

Before New Plymouth District Council

Independent Commissioner Mark St Clair

IN THE MATTER of an application for resource consents LUC24/48662 and SUB24/50201 1 and 9 Washer Road, Omata

Washer Family Trust Limited

Applicant

EXPERT GEOTECHNICAL STATEMENT OF KRISTEL FRANKLIN

I, KRISTEL FRANKLIN, OF RED JACKET LIMITED, SENIOR ENGINEERING GEOLOGIST, SWEAR:

INTRODUCTION AND QUALIFICATIONS

1. My full name is Kristel Franklin.
2. I am employed as a Senior Engineering Geologist at Red Jacket Limited (“**RJL**”), in New Plymouth.
3. I hold the qualifications of MSc (Hazard and Disaster Management), BSc (Geology). I am a Chartered Member of Engineering New Zealand and a Professional Engineering Geologist (PEngGeol).
4. I have over 20 years’ experience in geotechnical engineering within New Zealand, including 12 years’ experience in the Taranaki region.
5. My practice area is in geotechnical engineering with a particular focus on natural hazard risk assessments, geotechnical investigations, foundations and earthworks design.
6. This evidence is given in support of the boundary adjustment and land use consent application (“**the application**”) lodged by the Washer Family Trust Ltd (“**the applicant**”), at 9 Washer Road in terms of geotechnical matters.
7. I am authorised to give this evidence on behalf of the applicant.

BACKGROUND AND CONTEXT

8. The applicant seeks a subdivision consent to make a boundary adjustment between two existing lots; and a land use consent for the ability to locate dwellings/structures within side yard setbacks.
9. The subject site includes Lot 31 and Lot 20 on the Tapuae Country Estate. Lot 20 is also referred to in correspondence relating to this matter by its street address, 9 Washer Road. These lots comprise parts of the Tapuae Country Estate, a rural-residential development between the suburbs of Oakura and Omata. Tapuae Country Estate was created in 2008 and includes 30 rural-residential allotments set amongst balance allotments, held in common ownership and used for rural production and common recreation purposes.
10. A Scheme Plan, prepared by New Plymouth's McKinlay Surveyors, of the Tapuae Country Estate showing individual dwelling development lots and the balance farm lots is provided in Appendix A, which is included in the current application documentation (LP, Page 54).¹
11. Lots 31 and 32 DP 385658 are the farm balance lots of the Tapuae Country Estate.
12. Existing Lot 20 DP 385658 (9 Washer Road) is presently an undeveloped rural-residential allotment. The allotment is fully fenced and includes a portion of vegetated gully on its northern western margin.
13. RJL has previously assisted the applicant in relation to 9 Washer Road. In July 2021 RJL investigated the original building platform's viability ("Site 1") following land instability associated with the head of the gully. RJL subsequently completed shallow geotechnical testing in October 2021 across an alternative building location area ("Site 2"). The

¹ In this statement, unless otherwise stated, where a page reference is provided in parenthesis, it is to the "9 Washer Road - Washer - Lodgment Package" Resource Consent Application filed by Chris Rendall on 14 November 2024. So: LP-Page 1 would refer to the first page of the lodgment package.

reports associated with the investigations are included in the application documentation (LP, Pages 59-110).

- 14.** The application aims to relocate the existing building platform from Site 1 to Site 2 to provide a stable building platform. The horizontal distance from the head of the gully is approximately 4m for Site 1, compared to approximately 24m for Site 2.

INVOLVEMENT IN THE PROJECT

- 15.** RJL's involvement in the application in terms of geotechnical matters has included:
 - (a)** As referred to in Item 13 (LP, Pages 59- 110), RJL has completed an 'Engineering Report - Building Platform Investigation' in November 2021 (reference RPT-4317-A-01 REV-A). The report appended two previous reports relevant to the current application, as outlined below:
 - (i)** Tonkin + Taylor Ltd, September 2021. Desktop assessment for proposed residential development at 9 Washer Road, Omata (reference 1018457).
 - (ii)** Red Jacket Ltd, July 2021. Engineering Report, Building platform, 9 Washer Road, Tapuae (reference RPT-4317 REV-B).

METHODOLOGY AND INFORMATION CONSIDERED

- 16.** In preparing this evidence, and in addition to the report referenced in [15], I have also reviewed the following documents produced with the application, including:
 - (a)** McKinlay Surveyors, Job No. W-211212, Drawing No. RC01, Sheets 1 and 2, dated 27 May 2024, which details the proposed boundary adjustment.
 - (b)** Landpro Ltd, July 2024. Resource Consent Application to New Plymouth District Council.

17. I have considered the implications of both Sites 1 and 2 in terms of Section 106 of the Resource Management Act 1991 (“**RMA**”), and Sections 71 and 72 of the Building Act 2004, which relates to natural hazards.
18. I have reviewed submissions from those notified of the application that raise concerns relevant to my field of expertise.
19. I have relied on a review of previous reports, available aerial photography, cross-sections and measurements of the slope instability and my own knowledge of active slope processes.

CODE OF CONDUCT

20. I confirm that I have read the Code of Conduct for expert witnesses contained in the 2023 Environment Court Practice Note and that I agree to comply with it. I confirm I have considered all the material facts that I am aware of that might alter or detract from the opinions I express. In particular, unless I state otherwise, this evidence is within my sphere of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

PURPOSE AND SCOPE OF EVIDENCE

21. RJL confirms it has read the submissions on the Application relevant to its expertise and the Council Planners’ Section 42A Report (“**planner’s report**”). The assumptions, assessment and conclusions set out in the RJL report reference RPT-4317-A-01 REV-A remain valid.
22. Except where my evidence relates to contentious matters, I propose to only summarise the conclusions set out in RJL report reference RPT-4317-A-01 REV-A.
23. My evidence is structured as follows:
 - (a) Summary [24]-[25];
 - (b) Geotechnical Review [26]-[33];
 - (c) Response to Submissions [34]-[35];
 - (d) Comments on the Planner’s Section 42A Report [36]-[41]; and

(e) Conclusion [42]-[44].

SUMMARY

24. The key engineering related issues within my expertise in my opinion is the suitability of the Site 1 and proposed Site 2 following a boundary adjustment for residential development in terms of Section 106 of the RMA (1991) and Sections 71 and 72 of the Building Act (2004) that relates to natural hazards.
25. By way of a summary, my detailed analyses and assessments enable me to confidently conclude that:
- (a) The risk of natural hazards (slippage) impacting the current building platform within Site 1 is currently assessed as high. Earthworks would be required, and associated engineering design for a retaining wall or shear key and buttress to mitigate the risk to an acceptable level. A shear key would involve an excavation at the base of gully slope to act as toe support for imported fill to reinstate land (buttress) that has slipped to a stable configuration.
 - (b) A stable building platform can be created by relocating the building platform, which necessitates adjusting the current legal property boundary.
 - (c) Relocating the building platform to stable land will avoid environmental impacts and permanent landscape modification. These permanent impacts and modifications would be required for an engineered solution to enable the existing site to have a stable building platform. Impacts of earthworks to the gully would not be fully realised until works are in progress.
 - (d) 'Health and Safety by Design' considerations are required in all engineering design projects.² which in this case the process of

² Health and Safety at Work Act 2015, ss 30, 39-43. See also: Practice Note 4: Health and Safety by Design (Engineering New Zealand, April 2023) <https://d2rjvl4n5h2b61.cloudfront.net/media/documents/PN04_HealthSafety_by_Design.pdf>

managing health and safety risks is best achieved by moving the building platform to a stable area.

GEOTECHNICAL REVIEW

26. A review of the suitability of the land in terms of geotechnical matters relating to Site 1 (existing) and Site 2 (proposed boundary adjustment area) has been undertaken by RJL.
27. Available historical aerial photography indicates that aside from plantings on the slope (gully feature), no other visible modifications or earthworks directly associated with the gully have occurred to date. The landslide that initiated in 2012 is considered a natural process in response to climatic conditions that is typical in the region.
28. Land instability is becoming more prevalent as the frequency of long duration and high intensity rainfall events increase. This is in conjunction with increasing demand for new residential developments. Seismicity is also a factor to account for in slope stability assessments.

Site 1

29. Both RJL and Tonkin + Taylor Ltd reporting referenced above in Section 15 (LP, Pages 59-110), assess that if a dwelling as presently consented were built at Site 1, in the absence of detailed geotechnical investigations, analysis and design of slope stability mitigation works the risk of material damage to land and structures within Site 1 is unacceptably high.
30. RJL concludes the gully head's rate of regression at Site 1 is difficult to predict. Because Site 1 is presently located <5m from the gully head, I assess that the likelihood of slope regression within the designed life of a residential structure (50 years) is high. The consequences of this slope regression to life safety and material damage to land and property is not tolerable.
31. Possible alternatives to retain the building platform in Site 1 and reduce the risk profile could be facilitated by engineering works. This could include construction of an engineered retaining wall, or shear

key/buttrresses. Both engineering options would require substantial earthworks to create access for machinery to the base of the steep slope in question. The machinery would then need to undertake permanent modification of the gully feature.

32. Drainage is a key consideration in controlling slope stability. The assessment by RJL to date is that groundwater seepage is likely occurring within the transition between the volcanic ash layer and underlying Maitahi Formation deposits (LP, Page 91). The hydrogeological model would require confirmation to determine the impacts of engineering options for slope stability mitigation and associated potential downstream effects.

Site 2

33. Site-specific shallow geotechnical testing within Site 2 by RJL in October 2021 identified ground conditions assessed as suitable for residential construction (in general accordance with New Zealand Standard (NZS) 3604:2011, Timber-framed buildings). This means Site-2 is “good ground” for a building platform. In addition, RJL specifically assessed slope stability due to the offset to the gully head generated by the boundary adjustment. RJL’s geotechnical testing assessed that no mitigation measures are required to address natural hazards at Site 2.

RESPONSE TO SUBMISSIONS

34. I have read the submissions made by lot owners that have been made in relation to the application. I address and respond as follows to the two submissions made addressing the land instability. However, my opinion is applicable in relation to all submissions expressing any concern regarding the application.

- (a) **Submission of Denise Seed, 24 Washer Rd:** Reference is made to a piece of land with a major slip in comparison to the area of the proposed boundary adjustment (i.e., Site 2) that does not have a slip.

My Expert Response: For context, I have assessed the risk of slippage to Lot 31 in comparison to the existing Lot 20.

To assess 'risk' (in this case of slippage), the likelihood and consequence of the natural hazard requires consideration. As outlined in my evidence, the risk of slippage is assessed as high for Lot 20 due to the high likelihood and major consequences of slippage directly impacting a future building platform.

Conversely, the risk of slippage to Lot 31 would impact <1% of the total land area and not have any measurable impact in terms of geotechnical constraints for continued agricultural purposes.

The gully is a natural feature and the instability that occurred would have likely initiated irrespective of development within Lot 20.

The aim of the boundary adjustment is to enable a safe building platform for residential construction and avoid earthworks for an engineered design/land modification.

(b) Submission of Barbara Cameron and Deborah Williams, 21 Washer Rd.

My Expert Response: My response to concerns raised in this submission regarding the land instability are similar to those outlined above in [34(a)]. The slope instability observed is a natural process. When the natural process (gully head regression) is considered in the context of Tapuae Country Estate's land, the effects on continued use for agricultural purposes across Lot 31 are assessed as negligible. The same cannot be said for the effects (of gully head regression) on a building platform (Site 1) within 5m of the crest of the slope. From a geotechnical perspective, the scope and extent of earthworks associated with slope remediation is not considered commensurate with the boundary adjustment option that would result in an already stable building platform.

35. I do not need to vary my expert assessment in light of the submissions received.

COMMENTS ON THE PLANNER'S SECTION 42A REPORT

36. Because they within my area of expertise, I address the following items in the Planner's Section 42A report.

37. **I first address the Planner's assessment of positive environmental effects:**

Item 34: *"... the applicant has asserted that without the subdivision, a dwelling cannot be built on existing Lot 20. This assertion relies on reports dated 2021 and 2025 by Red Jacket and a report from 2021 by Tonkin and Taylor. Whilst I have no reason not to accept the findings of the engineering reports, the applicant hasn't provided any further information as to what other options could be explored to build on existing Lot 20 without the for either land use of subdivision consent"*

(Planner's s 42A report, 10 September 2025 at page 14, [34]).

38. **My Expert Response:** In addition to the detail provided in [29] to [32] of my expert statement, consideration could be given to an enhanced foundation solution for a dwelling within the existing Lot 20 / Site 1 (i.e., deep piles). An enhanced foundation would require Specific Engineering Design and detailed slope stability analysis. As the land intimately connected to the building work would remain subject to natural hazards. This may require an entry on the record of title (hazard notice) under the Building Act 2004, s 73. for the existing Lot 20. Implications of a hazard notice can influence the insurability of a future dwelling (i.e., no insurance or higher premiums) and decrease the property value. The application's purpose is to avoid the natural hazard, and not accelerate or worsen an existing natural hazard, as required under the Building Act (2004, ss 71 and 72). Further engineering solutions on Site 1, to enable a viable building platform, in my expert opinion will likely worsen an existing natural hazard.

39. Regarding the Planner's RMA, s 106 assessment of particular considerations for subdivision:

Item 85: *"There is no reason to decline this application under Section 106 of the RMA given:*

- *The part of the application sites to be adjusted is the not subject to any known significant natural hazards; and*
- *Provision has been made for legal and physical access to all lots via the existing road network."*

40. My Expert Response: I agree that the area of Lot 20 following the proposed boundary adjustment is not subject to any known significant natural hazards. In terms of the residual risk of land instability to Lot 31, in my expert opinion, I do not consider that there is an unacceptable risk to the 56.05 hectare Lot 31 incorporating the 1,507m² western portion of the existing Lot 20, if the boundary adjustment proceeds.

41. I do not need to vary my expert assessment in light of the Section 42A report.

CONCLUSION

42. In my opinion, the proposed activity facilitates construction of a dwelling on Lot 20, and is commensurate with the intent of the original subdivision consent.

43. The balance lot will not be burdened by the consents' grant. The incorporation by Lot 31 of 1,507m² from Lot 20, does not increase the overall risk that Lot 31's land will become unstable.

44. No geotechnical constraints are presented by the application for Lot 31's continued use as agricultural land.

Dated 17 September 2025



Kristel Franklin