

APPENDIX A SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Secretary's Environmental Assessment Requirements
Section 78A (8A) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD 6784
Development	Parkes Solar Farm The construction and operation of a 30MVA solar photovoltaic (PV) plant and associated infrastructure.
Location	Located within the Parkes Shire Council area, approximately 10 km north west of Parkes. The development site is located at Lot 4, DP 854193.
Applicant	Neoen Australia Pty Ltd
Date of Issue	9 December 2014
General Requirements	The Environmental Impact Statement (EIS) must be prepared in accordance with, and meet the minimum requirements of, Part 3 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the EP&A Regulation) and include the following: 1. The information required under clause 6: • the description of the development for the solar farm should include: → construction, operation and decommissioning details; → a site plan at an adequate scale with dimensions, showing the development's location, orientation, site coverage, access roads and entrances to public roads; → the location and dimensions of all development components including the solar PV module array, transformer stations and switchgears, control system, underground and above ground cabling, and transmission line linking the solar farm to the substation, fencing and landscaping around the solar-farm, on-site office, operations and maintenance buildings, temporary construction infrastructure and compounds, and access roads/road upgrades (including access tracks); → a timeline identifying the development's proposed construction and operation components, their envisaged lifespan and arrangements for decommissioning and staging; → supporting maps/plans clearly identifying existing environmental features (e.g. watercourses, vegetation), infrastructure and land use (including nearby residences and approved residential developments or subdivisions) and the location/siting of the development (including associated infrastructure) in the context of this existing environment; and → resourcing requirements (including, but not limited to, water supply and gravel). 2. the content listed in clause 7, including, but not limited to: • a summary of the EIS; • a statement of the objectives of the development, including a description of the strategic need, justification, objectives and outcomes. This should include: → a strategic assessment of the need, scale, scope and location of the development in relation to predicted electricity demand, predicted transmission constraints and the strategic direction of the region and the State in relation to electricity supply, demand and electricity generation technologies, and its role within the Commonwealth's Renewable Energy Target Scheme; and → a clear demonstration of quantified and substantiated

	greenhouse gas benefits, taking into consideration sources of electricity that could realistically be replaced and the extent of their replacement; • an analysis of feasible alternatives to the carrying out of the development, having regard to its objectives, including an assessment of the environmental costs and benefits of the development relative to alternatives and the consequences of not carrying out the development, the suitability of the chosen option and whether or not the development is in the public interest. This should include: → an analysis of the suitability of the development with respect to potential land use conflicts with existing and future surrounding land uses (including rural residential development, land of significant scenic or visual value, land of high agricultural value, mineral reserves including existing mineral exploration operations within the proximity of the subject area, forestry and conservation areas), taking into account local and strategic land use objectives including the potential loss of agricultural land the impact on the local community; and → describe the alternatives considered (location and/or design) for all development components, and provide justification for the preferred development demonstrating its benefits including community benefits (for example community enhancement programmes) on a local and strategic scale and how it achieves states objectives. • an analysis of the development, including an assessment, with a particular focus on the requirements of the listed key issues, in accordance with clause 7(1)(d) of the EP&A Regulation (where relevant); • an identification of how relevant planning, land use and development matters (including strategic and statutory matters) have been considered in the impact assessment (direct, indirect and cumulative impacts) and/or developing management/mitigation measures, including section 79C of the EP&A Act, applicable State Planning Policies (SEPP), Local Environmental Plans, the nature and extent of any prohibitions that apply to the development and demonstration that the site is suitable for the proposed use in accordance with SEPP 55; • a compilation of the measures proposed to mitigate any adverse effects of the development on the environment; • a justification for the development taking into consideration the objects of the EP&A Act; and • detail how the principles of ecologically sustainable development will be incorporated in the design, construction and ongoing operation phases of the development.
Key Issues	The EIS must address the following specific matters: • Flora and Fauna – the EIS must: → include an assessment of the impacts of all development components on flora and fauna (both terrestrial and aquatic, as relevant) and their habitat; → The assessment must take into account: ○ the <i>Threatened Species Assessment Guidelines</i> (DECC, 2007); ○ the <i>Threatened Species Biodiversity Survey and Assessment: Guidelines for Developments and Activities</i> (DEC, 2004); and ○ <i>Central West Local Land Services Transitional Catchment Action Plan</i> including details on the existing site conditions and likelihood of disturbance (including quantifying the worst case extent of the impact on the basis of vegetation type and total

