development 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 development over time, and a strategy to offset any residual impacts of the development in accordance with the <i>Biodiversity Conservation Act 2016</i> (NSW). • Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including adequate consultation with the local Aboriginal community; • Land – including an assessment of the impact of the development on agricultural land (including possible cumulative impacts on agricultural enterprises and landholders) and flood prone land, an assessment of any impacts to Crown lands, a soil survey to consider the potential for erosion to occur, and 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 including but not limited to Wrights Pit, 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, including subdivision; • 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 (particularly the Sturt Highway), including a draft landscaping plan for on-site perimeter planting, with evidence it has been developed in consultation with affected landowners; • Noise – including an assessment of the construction noise impacts of the development in accordance with the <i>Interim Construction Noise Guideline</i> (ICNG) and operational noise impacts in accordance with the <i>NSW Noise Policy for Industry 2017</i> 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 routes (including Sturt Highway, Mitchells Road, Kywong Boree Creek Road and Malwa

	<p>Road), site access points, transport between the two sites, any potential rail safety issues and likely transport impacts (including peak and average traffic generation, over-dimensional vehicles and construction worker transportation) 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);</p> <ul style="list-style-type: none"> • 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 Sandy Creek, Old Man Creek, drainage channels, wetlands, riparian land, groundwater dependent ecosystems and acid sulfate soils), related infrastructure, adjacent licensed 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); • Hazards and Risks - including: <ul style="list-style-type: none"> – a preliminary risk screening in accordance with <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33</i> (DoP, 2011), and if the preliminary risk screening indicates the development is “potentially hazardous”, a Preliminary Hazard Analysis (PHA) must be prepared in accordance with <i>Hazard Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis</i> (DoP, 2011) and <i>Multi-Level Risk Assessment</i> (DoP, 2011); and – an assessment of all potential hazards and risks including but not limited to bushfires, spontaneous ignition, electromagnetic fields or the proposed grid connection infrastructure (including 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>; and • Socio-Economic – including an assessment of the likely impacts on the local community and a consideration of the construction workforce accommodation.
<p>Consultation</p>	<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 Narrandera Shire 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>
<p>Further consultation after 2 years</p>	<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 Noise Policy for Industry (EPA)
	Interim Construction Noise Guideline (EPA)
	NSW Road Noise Policy (EPA)
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)
Hazards and Risks	
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DPE)
	Multi-Level Risk Assessment (DPE)
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

Narrandera Local Environmental Plan 2013

ATTACHMENT 2

Agency Comments

1 December 2017

Resource and Energy Assessments
Planning Services
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attn: Tim Stuckey
Tim.Stuckey@planning.nsw.gov.au



Dear Sir/Madam

RE: Sandigo Solar Farm Project (SSD 8872) - Request for Input into Secretary's Environmental Assessment Requirements

Thank you for the opportunity to comment on this exciting development for the Narrandera Shire.

Based on the information currently available, the key areas for consideration at this time relate to:

- Traffic movements of heavy vehicles and the impact upon road safety, local traffic movement and the condition of local roads
- Accommodation for workers during the construction phase
- Visual screening of the proposed development

Council looks forward to providing a more detailed response during the next stage of consultation.

Please contact Council's Development and Environment section by telephone 02 6959 5510 or via email council@narrandera.nsw.gov.au if you have any further enquiries regarding these matters.

Yours sincerely



Helen Ryan
Manager Development and Environment



Department of Industry

OUT17/44435

Mr Tim Stuckey
Resource and Energy Assessments
NSW Department of Planning and Environment

Tim.stuckey@planning.nsw.gov.au

Dear Mr Stuckey

Sandigo Solar Project (SSD 8872) Comment on the Secretary's Environmental Assessment Requirements (SEARs)

I refer to your email of 2 November 2017 to the Department of Industry in respect to the above matter. Comment has been sought from relevant branches of Crown Lands & Water and Department of Primary Industries.

