

Our ref: DOC20/742687

Senders ref: SSD 9579

Joina Mathew
Planning Officer KSIA
Key Sites Assessments
Department of Planning, Industry and Environment
4 Parramatta Square
12 Darcy Street
PARRAMATTA NSW 2150

Dear Ms Mathew,

Subject: Response to Submissions – Sydney Metro Crows Nest Over Station Development (SSD 9579)

Thank you for your email of 9 September 2020, requesting input from Environment, Energy and Science Group (EES) in the Department of Planning, Industry and Environment (DPIE) on the Response to Submissions (RtS) for the Sydney Metro Crows Nest Over Station Development.

EES provided previous correspondence dated 20 November 2018 and EES have reviewed the RtS table prepared by NSW Government dated September 2020 and make the following comments.

Biodiversity

EES makes no further comment in relation to biodiversity matters.

Flooding

EES has reviewed the Flood Assessment and Stormwater Management Plan report prepared by SMEC version 1 dated July 2020 for this Over Station Development. The report states that this is the first time that flood impacts have been estimated and presented for this location, and they were not included in the previously exhibited report. This results in significant changes from the Environmental Impact Statement (EIS) reporting for the Crows Nest Over Station Development, whereby no impacts were noted.

a. Adverse Flood Impacts on other properties

The report documents flood impacts that are cause for concern. The requirement set out in "Sydney Metro – Chatswood to Sydenham SPIR REMM FH9" is for an increase in flood levels (afflux) no greater than an already high 50mm in the 1% AEP flood event. However, the report documents several increases greater than this. Notably the building at 10-12 Clarke Street has commercial tenancies and a basement car park entry on Hume Street, where flood levels are predicted to increase by 0.1 to 0.3 m. This is particularly concerning as the entries are at grade with the flood affected footpath, including the car park entry. Flooding of the basement car park may pose a significant risk to life.

An argument is put forward in the report that the afflux criteria should consider the increase in flood depths rather than flood levels as the road itself is being raised. The road carriageway itself is thus not considered to be significantly impacted.

However, buildings external to the project will not be raised, so the flood level increase must remain as the relevant afflux criteria. Flood levels relative to the entries noted above would increase.

The report has assessed that the development would exacerbate flooding at Kelly's Place Children's Centre, including an increase in flood levels of 0.02 to 0.05m on the outdoor play area to the north of the building and 0.05 to 0. m in Hume Street, to the east. Modelling indicates that the outdoor play area to the north is affected by flooding at depths greater than 500mm under existing conditions. Although the depths of flow on the Hume Street footpath are low, there is potentially no freeboard provided by the low row of bricks and hence the increase in flood levels here should be reconsidered. Flood flows from Hume Street could enter the outdoor play area and exacerbate flooding there and the proposal would make this situation worse.

EES recommends that the issues above be addressed, for example through:

- revision of design to reduce flood impacts to acceptable levels
- detailed assessment of flood level impacts at building entries, which could include measures to deal with impacts within those properties e.g. through negotiation
- calculation of volumes of water entering underground car parks in the 1% and PMF events and any impacts of the development.

It would be prudent to add a similar detailed assessment for 28-34 Clarke Street, which is also noted as being adversely affected. The report notes that floor levels would not be affected but does not address the whether there is a significant reduction in freeboard nor whether service openings are affected.

The report notes that velocities are increased across large areas but has only assessed these increases in relation to the increase in scour potential. Given the very large increases in velocity, together with various locations of increases in flood depths, it would be prudent to assess whether there is an increase in the provisional flood hazard category (H1-H6) to ensure the risk to pedestrians and stationary and moving vehicles is not increased as a result of the project.

b. Flood Risk Management

The report documents 12 entrances that lead to underground rail infrastructure and a further four (4) entrances that do not. The EIS stated that station entrances would be 500mm above 1% AEP flood levels, however a freeboard of 300mm may be considered reasonable for much of this site, for example where there are low depths of flooding. The entrances must also be above the PMF level. There are two (2) of the 12 entrances that lead to underground rail infrastructure that may not have sufficient freeboard to the 1% AEP flood levels and are documented as being 210mm above surrounding finished ground levels. It is unclear whether an appropriate level of flood protection has been provided for this infrastructure.

Further, the four (4) remaining entrances not leading to underground infrastructure may not be set at suitable levels. The proposed level is required to be above the PMF. There is no mention of freeboard to the 1% AEP flood level. This does not comply with standard practice. No justification has been offered for the elevated risk of flooding to the new development that would be caused by an insufficient freeboard. The tables in the report should be revised to include the 1% AEP flood levels and freeboard available at each entrance.

EES recommends that further consideration be given to the issues stated above to avoid exacerbating existing flood problems and creating new infrastructure without sufficient flood protection.

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

If you have any queries or would like additional information regarding this matter, please do not hesitate to contact Bronwyn Smith Senior Conservation Planning Officer on 02 8973 8604 or at Bronwyn.smith@environment.nsw.gov.au

Yours sincerely

A handwritten signature in black ink that reads "S. Harrison". The signature is written in a cursive, flowing style.

21/09/20

Susan Harrison
Senior Team Leader Planning
Greater Sydney Branch
Environment, Energy and Science