Planning, Industry & Environment

Sally Munk
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Our ref: DOC21/ 454022-3

Your ref: SSD-21184278

Dear Ms Munk,

Major Projects – New Request for Advice – Woodlawn Advanced Energy Recovery Centre (SSD-21184278)

I refer to your request for Secretary's Environmental Assessment Requirements (SEARs) for the proposed Woodlawn Advanced Energy Recovery Centre (Woodlawn ARC) and provide the following advice:

- Attachment 1 lists the requirements that need to be addressed in the Environmental Impact Statement (EIS) for the project
- Attachment 2 lists the guidance material that will assist the preparation of the EIS.

If you have any questions about this advice, please do not hesitate to contact Mallory Barnes, Senior Regional Biodiversity Conservation Officer via email mallory.barnes@environment.nsw.gov.au or 02 6229 7192.

Yours sincerely

18/6/2021

MICHAEL SAXON
Director South East
Biodiversity and Conservation Division

Enclosure: Attachment 1 – Secretary's Environmental Assessment Requirements for the proposed Woodlawn ARC (SSD-21184278). Attachment 2 – Guidance material

Attachment 1

BCD Environmental Assessment Requirements for the proposed Woodlawn ARC (SSD-21184278)

Biodiversity
1. Biodiversity impacts related to the proposed the Woodlawn ARC are to be assessed in accordance with the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the Biodiversity Conservation Act 2016 (s6.12), Biodiversity Conservation Regulation 2017 (s6.8) and Biodiversity Assessment Method. 2. Potential direct impacts from Woodlawn ARC that should be considered in the BDAR, might include, but are not limited to – • Clearing associated with stockpiling of residual incombustible material. The EIS must forecast the maximum area required to stockpile residual incombustible material based on anticipated maximum annual outputs of bottom ash (IBA), fine particulates (APCr) and ferrous materials. This area must be included in the disturbance footprint. • Disturbance areas from site preparation works including construction of access roads, compounds, laydown areas and other permanent or temporary infrastructure. 3. Potential prescribed and indirect impacts arising from Woodlawn ARC that should be considered in the BDAR, might include, but are not limited to; • Removal of non-native vegetation that provides habitat for threatened species, such as Golden Sun Moth, • Vehicle strikes on threatened fauna from increased vehicle movements • The effect on water quality, water bodies and hydrological processes that sustain threatened entities, such as the lake George Catchment Area, • Transport of weeds to adjacent vegetation from earthworks, • Reduced viability of adjacent habitat from edge effects or deposition of waste material, including dust or fugitive waste feedstock. 4. 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. The BDAR should demonstrate efforts to isolate impacts to non-native vegetation that does not harbour threatened species. 5. 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 conduct ecological rehabilitation (if a mining project);
- Any proposal to make a payment to the Biodiversity Conservation Fund.
- The potential location of lots containing suitable credits, ideally locally sourced within the larger land holding of 1800 hectares.
- The potential use of biodiversity credits to mitigate or offset indirect or prescribed impacts

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.

6. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2020 under s6.10 of the *Biodiversity Conservation Act 2016*.
7. The BDAR must undertake an assessment for Serious and Irreversible Impacts (SAII) for all SAII entities subject to direct, indirect or prescribed impact.
8. The BDAR must address impacts for species listed only in the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act), pursuant to the bilateral agreement between the Commonwealth and NSW Governments, such as *Leucochrysum albicans var. tricolor* (Hoary Sunray).
9. The BDAR must clearly identify any residual indirect and prescribed impacts and propose;
    - Effective mitigation measures to address the residual indirect and prescribed impacts,
    - A description of the method/technique used,
    - A timeframe for implementation of the mitigation measure,
    - The person or organisation responsible for mitigation measure,
    - The monitoring and evaluation strategy for the mitigation measure (data, frequency, timing and reporting),
    - The performance criteria linked to the monitoring and evaluation of the mitigation measure,
    - The trigger threshold for implementing adaptive management.
10. An assessment of the likely impacts on listed aquatic threatened species, populations or ecological communities, scheduled under the *Fisheries Management Act 1994*, and a description of the measures to minimise and rehabilitate impact.

11. The EIS must map the following features relevant to water and soils including:
    a. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method).
    b. Wetlands as described in s4.2 of the Biodiversity Assessment Method.

c. Groundwater. d. Groundwater dependent ecosystems. e. Proposed intake and discharge locations.
12. The EIS must describe background conditions for any water resource likely to be affected by the Woodlawn ARC, 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.
13. The EIS must assess the impacts of the Woodlawn ARC on water quality, including: a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the solar farm 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 or required changes to existing monitoring programs.
14. The EIS must assess the impact of the proposed Woodlawn ARC 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 (e.g. 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
15. 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).
16. 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.
17. The EIS must model the effect of the proposed Woodlawn ARC (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 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.
18. 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.
19. The EIS must assess the impacts on the proposed Woodlawn ARC 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. These matters are to be discussed with the SES and Council.

i. Emergency management, evacuation and access, and contingency measures for the development considering the full range or 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 2: Guidance Material

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/ful
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+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+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.legislation.nsw.gov.au/view/pdf/asmade/sl-2020-621
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)	http://www.environment.nsw.gov.au/resources/bcact/guidance-decision-makers-determine-serious-irreversible-impact-170204.pdf
Accreditation Scheme for Application of the Biodiversity Assessment Method Order 2020	https://www.legislation.nsw.gov.au/regulations/2017-471.pdf
Biodiversity conservation actions	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf
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/

Title	Web address
NSW BioNet (Atlas of NSW Wildlife)	www.bionet.nsw.gov.au/
NSW guide to surveying threatened plants and their habitats (DPIE 2020)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/surveying-threatened-plants-and-habitats-nsw-survey-guide-biodiversity-assessment-method-200146.pdf
OEH threatened species survey and assessment guideline information	www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm
BioNet Vegetation Classification - 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/
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 managed by the Office of Environment and Heritage (OEH 2013)	http://www.environment.nsw.gov.au/resources/protectedareas/development-land-adjoining-130122.pdf
Water and Soils	
Flooding and Coastal Erosion	
Floodplain development manual	http://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
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/approvedmethods-water.pdf