	native vegetation disturbed); and ○ The <i>Framework for Biodiversity Assessment</i>. → specifically consider impacts on threatened species and ecological communities listed under both State and Commonwealth legislation that have the potential to occur on the site and surrounding land, impacts on riparian and/ or instream habitat in the case of disturbance of waterways, and on biodiversity corridors; → include details of how flora and fauna impacts would be managed during construction and operation including adaptive management and maintenance protocols (including the mitigation and/or management of weeds); and → any steps taken to mitigate or offset any identified impacts to the environment should also be detailed in the EIS. Current OEH offsets policy should be used in assessing and determining the adequacy of any offsets. Note that a <i>NSW Biodiversity Offsets Policy for Major Projects</i> is now being implemented. • Visual Impacts - the EIS must: → provide an assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the development. This should describe community and stakeholder values of the local and regional visual amenity and quality, and perceptions of the development based on surveys and consultation; → include a full assessment of the visual impacts associated with the solar farm, including identification and documentation of all key viewing points and corridors particularly from identified sensitive lands. This should also include the associated transmission line. Alternative pole designs should be presented and assessed and the potential for undergrounding in sensitive locations should also be assessed; → provide an assessment of the potential for reflectivity from the panels and associated infrastructure, and any safety impacts for motorists or aircraft; → include photomontages of the development taken from potentially affected residences (including approved but not yet developed dwellings or subdivisions with residential rights), settlements and significant public view points, and provide a clear description of proposed visual amenity mitigation and management measures for the solar farm; and → provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented. • Noise Impacts - the EIS must: → include a noise assessment of all phases and components of the development including, but not limited to construction noise (focusing on high noise-generating activities and any works proposed outside of standard construction hours, traffic noise, and vibration generating activities). The assessment must identify noise/vibration sensitive locations (including approved but not yet developed dwellings), baseline conditions based on monitoring results, the levels and character of noise (eg. tonality, impulsiveness etc.) generated by noise sources, noise/vibration criteria, modelling assumptions and worst case and representative noise/vibration impacts; → include monitoring to ensure that there is adequate background noise data that is representative for all sensitive receptors;
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- provide justification for the nominated average background noise level used in the assessment process, considering any significant difference between daytime and night time background noise levels if there are noise generating activities at night; and
- clearly outline the noise mitigation, monitoring and management measures that would be applied to the development. This must include an assessment of the feasibility, effectiveness and reliability of proposed measures and any residual impacts after these measures have been incorporated.

The assessment must take into account the following guidelines (as relevant):

- Site Establishment and Construction – *Interim Construction Noise Guidelines* (DECC, 2009);
 - Traffic Noise – *NSW Road Noise Policy* (DECCW, 2011);
 - Vibration – *Assessing Vibration: A Technical Guideline* (DECC, 2006); and
 - Operation – *NSW Industrial Noise Guideline* (EPA, 2000).
- **Heritage** – the EIS must include an assessment of impacts on Aboriginal heritage. The EIS must demonstrate the likely impacts of the development to Aboriginal heritage (including cultural and archaeological significance). Where impacts are identified the assessment shall:
 - outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the measures) generally consistent with the *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (Department of Environment and Conservation, 2005) and *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (DECCW, 2011);
 - be undertaken by a suitably qualified heritage consultant(s);
 - demonstrate effective consultation with Aboriginal communities in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW) in determining and assessing impacts and developing and selecting options and mitigation measures (including the final proposed measures); and
 - demonstrate that an appropriate archaeological assessment methodology, including research design (where relevant) has been undertaken, to guide physical archaeological test excavations of areas of potential archaeological deposits. The full spatial extent and significance of any archaeological evidence shall be established and results of excavations included.
 - **Traffic and Transport** – the EIS must assess the construction and operational traffic impacts of the development including:
 - details of the nature of traffic generated, transport routes, traffic volumes and potential impacts on local and regional roads (including impacts on the structural integrity of the road network), bridges and intersections, including any proposed road upgrades and repairs;
 - details of measures to mitigate and/or manage the potential impacts, including measures to control soil erosion and dust generated by traffic volumes and measures to ensure efficiency and safety on the public road network; and
 - details of site access roads including how these would connect to the existing road network and any operational maintenance or handover requirements.

