

BEFORE THE CENTRAL HAWKE'S BAY DISTRICT COUNCIL
INDEPENDENT HEARINGS COMMISSIONER

UNDER The Resource Management Act 1991

AND

IN THE MATTER OF A NOTIFIED RESOURCE CONSENT APPLICATION FOR
SUBDIVISION TO CREATE 11 LOTS (8 RURAL LIFESYLE LOTS, 2
BALANCE LOTS, AND A LOT TO BE AMALGAMATED AS A
BOUNDARY ADJUSTMENT) AT MANGAKURI ROAD
(RM230016)

BETWEEN **SR & BJ WILLIAMS CHARITABLE TRUST BOARD**
Applicant

AND 24 Submitters

Central Hawke's Bay District Council
Consent Authority

AND

BRIEF OF EVIDENCE BY FREDERICK JOSEPH WENTZ

INTRODUCTION AND QUALIFICATIONS

- 1 My full name is Frederick Joseph Wentz and I reside in Napier.
- 2 I hold a Bachelor of Engineering in Civil Engineering (1988) from the California Polytechnic State University at San Luis Obispo, and a Masters of Civil Engineering (geotechnical emphasis) from the University of California at Berkeley (1991).
- 3 I am a Chartered Professional Engineer, New Zealand. I am a Registered Professional Engineer (PE) in Civil Engineering and a Registered Geotechnical Engineer (GE) in the State of California in the United States.
- 4 I am a Fellow of Engineering New Zealand (ENZ), and a member of the New Zealand Geotechnical Society (NZGS) and the New Zealand Society for Earthquake Engineering (NZSEE).
- 5 I have 34 years' experience as a practising Geotechnical Engineer.
- 6 On graduating from UC Berkeley, I worked as a geotechnical engineer at Woodward-Clyde Consultants (later became URS Corporation) until 1999.
- 7 I was employed as a lead geotechnical engineer for Stone & Webster Corporation from 1999 to 2001; and as a senior geotechnical engineer for Carlton Engineering Inc from 2001 to 2005.
- 8 I established my own geotechnical engineering consultancy (Paragon Geotechnical, Inc) in 2005.
- 9 I moved to New Zealand in 2011 specifically to work in the Christchurch rebuild. I was employed at Tonkin & Taylor Ltd in Christchurch as a Senior Geotechnical Engineer through 2013 during which time I also maintained part-time involvement in my American consultancy work.
- 10 In 2013, I established an independent geotechnical engineering consultancy, Wentz-Pacific Limited for my work in New Zealand.
- 11 I was a member of the member of expert panel that developed the Ministry of Business, Innovation and Employment / New Zealand Geotechnical Society

Earthquake Geotechnical Engineering Practice guidelines for practising geotechnical engineers.

- 12 I am a current member of Ministry of Business, Innovation and Employment / Engineering New Zealand *Seismic Risk Working Group* which is charged with revising the New Zealand Standard 1170.5:2004 – Structural Design Actions – Part 5: Earthquake actions to reflect the 2022 updates to the New Zealand National Seismic Hazard Model.
- 13 I am the Chair of the peer review panel for the development of the Earthquake Commission’s National Liquefaction Model Project.
- 14 I was the peer reviewer for the Bay of Plenty Regional Council’s regional landslide vulnerability project.
- 15 I routinely peer review geotechnical assessments and reports addressing slope stability for the Hastings District Council.

EXPERT WITNESS CODE OF CONDUCT

- 16 I confirm that I have read the Code of Ethical Conduct for Expert Witnesses contained in the Environment Court of New Zealand Practice Note 2023. My evidence has been prepared in compliance with that Code and I agree to follow it when presenting evidence to the Hearing.
- 17 I confirm that my evidence is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.
- 18 I understand and accept that it is my overriding duty to assist the Commissioner in matters that are within my expertise as a geotechnical engineer. I understand that I have an overriding duty to assist impartially on the relevant matters within my area of expertise and that I am not an advocate for the party that has engaged me.

