

Your ref: SSD 41020244 Our ref: DOC22/609142-6

Department of Planning and Environment Energy Resource Assessments Locked Bag 5022 Parramatta NSW 2150

Attention: Mr Andy Nixey

Dear Mr Nixey

## Re: Request for Environmental Assessment Requirements – Richmond Valley Solar Farm, (SSD 41020244)

Thank you for your e-mail of 15 July 2022 inviting input to the preparation of Secretary's Environmental Assessment Requirements (SEARs) for the Richmond Valley Solar Farm project from the Biodiversity and Conservation Division (BCD) of the Biodiversity, Conservation and Science Directorate in the Environment and Heritage Group of the Department of Planning and Environment. I appreciate the opportunity to provide advice.

We note the project will be assessed as State Significant Development/Infrastructure in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Secretary's Environmental Impact Statement (EIS) SEARs provided by the BCD are limited to biodiversity, National Parks and Wildlife Service estate, acid sulfate soils, flooding, and coastal processes and associated hazards.

The proponent should ensure that the EIS will be sufficiently comprehensive to enable unambiguous determination of the extent of the direct and indirect impact(s) of the project.

The EIS should include an appropriate assessment of the potential impacts on the following threatened species known to occur within or near the project boundary:

- Koala (Phascolarctos cinereus)
- Squirrel Glider (Petaurus norfolcensis)
- Emu population in the NSW North Coast Bioregion and Port Stephens Local Government Area (*Dromaius novaehollandiae*)
- Slaty Red Gum (*Eucalyptus glaucina*)
- Rufous Bettong (Aepyprymnus rufescens)

We consider that this information is necessary to assess an EIS for the project.

The full list of our standard requirements that may need to be addressed in the EIS are provided in **Attachment A**. Our project-specific requirements that must be addressed in the EIS are provided in **Attachment B**. In preparing the EIS, the proponent should refer to the relevant guidance material listed in **Attachment C**.

If you have any questions about this advice, please do not hesitate to contact Mr Bill Larkin, Senior Conservation Planning Officer, at bill.larkin@environment.nsw.gov.au or on 6658 8216.

Yours sincerely

Huor 25 July 2022

DON OWNER A/- Senior Team Leader Planning, North East Branch Biodiversity and Conservation

Enclosures:

Attachment A - BCD Standard Environmental Assessment Requirements (SSD 41020244) Attachment B - BCD Project-specific Environmental Assessment Requirements (SSD 41020244)

Attachment C - Guidance Material (SSD 41020244).

## Attachment A – Biodiversity and Conservation Division Standard Environmental Assessment Requirements (SSD 41020244)

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<b>Bi</b>	<b>Biodiversity</b> <ol> <li>The EIS must assess biodiversity impacts related to the project in accordance with <u>Section 7.9 of</u></li> </ol>				
1.					
the Biodiversity Conservation Act 2017 using the Biodiversity Assessment Method (BAM) a					
must document this assessment in a <u>Biodiversity Development Assessment Report (BE</u>					
BDAR must include information in the form detailed in the <i>Biodiversity Conservation Act</i>					
	(s6.12), Biodiversity Conservation Regulation 2017 (s6.8) and the BAM, unless the Biodiversity				
	and Conservation Division and Planning and Assessment Group determine that the project is not				
	likely to have any significant impacts on biodiversity values.				
2.	2. The BDAR must document the application of the avoid, minimise and offset framework includin				
	assessing all direct, indirect and prescribed impacts in accordance with the BAM.				
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 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;				
	<ul> <li>Any proposal to fund a <u>biodiversity conservation action;</u></li> </ul>				
	<ul> <li>Any proposal to conduct ecological rehabilitation (if a mining project);</li> </ul>				
	<ul> <li>Any proposal to make a payment to the Biodiversity Conservation Fund.</li> </ul>				
<ul> <li>Any proposal to make a payment to the Blodwersity Conservation Fund.</li> <li>If seeking approval to use the variation rules, the BDAR must contain details of the reasonal</li> </ul>					
	steps that have been taken to obtain requisite like-for-like biodiversity credits.				
4.	The BDAR must be submitted with all spatial data associated with the survey and assessment as				
	per Appendix 11 of the BAM.				
5.	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.				
W	ater and soils				
6.	The EIS must map the following features relevant to water and soils including:				
	a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).				
	b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the BAM).				
	c. Wetlands as described in s4.2 of the BAM.				
	d. Groundwater.				
	e. Groundwater dependent ecosystems.				
	f. Proposed intake and discharge locations.				
7.	The EIS must describe background conditions for any water resource likely to be affected by the				
	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.
	e.	Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-
		use Planning Decisions http://www.environment.nsw.gov.au/research-and-
		publications/publications-search/risk-based-framework-for-considering-waterway-
		health-outcomes-in-strategic-land-use-planning
-	8. The El	S must assess the impacts of the project on water quality, including:
	a.	The nature and degree of impact on receiving waters for both surface and groundwater,
		demonstrating how the project protects the Water Quality Objectives where they are
		currently being achieved, and contributes towards achievement of the Water Quality
		Objectives over time where they are currently not being achieved. This should include an
		assessment of the mitigating effects of proposed stormwater and wastewater
		management during and after construction.
	b.	Identification of proposed monitoring of water quality.
	C.	Consistency with any relevant certified Coastal Management Program (or Coastal Zone
		Management Plan)
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	9. The El	S must assess the impact of the project on hydrology, including:
	a.	S must assess the impact of the project on hydrology, including: Water balance including quantity, quality and source.
		S must assess the impact of the project on hydrology, including: Water balance including quantity, quality and source. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.
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	a. b. c. d. d. e. f. f. <u>f.</u> 9. <u>Flooding a</u> 10. The Els Develo a.	S must assess the impact of the project on hydrology, including: Water balance including quantity, quality and source. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems. 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 (e.g. river benches). Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water. 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. Identification of proposed monitoring of hydrological attributes. <b>nd coastal processes and associated hazards</b> S must map the following features relevant to flooding as described in the Floodplain pment Manual 2005 (NSW Government 2005) including: Flood prone land.

