# **DISCIPLINARY COMMITTEE DECISION** REGARDING A COMPLAINT ABOUT DAVID MULHOLLAND

#### **Confidential to parties**

In accordance with: Engineering New Zealand Rules Engineering New Zealand Disciplinary Regulations Chartered Professional Engineers of New Zealand Act 2002 Chartered Professional Engineers of New Zealand Rules (No 2) 2002

Prepared by Jenny Culliford FEngNZ (Ret.) Chair of the Disciplinary Committee

Don Thomson CMEngNZ CPEng IntPE(NZ) Grant Murray FEngNZ CPEng IntPE(NZ) Hamish Wilson, nominated by Consumer New Zealand Theodora Baker, Barrister and Solicitor of the High Court of New Zealand **Members of the Disciplinary Committee** 

2 November 2020



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# EXECUTIVE SUMMARY

- 1. The complainant, an employee of Whanganui District Council (WDC), has raised a complaint about the competence and ethical conduct of David Mulholland CMEngNZ CPEng IntPE(NZ); illustrated by three representative instances of Mr Mulholland's work which have been reviewed by his peers. The complainant considers the reviews point to significant competence deficiencies and breaches of the Engineering New Zealand and Chartered Professional Engineers of New Zealand Code of Ethical Conduct, particularly his obligations to:
  - a. take reasonable steps to safeguard health and safety;<sup>1</sup>
  - b. have regards to effects on the environment;<sup>2</sup> and
  - c. act competently.<sup>3</sup>
- 2. The complainant considers the peer reviews demonstrate deficiencies in Mr Mulholland's approach to geotechnical analysis and documentation, and an unwillingness to accept advice and recommendations from WDC and independent peer reviewers.

#### DECISION

- 3. Having considered the matter following the hearing held on 29 May 2020, we have found the engineering services provided by Mr Mulholland in respect of the documentation provided for each of the three properties show insufficient site specific investigation and analysis. There are significant gaps and errors in his overall approach and work that raises significant questions about Mr Mulholland's skill and competence in the field of geotechnical engineering. We have found Mr Mulholland has not met the standard expected of a Chartered Professional Engineer and Chartered member of Engineering New Zealand.
- 4. The complaint is upheld.

<sup>&</sup>lt;sup>1</sup> Chartered Professional Engineers of New Zealand Rules (No 2) 2002 (CPEng Rules), r 42B and Engineering New Zealand, r 4.

<sup>&</sup>lt;sup>2</sup> CPEng Rules, r 42C and Engineering New Zealand, r 4.

<sup>&</sup>lt;sup>3</sup> CPEng Rules, r 42E and Engineering New Zealand, r 4.

# BACKGROUND

### COMPLAINT

- 5. On 12 January 2018, the complainant raised concerns with Engineering New Zealand about engineering services provided by Mr Mulholland. Those concerns relate to work performed by Mr Mulholland that WDC became aware of while processing applications for resource and building consents for several properties in its jurisdiction. The complainant raised the concerns in a private capacity with the full knowledge of their employer.
- 6. The complainant provided three instances of Mr Mulholland's work that had been reviewed by his peers. The complainant considers the reviews point to significant competence deficiencies and breaches of the Engineering New Zealand and Chartered Professional Engineers Code of Ethical Conduct.
- 7. The complainant also considered the reviews demonstrate deficiencies in Mr Mulholland's approach to geotechnical analysis and documentation, and an unwillingness to accept advice and recommendations from WDC and independent peer reviewers.

## **INVESTIGATING COMMITTEE**

- 8. Following an initial investigation, the complaint was referred to an Investigating Committee for formal investigation.
- 9. The Investigating Committee did not consider there were any grounds to dismiss the complaint and, accordingly, determined it should be referred to a disciplinary committee on 10 December 2019.

#### **DISCIPLINARY COMMITTEE**

- 10. The Disciplinary Committee heard the matter by videoconference on 29 May 2020.
- 11. The members of the Disciplinary Committee are:

Jenny Culliford FEngNZ (Ret.) (Chair) Don Thomson CMEngNZ CPEng IntPE(NZ) Grant Murray FEngNZ CPEng IntPE(NZ) Hamish Wilson, nominated by Consumer New Zealand Theodora Baker, Barrister and Solicitor of the High Court of New Zealand

12. The following parties attended the hearing.

Complainant	
The complainant	An employee of Whanganui District Council
Respondent	
David Mulholland CPEng CMEngNZ IntPE(NZ)	Director, David Mulholland Consulting Engineer Limited
Phil Cook CMEngNZ CPEng IntPE(NZ)	Expert witness for Mr Mulholland
Duncan McGill	Counsel for Mr Mulholland
Kristal Rowe	Counsel for Mr Mulholland
Engineering New Zealand staff	

13. The parties were invited to make submissions prior to the hearing. We received submissions from the complainant, and briefs of evidence (BOE) from Mr Mulholland, his expert advisor Mr Cook, and submissions from Mr McGill. All relevant information gathered has been incorporated into our report below.

# **INFORMATION GATHERED**

# BACKGROUND

- 14. The complaint relates to engineering services performed by Mr Mulholland during 2016 and 2017 in respect of three residential properties in Whanganui: Property A, Property B, and Property C.
- 15. The complainant became aware of Mr Mulholland's conduct when he was asked by WDC, in their capacity as a Chartered Professional Engineer to comment on what would constitute, in the profession, a suitably qualified geotechnical engineering practitioner.
- 16. While engaging with Mr Mulholland over the WDC's approach to assessing suitably qualified geotechnical engineers, the complainant became concerned by Mr Mulholland's approach, particularly in respect of geotechnical investigation and analysis. WDC commissioned a series of peer reviews of Mr Mulholland's work on the complainant's recommendation.
- 17. The authors of the peer reviews criticised Mr Mulholland's reliance on reports not intended to be relied on for geotechnical analysis. They also made criticisms the geotechnical analysis and investigation he conducted for these three properties was insufficient.

