NSW GOVERNMENT | Planning, Industry & Environment

Our ref: DOC19/810457
Senders ref: SSD-10373

Ms Sally Munk
Department of Planning, Industry & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Munk

Subject: EES comments on Request for SEARs – Botany Cogeneration Plant – 1891 Botany Road Matraville - SSD10373

Thank you for your email of 12 September 2019 requesting advice in relation to this State Significant Development.

Please note, Office of Environment and Heritage (OEH) responsibilities and functions have been transferred to the Environment, Energy and Science Group (EES) in the Department of Planning, Industry and Environment.

EES has reviewed the Scoping Report and appendices including the BDAR waiver request and provides the following comments and recommendations in Attachment A.

Biodiversity and BDAR Waiver request

EES has reviewed the BDAR Waiver request report and requires additional information to be provided to assist in its assessment of the BDAR waiver request. In the absence of receiving adequate information to date, it is recommended the SEARs include the attached EES Biodiversity SEARs.

EES notes the BDAR waiver report addresses Section 1.5 of the Biodiversity Conservation Act 2016 (BC Act) and Clause 1.4 of the Biodiversity Conservation Regulation 2017 (BC Regulation) (see table 2). The BDAR waiver report should also include an assessment of each of the prescribed biodiversity impacts in Clause 6.1 of the BC Regulation. The assessment should meet all the requirements specified in the DPE Fact Sheet (November 2018) - Biodiversity development assessment report waiver determinations for SSD and SSI applications and address each item/all of the impacts on biodiversity values as listed in Section 1.5 of the BC Act and Clauses 1.4 and 6.1 of the BC Regulation.

The proponent should consider the presence and possible value of potential habitat for microchiropteran bats at the site, including the culvert of Bunnerong Creek which traverses under the Orora Recycled Paper Mill site and beneath building #B8 (see pages 68 and 69 of Scoping report) which could potentially be impacted by the construction and/or operation of the SSD. Additional information is required to assist confirm the presence or absence of habitat for microchiropteran bats within the site and the potential impact of the development.

A search for evidence of microbat roosts should be undertaken using appropriate methods, such as those described on page 9 of the "'Species credit' threatened bats and their habitats NSW survey guide for the Biodiversity Assessment Method (OEH 2018)". Attention should be given to

inspecting cracks or seams in the roofs and a handheld bat detector of ultrasonic calls can assist in alerting the searcher to the presence of bats. Searches must be undertaken by someone with appropriate experience, as described on page 5 of that guide. If bats or signs of bats are observed, the bats may need to be captured to identify species and breeding status using traps, nets or other methods. The information provided should include photographs of any holes, cracks or crevices that were searched; any associated observations about bats and/or signs of bats; and any results from a bat call detector.

The Scoping Report indicates most of the site is built up with the exception of a narrow fringe of trees along the southern site boundary abutting Botany Road (see section 7.1.7.1, page 77). It indicates this strip of vegetation could potentially be removed if the new slip road access option is progressed (see section 7.17.2, page 77). The BDAR Waiver report also states "the project may remove a small area of landscaping species including semi mature eucalypts and a range of other native and exotic cultivated species" (Table 2, page 6) but also indicates the project would seek to retain the landscaping vegetation present, particularly the strip along the Botany Road frontage (table 2, page 7). It is noted the Site Plan (figure 3) in the BDAR Waiver report does not depict the retention of the existing vegetation which is shown in Figure 2 of the report (see pages 4 and 5). The proponent needs to clarify if the project proposes to remove vegetation and the BDAR waiver should include further details on the existing trees that are potentially proposed to be removed, including:

- the total area of vegetation proposed to be removed
- the number of trees
- the plant species
- the location of the trees

in relation to the proposed development footprint.

Flooding

EES recommends the SEARs include the attached EES standard Flooding SEARs. The Flood Impact Assessment should utilise Randwick Council's up-to-date flood study i.e. Birds Gully & Bunnerong Road Flood Study (WMA, June 2018) for the base case scenario.

Aboriginal Cultural Heritage

The Scoping Report notes an Aboriginal heritage due diligence assessment would be conducted as part of the EIS assessment methodology (see section 7.16.3, page 76). Please note that due diligence is not an appropriate assessment for a major project and an Aboriginal cultural heritage assessment report must be prepared.

EES recommends the SEARs include the attached EES Aboriginal Cultural Heritage SEARs.

Ecologically Sustainable Development (ESD)

EES recommends the SEARs include:

- *The development incorporates green walls, green roof and/or cool roof into the design* (see comments below on building design)
- *The climate change projections developed for the Sydney Metropolitan area are used to inform the building design and asset life of the project* (see comments below on building design)

→ *Relevant Data and Guidelines:*

- *NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections are used to inform the building design*
- *OEH (2015) Urban Green Cover in NSW Technical Guidelines.*

Building Design

EES recommends that the development incorporates a Green Roof, Cool Roof or green walls into the building design and the SEARs address this.