Any further referrals to Department of Industry can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

The department has reviewed the scoping report and the accompanying draft SEARs and provides the following comments and recommendations:

- Due to the scope of this project, and the volume of agricultural land proposed to be used, the SEARs for this project should reflect more prescriptive requirements under the section on Land. The department recommends this section is amended to read:

Land – including:

- an assessment of the impact of **construction and operation of the development on agricultural land (including possible cumulative effects to agricultural enterprises and landholders)** and flood prone land, a soil survey to consider the potential for erosion to occur, and 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 measures proposed to appropriately avoid, reduce or mitigate these impacts (including potential landuse sharing arrangements with agriculture);**
- **description of current and and potential Important Agricultural Land in accordance with [A guideline to identifying important agricultural lands in NSW \(2012\)](#).**
- **Description of proposed rehabilitation objectives and strategies (including the design criteria of the final landuse and landform) for returning the land back to agricultural production, and proposed monitoring to be adopted to inform rehabilitation.**

- **Assessment of any impacts to Crown lands or roads, and any actions required to secure permission for these impacts.**

Yours sincerely



Graeme White
Manager, Assessment Advice
16 November 2017

Planning Policy and Assessment Advice 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>

Tim Stuckey
Planning Officer
Resource Assessments - Planning Services Division
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

tim.stuckey@planning.nsw.gov.au

Dear Tim

**Sandigo Solar Farm Project (SSD 17_8872)
Request for input into Secretary's Environmental Assessment Requirements (SEARs)**

I refer to your email dated 2 November 2017 inviting the Division of Resources & Geoscience (the Division) to provide comments on the Sandigo Solar Farm Project (SSD 17_8872) (the Project) requests for SEARs submitted by Accent Environmental on behalf of ESCO Pacific Pty Ltd (the Proponent).

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

The Division notes that according to departmental databases, there are no current mineral, coal or petroleum titles or operating mines over the site or on adjacent lands. With respect to quarries, Wrights Pit is located approximately one kilometre north of the northwestern most corner of the Glen Moira Project site and is operated intermittently by Narrandera Shire Council and NSW Roads & Maritime Services (RMS), extracting sandstone and siltstone for road construction. The "Mimosa Pit" (Occurrence ID 218163) is located approximately 1.4 km north of the Kywong Project site, and is a small deposit of undifferentiated construction sand (refer Figure 1).

The Division has no resource sterilisation concerns in regard to the Project at this stage. However, the Draft SEARs for the Project require an assessment of the impact of the development on existing land uses, including the compatibility of the development with the existing land uses on the site and adjacent land (such as operating mines, extractive industries, mineral or petroleum resources and exploration activities), during operation and after decommissioning. This requires the proponent to identify any of the above in the Environmental Impact Statement (EIS) and consult with the operators and/or titleholders to establish if the proposal is likely to have a significant impact on current or future extraction of minerals, petroleum or extractive materials (including by limiting access to, or impeding assessment of, those resources), and any way the proposed development may be incompatible with any existing or approved uses, or current or future extraction or recovery under the land use compatibility requirements of Part 3 (13) of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

In fulfilling these requirements, the EIS must include a mineral, coal and petroleum titles search through the Division's MinView application, with the results shown on a map(s). 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>

Further, the EIS is required to identify the Wrights Pit in text and on a map(s) in relation to the Project and address land use compatibility considerations.

Should biodiversity offsets be considered for this project, the Division requests consultation to ensure there are no potential sterilisation impacts to resources.