#### Complaint

- 18. The complaint, in respect of the three properties, is that Mr Mulholland:
  - a. did not follow good engineering practice for conducting geotechnical investigations and analysis, and the geotechnical investigations and analyses he conducted for these properties were insufficient;
  - b. relied heavily on empirical design solutions, and on third party reports produced for limited purposes, without modifying them to suit the conditions that should reasonably have been identified through investigation and analysis;
  - c. acted outside his competence by providing geotechnical investigation and analysis without supervision, or demonstrated competence in the field of geotechnical engineering, or continued professional development in that field; and
  - d. is not willing to accept advice contained in peer reviews obtained by the WDC, or modify his practice based on their recommendations.
- 19. The complainant in both his letter raising concerns with Engineering New Zealand and at the hearing, states he raised these concerns directly with Mr Mulholland. Mr Mulholland denies this.

#### Mr Mulholland's position

- 20. Mr Mulholland's position is:
  - a. he accepts that he could have communicated more clearly with the WDC and the Investigating Committee; but
  - b. his work does meet the standard required for a reasonably competent engineer and he has acted in a careful and competent manner;

- c. he has not performed engineering services in a negligent or incompetent manner or outside his area of expertise;
- d. therefore, the threshold for discipline is not met, and the Disciplinary Committee should dismiss the complaint.

### WORK UNDERTAKEN

#### Preliminary

- 21. It was established at the hearing that the process WDC follows when building works are to be carried out is to approve a provisional building consent application subject to a homeowner obtaining resource consent in the areas of Property A and Property C as the land is prone to land instability. In our experience it would be usual for a resource consent to be required first to establish the land is suitable for the proposed land-use and will not be subject to the detrimental impact of any identified natural hazards.
- 22. For example, where a resource consent application to sub-divide and develop land identifies the land as prone to a natural landslide hazard, the application must outline possible practicable mitigation measures. The Building Consent Authority (BCA) may grant consent with a condition the mitigation measures are put in place. In such circumstances the permitted activity could reasonably be expected to include conditions that reflect the controls identified in order to safely develop the site. Any subsequent building consent application would have to specifically address how the proposed building works would comply with resource consent conditions on mitigating the landslide hazard and demonstrate compliance with the performance standards of the Building Code in respect of stability.
- 23. We have set out the work undertaken by Mr Mulholland, including the parties' submissions, where relevant. We have been provided with the work Mr Mulholland has undertaken in respect of the resource consents for the subject properties but have not been provided with the building consent information.

#### **Property A**

#### MWH reports prepared for Property Z

- 24. In September 2003 MWH New Zealand Limited (MWH) prepared a geotechnical report for a proposed subdivision at Property Z. Property Z is located approximately 50 metres from Property A.
- 25. In 2008 MWH prepared a further report, addressed to the WDC Subdivisions Engineer, in support of a resource consent application to subdivide the site at Property Z. The report includes a qualitative risk assessment of the slope stability at the site and concludes the level of risk for both shallow and deep-seated failures is low to moderate but "this is <u>considered acceptable</u> provided a number of mitigation measures are adopted to reduce the risk of instability to slopes and structures" [sic] The report states "The risk of instability of the slopes and building site must be reduced by a number of measures and maintenance procedures." The mitigation measures include the requirement for the "foundations to be designed by a suitably qualified engineer based on site-specific investigations" and included guidance the foundations were expected to be taken 3.8m below ground level. This guidance referred to the building site on the old tennis court.
- 26. On 2 July 2014, WDC granted resource consent to subdivide Property Z, with the condition that the recommendations in the MWH report would be implemented.

#### Application for resource consent

- 27. In June 2017 Mr Mulholland was engaged by the owner of Property A ("the subject property") to assist in preparing an application for resource consent to build a new dwelling on the subject property. The proposed dwelling was in a different site on the subdivided lot, separate from the building platform considered in the earlier reports by MWH.
- 28. Mr Mulholland says the WDC advised him in July 2017 it had approved the building consent application, but it was subject to the homeowner first obtaining resource consent.
- 29. Mr Mulholland says he obtained the WDC property file, which included the two MWH reports and the WDC resource consent; both prepared for Property Z, to help inform his design. In July 2017 Mr Mulholland wrote to his client and advised him the geotechnical information used to obtain the 2014 resource consent at Property Z should be applicable for the new dwelling at Property A.
- 30. In making his recommendation that the site was suitable for building on, and in addition to the WDC file, Mr Mulholland also carried out two Scala penetrometer tests beneath the proposed dwelling site. Mr Mulholland said these tests showed "good ground"<sup>4</sup> at 1500mm. He said this was consistent with the MWH reports.
- 31. On 31 August 2017 WDC returned the resource consent application to the owner of the property, stating it was incomplete, and raised issues about Mr Mulholland's reliance on MWH's reports for Property Z. Mr Mulholland responded that MWH had advised him its 2008 report was "in the public domain" and therefore his client should be able to rely on it.

#### Peer review

- 32. In November 2017 WDC commissioned a peer review of the geotechnical work carried out by Mr Mulholland. The peer review was carried out by Hamish Peters CPEng CMEngNZ. Mr Peters has been a Chartered Professional Engineer since February 2012 and his practice areas are civil and geotechnical.
- 33. Mr Peter's report states his company "has been commissioned to carry out a peer review of the geotechnical work attached to an application to build another house on the property at Property A. The purpose of the peer review will be to determine if the geotechnical work is correct and sufficient for Council to issue resource consent."

<sup>&</sup>lt;sup>4</sup> NZS 3604 Timber-framed buildings is published by Standards New Zealand. It is referenced, with some modifications, as an Acceptable Solution for Building Code clause B1 Structure.

Standard 3.1.1 of NZS3604 states: "If a site does not comply with the definition of good ground, the foundations shall be the subject to Specific Engineering Design (SED) and Investigation as appropriate."

Standard 3.1.3 of NZS3604 sets out the determination of good ground:

<sup>(</sup>a) [...]

<sup>(</sup>b) Reasonable inquiry, of PIM and site observation shows no indication or record of land slips or surface creep having occurred in the immediate locality;

<sup>(</sup>c) [...]

<sup>(</sup>d) [...]

