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Planning and Assessment Group
NSW Department of Planning, Industry and Environment
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12 Darcy Street
PARRAMATTA NSW 2150

Dear Ms Luu,

Subject: Notice of Exhibition – Luddenham Resource Recovery Facility at 275 Adams Road, (Lot 3 in DP 623799) Luddenham (SSD 10446)

Thank you for your e-mail dated 29 July 2020, inviting Environment, Energy and Science Group (EES) in the Department of Planning, Industry and Environment (DPIE) to comment on the Notice of Exhibition for Luddenham Resource Recovery Facility at 275 Adams Road, (Lot 3 in DP 623799) Luddenham.

EES has reviewed the relevant documentation and make the following comments.

Biodiversity

EES has reviewed the Biodiversity Development Assessment Report prepared by EMM dated June 2020 and provides comments and recommendations at **Attachment A**.

Flooding

Luddenham Resource Recovery Site is in the Agribusiness precinct in the Aerotropolis area. A Flood Impact and Risk Assessment (FIRA) is currently being undertaken for the whole Aerotropolis area by the Western Sydney Planning Partnership. The FIRA will consider the ultimate development scenario within the areas and associated developed flood behaviour which should guide decision on the next phase of planning for this SSD.

Please note from 1 July 2020 Aboriginal cultural heritage (ACH) regulation, including advice on SSIs and SSDs, is now managed by Heritage NSW. The new contact for the ACH regulation team is heritagemailbox@environment.nsw.gov.au.

Should you have any queries regarding this matter, please contact Bronwyn Smith Senior Conservation Planning Officer on 9873 8604 or Bronwyn.smith@environment.nsw.gov.au.

Yours sincerely

13/08/20

SUSAN HARRISON
Senior Team Leader Planning
Greater Sydney
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ATTACHMENT A – BIODIVERSITY COMMENTS FOR LUDDENHAM RESOURCE RECOVERY FACILITY SSD 10446

Targeted surveys for Green and Golden Bell Frog

The biodiversity development assessment report (BDAR) contains inconsistent information relating to the targeted surveys for Green and Golden Bell Frog (GGBF). Importantly, Table 5.12 states “*egg mass were detected during the nocturnal searches listed above*” while Table 5.16 states “*Not recorded during targeted surveys.*”

Figure 5.2 shows the survey effort was confined to the vegetation near the dams on the Advanced Resource Recovery Centre (ARRC) site and subject property, and along those parts of Oakey Creek in the vicinity of the subject property. This survey effort is inadequate because potential habitat was not surveyed, because:

- The environmental impact assessment (EIA) guidelines for GGBF state (page 2) “*Quarries, brickpits, mining sites, STPs, bunded or otherwise ‘retained’ areas, detention basins, drains, scrapes, depressions and farm dams along with the more natural coastal or floodplain wetland features ... are all candidate sites for occupation by this species ... Such sites are occupied and used mainly as breeding habitat. Foraging habitat requirements include tall, dense, grassy vegetation and tussock forming vegetation is known to be used for foraging and shelter ... Over-wintering sites are another important habitat component that requires consideration in any site assessment. ... Such sites include the bases of dense vegetation tussocks, beneath rocks, timber, within logs or beneath ground debris including human refuse such as sheet iron etc.*”, see <https://www.environment.nsw.gov.au/resources/nature/GAndGbellfrogEia0703.pdf>
- Bionet identifies habitat constraints to be within 1km of semi-permanent/ephemeral wet areas, swamps, and waterbodies, see https://www.environment.nsw.gov.au/AtlasApp/UI_Modules/TSM_/ProfileEdit.aspx?pld=10483&pType=SpeciesCode
- This species is also known to occur in highly disturbed areas, particularly in Greater Sydney, see https://www.environment.nsw.gov.au/AtlasApp/UI_Modules/TSM_/LinksEdit.aspx?pld=10483&pType=SpeciesCode
- The EIA guidelines state (page 2) “*Litoria aurea is a species that has high tolerance to varying levels of certain physical and chemical factors in the environment (T. Penman pers. comm.). This ‘colonising’ capability appears to have preadapted the species to establish itself in the altered habitats it often utilises. The species strong dispersal ability also means it may be able to satisfy its various habitat requirements, even when these are located some distance apart, provided suitable corridor connections are retained.*”
- The BDAR contains the following descriptions for the vegetation at the subject property and ARRC site:
 - for PCT 849 (page 23) “*given that the area is littered with rubbish and the large grass tussocks appear to be choking out the smaller species*”
 - in relation to the habitat requirements for the Dural Land Snail in PCT 849 (page 37) “*The subject property contains leaf litter and shed bark ...*”, and
 - for plots P02 and P03 for PCT 1800 (Appendix A) “*Exotic grass. Rubbish partially (sic) visible in tall dense vegetation*” and “*Scattered rubbish.*”
- It is estimated that the survey tracks shown in Figure 5.2 occur within 40m of adjacent dams and within 30m of the creek line but more habitat for this species occurs across the subject property.
- Bionet contains a record for this species from 2019, approximately 2.7km northwest from the site near The Northern Road.

Also, the *Threatened species survey and assessment guidelines: field survey methods for fauna Amphibians* (DECC, April 2009) states, for survey methods and effort, (page 15) “Combination of tadpole surveys, call surveys (this species has a distinctive call) and active searching both during the day and night.” However, diurnal searches for this species were not carried out (see Table 5.12).

Furthermore, Table 5.12 states “Green and Golden Bell Frog confirmed calling at a reference population” but no information is given about the reference population (including location) and how and when it was observed.