	This must be prepared in accordance with the methodology set out in Section 2 of the RTA's <i>Guide to Traffic Generating Development's 2002</i>. • Hazard/Risks– the EIS must include an assessment of potential hazards and risks associated with electric and magnetic fields (EMFs) (with reference to Australian Radiation Protection and Nuclear Safety Agency standards) and bushfires. The EIS should demonstrate the application of the Principles of Prudent Avoidance in relation to EMFs. The EIS must also detail measures to contain any hazardous substances to prevent the contamination of pasture and dams. • Water Quality, Waterways and Flooding – The EIS must include: → an assessment of the likely impacts to the waterways and measures to minimise impacts including details of the design of waterway crossings; → an assessment of soil erosion issues and the potential for clearing to create salinity risks; → details of water supply demands and an assessment of whether an adequate and secure water supply is available for the project, including statutory (licensing) context of the water supply sources, and assess potential environmental impacts associated with the use of identified sources including impacts on surface and groundwater sources and implications for existing licensed users; → an assessment of any proposed modification to surface water management including modelling of redistribution of waters and an assessment of the impact on neighbouring properties and the associated watercourse and floodplain; → an assessment of the potential for groundwater to be intercepted; → an assessment demonstrating consistency with the relevant Water Sharing Plan(s); and → an appropriate assessment of potential flooding impacts, undertaken generally in accordance with the principles, processes and guidelines as outlined in the NSW Government <i>Floodplain Development Manual 2005</i>. The study shall consider a full range of potential flood events up to and including the Probable Maximum Flood (PMF) and any local floodplain risk management planning processes.
Environmental Risk Analysis	General Environmental Risk Analysis – notwithstanding the key assessment requirements, the EIS must include an environmental risk analysis to identify potential environmental impacts associated with the development, proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of the additional key environmental impact(s) must be included in the EIS.
Consultation	The Proponent must undertake a consultation program as part of the environmental assessment process, including consultation with, but not necessarily limited to, the following parties: • Parkes Shire Council; • Central West Local Land Services; • Office of Environment and Heritage and Environment Protection Authority; • Department of Primary Industries (NSW Office of Water); • NSW Trade and Investment (Crown Lands Division and NSW Mineral Resources);

	• NSW Roads and Maritime Service; • NSW Rural Fire Service; • TransGrid; • Local Aboriginal Land Council; • Relevant mineral stakeholders (including exploration and mining title holders); and the local community and landowners The consultation process shall include measures for disseminating information to increase awareness of the development as well as methods for actively engaging stakeholders on issues that would be of interest/concern to them. The EIS must: → Demonstrate effective consultation with stakeholders, and that the level of consultation with each stakeholder is commensurate with their degree of interest/concern or likely impact; → Clearly describe the consultation process undertaken for each stakeholder/group including details of the dates of consultation and copies of any information disseminated as part of the consultation process (subject to confidentiality); and → Describe the issues raised during consultation and how and where these have been addressed in the EIS.
Further consultation after 2 years	If you do not lodge an EIS for the development within 2 years of the issue date of these SEARs, you must consult with the Secretary in relation to the requirements for lodgement.

Lauren Rose
Student Planner
Infrastructure Projects
Department of Planning and Environment
GPO Box 39 SYDNEY 2001

Dear Ms Rose

RE: Parkes Solar Farm

I refer to your e-mail dated 11th November 2014 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 a proposed solar farm near Parkes.

The Office of Environment and Heritage (OEH) understands that the proposal involves the construction and operation of a commercial scale photovoltaic (PV) plant with a capacity of up to 30 megawatt ampere. The constraints analysis report indicates that the site would cover approximately 55 hectares of predominantly cleared land. While no detail has been provided at this stage, the constraints analysis identifies that native vegetation adjacent to the site may comprise at least one Endangered Ecological Community, and is potential habitat for threatened species.