And any of the following:

<sup>(</sup>e) Where indicated by site specific investigation, using the test method for soil bearing capacity contained in 3.3;

<sup>(</sup>f) Where inspection of existing structures on this or neighbouring sites and reasonable enquiry, including territorial authority records, local history on the site, and published geological data such as structural geology where appropriate, shows no evidence of erosion (including coastal erosion, bank erosion, and sheet erosion), surface creep, land slippage, or other failing debris, including soil, rock, snow and ice), uncertified fill, fill over original water course, or subsidence having occurred in the immediate locality;

<sup>(</sup>g) [...].

- 34. Mr Peters' opinion was the MWH reports for Property Z should not be relied on by WDC to provide consents for Property A; as the MWH reports did not provide a geotechnical assessment of the stability of the proposed house site or determine the level of risk to the proposed house site.
- 35. The peer reviewer considered the resource consent application did not provide sufficient information about the level of risk to the proposed new house site, nor did it follow the methodology prescribed in the WDC Land Stability Assessment Report Guidelines:<sup>5</sup>

Where required by rules 11.4.2,<sup>6</sup> [...], the person proposing to undertake the activity shall provide Council with a report from a suitably qualified and experienced geotechnical engineer, prior to commencement of any works onsite. Council shall consider this rule is complied with where the report confirms that:

1. The risk of the activity is no more than low, using the qualitative risk assessment process described in 'Practice Note Guidelines for Landslide Risk Management 2007' (Australian Geomechanics Society, 2007); and

2. Associated works will not worsen or accelerate land instability on the site or surrounding area.

Note: Council shall maintain a list of suitably qualified and experienced geotechnical engineers.

- 36. The peer reviewer considered Mr Mulholland's ground investigation and geotechnical assessment (the two Scala penetrometer test results) were insufficient to determine the level of risk of slippage (geotechnical stability) on the building site, differentiate between potentially unstable near surface soils and the more competent material expected at depth, or to determine a suitable depth of the proposed foundations to resist sliding mechanisms.
- 37. Mr Peters suggested Mr Mulholland:
  - a. determine the level of risk and slippage to the Proposed House Site by using the methodology recommended by WDC in the document "Practice Note Guidelines for Landslide Risk Management, 2007"(LRM Guidelines);<sup>7</sup>
  - b. if the risk was determined to be moderate to high, provide remedial options to reduce the risk to low; and
  - c. drill holes above, on and below the proposed house site to determine the ground conditions and suitable depth and size of the pole foundations.
- 38. WDC sent the peer review to Mr Mulholland. Mr Mulholland responded by referring to comments in one of the MWH reports which stated the possibility of a deep-seated failure of the slope was considered rare, and the risk of a slope failure, either shallow or deep-seated should be assessed as

<sup>&</sup>lt;sup>5</sup> Whanganui District Council District Plan cl 11.5.1 "Geotechnical reports". Available at: <u>https://www.whanganui.govt.nz/our-services/planning-services/district-plan/Documents/Chapters/Chapters/2011%20Natural%20Hazards.pdf</u>

<sup>&</sup>lt;sup>6</sup> Excavation, construction, alteration or modification to any structure or retaining wall. Council retains control over: i. Implementation of conditions to ensure that the excavation and construction, alteration or modification to any structure or retaining wall does not worsen or accelerate the risk of land instability on the site or surrounding area. Whanganui District Council District Plan cl 11.4.2 "Controlled Activities". Available at:

https://www.whanganui.govt.nz/our-services/planning-services/district-plan/Documents/Chapters/Chapter%2011%20Natural%20Hazards.pdf <sup>7</sup> Extract from the Australian Geomechanics Journal and News of the Australian Geomechanics Society Volume 42 No 1 March 2007. "Practice Note Guidelines for Landslide Risk Management 2007. Available at: https://australiangeomechanics.org/wp-content/uploads/2010/11/LRM2007-c.pdf

"low to moderate". He said the type of foundation he had proposed would reduce the risk of failure to low. He also said the slopes would be well-drained and planted to reduce surface erosion. Finally, in respect of the proposed drill holes he said when the poles for the foundation holes were drilled there would be ample opportunity to drill deeper or install ground anchors if necessary.

39. After reviewing Mr Mulholland's feedback Mr Peters remained of the view that Mr Mulholland's risk assessment was insufficient and reconfirmed his suggested course of action. Mr Peters further commented MWH's report was produced for a different purpose, and MWH had not given approval for its report and its liability to be used and extended for this project. He did not accept Mr Mulholland's "observational approach" to the design and building of the foundation.

#### Company A report

- 40. On 4 December 2018 Company A, a specialist geotechnical, civil, environmental and structural engineering company, completed a review of the proposed building development at the subject property. The report is addressed to Mr Mulholland, care of the owners of the property. This report was prepared by a Senior Engineering Geologist, and an engineer who is both CMEngNZ CPEng.
- 41. This report concluded that provided the proposed timber pole foundations for the site were appropriately designed, they should be sufficiently robust and resilient for the lifetime of the proposed residential dwelling and any structure or retaining would not worsen or accelerate the risk of land instability on the site or surrounding area. The report generally concurs with the 2008 MWH report that classified the landslide risk as "low to moderate".

#### Mr Mulholland's submissions

- 42. In respect of the use of the 2008 MWH report, Mr Mulholland submitted the report was relevant because it dealt with the soil stability over the entire site and not just the site it was prepared for (Property Z). Additionally, "the MWH report warned of possible creep of slope because of the fill from the old tennis court. However, it concluded the risk of slippage was ""low to medium" and any damage to the house would be minor".
- 43. At the hearing Mr Mulholland gave evidence that if there was a deep-seated failure on Property A or Property C "there would be carnage". When questioned, he said he considered a 50-year return period would be reasonable for a shallow-seated mechanism and 100-year return period would be reasonable for a deep-seated mechanism. He stated the eastern side of the Whanganui River had been subject to slips for hundreds of years. He agreed a 50-year event would be a serviceability limit state (SLS)<sup>8</sup> event, and a large mechanism was a low-to-moderate risk ultimate limit state (ULS)<sup>9</sup> event. He said he would consider a trigger mechanism that might cause an ULS event of that magnitude would be a major earthquake.
- 44. We asked Mr Mulholland whether he considered the remedial stabilisation measures to reduce the risk of a shallow seated mechanism (SLS event) and the deep-seated mechanism (ULS) should be addressed in a building consent application. Mr Mulholland thought it would be reasonable to design

