

Your Ref: PP-2023-1772

Cameron Brooks  
Planning Officer  
Department of Planning and Environment  
12 Darcy Street  
Parramatta NSW 2150

2 November 2023

**Subject: Explorer Street, Eveleigh Rezoning Proposal**

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Dear Cameron

Thank you for your email received 13 October 2023 consulting with the Environment and Heritage Group (EHG) in regard the above rezoning proposal. EHG understands that the rezoning proposal aims to facilitate the renewal of the Explorer Street social housing estate in Eveleigh to permit new and additional social, affordable, and private housing, and supported by improved public spaces.

EHG further understands that the proposal will remove the Explorer Street Site from the *State Environmental Planning Policy (Precincts–Eastern Harbour City) 2021* (Eastern Harbour City SEPP) and include zone and planning controls for the site in the Sydney Local Environmental Plan 2012 (SLEP).

EHG has reviewed the information provided and recommends that the rezoning proposal be supported by a Flood Impact and Risk Assessment (FIRA). EHG requests that the FIRA provided for EHG's consideration prior to finalisation of amendments to the Eastern Harbour City SEPP and SLEP.

EHG's detailed provides comments on biodiversity and flooding in Attachment 1.

If you have any queries regarding this matter please contact Dana Alderson, Senior Project Officer Planning via email [REDACTED]

Yours sincerely



Susan Harrison  
Senior Team Leader Planning  
Greater Sydney Branch  
**Biodiversity and Conservation**

## Attachment 1 – EHG advice Explorer Street, Eveleigh Rezoning Proposal

EHG has reviewed the following reports:

- Explanation of Intended Effect - Explorer Street Site, Eveleigh dated September 2023 (EIE)
- Explorer Street Eveleigh, Landscape Design Report – State Led rezoning investigation dated 13 September 2023 and prepared by Urbis (Landscape Design Report)
- WMK Architecture Explorer Street, Eveleigh Urban Design Report dated 31 August 2023 and prepared by WMK Architecture/Urbis (Urban Design Report)
- Explorer Street Eveleigh Masterplan and Rezoning – Biodiversity Report dated 19 July 2023 and prepared by Eco Logical Australia (Biodiversity Report)
- Arboricultural Impact Assessment Review and Proposed Preliminary Tree Protection and Removal Plan dated 11 September 2023 and prepared by Abel Ecology (AIA)
- Flood Assessment Report Explorer Street, Eveleigh NSW 2015 dated August 2023 and prepared by Mott Macdonald (Flood Assessment Report)
- Stormwater Management Report Explorer Street, Eveleigh NSW 2015 dated July 2023 and prepared by Mott Macdonald (Stormwater Management Report).

### Flooding

EHG has reviewed the Flood Assessment Report and other documents and it is noted that these are high level design documents and have not yet been subject to detailed design or verification by survey of surrounding stormwater infrastructure. In addition to the Flood Assessment Report, EHG has considered the following:

- Alexandra Canal Floodplain Risk Management Study and Plan prepared by Cardno, 2014 (Alexandra Canal FRMS&P)
- Alexandra Canal Flood Study Model Update ARR2019 prepared by WMA, September 2020.

The proposal includes a significant increase in building height and floor space ratio to accommodate approximately 400 extra residences on the site. The site is located within the flood planning area (per the Alexandra Canal FRMS&P) and will introduce high density residential development to an area currently used for low density residential purposes.

EHG considers that there are inconsistencies in the provided documents and insufficient information has been provided to demonstrate consistency with Section 9.1 Direction 4.1 Flood Prone Land (Direction 4.1). In deciding to permit the intensification of development within the flood planning area, inconsistencies with Direction 4.1 must be demonstrated to be of a minor nature only and not cause additional burden to emergency services, have adverse off-site impacts or require an increase in government spending on flood mitigation works.

To address Direction 4.1, EHG recommends that the Flood Assessment Report be updated to a flood impact and risk assessment (FIRA) prepared in accordance with the NSW Government's Flood Impact and Risk Assessment Guideline available at <https://www.environment.nsw.gov.au/research-and-publications/publications-search/flood-impact-and-risk-assessment>. The FIRA must also:

- consider the impact of changes to South Sydney Rotary Park on flooding
- address ingress of flood waters into basement carparks
- address emergency management.

The FIRA should be undertaken by qualified engineers who have experience and advanced skills in catchment hydrology and floodplain hydraulics, and a good working knowledge of floodplain risk management practices and guidance in NSW.

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The outcomes of the FIRA, including any management measures, should be implemented in the proposed Design Guide for the site.