SCOPE OF EVIDENCE

- 19 This evidence relates to resource consent application RM20230016 (“Application”) by the SR and BJ Williams Charitable Trust Board (“Applicant”) to Central Hawke’s Bay District Council (“Council”) for subdivision consent to create 11 lots, being 8 lifestyle lots, 2 rural balance lots and a lot to be amalgamated with an adjoining title, from Lot 2 DP 481291 (Record of Title: 674477).
- 20 That Application was received by Council on 24 February 2023. This evidence is provided in support of the Application.
- 21 I was engaged by the SR & BJ Charitable Trust to peer review the additional geotechnical investigation and assessment for the 11 lot subdivision that was undertaken by Resource Development Consultants Ltd (RDCL) in 2023.
- 22 I conducted a site visit on 08 June 2023.
- 23 In preparing this evidence I have reviewed the following documents:
- a) *Section 42A Report of Ryan O’Leary – Planning* (“the s42A Report”).
 - b) *Geotechnical Assessment Report – Project: 10-Lot Subdivision, Mangakuri Beach*, revision 19385B-05, 06 October 2023, prepared by RDCL.
 - c) *Technical memorandum for an application for subdivision consent under the Resource Management Act 1991 in respect of 42 Okura Road, Elsthorpe*, undated, from Lee Paterson of Stantec to Ryan O’Leary of The Property Group.
- 24 The purpose of my evidence is to provide my conclusions from my peer review of the RDCL report in the context of the geotechnical related matters to this resource consent hearing; namely those related to the stability of the ground at the site, and whether the proposed development will have a detrimental effect on, or result in additional risk to, adjacent properties.
- 25 My evidence is structured as follows:
- a) Description of the Subject Site and Application

- b) Summary of my peer review of RDCL’s geotechnical assessment
- c) Summary of the CHBDC Technical Memorandum from Lee Paterson, Senior Geotechnical Engineer, Stantec
- d) Summary and Conclusions

26 Accordingly, the remainder of my evidence is set out under the topic headings listed above.

DESCRIPTION OF THE SUBJECT SITE AND APPLICATION

27 The 111.9ha irregular shaped subject site (“the site”) is fully described in section 2 of the AEE, it is also described in the s42A Report. To avoid duplication, I will not repeat those descriptions.

28 In brief, the Application seeks subdivision consent to create eight rural lifestyle lots, two rural balance lots, and a lot to be amalgamated with Lot 1 DP 25627 (38 Okura Road) as a boundary adjustment. No land use consents are being sought and the subdivision application is inclusive of the construction of the vehicle access ways to, and building platforms on, each of the proposed lifestyle lots, and for construction of the stormwater infrastructure to service those vehicle access ways and building platforms, and of the ‘Landscape Enhancement Zone’ plantings.

29 The site is located within a relatively steeply sloping and geologically complex coastal landscape.

30 Some areas of minor relatively recent, and large-scale historical slope instability were observed during my site visit. These appeared to be primarily associated with recent “soil creep” caused by seasonal swelling of expansive soils, an isolated area of relatively recent minor storm-related movement (“drop out” below a short section of Williams Road), and larger historical slope failures considered likely to have been caused by past seismic activity (i.e., large earthquake). These larger failures have created debris lobes in places along Mangakuri Beach – including areas on which houses are currently located.

31 Notably, there was only a small, isolated area slope movement attributable to Cyclone Gabrielle observed during my site visit (below Lot 8), and the lack of significant movement was further confirmed by comparing pre-and post-cyclone aerial photographs of the site.

SUMMARY OF MY PEER REVIEW OF RDCL'S GEOTECHNICAL ASSESSMENT

32 As part of my peer review, I reviewed RDCL's 01 June 2023 geotechnical assessment report which I understand was a revision of an earlier report in response to a project design review, and in response to a Council peer review conducted by Stantec. I also reviewed several aerial photographs of the site dating from 1952 to 2023, along with various published hazard studies and geologic and hazard maps of the site area.

33 I had several meetings with Tom Bunny of RDCL wherein we discussed the geotechnical and geologic hazards present at the site, and their potential implications to the proposed building platforms and driveway access. We also discussed how best to define the terms "low", "moderate" and "high" risk in the context of RDCL's geotechnical assessment and compliance with applicable statutory regulations.