<sup>&</sup>lt;sup>8</sup> Seismic Resilience "Limit state design": The SLS represents a level of stress or strain within the building below which there is a high expectation the building can continue to be used as originally intended without repair. As a consequence, the limiting level of stress or strain defined for this limit state is low. See further: <a href="http://www.seismicresilience.org.nz/topics/resilient-design/earthquake-engineering/limit-state-design/">http://www.seismicresilience.org.nz/topics/resilient-design/earthquake-engineering/limit-state-design/</a>

<sup>&</sup>lt;sup>9</sup> Seismic Resilience "Limit state design": Design for the ULS represents a defined process that is aimed at ensuring the probability of collapse of a building (and therefore the risk to human life) is at an acceptable level. The ULS process is therefore primarily associated with consideration of large (severe), relatively rare events. See further: <u>http://www.seismicresilience.org.nz/topics/resilient-design/earthquake-engineering/limit-state-design/</u>

for the 50-year shallow-seated failure, but not for the deep-seated failure, as he considered this was not possible. He said he guessed a deep-seated failure could be triggered by something similar to the Canterbury Earthquake Sequence (CES); and life safety issues do not need to be addressed in building consent applications. He said he discussed this risk with the property owner and reiterated a major earthquake similar to the CES acting on Property A and Property C would be disastrous everywhere; and it would be impracticable to design for such an event.

- 45. Mr Mulholland stated he had not done a stability assessment to demonstrate what factor of safety exists for a SLS or ULS earthquake as WDC rules require. He commented the Company A and the MWH 2008 had also not done a stability analysis.
- 46. Mr Mulholland stated his foundation design for the subject property would support a mechanism of 2– 3m deep. He clarified it would support at least a 1.5m slip and said the ground at 1.5m was very hard. Mr Mulholland explained using his construction observational approach he would watch how fast the drill was able to go – if soft ground was encountered and the drill was advancing rapidly then he would keep drilling until hard ground was found. He was asked how he would know if there was not a weaker layer at greater depth below the base of his foundation, and he responded he has a fair amount of knowledge of the street Property A is located on. Mr Mulholland expressed the view the ground is fairly consistent and "once hard ground is hit it stays hard". Mr Mulholland confirmed he did not calculate the margin of safety on a landslide mechanism deeper than 1.5m to 2m as this would not be a 50-year landslide but a 200-year landslide.
- 47. We asked Mr Mulholland if he would be concerned about not having any information on the estimated factor of safety for a deep-seated mechanism if he were a BCA. He confirmed he would be very anxious about a major slip.
- 48. In respect of his foundation design,<sup>10</sup> Mr Mulholland stated in his BOE "[the MWH reports] helped me ensure that my foundation design for the dwelling would sufficiently resist the risk of slippage. I did this by designing a cross-braced timber pole foundation system with a minimum pole depth of 1500mm." Mr Mulholland went on to state "for the avoidance of doubt, I confirm that my design for the foundations included a cross-braced pole foundation type, which was designed to specifically reduce the effect of slippage on the house from "low to moderate" to "low".
- 49. At the hearing Mr Mulholland clarified his cross-bracing design was not to resist a slip but rather to resist wind and earthquake forces on the building. Mr Mulholland considered the concreted piles keyed into the hard ground would provide resistance to land slippage and this would reduce the risk of shallow mechanism damaging the property from "low to moderate" to "low".
- 50. In terms of compliance with Building Code requirements, Mr Mulholland was asked how a "low risk" of landslide damaging the property could be translated into terminology consistent with Building Code performance requirements. Mr Mulholland's view was the timber poles concreted into good ground are consistent with the Building Code requirements.
- 51. In respect of building consent, Mr Mulholland advised he was not familiar with the Ministry of Business, Innovation and Employment Guidelines (MBIE Guidelines) on building consent applications.<sup>11</sup> He said these applications were normally made by the architect or the property owner; he would

<sup>&</sup>lt;sup>10</sup> The Disciplinary Committee was not provided with a copy of the design.

<sup>&</sup>lt;sup>11</sup> Department of Building and Housing "Guide to applying for a building consent (residential buildings)" Second edition, October 2010. Available at: https://www.building.govt.nz/assets/Uploads/projects-and-consents/guide-to-applying-for-a-building-consent.pdf

normally submit his design and producer statement. He said he had not provided the drawings for the building consent to Engineering New Zealand in his response to the complaint.

52. In his BOE Mr Mulholland stated there are two options when land is not considered "good ground": extensive site-specific geotechnical engineering investigation, or construction observation:

This is where the engineer designs the foundation system in as much detail as possible, based on all of the known information, but has the scope to increase details if required. [...] The engineer that submits the application on this basis must also be the engineer who is ultimately responsible for signing off the as-built construction as they carry the risk, and therefore the incentive to ensure that the building is constructed appropriately. Obviously, a homeowner must be fully informed and consent to this process as the costs could increase if deeper holes are required. However, if the engineer has sufficient experience and has obtained enough information to be satisfied with their design, changes at construction are usually limited.

53. In respect of his communication during the consenting process, Mr Mulholland submitted WDC may have been further assisted when determining the application if he had more clearly articulated the information and emphasised he bore the risk of being satisfied the foundation was appropriate to resist the risk of slope slippage. Mr Mulholland did not include this explanation in his correspondence to the WDC because he presumed, they would understand engineers always take on this responsibility as good engineering practice.

#### Phil Cook

- 54. In his BOE Mr Cook made some comments about the house site for the subject property, however at the hearing he confirmed these had been on the basis of an incorrect assumption about the location of the house site. Those comments are therefore not relevant.
- 55. In terms of the use of the historical (MWH) reports, Mr Cook stated in his BOE he agreed the previous geotechnical report and recommendations should only be relied upon for the land area within the scope of their assessment. However, there was still useful information in the report and an engineer could use their own judgement to determine whether similar recommendations may be appropriate for a similar property. There were no reports of a major landslide occurring at the Property A location during the 1-in-100-year rainfall event in 2015 and, since additional slope remediation was to be undertaken this would reduce the further risk of landsliding occurring in the future. Mr Cook concluded the slope's performance in the recent rainfall event indicated the slope was not highly susceptible to a water-driven landslide failure and therefore the low-to-moderate risk classification and associated remedial options (proposed foundation designs) were likely to be appropriate for the site.
- 56. In respect of the peer reviews, Mr Cook stated none of the peer reviewers or assessors had highlighted exactly how the proposed construction or remediation options would change if additional testing or another slope stability assessment had in fact been undertaken.