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

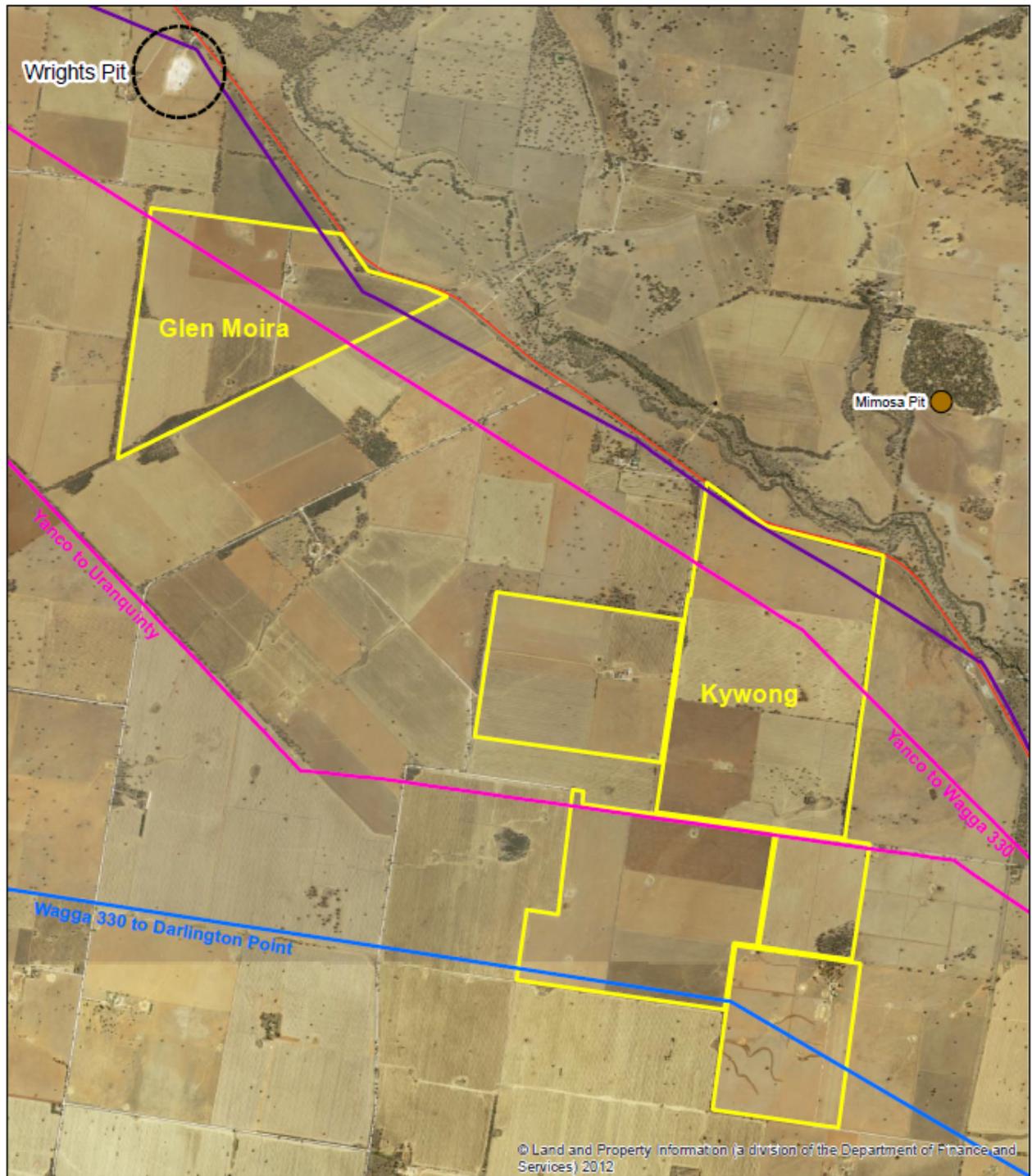
Yours sincerely



Adam W. Banister
Senior Advisory Officer

For
Matt Gagan
A/Manager Royalties & Advisory Services
17 November 2017

Figure 1. Sandigo Solar Farms Project (SSD 8872) - Request for SEARs



Legend

- Sandigo Solar Farms Project - SSD8872
- Essential Energy Transmission Line - 66kV
- TransGrid Transmission Line - 132kV
- TransGrid Transmission Line - 330kV
- Sturt Highway
- Wrights Pit
- Construction Material
- Cadastral Parcels



Map produced by LUTA 2017

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Planning & Environment
Resources & Geoscience

Figure 1: Sandigo Solar Farm Project location



DOC17/542901-01

The Planning Officer
Resource and Energy Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

By email: tim.stuckey@planning.nsw.gov.au

Dear Mr Stuckey

Re Sandigo Solar Farm Project - SSD 8872

I refer to your electronic mail of 2 November 2017 to the Environment Protection Authority (EPA) requesting our comments on the draft Secretary's Environmental Assessment Requirements for the proposed Sandigo Solar Farm Project.