34 Based on my review and my discussions with Mr. Bunny, I recommended that RDCL revise their site geomorphology map to more accurately delineate areas of confirmed and suspected past slope movement. The map was then used by RDCL to confirm whether any of the proposed building platforms or driveway access were located in areas of known or suspected significant past slope instability.

35 I recommended that additional detailed slope stability analyses be undertaken for some of the lots to confirm that the estimated factors of safety against slope instability met normally accepted minimum requirements.

36 Following the additional work by RDCL and discussions between Lawrence Yule, Tom Bunny and myself, minor adjustments were made to the locations of two of the proposed building platforms, and minimum setbacks from slopes were increased from 3 to 5 m (it is noted that the CHBRC geotechnical peer reviewer had similar comments on slope setbacks). Two lots were also

combined into a single lot and the building platform for the lot was relocated further away from the slope above.

**SUMMARY OF THE CHBDC TECHNICAL MEMORANDUM FROM LEE
PATERSON, SENIOR GEOTECHNICAL ENGINEER, STANTEC**

37 The memorandum addresses:

- a) Peer review of the applicant’s assessment of geotechnical hazards associated with slope stability.
- b) Peer review of specific engineering advice from the applicant’s geotechnical engineer.

38 The Council review appears to be technically robust and was undertaken by two Stantec geotechnical engineers “...to ensure that a consensus opinion was achieved.”

39 The review confirmed that the procedures undertaken by RDCL to assess the slope stability hazard are in accordance with “recommended industry best practice” and that “a thorough and robust engineering assessment has been undertaken.”

40 Mr. Paterson concludes that he is “satisfied that the applicant’s agents have confirmed as part of their assessment that the proposed work will not have a detrimental effect on adjacent properties, exacerbating or creating additional risk to adjacent land.”

41 The memorandum recommends three amendments to the applicant’s proposed (geotechnical) Consent Conditions as follows:

- a) “Plans should show “No Build” Zones to inform setbacks in survey set-out terms, rather than potentially ambiguous relationships to breakover slope angles”; and
- b) “Excavation levels for lowered building platforms should be specifically defined in the conditions”.

- c) “...recommend that the actual recommended species, or some more specific descriptor should be applied in a planting plan for review to ensure that these meet the expectations of this condition”.

42 I agree with the overall comments and recommendations made in the CHBDC Technical Memorandum, including the suggested amendments to the applicant’s proposed Consent Conditions.

SUMMARY AND CONCLUSIONS

43 RDCL has provided a robust geotechnical investigation for the proposed development that included an assessment of the individual building platform locations and vehicle access. The assessment include a review of historical and recent aerial photographs of the site, geomorphological mapping, site investigation, laboratory testing and numerical analyses of slope stability.

44 As part of their geotechnical assessment, RDCL has taken into account my peer review comments, as well as the recommendations from the CHBDC geotechnical peer review, and have revised their recommendations accordingly.

45 RDCL has concluded that the proposed development would be suitable for the site provided the Consent Conditions in their 06 October 2023 report are adhered to.

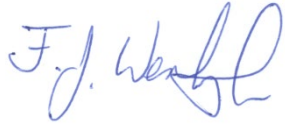
46 The CHBDC geotechnical peer review (CHBDC Technical Memorandum by Lee Paterson) also noted the robustness of RDCL’s assessment, and was satisfied that it demonstrated that the proposed development would not have a detrimental effect on, or exacerbate or create additional risk to the adjacent land.

SUGGESTED CONDITIONS

47 I agree with the intent and general appropriateness of the conditions recommended by RDCL in Section 9 of their *Geotechnical Assessment Report – Project: 10-Lot Subdivision, Mangakuri Beach, revision 19385B-05, 06 October 2023*, and recommend that these be included in the Consent Conditions.

48 I agree that the three additional recommendations contained in the CHBDC Technical Memorandum (11.4 through 11.6) should also be included in the Consent Conditions.

49 I am happy to answer any questions at the hearing.



Frederick J. Wentz

11 June 2024