- The EIS must describe flood assessment and modelling undertaken in determining the project's 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.
- 12. The EIS must model the effect of the project (including fill) on the current flood behaviour for a range of design events as identified in 11 above including 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.
- 13. Modelling in the EIS must consider and document:
  - a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
  - b. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood, or an equivalent extreme flood.
  - c. Impacts of the project 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, hazard categories and hydraulic categories.
  - d. Relevant provisions of the NSW Floodplain Development Manual 2005.

14. The EIS must assess the impacts of the 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. 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.
- Any impacts the project may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council.
- i. Whether the project incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the NSW SES and Council.
- j. Emergency management, evacuation and access, and contingency measures for the project 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 NSW SES.
- k. Any impacts the project may have on the social and economic costs to the community as consequence of flooding.

## Attachment B – Biodiversity and Conservation Division Project-specific Environmental Assessment Requirements (SSD 41020244)

- 1. The EIS should include an appropriate assessment of the potential impacts on the following threatened species known to occur within or near the project boundary:
  - Koala (*Phascolarctos cinereus*)
  - Squirrel Glider (Petaurus norfolcensis)
  - Emu population in the NSW North Coast Bioregion and Port Stephens Local Government Area (*Dromaius novaehollandiae*)
  - Slaty Red Gum (Eucalyptus glaucina)
  - Rufous Bettong (Aepyprymnus rufescens)

## Attachment C – Guidance material (SSD 41020244)

Title	Web address
	Relevant Legislation
Biodiversity Conservation Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
Coastal Management Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1 979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+19 94+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+19 97+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+19 74+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1 997+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+20 00+cd+0+N
Wilderness Act 1987	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+ FIRST+0+N
Biodiversity	
Biodiversity Assessment Method (DPIE, 2020)	https://www.environment.nsw.gov.au/research-and- publications/publications-search/biodiversity-assessment-method- 2020
Biodiversity Development Assessment Report	https://www.legislation.nsw.gov.au/#/view/act/2016/63/part6/div3/ sec6.12
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate- Site/Documents/Animals-and-plants/Biodiversity/guidance- decision-makers-determine-serious-irreversible-impact- 190511.pdf
Accreditation Scheme for Application of the Biodiversity Assessment Method Order 2017	https://www.legislation.nsw.gov.au/regulations/2017-471.pdf
Biodiversity conservation actions	https://www.environment.nsw.gov.au/research-and-
	publications/publications-search/ancillary-rules-biodiversity-
	conservation-actions
Reasonable steps to seek like-for-like	https://www.environment.nsw.gov.au/research-and-
biodiversity credits for the purpose of applying the variation rules	publications/publications-search/ancillary-rules-reasonable-steps-
	to-seek-like-for-like-biodiversity-credits
Threatened Species Website	www.environment.nsw.gov.au/threatenedspecies/
NSW BioNet (Atlas of NSW Wildlife)	www.bionet.nsw.gov.au/