#### Property B – Retaining wall

#### Background

57. On 21 June 2015 Whanganui experienced an adverse weather event. Rain and flooding caused damage to properties in the region, and a retaining wall on this property failed.

- 58. In July 2015 Tonkin & Taylor Limited (T&T) was engaged by the Earthquake Commission (EQC) to provide a report for the property at Property B ("the subject property"), based on a visual inspection of the site to assess the consequences of landslip damage and the risk of any further imminent loss due to a landslide mechanism.
- 59. The T&T report identified a shallow landslide event had impacted the dwelling and damaged a retaining wall adjacent to one corner of the dwelling. The report considered there was imminent risk of further regression of this recently activated landslide mechanism that would result in additional damage and losses to the property. T&T also identified the property was potentially at risk from a larger landslide mechanism that may be triggered by a major storm or earthquake event in the future. They considered this was not an "imminent risk" (likely to occur within the next 12 months) and therefore this larger potential mechanism and any associated remedial costs to protect the property could not be considered part of the EQC claim.
- 60. The T&T report contained a conceptual solution, including reinstating the inundated land and damaged retaining wall, and constructing a new cantilevered masonry retaining wall to address the existing landslide damage and the presumed imminent losses, for EQC's Loss Adjusters to derive the value of the property owner's EQC claim.
- 61. The T&T report recommended the owners consider engaging a geotechnical engineer to assess the wider stability risk issues of adjacent slopes that were not part of the EQC claim and implement remedial work if necessary.
- 62. We understand that, similar to Property A, a building consent application for this retaining wall had been provisionally approved by WDC subject to the property owner obtaining a resource consent for the works.

#### Work undertaken

- 63. On 20 October 2017 Mr Mulholland applied to WDC for resource consent to replace the retaining wall at the subject property.
- 64. Mr Mulholland's covering letter to WDC referred to T&T's recommendations (based on a visual inspection only). He said he had "sufficient ground engineering experience to know that this [retaining] wall can only improve the stability of the slope behind the [retaining] wall because it will be an effective stopper or toe at the base of the slope to resist sliding". Mr Mulholland had not undertaken any geotechnical investigations.
- 65. In the resource consent application Mr Mulholland said "we fully intend to comply with the remedial works proposed [in the T&T report]". In support of the application, he enclosed a letter he obtained from the Registration Authority for Chartered Professional Engineers dated 5 August 2016 confirming he could carry out geotechnical work within his competence, despite not having geotechnical engineering listed as a practice field. The letter states:

...your current practice fields as listed on the registrar [sic] are Civil and Structural ... The Practice Area Description ... is not intended to limit your area of practice given the principles applied in engineering are utilised in a wide range of projects...Generally this wouldn't preclude someone assessed as being competent in Civil engineering to undertake elements of geotechnical design work. Engineers are always obligated to recognise their limits of competence and ensure the work they are undertaking is within their areas of expertise.

- 66. At the hearing, Mr Mulholland advised that his client, the owner of the subject property, wanted to sell the property and believed he could not do so with a failed retaining wall. Mr Mulholland said he had advised the homeowner the low retaining wall he had designed for the property would not solve the problem of the slippage of the bank above the wall. Mr Mulholland submitted to us it was his understanding WDC "wanted to be satisfied that the reconstructed retaining wall would at least provide the same level of stability as the damaged retaining wall had prior to the landslide (as required under section 112 of the Building Act 2004)".<sup>12</sup>
- 67. Mr Mulholland submitted that in hindsight, he probably could have assisted the WDC more by clearly articulating his design rationale. However, he presumed they understood his experience, and he would exercise professional engineering judgement to ensure the replacement wall would perform at least as well as, or better than, the previous wall, particularly as he had signed the Producer Statement Design (PS1).<sup>13</sup>

#### Peer review

- 68. In November 2017 WDC commissioned a peer review of the geotechnical information associated with the resource consent application. The peer review was carried out by Mark Frampton CPEng CMEngNZ. Mr Frampton has been a Chartered Professional Engineer since 2010 and his practice areas are civil and geotechnical.
- 69. The stated purpose of the peer review was to review the geotechnical information associated with an application for a resource consent for the proposed works at the subject property and, by extension, the geotechnical work associated with the provisionally approved building consent. The peer reviewer said he understood the work proposed under the consent application was to reinstate the site to a state similar to what it was before the June 2015 landslide, by replacing the failed retaining wall and removing landslide debris from the base of the wall.
- 70. Mr Mulholland submit he did not know whether the peer reviewer had commensurate experience, and Mr Frampton had not contacted Mr Mulholland in relation to his peer review. He said if

(b) the building will,—

- (i) if it complied with the other provisions of the building code immediately before the building work began, continue to comply with those provisions; or
- (ii) if it did not comply with the other provisions of the building code immediately before the building work began, continue to comply at least to the same extent as it did then comply.