The EPA has responsibilities for pollution control and environmental management for scheduled activities under the *Protection of the Environment Operations Act 1997*. Based on the information provided the proposed activity is not a scheduled activity under the *Protection of the Environment Operations Act 1997* and the proposed solar farm does not require an Environment Protection Licence.

Under the *Protection of the Environment Operations Act 1997* Narrandera Shire Council will be the Appropriate Regulatory Authority for pollution control and environmental management issues for this proposal should it be approved.

On this basis the EPA has no further comments to make in relation to this proposal, and requires no further consultation in relation to this application.

If you have any further enquiries about this matter please contact me by telephoning 02 6969 0700.

Yours sincerely

 13.11.2017

CRAIG BRETHERTON
Manager Regional Operations South West
Environment Protection Authority

Phone +61 2 6969 0700 Fax +61 2 6969 0710 PO Box 397
Phone 131 555 TTY 133 677 Griffith
(from outside NSW) ABN 43 692 285 758 NSW 2680 Australia

Suite 7
130-140 Banna Ave www.epa.nsw.gov.au
Griffith NSW southwest.region@epa.nsw.gov.au
2680 Australia



File Ref. No: BFS17/2619 (8000001886)
TRIM Doc. No: D17/80717
Contact: Senior Firefighter Lachlan Haar

20 November 2017

The Department of Planning & Environment
C/- Tim Stuckey
GPO Box 39
SYDNEY NSW 2001

E: tim.stuckey@planning.nsw.gov.au

Dear Mr Stuckey

**Secretary's Environmental Assessment Requirements (SEARs)
Sandigo Solar Farm (SSD8872)
174 Mitchells Road Sandigo**

I refer to the above development proposal and the Department of Planning & Environment's (the Department) invitation for agencies to provide input for consideration in development of the SEARs. Fire & Rescue NSW (FRNSW) have reviewed aspects of the proponent's scoping report and the following comments and recommendations are submitted for consideration.

FRNSW notes that the facility's proposed location is within a NSW Rural Fire Services' (RFS) Fire District. Notwithstanding, in the event of a significant fire event (either on or off-site in close proximity to the development) or hazardous material incident FRNSW will be responded to either assist the RFS or to fulfill the role of designated combat agency.

It is FRNSW experience that small and large scale photovoltaic installations present unique electrical hazard risks to our personnel when fulfilling their emergency first responder role (N.b. the Fire Brigades Act 1989 imposes specific statutory functions and duties upon the Commissioner of FRNSW).

In addition, the Work Health and Safety (WHS) Act 2011 (and its subordinate Regulation) classify FRNSW as an entity conducting a business or undertaking (PCBU). Clauses 34 and 35 of the WHS Regulation impose specific obligations upon a PCBU to identify hazards and manage risks at workplaces.

Due to the electrical hazards associated with large scale photovoltaic installations and the potential risk to the health and safety of firefighters, both FRNSW and the NSW Rural Fire Service must be able to implement effective and appropriate risk control measures when managing an emergency incident at the proposed site.