Detailed EHG comments on flooding are provided below.

### *Flood Assessment Report*

The Flood Assessment Report provides mapping for the 1% AEP and for the probable maximum flood (PMF) event together with afflux mapping for the proposed building footprint. The Flood Assessment Report should be updated to include the additional events recommended in the NSW Government's Flood Impact and Risk Assessment Guideline. In addition, the proposal should address existing flood risks and how they may change due to the development and climate change.

The report would need to be revised again following detailed design of the development and results provided to the consent authority for the purpose of development assessment and setting of required minimum floor levels.

It is noted that an afflux of 0.05m occurs because of the development in parts of Aurora Close. This is a public road and design will need to ensure that afflux is reduced to acceptable levels, generally 0.01m. A similar afflux is noted in the South Sydney Rotary Park basin. It is also noted that Water Sensitive Urban Design (WSUD) design elements are proposed in the streetscape. The flood model must include appropriate roughness and landform to ensure that the depth of flow on the roadway does not increase due to WSUD features.

The Alexandra Canal FRMS&P indicates that this site is within the flood planning area and shows that flooding in roadways is low hazard H1 in the 1% AEP event. However, deep flooding up to 1 metre in depth occurs in trapped low points between the railway corridor and the linear existing buildings which contain no overland escape route for stormwater. The Flood Assessment Report indicates that this can be partially corrected by providing a flow path extending from Aurora Close between the proposed buildings to join with the rear of the site. If this overland flow path is required to manage flooding on the site, the proposed Design Guide must include provisions for the flow path to be incorporated in future detailed development design.

### *Inconsistency between landscaping and flood mitigation requirements*

The Landscape Design Report proposes changes to South Sydney Rotary Park to improve its utility, ecological values and connectedness. Some of these features include the potential for permanent water features and raingardens located in or around the existing detention basin. Extensive tree planting is also proposed on the detention basin embankment. Trees are generally discouraged on basin embankments due to their impact on maintenance and the likelihood of piping failure around tree roots.

It is critical that any changes to South Sydney Rotary Park ensure that the level of service and maintainability together with spillway and outlet works for the existing basin are not compromised. The FIRA should incorporate changes proposed in the parkland to ensure off site impacts do not occur. A mosquito risk assessment may also be required for any permanent water features.

### *Basement design*

Very limited detail has been provided on the proposed levels of the basement parking. No survey information has been included in the preliminary documents and it is unclear how water up to the required level, PMF or flood planning level (whichever is highest), consistent with City of Sydney Guidelines will be prevented from entering the basement carpark. The provided Design Report indicates that basements must not protrude above the level of the adjacent public street or public domain and this may be difficult to achieve when access roads are flood impacted.

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The Stormwater Management Report notes the sizes and potential locations of onsite detention tanks and proprietary treatment devices. The Urban Design Report (p.59) shows potential elevations of the basements relative to the surrounding topography and it is unclear how detention tanks located within the basement could be connected to street drainage given that basements appear to be below surrounding levels and approximately level with downstream topography.

### *Emergency management*

The Alexandra Canal FRMS&P shows that low hazard flooding occurs in the roadways in the 1% AEP event however this increases to high hazard in the PMF, particularly around Station Road and Progress Road. The Flood Assessment Report indicates lower depths than the Alexandra Canal FRMS&P and suggests that either shelter in place or evacuation is possible. The SES is not supportive of shelter in place and the NSW Government Emergency Management Guideline EMO1 does not recommend intensification of development based on a shelter in place strategy.

The Flood Assessment Report needs to be amended to show the flood hazard for the full extent of the proposed evacuation route described in the document. Any inconsistencies with the Alexandra Canal FRMS&P need to be explained. Modelling of more flood events including frequent and less frequent events would be required to demonstrate the level of service provided along the evacuation route. The building is flood impacted for short durations only and any alternative shelter in place strategy should be subject to review by the SES.

### **Biodiversity**

EHG notes the Design Report states the project principles (p.30) include that there will be no loss of public open space and that biodiversity will be enhanced, and to build on the 'green belt', and the EIE states the proposal will lead to an improvement to the public spaces with increased tree canopy cover. EHG supports these principles and recommends they be incorporated into the proposed Design Guide to support the amendments to the Eastern Harbour City SEPP and SLEP.

The Biodiversity Report is adequate, except for one minor error in that it states that no threatened species are likely to be on site. However, the AIA states there are two Wallangarra White Gums (*Eucalyptus scoparia*) on site, which is a threatened species though not native to the area. One of the two trees is proposed to be removed so its removal will require assessment at development application stage.

END OF SUBMISSION