(a) if the building were required to comply with the relevant provisions of the building code, the alteration would not take place; and (b) the alteration will result in improvements to attributes of the building that relate to—

- (i) means of escape from fire; or
- (ii) access and facilities for persons with disabilities; and

(c) the improvements referred to in paragraph (b) outweigh any detriment that is likely to arise as a result of the building not complying with the relevant provisions of the building code.

https://www.engineeringnz.org/documents/93/Producer Statement Guidelines - Practice Note 01 ACENZ and Engineering NZ 2014.pdf

<sup>&</sup>lt;sup>12</sup> (1) A building consent authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the building consent authority is satisfied that, after the alteration,—

<sup>(</sup>a) the building will comply, as nearly as is reasonably practicable, with the provisions of the building code that relate to — (i) means of escape from fire; and

<sup>(</sup>ii) access and facilities for persons with disabilities (if this is a requirement in terms of section 118); and the huilding will —

<sup>(2)</sup> Despite subsection (1), a territorial authority may, by written notice to the owner of a building, allow the alteration of an existing building, or part of an existing building, without the building complying with provisions of the building code specified by the territorial authority if the territorial authority is satisfied that,—

<sup>&</sup>lt;sup>13</sup> A PS1, or Producer Statement – Design, is a form signed by an engineer confirming their opinion that a design complies with relevant clauses of the Building Code. Producer statements have no statutory status under the Building Act 2004. Nevertheless, they remain in widespread use today and are used for design and construction purposes to assist BCAs to establish compliance with the Building Code and the Building Act. As they have no statutory or formal status, accepting producer statements is discretionary for BCAs. See further:

Mr Frampton had contacted him, the subsequent confusion regarding the basis for the application would probably have been avoided.

- 71. The peer reviewer agreed with the T&T preliminary assessment and the recommendation for further geotechnical assessment.
- 72. However, the peer reviewer did not consider the information Mr Mulholland had provided with the application constituted a geotechnical assessment, as no ground investigations had been undertaken and there had been no specific geotechnical assessment of the site.
- 73. While the peer reviewer appreciated Mr Mulholland's proposed wall was intended to reinstate the site to a similar condition to what existed before the landslide event, the peer reviewer noted the work described in the submission did not address the imminent risk of further regression of the recently active landslide. The peer reviewer concluded Mr Mulholland had not demonstrated in his design what he proposed would mitigate, to a sufficient degree, the ongoing or imminent landslide risk to people and property.
- 74. The peer reviewer listed the elements he would have expected a geotechnical assessment to cover, including:
  - a. a site investigation programme;
  - b. an assessment of the ground conditions and development of a ground model;
  - c. identifying any laboratory testing required;
  - d. assessment of the June 2015 failure, and back analysis of geotechnical parameters;
  - e. identification of geotechnical hazards and risk of other possible landslides;
  - f. quantifying the effects of possible hazards to people and property; and
  - g. options for mitigating these risks.

#### Mr Mulholland's response to the peer review

- 75. Mr Mulholland said the peer reviewer and WDC had misunderstood the application for resource consent, as the owner of the property was merely seeking to reinstate the previously consented wall that had failed due to the 2015 landslide, and to remove the slip material that had covered the wall since then. He referred to section 112 of the Building Act 2004.
- 76. Mr Mulholland did not accept the site investigation and testing recommended by the peer reviewer were reasonable. His view was the work proposed by the peer reviewer would serve no purpose, and it was not reasonable for WDC to require the owner to undertake "large scale civil works" to stabilise the entire slope behind the property, which would be cost prohibitive.
- 77. Mr Mulholland submitted while the T&T report was not specifically prepared to support the applications to rebuild the damaged wall, it did provide helpful information about the extent of the landslide and the grounds condition generally, when given appropriate weight and assessed with professional engineering judgement based on experience.

Therefore, since it was prepared for a different purpose, its recommendations about extensive site investigation and remediation are not relevant to the specific applications [...] Unfortunately, this means that as a result of this confused peer review, a homeowner may decide to live with the imminent risk out of fear that if they remediated it, they would be responsible for investigating and possibly remediating the entire hillside. Clearly, this is not what any engineer or the WDC would want to occur.

- 78. At the hearing, it transpired the retaining wall designed by Mr Mulholland was never built. The owner of the subject property sold it with the failed retaining wall, and another engineering consultancy, ABuild Consulting Engineers (ABuild), designed two new retaining walls for the property, one smaller and one larger. Mr Mulholland advised the smaller ABuild retaining wall was similar to the one he had designed. He said since his wall was not built, the design and peer review were no longer relevant.
- 79. When we asked Mr Mulholland why he did not advise the Investigating Committee the wall he designed was not built, he stated they had not asked him.

#### Phil Cook

- 80. Mr Cook stated in his BOE that there seemed to be a misunderstanding between all parties about the original terms of engagement for Mr Mulholland and the associated requirements for the wall design. Mr Cook said it appeared Mr Mulholland was originally engaged to reinstate the property to a condition similar to what it was prior to the landslide occurring in 2015.
- 81. Mr Cook stated he agreed the T&T recommendation was sound from an engineering perspective, but the owner was not obligated to act on the recommendations unless the territorial authority required the hazard to be addressed during the proposed alteration. Mr Cook said Mr Mulholland had indicated the reason for taking the approach of replacing the wall only was it would be too costly to completely address the landslide hazard, which would essentially result in the proposed alteration not taking place at all (referring to section 112(2)(a) of the Building Act 2004).
- 82. Mr Cook said Mr Mulholland's proposed new wall appeared to be significantly more robust than the previous wall and the other recommendations presented in the T&T report were intended to be carried out. He said the owner of the subject property appeared to be willing to accept the risk of further inundation occurring in future storm or earthquake events and the associated loss in property value may occur when the LIM report was updated to reflect this.
- 83. He noted the territorial authority had the final say in how the hazard should be addressed. However, in terms of following the correct process to comply with section 112 of the Building Act 2004, these types of discussions between the owner and the territorial authority should have happened relatively early in the process to determine what the requirements for the new wall would be and what the ramifications were for the owner.
- 84. In Mr Cook's opinion, Mr Mulholland had not demonstrated incompetence or unethical behaviour in relation to his work at this property. He said there seemed to be scope for improvement in terms of how Mr Mulholland had communicated with the territorial authority on behalf of the owner to arrive at a solution both the territorial authority and owner could accept (re section 112 of the Building Act 2004).

#### Property C – Retaining wall

#### Background

- 85. Number Property C ("the subject property") was affected by the same June 2015 adverse weather event as Property B, and a retaining wall on this property failed.
- 86. On 8 September 2015 T&T prepared a report for EQC after the storm as a natural disaster damage assessment. Again, this T&T report was produced for assessing the owner's EQC claim only and stated

as such. As with Property B, T&T based this on a visual inspection only, and no ground investigations or site stability assessments were undertaken.

