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Senders ref: SSD-9409987

23 March 2022

Emma Barnet  
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Dear Ms Barnet

**Subject: Moss Vale Plastics Recycling Facility SSD-9409987**

Thank-you for referring the above matter to the Biodiversity and Conservation Division (BCD) of the Department of Planning and Environment (DPE). The development is for a plastics recycling and reprocessing facility in Moss Vale, NSW. Our comments on biodiversity and flood issues are provided below. Detailed Floodplain Risk Management comments are presented in Attachment 1.

*Flood*

The development is proposed on flood prone land and should therefore be considered in accordance with the flood related SEARs and the NSW Government's Flood Prone Land Policy as set out in the Floodplain Development Manual, 2005 (FDM).

The proponent has provided a Soils and Water report for the site, including a flooding assessment. We have reviewed the information provided and have identified a range of issues relating to the adequacy of flood investigations, consistency with the SEARs and the principles of the Floodplain Development Manual. There are also issues with the modelling methodology adopted and that flood information has not been provided for one of the watercourses on site.

As presented, this proposal presents a potential risk to the community and environment which can be avoided through appropriate consideration of these issues at this stage of planning and design. A more comprehensive flood impact risk assessment therefore required to ensure consistency with the SEARs and relevant government policy and guidance.

*Biodiversity*

We have reviewed the Biodiversity Development Assessment Report (BDAR) and associated material and have the following comments:

- The proposal has been assessed in accordance with the Biodiversity Assessment Method (BAM). The proposal will result in the loss of 0.22 ha of PCT 1256 Tableland swamp meadow and 0.1 ha of PCT 944 Mountain Grey Gum – Narrow leaved Peppermint grassy woodland. A possible call from a southern myotis (microbat) was recorded and a species polygon has been prepared in accordance with BAM requirements.

- The BDAR found that the development will need to retire 14 biodiversity credits including 5 credits for PCT 1256 and 2 credits for PCT 944. Seven credits are required for the southern myotis. The Conditions of Approval needs to require that these credits are retired before any impacts occur.
- We recommend that the Conditions of Approval include the requirement for mitigations measures to be carried out to minimise impacts to biodiversity in accordance with the BDAR. This should include the requirement for a Riparian Vegetation Management Plan, as mentioned in the BDAR.
- The BDAR was generated more than 14 days before it was submitted to the Planning Portal. The BDAR is dated 1/11/2021 and the Report was submitted on 27/1/2022. In accordance with the *Biodiversity Conservation Act*, section 6.15, an accredited person must certify the Report and that date must be within 14 days of the Report being submitted.
- The proponent will need to finalise the case in the Biodiversity Offsets and Agreement Management System (BOAMS) and submit it to the Consent Authority for review by BCD before any approval can be granted. We have requested this of the proponent already. We suggest that PAG also advises the proponent of this requirement.

If you have any questions or require further advice, please do not hesitate to contact Vanessa Allen, Senior Conservation Planning Officer, via [Vanessa.Allen@environment.nsw.gov.au](mailto:Vanessa.Allen@environment.nsw.gov.au) or 4224 4186.

Yours sincerely



Michael Saxon  
**Director South East  
Biodiversity and Conservation Division**

# Attachment 1

## **Floodplain Risk Management Comments**

As noted in our previous advice (DOC20/816075, 07/10/20), the development is proposed on flood prone land and should therefore be considered in accordance with the flood related SEARs and the NSW Government's Flood Prone Land Policy as set out in the Floodplain Development Manual, 2005 (FDM).

The proponent has since provided a Soils and Water report for the site, including a flooding assessment. We have reviewed the EIS and flood assessment and have identified a range of issues relating to the adequacy of flood investigations, consistency with the SEARs and the principles of the Floodplain Development Manual. There are also issues with the modelling methodology adopted and that flood information has not been provided for one of the watercourses on site.

### **SEARs**

The planning proposal or flood assessment would benefit from detailing how each of the SEARs are proposed to be addressed for both watercourses. The 2-page flood assessment in the Soil and Water report provides insufficient information to assess the proposal against the SEARs including a lack of information on:

- Flood Planning Area (Section 9)
- Hydraulic Categorisation (Section 9)
- The full range of flood events (Section 10)
- The modelling methodology (Section 10, refer below for further details)
- Consideration of climate change (Section 11)
- Impacts of the development on flood behaviour including the redirection of flow, flow velocities, flood levels, hazards and hydraulic categories (Section 12, no suitable flood impact mapping has been provided)
- The list on requirements in Section 13, including consideration of emergency management, evacuation and access etc.

### **Flood Assessment**

Given the potential for floods to impact the proposed development and the potential for the development to impact on flood behaviour, the environment and risk to public safety, we recommend the assessment be updated to address the SEARs. This would be best undertaken with a table in the report referencing which report section addresses each requirement.

The eastern waterway is identified in figure 1.2 of the Water and Soils report however no flood extents are provided for this watercourse. Further assessment needs to be undertaken to include the flood affectation of this watercourse in the assessment. The flood assessment utilises a 1-dimensional hydraulic model. Given the proposed modification to the floodplain and that the confluence of the two watercourses occurs on the site, a more sophisticated model (i.e. 2-dimensional hydraulic model) is considered to be required to accurately represent the flood behaviour, extents, hydraulic categories, hazards and impacts. It would also provide for clear pre and post development scenario modelling over the range of possible floods to demonstrate the adequacy of flood risk management development control measures, including managing any off-site impacts.

The flood assessment does not include sufficient information to allow a thorough assessment. To assist the flood assessment, guidance provided in the *Draft Flood Impact and Risk Assessment Guideline* should be utilised to inform the appropriate information for inclusion in the flood assessment (Flood Risk Management Guide LU01, DPE, 2022, <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Water/Floodplains/flood-risk-management-impact-risk-assessment-220057.pdf>)

The flood assessment has defined the site hydrology using the Regional Flood Frequency Estimation method. The assessment does not consider the uncertainty associated with this approach or define the implications of the uncertainty on flood risk or how these risks will be managed. The site is within the extents of the adopted Wingecarribee River Flood Study (SMEC, 2014) which includes a calibrated hydrologic model. We recommend that the flood assessment adopts the suitable hydrologic parameters from this study as a source of best available flood information.

We also consider that the nature of the development warrants a detailed risk assessment of the full range of floods up to the Probable Maximum Flood. Particularly, the consequences of the impacts of large to extreme events (above the design event) on the operation of the proposed facility and the environment. The risk assessment may warrant flood related design amendments to address these risks to ensure the protection of environment and receiving waterways.

## **Summary**

As presented, this proposal presents a potential risk to the community and environment which can be avoided through appropriate consideration of flooding issues at this stage of planning and design. A more comprehensive flood impact risk assessment is therefore required to ensure consistency with the SEARs and relevant government policy and guidance.