

OUT20/11063

Louise Starkey  
Planning & Assessment  
NSW Department of Planning, Industry and Environment

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Dear Ms Starkey

**Mixed use development at 8-16 Watt Street Gosford (SSD 10414)  
EIS**

I refer to your email of 3 September 2020 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

The EIS does not contain a groundwater assessment, an assessment of potential groundwater impacts or an Acid Sulfate Soils assessment.

The EIS describes a relatively shallow water table, within a sandy clay alluvial formation, and recommends a tanked-basement system in the event that a basement is incorporated into the final design. Given the development application is at concept stage, the final design has not yet been proposed. We believe that should a fully tanked basement be required, the water take would likely require licencing for the duration of excavation and below ground construction.

The EIS states that ground water management will be considered within the detailed design and construction of the development and that potential interference will be detailed "within subsequent detailed development applications if excavation works are likely to impact on groundwater".

The location of the proposed development was identified by the proponent as having potential for Class 5 Acid Sulfate Soil and therefore not requiring an Acid Sulfate Soil Management Plan for development consent. DPIE Water notes, however, that the site location is less than 500m from land with potential for Class 2 Acid Sulfate Soil, potentially triggering subclause (2) of Part 7.1 of the SEPP (Gosford City Centre) 2018.

The following recommendations are provided by DPIE Water and NRAR.

**Pre-approval recommendations**

- The proponent should provide further justification for development consent without preparing an Acid Sulfate Soils Management Plan. The location of the proposed development was identified by the proponent as having potential for Class 5 Acid Sulfate Soil and therefore not requiring an Acid Sulfate Soil Management Plan for development consent. DPIE Water notes, however, that the site location is less than 500m from land with potential for Class 2 Acid Sulfate Soil, potentially triggering subclause (2) of Part 7.1 of the SEPP (Gosford City Centre) 2018.

**Post-approval recommendations**

- If the final design incorporates a basement it should be designed as fully-tanked based on shallow depth to water and likely presence of unconsolidated, high-permeability formation. This will reduce the future burden of operational requirements as well limiting potential groundwater impacts to the duration of construction.

- For subsequent detailed development applications, the proponent should prepare a detailed hydrogeological assessment including baseline conditions, estimated water take during construction, groundwater impact assessment, an appropriate groundwater monitoring program during excavation, construction and occupation phases. The assessment should be presented to DPIE Water at the detailed design stage and should include, but not be limited to, the following:
  - a. description of pre-development (existing) conditions including baseline groundwater conditions, monitoring record and comprehensive groundwater system description:
    - i. site and neighbouring area stratigraphy, formation description, site groundwater levels, groundwater flow paths, site aquifer and aquitard (if relevant) hydraulic characterisation
    - ii. groundwater quality and specific consideration of groundwater potentially affected by contamination from surrounding land uses or acid sulphate soils where they are found to exist
    - iii. neighbouring users, groundwater dependent ecosystems, water bodies and other relevant features within a one-kilometre radius of the subject site the above site information should not date more than six months prior to the date of lodgement of Environmental Impact Statement to account for climate trends and maintain the currency of groundwater data
  - b. description of predicted impacts, as well as a monitoring and management strategy:
    - i. predicted impacts (extent, magnitude and duration) that are developed through numerical groundwater modelling covering construction and occupation phases
    - ii. corresponding trigger levels (levels, quality, flow, volume and ground surface settlement) to manage any potential impacts
    - iii. construction techniques and approaches that will be used to reduce any ongoing groundwater pumping at the same time as not causing any obstruction to natural groundwater behaviour
    - iv. details of monitoring (groundwater levels, quality as required, rate of inflows, metered pumping)
    - v. where a risk of ground settlement is identified due to the proposed dewatering, the proponent is to provide a program of monitoring, trigger and responses to relevant consent authority as well as the relevant transport (rail) authority
  - c. proposed dewatering reporting schedule covering duration of excavation and basement construction and including:
    - i. collation of monitoring records,
    - ii. analysis of actual impacts compared to predicted impacts, noting that some impacts may be delayed,
    - iii. magnitude and extent of potential long-term effects from the completed structure
    - iv. arrangements for reporting (measurements, technical analysis and future predictions) to the relevant authority
  - d. occupational phase (after building completion) in the form of an annual groundwater monitoring plan:
    - i. monthly monitoring to demonstrate the magnitude of groundwater pumping after construction, either through satisfactory photographic and documented evidence of no visible seepage into the building or, if inflows cannot be prevented, measured flow rates into all pump-out sumps

- ii. if contamination of Acid Sulfate Soils are shown to be an issue, then discharge water quality may need to be regularly tested and annually reported.
- Subsequent detailed development applications should ensure all predicted water take from the Sydney Basin - North Coast groundwater source is quantified. Before commencing any water take, it should be appropriately licenced under a water access licence (WAL), or detail provided showing how the development complies with the 3 ML/year exemption under the Water Management (General) Regulation 2018, Schedule 4, Part 1, Clause 7.
  - Subsequent detailed development applications should detail all required water supply works within the environmental assessment.

Any further referrals to DPIE Water and NRAR can be sent by email to:  
[landuse.enquiries@dpi.nsw.gov.au](mailto:landuse.enquiries@dpi.nsw.gov.au).

Yours sincerely

A handwritten signature in blue ink that reads "Liz Rogers".

Liz Rogers  
Manager, Assessments  
**Water – Strategic Relations**  
3 November 2020