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

OEH recommends the EIS needs to appropriately address the following, if applicable:

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

Please note that the NSW Biodiversity Offsets Policy for Major Projects, available at <http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf> is now being implemented. The Biodiversity Offsets Policy clarifies and standardises biodiversity impact assessment and offsetting for major project approvals in NSW.

The Biodiversity Offsets Policy is underpinned by the Framework for Biodiversity Assessment (FBA), available at <http://www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf>. The FBA contains the assessment methodology that is adopted by the policy to quantify and describe the impact assessment requirements and offset guidance that applies to Major Projects. The FBA must be used by a proponent to assess all biodiversity values on the development site.

If you have any questions regarding this matter further please contact Liz Mazzer on 02 68835325 or liz.mazzer@environment.nsw.gov.au.

Yours sincerely,



SONYA ARDILL
Senior Team Leader Planning
North West Region

Attachment A - Standard Environmental Assessment Requirements
Attachment B - Guidance material

Attachment A – Standard Environmental Assessment Requirements

Biodiversity 1. Biodiversity impacts related to the proposed Parkes Solar Project are to be assessed and documented in accordance with the Framework for Biodiversity Assessment, unless otherwise agreed by OEH, by a person accredited in accordance with s142B(1)(c) of the <i>Threatened Species Conservation Act 1995</i>.
Aboriginal cultural heritage 2. The EIS must identify and describe the tangible and intangible Aboriginal cultural heritage values that exist across the whole area that will be affected by the Parkes Solar 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. 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. 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 will be documented and notified to OEH.
Water and soils 5. 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 Appendix 2 of the Framework for Biodiversity Assessment). c. Groundwater. d. Groundwater dependent ecosystems. e. Proposed intake and discharge locations. 6. The EIS must describe background conditions for any water resource likely to be affected by the [development/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.
7.	The EIS must assess the impacts of the Parkes Solar Project on water quality, including: a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the Parkes Solar 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 mitigating effects of proposed stormwater and wastewater management during and after construction. b. Identification of proposed monitoring of water quality.
8.	The EIS must assess the impact of the Parkes Solar Project on hydrology, including: a. Water balance including quantity, quality and source. b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas. c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems. 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). e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water. 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. g. Identification of proposed monitoring of hydrological attributes.
Flooding and coastal erosion	
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 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.
11.	The EIS must model the effect of the proposed Parkes Solar Project (including fill) on the flood behaviour under the following scenarios: a. Current flood behaviour for a range of design events as identified in 8) above. 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.

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 Parkes Solar Project 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. Compatibility with the flood hazard of the land.
- 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.
- 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>Coastal Protection Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
<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>Threatened Species Conservation Act 1995</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+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>	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	http://www.environment.nsw.gov.au/biodivoffsets/1480biofpolmp.htm
Framework for Biodiversity Assessment (OEH, 2013)	http://www.environment.nsw.gov.au/biodivoffsets/1480biofpolmp.htm
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/resources/parks/policyRevocations.pdf
<u>Aboriginal Cultural Heritage</u>	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/com consultation/09781ACHconsultreq.pdf

Title	Web address
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	http://canri.nsw.gov.au/download/
Acid Sulfate Soils Manual (Stone et al. 1998)	Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx Chapters 1 and 2 are on DPI's Guidelines Register at: Chapter 1 Acid Sulfate Soils Planning Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf Chapter 2 Acid Sulfate Soils Assessment Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Assessment%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.derm.qld.gov.au/land/ass/pdfs/lmg.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.dnr.nsw.gov.au/floodplains/manual.shtml
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/101019GdlnsCZMPs.pdf
NSW Climate Impact Profile	NSW Climate Impact Profile
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	http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality

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

Our reference: SF14/36894; DOC14/268929
Contact: Ramya Gowda, 02 6883 5306

Department of Planning
Received
4 DEC 2014
Scanning Room

The Director
NSW Government, Department of Planning and Environment
PO BOX 39
SYDNEY NSW 2001

Attention: Ms Lauren Rose

Dear Mr McManus,

I refer to the letter dated 10 November 2014 submitted by the Department of Planning and Environment to the Environment Protection Authority (EPA) in relation to the proposed Parkes Solar Farm (SSD 6785)

With reference to the letter dated 10 November 2014, the EPA notes that the Neoen Australia Pty Ltd is proposing to construct a 30MVA solar farm in Parkes Shire. On this basis the EPA has determined that the development is not Integrated Development Application (IDA) and therefore licensing with the EPA is not required.