- 87. The findings and recommendations in this T&T report were very similar to those at Property B. It was identified the property had suffered some damage and loss of land because of the landslide event, and there was an imminent risk of further damage and losses if remedial actions were not implemented. T&T also recommended the owner consider engaging a geotechnical engineer to assess the stability risk of the adjacent slopes, which were identified as a landslide hazard but not considered an imminent risk and implement remedial works if required.
- 88. On 17 February 2017 Mr Mulholland issued a PS1 for the engineering design and construction monitoring (CM3)<sup>14</sup> of the retaining wall, along with sketches and design calculations. We have been provided with a copy of the PS1 design sketches and design calculation documents.
- 89. On 15 March 2017 the WDC issued a certificate pursuant to section 37 of the Building Act 2004 stating no building work may proceed until a resource consent had been approved and granted.

#### Work undertaken

- 90. On 30 June 2017 Mr Mulholland applied for resource consent, on behalf of the owners of the subject property, for a retaining wall to repair landslide damage from the June 2015 storm. The resource consent application included a geotechnical report and design prepared by Mr Mulholland and a supplementary risk assessment matrix.
- 91. Mr Mulholland had calculated that with the completion of his proposed wall there was a qualitative landslide risk rating of "low" when assessed against Appendix E: Landslide Risk Assessment Qualitative Terminology for use in assessing risk to property to the LRM Guidelines.
- 92. We asked Mr Mulholland at the hearing about his risk assessment, and the apparent inconsistencies it contained.
- 93. The first inconsistency was that Mr Mulholland had indicated the likelihood of a future landslide event as "possible" and the potential consequences as "minor", which should have led to an overall "risk level implication" of "moderate risk", according to the risk matrix table. However, Mr Mulholland had circled the "low risk" outcome. When we asked Mr Mulholland about this, he could not explain the inconsistency, and said it appeared to be an oversight. The risk matrix table is reproduced below for illustrative purposes.
- 94. The second inconsistency, which relates to the same table, is that Mr Mulholland had assessed the likelihood of a future landslide event as "possible" and not as "likely" or "almost certain". Given the evidence of the 2015 adverse event, the committee asked whether "likely" or "almost certain" would have been a more appropriate assessment. Mr Mulholland did not offer an explanation in response to this point. However, as noted above, Mr Mulholland had earlier stated if there was a deep-seated failure on Property A or Property C "there would be carnage". He considered a 50-year return period

<sup>&</sup>lt;sup>14</sup> "Construction monitoring is a service which provides the client with independent verification (to the extent of the consultant's engagement) that the works have been completed in accordance with specified requirements ... five levels of construction monitoring services are defined". CM3 requires the engineer to "review random samples of important work procedures, for compliance with the requirements of the plans and specifications and review important completed work prior to enclosure or on completion as appropriate. Be available to provide the constructor with technical interpretation of the plans and specifications." "This level of service is appropriate for medium sized projects of a routine nature being undertaken by an experienced constructor when a normal risk of non-compliance is acceptable." Engineering New Zealand Guidelines: Construction Monitoring Services (2014):"Available at: https://www.engineeringnz.org/documents/112/Construction Monitoring Services.pdf

would be reasonable for a shallow-seated mechanism and 100-year return period would be reasonable for a deep-seated mechanism.

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PRACTICE NOTE GUIDELINES FOR LANDSLIDE RISK MANAGEMENT 2007

95. At WDC's request, Mr Mulholland undertook more geotechnical testing. The extent of this was a site visit and two shallow Scala penetrometer tests. WDC was not satisfied with this level of geotechnical analysis.

#### Peer review

- 96. In December 2017 WDC commissioned a peer review of the geotechnical work carried out by Mr Mulholland. The peer reviewer was Beverley Curley, a senior engineering geologist. The peer review was counter-signed by Geoffrey Farquhar FEngNZ CPEng IntPE(NZ). Mr Farquhar was a Registered Engineer<sup>15</sup> between 1969 and 2003 and has been a Chartered Professional Engineer since 2003 to date. Mr Farquhar's practice field is geotechnical. Mr Mulholland submit he was not aware whether the experience of the peer reviewer was commensurate with his own, and the peer reviewer did not contact him.
- 97. The stated purpose of the peer review was to complete a geotechnical peer review of the resource consent and by extension, we assume, the proposed remedial works included in the provisionally approved building consent.
- 98. The peer reviewer considered the level of testing (two Scala Penetrometer tests) was insufficient for the design of a retaining wall on land that had undergone a landslide in an area identified in the District Plan as prone to instability.
- 99. The peer reviewer also criticised Mr Mulholland's reliance on the report prepared by T&T, as it was not a geotechnical assessment of the site rather, it had been prepared for EQC, and was based on only a visual inspection. The T&T report recommended the property owner engage a geotechnical engineer to assess the stability of the adjacent slopes and implement remedial works if required however, there was no evidence a geotechnical engineer had carried out a stability assessment.
- 100. The peer reviewer also commented on Mr Mulholland's supplementary statement to the geotechnical design he had provided as part of the resource consent application. It contained calculations for a risk

<sup>&</sup>lt;sup>15</sup> The Engineers Registration Act 1924 previously governed the registration of engineers in New Zealand. The Chartered Professional Engineers Act 2002 repealed the Engineers Registration Act 1924 on 1 July 2002.

rating, as assessed against the LRM Guidelines. The peer reviewer noted there was no list of the individual hazards the risk was being assessed against, as required by the LRM Guidelines. The calculations also specified loess (clastic, silt-sized sediment) as the material on site, whereas the geological map for the area indicated the material to be either 'mQs' (sandstone, siltstone, limestone shellbeds and conglomerate, and marine terrace deposits) or 'Q9b' (beach deposits, marine terrace cover beds).

