

**BEFORE THE HEARING PANEL
APPOINTED BY KAPITI COAST DISTRICT COUNCIL**

IN THE MATTER OF | I TE TAKE O the Resource Management Act 1991
AND | ME

IN THE MATTER OF | I TE TAKE O Proposed Plan Change 5 (Private):
100 and 110 Te Moana Road,
Waikanae, Kāpiti Coast District

**SUMMARY STATEMENT OF ROBERT BRUCE SMITH
ON BEHALF OF ERIC, VINCE AND RAECHEL OSBORNE**

Dated 21 September 2026

Introduction

1. My full name is Robert Bruce Smith.
2. I have prepared a Statement of Evidence regarding Private Plan Change 5 (**PC5**) to the Kāpiti Coast District Plan, in relation to Geotechnical Engineering matters. My qualifications, experience and a summary of the work completed are as set out in that statement.

Summary of opinion

3. For convenience, I summarise the conclusions.
 1. **Site Classification and Suitability:** The site is suitable for rezoning from rural to residential from a geotechnical perspective. The site is underlain by a variable geology comprising dune sands in the south (110 Te Moana Road) and alluvial deposits in the low-lying areas (100 Te Moana Road and the northern part of 110 Te Moana Road). The geotechnical risks identified are manageable and can be appropriately addressed during the subsequent subdivision and building consent stages.
 2. **Liquefaction and Lateral Spreading:**
 - The dune area in the southern part of the site is assessed as having a low to moderate liquefaction risk, consistent with a TC2 (Technical Category 2) classification under the MBIE guidance. While two of the three CPTs predicted full-depth settlements exceeding 100mm, the more appropriate MBIE-recommended Index settlement analysis (upper 10m) indicates settlements below 100mm. Free field differential settlements following an Ultimate Limit State (**ULS**) event are conservatively predicted to be up to 50mm, which is manageable through appropriate foundation design.
 - The low-lying areas of the site are identified as having a higher risk of liquefaction (potentially moderate to severe liquefaction) and lateral spreading. These areas are more susceptible due to the higher groundwater table and the presence of free faces (the stream and wetland). The risk in these areas is currently consistent with a TC3 classification under the MBIE guidance. The geotechnical risks in these areas can be mitigated through large-scale earthworks (raising ground levels) to create a thicker non-liquefiable crust, ground improvement techniques, or creating buffer zones.
 3. **Foundations and Earthworks:** The assessment confirms the low-lying areas are underlain by Class A (non-expansive) soils, and that there are

likely to be soft or weak soils along the wetland margins. Likely and viable foundation options include shallow specific engineer-designed (SED) TC2-type foundations (e.g., waffle slabs) for the wider subdivision and piled foundations where necessary, with these measures to be confirmed at the subdivision and detailed design stage. The ultimate bearing capacity of natural soils is generally assessed at 200 kPa.

Regarding earthworks, I concur that further flood modelling would also be required as detailed design matter to be addressed during the subdivision consent stage, and defer to Mr Martell's and Mr Taylor's evidence as to how build earthworks to achieve a building platform can maintain site and wetland hydrology and address flood hazard risks from the modelling work completed to date. From a geotechnical perspective, I do not anticipate adverse effects from the proposed earthworks, provided they are designed and managed appropriately, and confirm that the granular (sand/silt, sand/clay) materials present on the site are generally suitable for engineered fill to achieve stable building platforms.

4. **Further Investigations:** The current level of geotechnical assessment is appropriate for a plan change stage. As stated in our reports, further detailed geotechnical investigations are required during the subdivision consent stage. These will include additional CPT testing, installation of piezometers for groundwater monitoring, and more refined analyses to confirm final design parameters and mitigation measures, including to mitigate liquefaction risk specifically to an acceptable level (TC 2 or better).
4. I have considered and discussed the issues raised in submissions on PC5, and in the s 42A report (including the supporting technical evidence of Mr McDermott), in my statement of evidence. For the reasons stated in my evidence, my opinion remains as summarised above.

Robert Bruce Smith

21 September 2026