The EPA recommends that the assessment for the proposal should consider the following general matters:

- **Water quality impacts** - identification of appropriate pollution control systems to protect surface and ground water resources such as sediment and erosion controls during construction and operational stages and inclusion of permanent sediment and erosion and stormwater controls where required.
- **Noise** – identify potential impacts and mitigation strategies to be incorporated during operation to minimise noise and comply with NSW policies and legislation on noise control.
- **Dust** – identify impacts from dust during the construction and operational periods and identified mitigative measures.
- **Storage of chemicals/ fuels** - ensure adequate control measures are in place for storages to reduce risk of spills contaminating waterways and land.
- **Waste management** – options and strategies for waste minimisation, reuse and recycling should be assessed as appropriate.
- **Incident management procedures** - adequate procedures should to be established including notification requirements to the EPA for incidents that cause material harm to the environment (refer s147-153 Protection of the Environment Operations Act).

It is recommended that in achieving a high standard of sediment and erosion controls and general site management the proponent, or any contractor engaged by the proponent,

develop and implement the proposal in accordance with relevant guidelines such as the EPA endorsed publication "*Soils and Construction, Volume 1, 4th Edition*," March 2004 by Landcom.

It should be noted that this information are guidelines only and it is up to the proponent (and later the consent/determining authority after appropriate consultation) to determine the detail and comprehensiveness of the surveys and level of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the level of investigation. It is important that all conclusions are supported by adequate data.

Should you have any further enquiries regarding this matter please contact Ramya Gowda at the Dubbo Office of the EPA by telephoning (02) 6883 5306.

Yours sincerely



02/12/14

BRADLEY TANSWELL
Acting Head Far West Operations
Environment Protection Authority



PARKES SHIRE COUNCIL

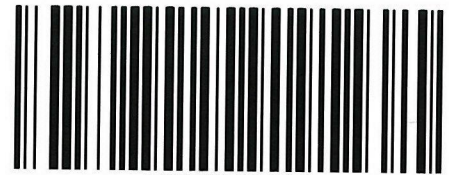
Progress, opportunities and a quality lifestyle for our residents

AC

Contact Person: Annalise Cummings

25 November 2014

Department of Planning and Environment
Attention: Lauren Rose
GPO Box 39
SYDNEY NSW 2001



PCU057187

Dear Ms Rose

RE: REQUEST FOR SEARS FOR PARKES SOLAR FARM (SSD6784)

I refer to your letter dated 10 November 2014 requesting input on the Secretary's Environmental Assessment Requirements (SEARS) for the Parkes Solar Farm.

Council has reviewed the Scoping Report and the draft SEARS and notes that the key issues for Council have already been addressed in the Draft SEARS.

Should you wish to discuss this matter further, please contact Council's Manager Planning Services, Annalise Cummings on (02) 6861 2373.

Yours faithfully

Kent Boyd
GENERAL MANAGER

per: 
Steven Campbell
DIRECTOR OF PLANNING & ENVIRONMENT

Department of Planning
Received
1 DEC 2014
Scanning Room



Department of Primary Industries

OUT14/39184

Ms Lauren Rose
Infrastructure Projects
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Lauren.Rose@planning.nsw.gov.au

Dear Ms Rose,

**Parkes Solar Farm [SSD_6784]
Request for input into Secretary's Environmental Assessment Requirements**

I refer to your email dated 11 November 2014 to the Department of Primary Industries in respect to the above matter.

Comment by NSW Office of Water

The NSW Office of Water (Office of Water) has reviewed the supporting documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments below, and further detail in **Attachment A**.

The Office of Water supports the current requirements outlined in the Draft SEARs regarding water quality, waterways and flooding but recommends that the EIS also be required to include:

- Details of water proposed to be taken (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).
- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.