Title	Web address
NSW guide to surveying threatened plants (OEH 2016)	www.environment.nsw.gov.au/resources/threatenedspecies/1601 29-threatened-plants-survey-guide.pdf
Surveying threatened plants and their habitats NSW survey guide for the Biodiversity Assessment Method (DPIE 2020)	https://www.environment.nsw.gov.au/research-and- publications/publications-search/surveying-threatened-plants-and- their-habitats-survey-guide-for-the-biodiversity-assessment- method
Threatened biodiversity survey and assessment - Guidelines for developments and activities (2004 working draft)	https://www.environment.nsw.gov.au/research-and- publications/publications-search/threatened-biodiversity-survey- and-assessment
Field survey methods for environmental consultants and surveyors when assessing proposed developments or other activities on sites containing threatened species (OEH undated)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate- Site/Documents/Animals-and-plants/Threatened-species/field- survey-method-guidelines.pdf
NSW Survey Guide for Threatened Frogs (DPIE 2020)	https://www.environment.nsw.gov.au/research-and- publications/publications-search/nsw-survey-guide-for-threatened- frogs
'Species credit' threatened bats and their habitats (OEH 2018)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate- Site/Documents/Animals-and-plants/Threatened-species/species- credit-threatened-bats-survey-guide-180466.pdf
Koala Biodiversity Assessment Method Survey Guide (DPE 2022)	https://www.environment.nsw.gov.au/research-and- publications/publications-search/koala-phascolarctos-cinereus- biodiversity-assessment-method-survey-guide
BioNet Vegetation Classification - NSW Plant Community Type (PCT) database	www.environment.nsw.gov.au/research/Vegetationinformationsyst em.htm
SEED Data Portal (access to online spatial data)	http://data.environment.nsw.gov.au/
Department of Primary Industry Policy and guidelines for fish habitat conservation and management (update 2013)	https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish- habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchato z.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	https://www.environment.nsw.gov.au/topics/parks-reserves-and- protected-areas/park-policies/revocation-recategorisation-and- road-adjustment
Developments adjacent to National Parks and Wildlife Service lands Guidelines for consent and planning authorities (DPIE 2020)	https://www.environment.nsw.gov.au/research-and- publications/publications-search/developments-adjacent-to- national-parks-and-wildlife-service-lands
	Acid sulfate soils

Title	Web address
Acid Sulfate Soils Planning Maps via Data.NSW	http://data.nsw.gov.au/data/
Acid Sulfate Soils Manual (Stone et al. 1998)	http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate- Manual-1998.pdf
National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018a).	https://www.waterquality.gov.au/sites/default/files/document s/dewatering-acid-sulfate-soils.pdf
National Acid Sulfate Soils guidance: National acid sulfate soils sampling and identification methods manual, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018b).	https://www.scu.edu.au/media/scueduau/eal/documents/Na tional-acid-sulfate-soils-sampling-and-indentification- methods-manual.pdf
National Acid Sulfate soils Guidance: Overview and management of monosulfidic black ooze (MBO) accumulations in waterways and wetlands, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, LA, Ward, NJ, Bush, RT, Toppler, NR, Choppala, G. 2018c)	https://www.scu.edu.au/media/scueduau/eal/documents/Ov erview-and-management-of-monosulfidic-black-ooze-MBO- accumulations-in-waterways-and-wetlands.pdf
National Acid sulfate soils guidance: Guidelines for the dredging of acid sulfate soil sediments and associated dredge spoil management, Department of Agriculture and Water Resources, Canberra, ACT (Simpson, SL, Mosley, L, Batley, GE and Shand P. 2018).	https://www.waterquality.gov.au/sites/default/files/document s/dredging-sediments-spoil.pdf
National Acid Sulfate Soils Guidance: Guidance for the dewatering of acid sulfate soils in shallow groundwater environments, Department of Agriculture and Water Resources, Canberra, ACT. (Shand, P, Appleyard, S, Simpson, SL, Degens, B, Mosley, LM 2018)	https://www.waterquality.gov.au/sites/default/files/document s/dewatering-acid-sulfate-soils.pdf
Flooding, Stormwater an	d Coastal Processes and Associated Hazards
Reforms to coastal erosion management	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.h tm
Floodplain development manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	http://www.environment.nsw.gov.au/resources/coasts/130224CZ MPGuide.pdf
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation

Title	Web address	
Water		
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm	
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian- and-new-zealand-guidelines-fresh-marine-water-quality-volume-1	
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/approve dmethods-water.pdf	