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21 November 2024

Our Ref: HW2024-137

General Manager  
Port Stephens Council  
PO Box 42  
Raymond Terrace NSW 2324

Attention: Isaac Lancaster  
via Email

Dear Issac

**RE: DA 16-2023-477-1 - SAFETY UPGRADES TO THE ITALIA RD AND PACIFIC HWY INTERSECTION**

Thank you for Council's email of 7 November 2024 seeking Hunter Water's comments on the proposed upgrade to the Italia Road and Pacific Highway intersection at Balickera. We have reviewed the following revised information provided in support of DA 16-2023-477-1:

- Technical memorandum from GHD (6 November 2024);
- Updated Strategic Design Report (6 November 2024); and
- Updated MUSIC model.

The proposed development falls within Hunter Water's Grahamstown Dam Drinking Water Special Area as gazetted in the *Hunter Water Regulation 2024*. Grahamstown Dam supplies drinking water to approximately 60% of the population of the Lower Hunter.

Hunter Water's Operating Licence requires compliance with the Framework for Management of Drinking Water Quality that is part of the Australian Drinking Water Guidelines (ADWG). The Framework requires adoption of a multiple barrier approach to water quality, and states that "the most effective barrier is protection of source waters to the maximum degree practicable". Protection of land within the Special Area is key to ensuring that this barrier is effective. In accordance with the *Hunter Water Regulation 2024*, prevention of pollution or contamination of water in the Special Area is of paramount importance to Hunter Water.

Hunter Water expects that all development in drinking water catchments will demonstrate a Neutral or Beneficial Effect (NorBE) on water quality. A development is considered to demonstrate NorBE if the development:

- (a) has no identifiable potential impact on water quality, or
- (b) will contain any water quality impact on the development site and prevent it from reaching any watercourse, waterbody or drainage depression on the site, or
- (c) will transfer any water quality impact outside the site where it is treated and disposed of to standards approved by the consent authority.

## Demonstration of NorBE

As outlined in the documents provided by GHD, neither of the stormwater treatment train options proposed for further consideration at the detailed design stage, as represented by the accompanying MUSIC modelling, indicate that NorBE can be achieved in accordance with *Using MUSIC in the Sydney Drinking Water Catchment* (WaterNSW, 2023).

For Option 1, the Total Nitrogen levels indicated by the modelling result in an 8.5% increase in the post-development residual load compared to the pre-development scenario, and Option 2 is indicated to achieve only a 2.4% reduction for the same metric. Neither achieve the recommended 10% post-development residual load reduction.

However, as reflected in the documentation provided, Hunter Water is satisfied that the identifiable potential risks to water quality are now agreed upon and that the proponent is committed to finding a solution that will manage these risks to the *maximum degree practicable*, in accordance with the ADWG.

Hunter Water acknowledges that, due to the site constraints involved and the context of the proposed development, finalised project design details including management of water quality risks will need to be explored as part of the Works Authorisation Deed (WAD) in collaboration with Transport for NSW (TfNSW), Hunter Water and the proponent.

It should also be noted that Hunter Water does not agree with assertions in GHD's technical memorandum regarding a lack of water quality treatment in the original highway design, or that the proposed stormwater treatment system offsets water quality impacts from outside the development area. Whilst these issues do not impact our advice regarding the proposed development or the demonstration of NorBE as described above, it is important that all details within this development application accurately characterise the proposal.

## Consent Conditions in Relation to Water Quality

As the proposed development has not been able to demonstrate that NorBE is achievable, it is essential that the key risks to water quality and associated actions required to mitigate them are included as conditions of consent. We request that Council provide Hunter Water with a copy of the draft consent conditions for our review prior to approval being issued.

Hunter Water recommends that Council considers implementing consent conditions in relation to water quality that ensure:

- The stormwater management design achieves protection of the receiving water body to the *maximum degree practicable*, and the design be developed in consultation with and endorsed by Hunter Water prior to the issue of a Construction Certificate.
- The 'Type F barrier' matter (being the potential for surface runoff to circumvent the proposed treatment train and directly enter Balickera Canal) is resolved as committed to in the revised application. If an alternative is required, then endorsement from Hunter Water prior to the issue of a Construction Certificate will be required.
- The stormwater management design be fit for purpose with finalised design accounting for all identifiable risks to water quality, including potential contamination from typical road runoff associated with vehicular carriageway usage. Additionally, spill containment is a primary concern for Hunter Water, and we request that the proponent raise this with TfNSW so that opportunities for improvement may be incorporated into the road design where possible.
- The finalised stormwater management design does not introduce any additional risks to water quality or undermine any other risk mitigation issues previously resolved.
- Any maintenance required for the continued efficient performance of the finalised design be detailed in an applicable management plan to ensure that these maintenance requirements are adhered to.

For completeness of this advice and consistency with all previous advice relating to the proposed development, Hunter Water requests the inclusion of a consent condition requiring the proponent to enter a Deed of Agreement with Hunter Water prior to any investigation works within Hunter Water land, Hunter Water easements, Balickera Canal, within the road corridor that may impact water quality within the drinking water catchment and before commencement of the WAD Concept Design. The Deed of Agreement will cover – but not limited to – the following:

- Inclusion of Hunter Water as a stakeholder during the WAD Concept Design phase.
- Acceptance by Hunter Water of the WAD Concept Design, and in particular the alignment of piers and abutments, construction methodology and construction timing within the Balickera Canal and matters raised above relating to water quality.
- Acceptance by Hunter Water of the Construction Environmental Management Plan (CEMP), and specifically environmental controls implemented to protect water quality within the drinking water catchment.
- Access to Hunter Water land, easements and Balickera Canal during investigation and construction works, including notice requirements.
- Protection and/or shutdown of Hunter Water's high voltage power lines in the vicinity of the works, including notice requirements.
- Continued "safe use" of Hunter Water's existing northern access to the Balickera Canal off the Pacific Hwy during construction.

To maintain consistency of all previous correspondence, Hunter Water recommends that the proponent submit a *Revision to Previous Development Assessment (Section 50)* via the Hunter Water Property Self Service Portal (under existing HW Ref: 2023-195) to progress with a Deed of Agreement.

Please contact me at (02) 4081 5835 or [greg.mcharg@hunterwater.com.au](mailto:greg.mcharg@hunterwater.com.au) if you require further advice or clarification regarding the submission.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Greg McHarg', with a long horizontal stroke extending to the right.

**Greg McHarg**  
**Account Manager Major Development**