Recommendation/s

Should a fire or hazardous material incident occur, it is important that first responders have ready access to information which enables effective control measures to be quickly implemented. Without limiting the scope of the emergency response plan (ERP), the following matters are recommended to be addressed:

1. That a comprehensive ERP is developed for the site.
2. That the ERP specifically addresses foreseeable on-site and off-site fire events and other emergency incidents, (e.g. fires involving solar panel arrays, bushfires in the immediate vicinity or potential hazmat incidents).
3. That the ERP detail the appropriate risk control measures that would need to be implemented in order to safely mitigate potential risks to the health and safety of firefighters and other first responders (including electrical hazards). Such measures would include the level of personal protective clothing required to be worn, the minimum level of respiratory protection required, decontamination procedures, minimum evacuation zone distances and a safe method of shutting down and isolating the photovoltaic system (either in its entirety or partially, as determined by risk assessment).
4. Other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site should also be included in the ERP.
5. That two copies of the ERP (detailed in recommendation 1 above) be stored in a prominent 'Emergency Information Cabinet' which is located in a position directly adjacent to the site's main entry point/s.
6. Once constructed and prior to operation, that the operator of the facility make contact with the relevant local emergency management committee (LEMC). The LEMC is a committee established by virtue of Section 28 of the State Emergency and Rescue Management Act 1989. LEMCs are required to be established so that emergency services organisations and other government agencies can proactively develop comprehensive inter agency local emergency procedures for significant hazardous sites within their particular local government area. The contact details of members of the LEMC can be obtained from the relevant local council.

For further information please contact Fire Safety Assessment Unit, referencing FRNSW file number BFS17/2619 (8000001886). Please ensure that all correspondence in relation to this matter is submitted electronically to firesafety@fire.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M. Castelli', written in a cursive style.

Station Officer Mark Castelli
Team Leader
Fire safety Assessment Unit



Mr Tim Stuckey
Planning Officer
Resource and Energy Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Stuckey

RE: Sandigo Solar Farm Project (SSD 8872)
Request for Input into Secretary's Environmental Assessment Requirements

I refer to your email dated 2 November 2017 to the Office of Environment and Heritage (OEH) seeking input into the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the proposed Sandigo Solar Farm Project (SSD 8872).

OEH has reviewed the available supporting documentation and provides SEARs for the proposed development in **Attachment A** and guidance material in **Attachment B**. The assessment must include all ancillary infrastructure, such as transmission lines, parking facilities, equipment sheds and new vehicle tracks.

OEH recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting
2. Aboriginal cultural heritage
3. Flooding
4. Cumulative impact.

Please note that the *Biodiversity Conservation Act 2016* (BC Act) commenced in August 2017 and that all Major Projects must now be assessed in accordance with this legislation, including the preparation of a Biodiversity Development Assessment Report. The BC Act provides a standard method for assessing impacts of Major Projects on biodiversity and determining offsetting arrangements. Unless the Planning Agency Head and the Environment Agency Head determine that it is not likely to have any significant impact on biodiversity values, the Biodiversity Assessment Method www.environment.nsw.gov.au/resources/bcact/biodiversity-assessment-method-170206.pdf must be used by a proponent to assess all biodiversity values on the development site. The avoid, minimise and offset framework including assessment of all direct, indirect and prescribed impacts must be addressed in the EIS. A range of options are now available to offset the impacts of the proposal, as identified in **Attachment A**.

OEH fully supports the statement in the Preliminary Environmental Assessment (PEA) that the proponent proposes to put a strong emphasis on avoidance of impacts to threatened species/communities and their habitat. However, it is important to note that while the information collected for the PEA can assist in the preparation of the EIS, the SEARs must be addressed in the final assessment document, and additional information will be required. **Attachment C** identifies a number of issues relating to both the assessment of biodiversity and Aboriginal cultural heritage (ACH) that should be addressed in the EIS which is in addition to the information provided in the PEA.

The native vegetation present may also be a threatened ecological community or habitat for a threatened species listed on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

The PEA identifies that an initial assessment of Aboriginal cultural heritage (ACH) has been undertaken in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales. The assessment identified several natural water features requiring further inspection to determine the nature and extent of these features and associated archaeological sensitivity. We also note the assessment has identified that the impacts of the project on ACH can only be determined through a rigorous visual assessment and that an Aboriginal Cultural Heritage Assessment Report (ACHAR) will be prepared as part of the EIS. We agree with this approach, but note that the ACHAR must be prepared in accordance to the requirements identified in **Attachment A**.

If you require further information about this matter please contact Miranda Kerr on 6022 0607 or at miranda.kerr@environment.nsw.gov.au.

Yours sincerely

Handwritten signature of Peter Ewin and the date 17/11/17.

PETER EWIN
Senior Team Leader Planning
South West Branch
Regional Operations
Office of Environment and Heritage

Enclosure: ATTACHMENT A – Standard Environmental Assessment Requirements for Sandigo Solar Farm Project (SSD 8872)
ATTACHMENT B – Guidance Material
ATTACHMENT C – Additional comments Preliminary Environmental Assessment

Attachment A – Standard Environmental Assessment Requirements for Sandigo Solar Farm Project (SSD 8872)

Biodiversity

1. Biodiversity impacts related to the proposed development are to be assessed in accordance with the [Biodiversity Assessment Method](#) and documented in a Biodiversity Development Assessment Report (BDAR), unless the Planning Agency Head and the Environment Agency Head determine that it is not likely to have any significant impact on biodiversity values. The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), *Biodiversity Conservation Regulation 2017* (s6.8) and [Biodiversity Assessment Method](#).
2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the [Biodiversity Assessment Method](#).
3. The BDAR must include details of the measures proposed to address the offset obligation as follows;
 - 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 make a payment to the Biodiversity Conservation Fund.

If seeking approval to use the variation rules, the BDAR must contain details of the [reasonable steps](#) that have been taken to obtain requisite like-for-like biodiversity credits.
4. 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*.

Aboriginal cultural heritage

5. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the [Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW \(OEH 2010\)](#), and should also be guided by the [Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW \(DECCW, 2011\)](#) and consultation with OEH regional officers.
6. 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.

7. 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.

Historic heritage

8. The EIS must provide a heritage assessment including but not limited to an assessment of impacts to *State and local heritage* including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views, trees should be 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.

Flooding

9. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:
- a. Flood prone land.
 - b. Flood planning area, the area below the flood planning level.
 - c. Hydraulic categorisation (floodways and flood storage areas).
10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP flood levels and the probable maximum flood, or an equivalent extreme event.
11. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:
- a. Current flood behaviour for a range of design events as identified in 11 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

12. Modelling in the EIS must consider and document:

- a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.
- 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.
- c. Relevant provisions of the NSW Floodplain Development Manual 2005.

13. The EIS must assess the impacts on the proposed development on flood behaviour, including:

- a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
- b. Consistency with Council Floodplain Risk Management Plans.
- c. Consistency with any Rural Floodplain Management Plans.
- d. Compatibility with the flood hazard of the land.
- e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
- f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
- g. 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.
- h. 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.
- i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council.
- j. 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.
- k. 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
Relevant Legislation	
<i>Biodiversity Conservation Act 2016</i>	www.legislation.nsw.gov.au/#/view/act/2016/63/full
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Fisheries Management Act 1994</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Water Management Act 2000</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Biodiversity	
Biodiversity Assessment Method (OEH, 2017)	www.environment.nsw.gov.au/resources/bcact/biodiversity-assessment-method-170206.pdf
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	www.environment.nsw.gov.au/resources/bcact/guidance-decision-makers-determine-serious-irreversible-impact-170204.pdf
Ancillary rules: Biodiversity conservation actions	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf
Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf
OEH Threatened Species Website	www.environment.nsw.gov.au/threatenedspecies/
NSW BioNet (Atlas of NSW Wildlife)	www.bionet.nsw.gov.au/
NSW guide to surveying threatened plants (OEH 2016)	www.environment.nsw.gov.au/resources/threatenedspecies/160129-threatened-plants-survey-guide.pdf
OEH threatened species survey and assessment guideline information	www.environment.nsw.gov.au/threatenedspecies/surveyassessm entgdlns.htm
BioNet NSW Plant Community Type (PCT) database	www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm
OEH Data Portal (access to online spatial data)	http://data.environment.nsw.gov.au/
Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf

Title	Web address
Aboriginal Site Recording Form	www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
<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)	www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
NSW Heritage Manual (DUAP) (scroll through alphabetical list to 'N')	www.environment.nsw.gov.au/Heritage/publications/
<u>Flooding</u>	
Floodplain development manual	www.environment.nsw.gov.au/floodplains/manual.htm
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

Attachment C – Additional comments Preliminary Environmental Assessment

OEH has reviewed the Preliminary Environmental Assessment (PEA) and has identified a number of matters relating to both biodiversity and Aboriginal cultural heritage (ACH) that will need to be addressed in more detail in the Environmental Impact Statement (EIS).

The PEA has based the mapping of vegetation on that identified in the *Narrandera Local Environment Plan 2013* (NLEP). The proposal site is included in the area covered by the 'Central Southern NSW' regional-scale vegetation mapping (OEH 2011), which is at a finer scale than the NLEP mapping. This dataset is available for download from the OEH Data Portal by searching for '3884'.

The Central Southern NSW mapping and the Preliminary Biodiversity Assessment map plant community types (PCTs) on or near the proposal site that may be part of threatened ecological communities listed under the BC Act. Specifically, woodlands dominated by white cypress pine (*Callitris glaucophylla*) mapped as PCTs 28 and 80 may represent the 'Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions' endangered ecological community (EEC). PCTs 76 and 80 may be part of the 'Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penneplain, Nandewar and Brigalow Belt South bioregions' EEC. Please note that threatened ecological communities (TECs) in NSW should be identified using the Final Determinations available through the OEH Threatened Species Website. Unlike Commonwealth determinations, NSW TECs do not rely on condition or size parameters for identification. It is important to determine if land vegetated by native grasses and forbs, including paddocks used for livestock grazing, fit the description of natural grassland PCTs that occur in the Riverina. Alternatively, areas dominated by native grasses, forbs and subshrubs could be remnants of woodland EECs subject to overstorey removal.

Fine-scale mapping of the habitat for the endangered Plains-wanderer (*Pedionomus torquatus*) has been completed for some of its range but does not cover the proposal site. Plains-wanderers have been recorded in the vicinity and are known to occur within the relevant sub-region so Plains-wanderers may be a requirement of the BAM for further assessment. If Plain-wanderer habitat is identified, it is likely that this will need to be addressed as a Serious and Irreversible Impact within the EIS (Section 10 of the Biodiversity Assessment Method). If this species is likely to be impacted we recommend early contact with OEH and the Department of Planning and Environment to get further clarification on the assessment requirements.

According to the PEA an Aboriginal Cultural Heritage Due Diligence Assessment of the project area was undertaken by a qualified cultural heritage advisor. The assessment identified several natural water features requiring further inspection to determine the nature and extent of these features and associated archaeological sensitivity (Section 5.3.1). We also note the assessment has identified potential ACH constraints of the proposal site can only be determined through rigorous visual assessment and that an Aboriginal Cultural Heritage Assessment Report (ACHAR) would be prepared as part of the EIS. OEH are supportive of this however recommend the ACHAR be undertaken in accordance with requirements for ACH as identified in **Attachment A** of this letter.

The PEA also indicates that a search of the Aboriginal Heritage Information System (AHIMS) database did not identify any recorded ACH at the proposal site but the results have not been provided to support this statement (Section 5.3.1, page 23). It is important that all AHIMS search results are provided with the EIS and that these results are no greater than 12 months old.

We note that the proposed activity area is considered to occur within the Narrandera Local Aboriginal Land Council (LALC) area. According to our records, Lots 70-71 DP 754559 and Lot 1 DP 802754 of 'Kywong' also partially occurs within the statutory boundaries of the Wagga Wagga LALC. As identified in our response to the request for potential stakeholders dated 24 October 2017, it is the proponents responsibility to identify the relevant LALC for all consultation associated with assessment of Aboriginal cultural heritage, and if this party has not been identified we recommend that they be included within the consultation process for the proposed Aboriginal Cultural Heritage Assessment Report.

