



Office of
Environment
& Heritage

DOC17/476632
SSI 8256

Mr [REDACTED]
Senior Planner, Transport Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear [REDACTED]

Request for comments – Exhibition of Sydney Metro City and Southwest – Sydenham to Bankstown (SSI 8256)

I refer to your letter on 12 September 2017 seeking input from the Office of Environment and Heritage (OEH) on the Environmental Impacts Statement (EIS) for the Sydney Metro City and Southwest – Sydenham to Bankstown project.

OEH provides comments on the EIS in relation to biodiversity and floodplain risk management at Attachment 1.

If you have any queries regarding this matter please contact Marnie Stewart, Senior Project Officer, on 9995 6868.

Yours sincerely

S. Harrison 06/11/17

SUSAN HARRISON
Senior Team Leader Planning
Regional Operations

Attachment 1 - Office of Environment and Heritage comments for the Sydney Metro City and Southwest – Sydenham to Bankstown (SSI 8256)

1. Biodiversity

OEH has previously recommended one camera trap every 300m of suitable habitat, placed for two weeks for the Inner West Long-nosed Bandicoot. These surveys had cameras 700m apart and only placed for one week. The period of placement may have been restricted by ability to access a working rail corridor. However, as cited by the assessor, Price and Banks (2016) conducted 4 months of camera surveys along the Inner West Light Rail Line and failed to find any evidence of Long-nosed Bandicoot use, but plenty of predator use. They concluded that this species is unlikely to be surviving along the light rail line. Given the habitat similarity, OEH concurs with the assessor that the same conclusion can be reached for the heavy rail line.

The BAR also notes “there are no *A. pubescens* stems in the project area as the occurrences of these plants have been excluded from the project area in order to preserve the population.” OEH also considers that indirect impacts are unlikely to be detectable. These plants are already subject to extensive edge effects, passing rail traffic and maintenance.

2. Floodplain risk management

The primary objective of the NSW Government’s Flood Prone Land Policy is to reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone property, and reduce private and public losses resulting from floods. The most appropriate method to assess the development of flood prone land is through the floodplain risk management process, which is a risk-based assessment detailed in the NSW Floodplain Development Manual (2005).

A primary objective of Section 117 Direction 4.3 ‘Flood Prone Land’ is to ensure that development of flood prone land is consistent with the NSW Government’s Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005.

OEH has reviewed the Technical Paper 8 – Hydrology, flooding and Water Quality Assessment (GHD, September August 2017). OEH’s comments are generally confined to the methodology outlined in the report. From OEH’s perspective, the assessment prepared by GHD appears to follow accepted floodplain risk management practice. The assessment applies two modelling techniques, for Marrickville Station and for the rest of the project area between Dulwich Hill and Bankstown Station.

Marrickville Station

- The consultant utilises the information from existing flood studies and background information as stated in Section 3.6.1 to establish hydraulic TUFLOW 2D model in the vicinity of Marrickville Station. The model identifies existing and post-developed flooding characteristics for a range of flooding up to the probable maximum flood (PMF) as outlined in Table 2-1.
- Existing flooding conditions within the project area are outlined in Section 3.6.4. Appendix B of the report illustrates Flood Mapping for existing and post-developed scenarios including extent, depth, velocity, provisional hazard, climate change scenario equivalent to 1% AEP plus 10% increase in rainfall intensities and the impacts of the project on flood level and velocity for a range of the flood events up to the PMF.

Project area between Dulwich Hill and Bankstown Station

- The consultants established 1D modelling using 12D drainage module and DRAINS model to address flood problems in the project corridor between Dulwich Hill and Bankstown Station. The report provides only a discussion on key outcomes of this assessment. Although the report acknowledges that there are high flood risk areas occurring within the rail corridor to the west of Campsie Station and east of Canterbury Station, and localised overland flooding along this section of the corridor, it states ‘No flood mapping or model results were available in this part as this part of the corridor was generally considered to present a lower flooding risk than the Marrickville area’.

OEH acknowledges that the assessment provides a summary of proposed drainage works within this section of the corridor as outlined in Table 4-5. However, OEH considers that it is prudent that the Technical Paper provides sound details of the flood characteristic within the whole vicinity of the project including detailed mapping to demonstrate the model's results at this section. The report should also provide detailed discussion as to whether there are remaining impacts after the implementation of the proposed drainage works, and should address the impacts of the project on surrounding properties along this section of the corridor.

General

The report identifies proposed flood immunity criteria for infrastructure, drainage system design criteria and design criteria for flood impacts on adjoining lands in Table 4-1, Table 4-2 and Table 4-3 respectively, which are reasonable.

In regard to the Marrickville area, the report addresses the design performance against the abovementioned criteria as outlined in Table 6-2 and recommends further design development to be undertaken to confirm the drainage details during the detailed design, which is supported.

The report lacks details on design performance in the area between Dulwich Hill and Bankstown Station. Whilst it acknowledges there is high hazard area around Canterbury Station, modelling of the Cooks River flooding at this area was not undertaken and accordingly, the impacts of the project on existing flood behaviour have not been assessed. The report recommends further analysis and design to be undertaken during detailed design.

OEH does not support the deferment of Cooks River modelling to the detailed design stage and highlights that it is prudent to undertake adequate assessment of Cooks River and overland flow flooding at this section in the early stage of the proposal.

(END OF SUBMISSION)