- 101. In his report, Mr Mulholland said he had undertaken a site visit and reviewed the T&T report before preparing engineering designs for the retaining wall. He said retaining walls "will not generally accelerate or worsen land instability and in this case the risk of instability to the site, or surrounding areas, is materially reduced". The peer reviewer commented that an unsuitable retaining wall type or design can worsen instability risk particularly during construction, or if there are any instability areas outside the immediate area for retention that have not been considered and addressed.
- 102. The peer reviewer concluded "no evidence has been presented that the proposed anchored retaining wall will protect the house against further land instability for the design life of the structure" and "whilst the building consent has been granted, there has been insufficient evidence of stability assessments provided to comment on the short or long-term stability of the building platform or site."
- 103. Mr Mulholland did not provide a response to this peer review.

#### ABuild report

- 104. The owner of the subject property engaged ABuild to carry out a geotechnical assessment at the property, and to assess Mr Mulholland's proposed retaining wall. The ABuild report was completed on 25 May 2018 by an engineering geologist and co-signed by Richard Skilton CPEng CMEngNZ IntPE(NZ). Mr Skilton has been a Chartered Professional Engineer since June 2011 and his practice fields are civil and geotechnical.
- 105. The ABuild report identifies the subject property is located in Land Stability Hazard Zone B of the WDC District Plan (marginal stability with moderate to very high risk of instability that may damage property). Due to its location in Zone B, any building consent for the property will be withheld until a resource consent for the proposed development can be provided that includes geotechnical investigations and analysis proves the implementation the works will result in a low risk to property and life.
- 106. Included in the ABuild Report is a discussion on their stability analysis of the slope. ABuild concluded a ULS earthquake event (peak ground acceleration = 0.33g) would trigger a "shallow" landslide to a depth of approximately 3.5m. Furthermore, they considered it was "likely" to "almost certain" a shallow landslide event could impact the property under adverse weather conditions over the design life of the property. Without incorporating any stabilising measures, the risk to the property was considered to be "high to very high".
- 107. The ABuild Report referred to the proposed design prepared by Mr Mulholland but did not specifically comment on his design or the supporting calculations. ABuild did include some recommendations for the design, including the material properties to be used in estimating wall loads, earthquake design requirements, pile embedment depth and durability details. ABuild concluded a retaining wall system similar to that proposed by Mr Mulholland and incorporating their recommendations would be suitable to reduce the landslide risk at the property.

108. In his response to the complaint, Mr Mulholland provided emails exchanged between himself and Mr Skilton. In an email from Mr Mulholland to Mr Skilton on 1 November 2018 Mr Mulholland stated:

You say I should have designed for earthquake effect – neither NZS1170.0.2002 nor the Whanganui District Plan require earthquake to be considered... a small increment to the earth pressure due to earthquake, which might only need to be that due to a horizontal acceleration of 0.1g would seem to be prudent... I believe [ABuild] should comment on the design in general terms – will the wall as designed and drawn improve matters or not?

#### 109. ABuild responded the following day:

We were engaged to undertake an assessment of the site conditions for the proposed retaining wall to try and assist you with getting consents for the proposed works... We consider including seismic loads is sensible and is a requirement with any of the local Councils in the Wellington region.

Simply saying "will the wall do the job or not" is insufficient for Council to make any decision/progress and that was not the scope of our engagement. Council were concerned that a design had been undertaken without any testing etc. and were not satisfied the sufficient input had been undertaken for the proposed works. We have tried to provide that information.

- 110. In his BOE, Mr Mulholland submit ABuild carried out the same type of geotechnical testing he had done (Scala penetrometer tests) and the resource consent exemption was granted. Therefore, he inferred his design/investigation was suitable to address the identified hazards.
- 111. At the hearing Mr Mulholland confirmed he did not incorporate earthquake design for the retaining wall as the WDC District Plan did not require it. He also stated the design produced by ABuild also did not include earthquake design.

#### Phil Cook

112. In discussion regarding Mr Mulholland's application of the qualitative risk assessment Mr Cook stated Mr Mulholland had indicated a slope stability issue was "possible" (could occur under adverse conditions over the design life). However, given there had been a stability issue observed at the site during a 1-in-100 year storm event, a future similar landslide mechanism should be considered "likely" (will probably occur under adverse conditions over the design life of the property) and this may be a more representative descriptor for the site than Mr Mulholland's "possible". However, Mr Cook considered the overall qualitative risk would still remain at a "moderate" level even if this were updated.

### FURTHER SUBMISSIONS

#### **David Mulholland**

#### Experience

113. Mr Mulholland obtained a Bachelor of Engineering (Hons) from Canterbury University in 1961. He has worked in New Zealand (1961- 64 and 1984), Australia (1964 – 66 and 1969), the United States (1966 – 68), Singapore (1971 – 83), Indonesia (1991 – 98) and the United Arab Emirates (1999 – 2008). In 2008 Mr Mulholland returned to New Zealand and started a contracting company, carrying out joining of reinforcing bars, called Bumi Resources.

- 114. In 2013 Mr Mulholland began working for Kevin O'Connor & Associates Limited (KOA) as a senior engineer, involved in structural designs for residential houses and commercial buildings. This was the period where Mr Mulholland gained most of his geotechnical experience in New Zealand to the New Zealand Building Code and design guidelines, and practice standards. Mr Mulholland advised during the time he was employed at KOA he would have prepared between six to twelve retaining walls that were required to be submitted for a building consent under the requirements of the Building Act and Building Code. He said at least one of these required an assessment of land stability and he worked with a specialist geotechnical consultancy (ABuild) as co-consultants to complete this work.
- 115. Mr Mulholland has been registered as a Chartered Professional Engineer since July 2014. His practice fields are structural and civil. Mr Mulholland was assessed for continued registration as a Chartered Professional Engineer in 2019, in the civil and structural practice areas. His next reassessment is due in 2025. At the hearing Mr Mulholland said he is not a member of the New Zealand Geotechnical Society (NZGS)<sup>16</sup> and has not attended any of their conferences.
- 116. Mr Mulholland said that at the time that he became a Chartered Professional Engineer he was unaware of the existence of NZGS and realised he should have considered being assessed in the geotechnical practice area. Mr Mulholland approached the Registration Authority asking for it to confirm his areas of practice were civil and structural, but that this did not preclude him from practising geotechnical engineering. The Registration Authority provided him with the letter dated 5 August 2016 confirming this.
- 117. In 2017 Mr Mulholland started his own company, David Mulholland Consulting Engineer Limited. