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SECTION 53 COMMENTS GEOTECHNICAL RESPONSE

Project	Waikanae North Development
Application reference	FTAA-2603-1194
Site	169-171 Peka Peka Road, Waikanae, Kapiti Coast
Document	Response to comments received under section 53, Fast-track Approvals Act 2024 Geotechnical
Prepared by	Alex McCaw, Cameron Gibson & Wells Ltd Ray O'Callaghan, OCDL
Date	10 August 2026
Status	Final

1. Purpose and scope

This report responds to the comments received under section 53 of the Fast-track Approvals Act 2024 on the Waikanae North Development substantive application (FTAA-2603-1194) that fall within the geotechnical discipline. It forms part of a set comprising a covering note addressing planning, legal and conditions matters, individual topic area reports, and a tabulated response covering every comment received.

For each topic this report sets out the comment as made, where relevant a response drawn from the application as lodged, and also contains new additional information responding to the comments received where appropriate.

Comments are grouped by topic. Individual comment numbers and commenters are tagged against each topic so that complete coverage can be verified against the Section 53 Comments Register.

2. Author(s) and Code of Conduct

This response has been prepared by Alex McCaw of CGW Consulting Engineers and Ray O'Callaghan of O'Callaghan Design Limited.

Although this document has not been written as a statement of expert evidence, we confirm that at all times we have complied with the Environment Court's Code of Conduct for Expert Witnesses contained in its Practice Note 2023.

3. Comments allocated to this discipline

Topic	Comment reference(s)	Commenter(s)
G1 Effect of earthworks on shallow groundwater and bore supply	1.2	1 Sally & John Killick
G2 Ground conditions, platform formation and staged construction	13.2	13 Kensington Farm Park Ltd
G3 Geotechnical trenching assessment	21.37	21 Kapiti Coast District Council

Total: 3 topics covering 3 individual comment issues.

3. Topic responses

G1 Effect of earthworks on shallow groundwater and bore supply

Comments: 1.2 | Commenters: 1 Sally & John Killick

Comment. The Killicks are concerned that earthworks and ground restructuring will lower or disrupt the water table on which their shallow bores depend.

Response. The geotechnical assessment characterises the broader site profile, including peat extent and soakage rates, which informed the hydrological assessment. The geotechnical assessment describes the lower dune slope area (Section 9.1.2) as characterized by uniform dune sands with no peat encountered. The hydrological conclusion on potential effects in the western zone (Section 9) is that the effects of the changes in hydrology associated with the project in the western zone will be minor.

The conclusion reached in the hydrology report is based on the conclusion that the changes to stormwater discharges in the western zone are relatively small as stormwater neutrality on the house sites will be achieved, the free draining dune sands in the western zone are not being earthworked within the groundwater zone in the western area and hence there is not expected to be any adverse impact on groundwater levels in that zone.

The hydrology report also concludes that the removal of peat and its replacement with compacted sand in the eastern area of the site is not expected to have any adverse effect on groundwater levels in (or beyond) Te Harakeke Swamp, which is almost 1km to the west of the proposed peat removal. Section 5.6 of the Engineering and Infrastructure Report states that earthworks in the western zone (excluding the 7-lot area accessed off Paetawa Road) is expected to be carried out in Phase 5 of the earthworks program. This is expected to be no earlier than 6 -7 years from the granting of the approvals for the project. Proposed conditions 19 & 75 of the regional consents require the consent holder to carry out groundwater monitoring and hydrological monitoring for the duration of the earthworks activity and 5 years beyond the completion of the earthworks. These conditions are aimed at confirming there are no adverse effects on the groundwater system attributable to the project works.

G2 Ground conditions, platform formation and staged construction

Comments: 13.2 | Commenters: 13 Kensington Farm Park Ltd

Comment. Kensington Farm Park submits that the land is primarily peat and sand requiring major invasive works to create building platforms, changing the nature of the land.

Response. The geotechnical assessment confirms significant spatial variability in ground conditions across the wider site. Peat deposits (0.2–2.6m thick, averaging 1.2m) are confined to low-lying areas in the eastern and southern portions (Section 9.1.1, Table 3, and Figure 9 of the Geotechnical Assessment Report).

The dune environments (Lower and Upper Dunes) are underlain by uniform sands with no peat encountered (Sections 9.1.2 and 9.1.3, Tables 4 and 5). MBIE Technical Category zoning (Figure 14) assigns TC1 to Upper Dunes, TC2 to Lower Dunes and most Low-lying areas, with TC3 confined to areas not proposed for development. The proposed construction methodology for peat removal and replacement is described in Section 5.5 of the Engineering & Infrastructure Report. Site-specific geotechnical investigations, design and construction requirements, slope stability and drainage, peat management and reuse, construction monitoring and geotechnical completion reporting are all controlled by condition (Appendix 33, Conditions 31-38).

Necessary earthworks to achieve stable building platforms have been incorporated into the project design. While this will result in changes to the nature of the land, this is necessarily the case with any urbanization development of this scale and topography. The project will not give rise to off-site effects, including on the commenter's property.

G3 Geotechnical trenching assessment

Comments: 21.37 | Commenters: 21 Kapiti Coast District Council

Comment. Kapiti Coast District Council seeks a geotechnical trenching assessment and recommendations addressing trench stability, bedding, backfill, temporary support, groundwater control, reinstatement, settlement risk, and works near wetlands, streams, roads and existing services.

Response. The Engineering and Infrastructure Report records that rising mains are anticipated to be installed by horizontal directional drilling along unformed sections and by conventional trenching within the formed sections of Ngarara Road, with reinstatement of ground levels and surface conditions. Dewatering is controlled by a Dewatering Management Plan (Appendix 33, Conditions 137-140).

Details of trenching, backfill, temporary support and associated issues will be managed through the detailed design, Construction and Environmental Management Plan, Dewatering Management Plan and supporting information submitted for engineering approval for each progressive stage of construction. This process is controlled by conditions and will ensure KCDC are provided with the requested information at detailed design stage. It is common industry practice for this information to be provided at the engineering approval stage and this process is appropriate for this project.

The geotechnical assessment provides the following relevant information for trenching works:

- Trench Stability: Temporary excavations up to 0.5m depth may be cut vertically; deeper excavations require temporary support or battering to maintain stability during construction (Section 18.1). Excavation stability is the responsibility of the earthworks contractor.
- Groundwater Control: Groundwater conditions vary across the site (Table 7), with shallow groundwater (as low as 0.2m bgl) in low-lying areas requiring dewatering during excavation. Dewatering is controlled by a Dewatering Management Plan (Appendix 33, Conditions 137-140).
- Bedding and Backfill: Fill shall be placed in maximum 200mm-thick loose lifts and compacted to minimum 95% standard maximum dry density in accordance with NZS 4431:2022 (Section 18.2).

Nuclear densometer testing is to be conducted on every second layer of fill. Bedding and backfill requirements are controlled by KCDC's LDMR (2022) document.

- Settlement Risk: Static settlement analysis (Section 11) confirms peat-rich areas are unsuitable for untreated foundations; however, following peat removal and replacement with compacted sand, settlement risks are mitigated.
- Works near Wetlands: The geotechnical assessment confirms peat removal in the eastern area is not expected to adversely affect groundwater levels in Te Harakeke wetland, approximately 1km west of the proposed peat removal (Section 9, Hydrology report).