The benefits of Green Roofs and Cool Roofs are outlined in the OEH (2015) Urban Green Cover in NSW Technical Guidelines which can be found at the following link:

http://climatechange.environment.nsw.gov.au//Adapting-to-climate-change/Green-Cover

Green roofs are roof surfaces that are partially or fully vegetated. Cool roofs use reflective material to reflect and emit more solar energy than dark coloured roofs.

Green roofs and cool roofs can have a strong regulating effect on the temperature of roofs and building interiors, reducing the energy needed for cooling and the impact of the Urban Heat Island effect. The provision of an Intensive Green roof would increase habitat and biodiversity at the site, particularly if local provenance plant species are used from the relevant local native vegetation community (or communities).

It is recommended the NSW and ACT Governments Regional Climate Modelling (NARCliM) climate change projections developed for the Sydney Metropolitan area are used to inform the building design and asset life of the project. These include over 100 climate variables, including temperature, rainfall, hot days and cold nights, severe Forest Fire Danger Index (FFDI) and are publicly available online and at fine resolution (10km and hourly intervals) for 20-year time periods: 2020–2039 near future and long-term 2060–2079. Further, sustainable design measures such as green roofs should be incorporated into the project design to maximise the long-term ecologically sustainable development outcomes of the proposal. The climate change projections for the Sydney Metropolitan area are found at the following link:

https://climatechange.environment.nsw.gov.au/Climate-projections-for-NSW/Climate-projections-for-your-region/Metro-Sydney-Climate-Change-Downloads

Urban Tree Canopy and Landscaping

EES recommends the SEARs require a landscape plan to be prepared and it:

- identifies any trees and other vegetation to be removed or retained on site
- includes details on the native vegetation community (or communities) and native plant species that once occurred on the site.
- specifies that any landscaping will use a diversity of local provenance species (trees, shrubs and groundcovers) from the native vegetation community (or communities) that once occurred on the site to improve biodiversity.
- includes a list of local provenance species (trees, shrubs and groundcovers) to be used in the site landscaping
- uses a diversity of advanced size local native trees preferably with a plant container pot size of 100-200 litres, or greater in the landscape areas
- provides sufficient area/space to allow any planted trees to grow to maturity on the site.

As the SSD indicates the project may remove a small area of landscaping species, including semi mature eucalypts, the EIS should provide details on the number of trees proposed to be removed, retained and planted at the site. It is recommended the SEARs require that any trees proposed to be removed should be replaced at ratio of greater than 1:1 to assist improve the urban tree canopy and to mitigate the urban heat island effect.

If you have any questions about this advice, please do not hesitate to contact Janne Grose, Senior Conservation Planning Officer via email at janne.grose@environment.nsw.gov.au or on 8837 6017

Yours sincerely

30/9/19

Marnie Stewart
A/Senior Team Leader Planning
Greater Sydney Branch
Environment, Energy and Science

Attachment A – EES group Environmental Assessment Requirements

Biodiversity

1. Biodiversity impacts related to the proposed development are to be assessed in accordance with Section 7.9 of the Biodiversity Conservation Act 2017 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, including an assessment of the impacts of the proposal (including an assessment of impacts prescribed by the regulations).
2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method.
3. The BDAR must include details of the measures proposed to address the offset obligation as follows;
    - The total number and classes of biodiversity credits required to be retired for the development/project;
    - The number and classes of like-for-like biodiversity credits proposed to be retired;
    - The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;
    - Any proposal to fund a biodiversity conservation action;
    - Any proposal to conduct ecological rehabilitation (if a mining project);
    - Any proposal to make a payment to the Biodiversity Conservation Fund.

    If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.
4. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.

Aboriginal cultural heritage

5. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH

2010), and guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011)

6. 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 ACHAR.
7. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.

Please note that due diligence is not an appropriate assessment for a major project and an Aboriginal cultural heritage assessment report must be prepared.

Water and soils

8. 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 Biodiversity Assessment Method).
    c. Wetlands as described in s4.2 of the Biodiversity Assessment Method.
    d. Groundwater.
    e. Groundwater dependent ecosystems
    f. Proposed intake and discharge locations
9. The EIS must describe background conditions for any water resource likely to be affected by the development, 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
10. The EIS must assess the impacts of the development on water quality, including: a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development 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)
11. The EIS must assess the impact of the development 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 and coastal hazards

12. The Flood Impact Assessment should utilise Randwick Council's up-to-date flood study i.e. Birds Gully & Bunnerong Road Flood Study (WMA, June 2018) for the base case scenario.
13. 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)
    d. Flood Hazard.
14. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP, flood levels and the probable maximum flood, or an equivalent extreme event.
15. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:
    a. Current flood behaviour for a range of design events as identified in 14 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.
16. 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 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, hazard categories and hydraulic categories
    d. Relevant provisions of the NSW Floodplain Development Manual 2005.
17. The EIS must assess the impacts on the proposed development on flood behaviour, including:
    a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
    b. Consistency with Council floodplain risk management plans.
    c. Consistency with any Rural Floodplain Management Plans.
    d. Compatibility with the flood hazard of the land.
    e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.

f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.

g. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

h. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council.

i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the NSW SES and Council.

j. 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 NSW SES

k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

(END OF SUBMISSION)