References:

OEH (2011) *Vegetation mapping by 3-D digital aerial photo interpretation: vegetation of central-southern New South Wales*. Technical Report. NSW Office of Environment and Heritage, Queanbeyan (VIS ID 3884).



16 November 2017

SWT17/00148
SF2017/258033
MM

The Manager
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Tim Stuckey

SEARS-SSD 8872 - PROPOSED SANDIGO SOLAR FARMS - KYWONG - GLEN MOIRA, LOTS 33, 35, 55, 108,109 DP754550, LOT 4 DP607982, LOTS 70, 71 DP754559 AND LOT 1 DP802754, STURT HIGHWAY, SANDIGO.

I refer to correspondence forwarded to Roads and Maritime Services requesting the provision of Environmental Assessment Requirements to be addressed in the supporting documentation to be submitted for the subject development. The request includes a scoping report prepared by Accent Environmental dated November 2017.

From review of the information provided it is understood that the development proposal represents the establishment of a Solar Farm project on 2 sites with an intended capacity of up to 300 Mega Watt on the subject site. The subject sites are located to the east of Narrandera with frontage to the Sturt Highway, which is a classified road, within a 100 km/h speed zone.

Given the scale and operational characteristics of the proposed development the traffic related issues relevant to the development should be considered and addressed in 2 distinct stages as follows;

- Construction & decommission phase – the transport of materials and equipment/components for the establishment of the facility and ancillary infrastructure, the movement and parking of construction related vehicles, including personal vehicles, during the construction of the facility,
- Operational phase – the ongoing traffic generation due to the operation, maintenance and servicing of the various elements of the project.

From the submitted documentation it is understood that access to the sites is proposed from the Sturt Highway. The documentation provides limited information or acknowledgement of potential road related issues. The scoping report refers to SEPP (Infrastructure) but fails to acknowledge the clauses relating to traffic and access to the classified road network particularly clause 101. The implications of State Environmental Planning Policy (Infrastructure), particularly clause 101 needs to be addressed as part of the supporting information submitted for the development. This clause also requires that the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development.

Roads and Maritime Services emphasises the need to minimise the impacts of any development on the existing road network and maintain the level of safety, efficiency and maintenance along the road network. Given the scale of the proposal a Traffic Impact Assessment (TIA) should be submitted with the Development Application. Any Traffic Impact Assessment needs to address the impacts of traffic generated by this development upon the nearby road network.

A Traffic Management Plan to manage the traffic generation during the construction period will be required. Traffic should also be considered and addressed during operation of the facility. The Traffic Management Plan shall detail the potential impacts associated with the phases of the development, the measures to be implemented to maintain the standard and safety of the road network, and procedures to monitor and ensure compliance.

For guidance in the preparation of the TIA the applicant is referred to section 2 of the "Guide to Traffic Generating Developments" prepared by the RTA and the Austroads publications, particularly the Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development and Part 13: Traffic Studies and Analysis. The TIA should contain information such as the expected traffic generation, vehicle numbers and types of vehicles, and travel routes for vehicles accessing the development site.

Given the scale of the proposed development and its proximity and northern orientation towards the Sturt Highway it is considered appropriate that issues relating to potential for distraction of, and for glint/glare impacts on, passing motorist be addressed in the development submission. As a minimum, consideration should be given to the establishment and maintenance of a visual buffer, such as a vegetated buffer, within the subject site along its frontage to any public road, particularly the Sturt Highway.

Any enquiries regarding this correspondence may be referred to the Manager, Land Use for Roads and Maritime Services (South West Region), Maurice Morgan, phone (02) 6923 6611.

Yours faithfully



Per:
Mitch Judd
Acting Director
South West NSW