- Consideration of relevant policies and guidelines.

For further information please contact Vanessa Hornsby, Water Regulation Officer (Parramatta office) on 8838 7816 or at vanessa.hornsby@water.nsw.gov.au.

Comment by Crown Lands

Crown Lands note that the proposal has the potential to impact a Travelling Stock Reserve located north and adjacent to the proposal area. It will be required that consultation is undertaken with the Local Land Services during the preparation of the Environmental Impact Statement.

For further information please contact Kay Oxley, Senior Natural Resource Management Officer (Orange Office) on 6391 4334 or at kay.oxley@crownland.nsw.gov.au.

Fisheries NSW and Agriculture NSW have advised no issues.

Yours sincerely



Kristian Holz
Director Policy, Legislation and Innovation

Attachment A

Parkes Solar Farm [SSD_6784] Request for Input into Secretary's Environmental Assessment Requirements Additional Comment by NSW Office of Water

The following detailed assessment requirements are provided to assist in adequately addressing the assessment requirements for this proposal.

For further information visit the NSW Office of Water website, www.water.nsw.gov.au

Key Relevant Legislative Instruments

This section provides a basic summary to aid proponents in the development of an Environmental Impact Statement (EIS), and should not be considered a complete list or comprehensive summary of relevant legislative instruments that may apply to the regulation of water resources for a project.

The EIS should take into account the objects and regulatory requirements of the *Water Act 1912* (WA 1912) and *Water Management Act 2000* (WMA 2000), and associated regulations and instruments, as applicable.

Water Management Act 2000 (WMA 2000)

Key points:

- Volumetric licensing in areas covered by water sharing plans,
- Works within 40m of waterfront land,
- SSD & SSI projects are exempt from requiring water supply work approvals and controlled activity approvals as a result of the *Environmental Planning & Assessment Act 1979* (EP&A Act),
- No exemptions for volumetric licensing apply as a result of the EP&A Act,
- Basic landholder rights, including harvestable rights dams,
- Aquifer interference activity approval and flood management work approval provisions have not yet commenced and are regulated by the *Water Act 1912*,
- Maximum penalties of \$2.2 million plus \$264,000 for each day an offence continues apply under the *WMA 2000*.

Water Act 1912 (WA 1912)

Key points:

- Volumetric licensing in areas where no water sharing plan applies,
- Monitoring bores,
- Aquifer interference activities that are not regulated as a water supply work under the *WMA 2000*,
- Flood management works,
- No exemptions apply to licences or permits under the *WA 1912* as a result of the EP&A Act,
- Regulation of water bore driller licensing.

Water Management (General) Regulation 2011

Key points:

- Provides various exemptions for volumetric licensing and activity approvals,
- Provides further detail on requirements for dealings and applications.

Water Sharing Plans – these are considered regulations under the *WMA 2000*

Access Licence Dealing Principles Order 2004

Harvestable Rights Orders

Water Sharing Plans

The proposal is located within the area covered by the:

- Water Sharing Plan for the NSW Murray-Darling Basin Fractured Rock Groundwater Sources, and the
- Water Sharing Plan for the Lachlan Unregulated and Alluvial Water Sources.

The EIS is required to:

- Demonstrate how the proposal is consistent with the relevant rules of the Water Sharing Plan including rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection (including groundwater dependent ecosystems), water quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water to be taken from each water source) and management including all sediment dams, clear water diversion structures with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.
- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP, including:
 - Sufficient market depth to acquire the necessary entitlements for each water source.
 - Ability to carry out a “dealing” to transfer the water to relevant location under the rules of the WSP.
 - Daily and long-term access rules.
 - Account management and carryover provisions.
- Provide a detailed and consolidated site water balance.
- Further detail on licensing requirements is provided below.