As such: targeted surveys need to be completed to cover all available habitat on the subject property for this species; diurnal surveys need to be carried out; and information needs to be given on the location of the reference population and when and how it was observed, and what was observed.

Targeted survey for Cumberland Plain Land Snail

The BDAR contains inconsistent information relating to the targeted survey for Cumberland Plain Land Snail (CPLS). Table 5.13 shows the search was confined to the Cumberland Plain Woodland on the subject property (PCT 849) but Figure 5.2 shows transects were done across a much larger area. These transects however, appear to be the same as those shown in Figure 5.1 (that is, they are one and the same as the targeted flora searches) and Table 5.4 states, in relation to CPLS, “Species associated with PCT 849 which is located outside of the impact area.”

Considering these things, the survey effort for CPLS is considered inadequate because the Cumberland Swamp Oak Riparian Forest (PCT 1800) was not surveyed. While Bionet does not identify this species as being associated with this PCT, it should have been surveyed because:

- Regarding PCT 1800, the BDAR states (page 21) “This PCT could align with PCT 1800 or PCT 835. ... PCT 1800 has been chosen as the current best fit, based on landform subject to periodic inundation and species currently present, in particular that the vegetation is dominated by Swamp Oak. However, it is noted that the vegetation has likely colonised responding to past clearing; and is probably vegetation in a transitional state between PCT1800 and PCT835”
- Bionet identifies CPLS as being associated with PCT 835 Cumberland Riverflat Forest, see https://www.environment.nsw.gov.au/AtlasApp/UI_Modules/TSM_/ProfileEdit.aspx?pld=10526&pType=SpeciesCode
- Regarding CPLS, the BDAR states (page 47) “The habitat is highly degraded within PCT 849, as such this species is not considered to occur within the subject property”. In relation to the condition of PCT 849 the BDAR states “... the area is littered with rubbish and the large grass tussocks appear to be choking out the smaller species.” (page 23). The BDAR also states (page 37) “The subject property contains leaf litter and shed bark ...”.
- Information on CPLS in Bionet includes “Lives under litter of bark, leaves and logs, or shelters in loose soil around grass clumps. Occasionally shelters under rubbish.” and the EIA guidelines state “M. corneovirens ... can also be found sheltering under virtually any form of human made ground cover, including rubbish, building materials, old car parts etc.”, see https://www.environment.nsw.gov.au/AtlasApp/UI_Modules/TSM_/LinksEdit.aspx?pld=10526&pType=SpeciesCode and <https://www.environment.nsw.gov.au/resources/nature/McorneovirensEia0500.pdf>.
- Bionet contains at least eight records for this species from the past five years, within approximately 4km of the site.

As such, a targeted survey that incorporates PCT 1800 and any areas of rubbish or coarse woody debris or grass clumps, needs to occur.

Onsite Detention Storage

Regarding the onsite detention (OSD) storage, the surface water assessment (EMM 17 July 2020) states (page ES.2) “Discharges are predicted to occur from the onsite detention storage into Oak Creek. Scour protection and energy dissipation will be constructed at the discharge location and at the confluence with Oak Creek to reduce erosion potential associated with the increased flow rates from the immediate site.” It is not stated in the BDAR or in the surface water assessment how the

water will be delivered to Oakey Creek but the final drawing of the surface water assessment shows a structure for this (see the drawing titled 'Stormwater Catchment Plan', drawing no. 030, AMDT D). Figure 1.2 of the BDAR shows no such structure and its impacts have not been considered.

The full impacts of the OSD storage needs to be assessed in the BDAR.

Asset protection zones

The BDAR does not address asset protection zones (APZs) but the environmental impact statement (EMM 22 July 2020) states (page 18) "*All areas of the ARRC site external to the ARRC warehouse will be hardstand with the exception of small landscaped areas near the ARRC site office and along the site access road (see Appendix T). Hardstand areas will accommodate internal access roads, parking and required bushfire asset protection zones (APZs).*" and (page 26) "*There will be 7–12 m-wide APZs maintained between the riparian corridor of Oakey Creek and the eastern wall of the ARRC warehouse (refer to Section 6.4.1). Fire and Rescue NSW will be consulted further during the detailed design of the fire protection strategy and complete the design accordingly.*"

The locations and impacts of APZs need to be confirmed in the BDAR.

Dewatering of dams

Although the BDAR does not mention dewatering dams, it is conceivable that this will be needed for some of the ponds shown in Figure 5.2.

This needs to be confirmed and the impacts assessed accordingly; mitigation measures also need to be addressed.

Construction footprint, and impacts from temporary construction facilities and infrastructure and associated mitigation measures

No construction footprint is given in the BDAR and the potential impacts associated with construction, like the stockpiling of materials and the storage of plant and equipment, has not been considered; this could have negative implications for any retained vegetation and habitat on the subject property.

As such, the BDAR needs to include a construction footprint and needs to assess any associated impacts and include appropriate mitigation measures.

Finalisation of the BAM-C

This case was checked in BOAMS on 11 August 2020 and was found to be 'in progress'.

The BAM-C needs to be finalised and the case submitted so it can be reviewed by EES.

Prescribed impacts on habitat for species credit species

The *Biodiversity Assessment Method Operational Manual Stage 2* (DPIE 2019) discusses direct and prescribed impacts on species credit species.

It is recommended that the approach described in Box 3 (page 20) of this manual is considered for GGBF and Southern Myotis.

End of Submission