Relevant Policies and Guidelines

The EIS should take into account the following policies (as applicable):

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
- NSW Aquifer Interference Policy (NOW, 2012)
- Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)
- Australian Groundwater Modelling Guidelines (NWC, 2012)
- NSW State Rivers and Estuary Policy (1993)
- NSW State Groundwater Policy Framework Document (1997)
- NSW State Groundwater Quality Protection Policy (1998)
- NSW State Groundwater Dependent Ecosystems Policy (2002)
- NSW Water Extraction Monitoring Policy (2007)

Office of Water policies can be accessed at the following links:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx>
<http://www.water.nsw.gov.au/Water-licensing/Approvals/Controlled-activities/default.aspx>

An assessment framework for the NSW Aquifer Interference Policy can be found online at:
<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>.

Licensing Considerations

The EIS is required to provide:

- Identification of water requirements for the life of the project in terms of both volume and timing (including predictions of potential ongoing groundwater take following the cessation of operations at the site – such as evaporative loss from open voids or inflows).
- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction from each water source as defined in the relevant Water Sharing Plan/s and all water supply works to take water.
- Explanation of how the required water entitlements will be obtained (i.e. through a new or existing licence/s, trading on the water market, controlled allocations etc).
- Information on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc).
- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring. All predicted groundwater take must be accounted for through adequate licensing.
- Details on existing dams/storages (including the date of construction, location, purpose, size and capacity) and any proposal to change the purpose of existing dams/storages.
- Details on the location, purpose, size and capacity of any new proposed dams/storages.
- Applicability of any exemptions under the *Water Management (General) Regulation 2011* to the project.

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

The Harvestable Right gives landholders the right to capture and use for any purpose 10% of the average annual runoff from their property. The Harvestable Right has been defined in terms of an equivalent dam capacity called the Maximum Harvestable Right Dam Capacity (MHRDC). The MHRDC is determined by the area of the property (in hectares) and a site-specific run-off factor. The MHRDC includes the capacity of all existing dams on the property that do not have a current water licence. Storages capturing up to the harvestable right capacity are not required to be licensed but any capacity of the total of all storages/dams on the property greater than the MHRDC may require a licence.

For more information on Harvestable Right dams, including a calculator, visit:

<http://www.water.nsw.gov.au/Water-licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff>

Dam Safety

Where new or modified dams are proposed, or where new development will occur below an existing dam, the NSW Dams Safety Committee should be consulted in relation to any safety issues that may arise. Conditions of approval may be recommended to ensure safety in relation to any new or existing dams.

See www.damsafety.nsw.gov.au for further information.

Surface Water Assessment

The predictive assessment of the impact of the proposed project on surface water sources should include the following:

- Identification of all surface water features including watercourses, wetlands and floodplains transected by or adjacent to the proposed project.

- Identification of all surface water sources as described by the relevant water sharing plan.
- Detailed description of dependent ecosystems and existing surface water users within the area, including basic landholder rights to water and adjacent/downstream licensed water users.
- Description of all works and surface infrastructure that will intercept, store, convey, or otherwise interact with surface water resources.
- Assessment of predicted impacts on the following:
 - flow of surface water, sediment movement, channel stability, and hydraulic regime,
 - water quality,
 - flood regime,
 - dependent ecosystems,
 - existing surface water users, and
 - planned environmental water and water sharing arrangements prescribed in the relevant water sharing plans.

Groundwater Assessment

To ensure the sustainable and integrated management of groundwater sources, the EIS needs to include adequate details to assess the impact of the project on all groundwater sources.

Where it is considered unlikely that groundwater will be intercepted or impacted (for example by infiltration), a brief site assessment and justification for the minimal impacts may be sufficient, accompanied by suitable contingency measures in place in the event that groundwater is intercepted, and appropriate measures to ensure that groundwater is not contaminated.

Where groundwater is expected to be intercepted or impacted, the following requirements should be used to assist the groundwater assessment for the proposal.

- Works likely to intercept, connect with or infiltrate the groundwater sources.
- Any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Bore construction information is to be supplied to the Office of Water by submitting a "Form A" template. The Office of Water will supply "GW" registration numbers (and licence/approval numbers if required) which must be used as consistent and unique bore identifiers for all future reporting.
- A description of the watertable and groundwater pressure configuration, flow directions and rates and physical and chemical characteristics of the groundwater source (including connectivity with other groundwater and surface water sources).
- Sufficient baseline monitoring for groundwater quantity and quality for all aquifers and GDEs to establish a baseline incorporating typical temporal and spatial variations.
- The predicted impacts of any final landform on the groundwater regime.
- The existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.
- An assessment of groundwater quality, its beneficial use classification and prediction of any impacts on groundwater quality.
- An assessment of the potential for groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- Measures proposed to protect groundwater quality, both in the short and long term.
- Measures for preventing groundwater pollution so that remediation is not required.

- Protective measures for any groundwater dependent ecosystems (GDEs).
- Proposed methods of the disposal of waste water and approval from the relevant authority.
- The results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Groundwater Dependent Ecosystems

The EIS must consider the potential impacts on any Groundwater Dependent Ecosystems (GDEs) at the site and in the vicinity of the site and:

- Identify any potential impacts on GDEs as a result of the proposal including:
 - the effect of the proposal on the recharge to groundwater systems;
 - the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
 - the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures for any GDEs.

Watercourses, Wetlands and Riparian Land

The EIS should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on all watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
 - wetlands/swamps, watercourses and top of bank;
 - riparian corridor widths to be established along the creeks;
 - existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);
 - the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
 - proposed location of any asset protection zones.
- Photographs of the watercourses/wetlands and a map showing the point from which the photos were taken.
- A detailed description of all potential impacts on the watercourses/riparian land.

- A detailed description of all potential impacts on the wetlands, including potential impacts to the wetlands hydrologic regime; groundwater recharge; habitat and any species that depend on the wetlands.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

Landform rehabilitation

The Environmental Impact Statement report should include:

- Justification of the proposed final landform with regard to its impact on local and regional surface and groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Outline of proposed construction and restoration of topography and surface drainage features if affected by the project; and
- An outline of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation.

End Attachment A



WST14/00131

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

Attention: Ms Lauren Rose

Dear Ms Rose

**SSD14_6784: Lot 4 DP 854193; Pat Meredith Drive, Parkes; Parkes Solar Farm
Request for Secretary's Environmental Assessment Requirements (SEARs)**

Thank you for your letter dated 10 November 2014 referring the *Scoping Report* for the Parkes Solar Farm Project and a request for SEARs from Roads and Maritime Services.

It is understood the proposal includes construction and operation of a 30 mega volt ampere solar plant on rural land west of Parkes. The proposed solar plant is expected to take 6-12 months to construct and operate for approximately 30 years. Access to the subject land is obtained via Pat Meredith Drive which intersects with Henry Parkes Way (MR61).

Following review of the *Scoping Report*, Roads and Maritime has identified and recommends 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 including construction, operation and decommissioning.
 - Projected future traffic, including background and project-related.
 - 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.
 - The origin, destination and routes for:
 - Employee and contractor light traffic.
 - Heavy traffic.
 - Oversize and over mass traffic.

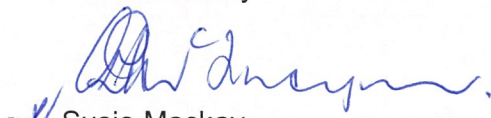
Roads and Maritime Services

- A description of all oversize and over mass vehicles and the materials to be transported.
- Details of access requirements to classified roads and an analysis of affected intersections with classified road required for such access to determine suitability.
- The shortest and least trafficked route is to be given priority for the movement of materials and machinery to minimise the risk and impact to other motorists, so far as is reasonably practicable.
- The impact of generated traffic and measures employed to ensure efficiency and safety on the public road network during construction, operation and decommissioning of the project.
- The need for improvements to the road network, and details of improvements proposed such as road widening and intersection treatments, to cater for and to mitigate the impact of project-related traffic.
- Proposed road facilities, access and intersection treatments shall be identified and be in accordance with *Austroads Guide to Road Design* and Roads and Maritime Supplements, including safe intersection sight distance.
- 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, etc)
- The layout of the internal road network, parking facilities and infrastructure within the project boundary.
- A Traffic Management Plan is to be developed in consultation with the Parkes Shire Council and Roads and Maritime prior the commencement of haulage and/or construction operations.

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 Andrew McIntyre on (02) 6861 1453.

Yours faithfully



Susie Mackay
Network & Safety Manager
Western

21/11/14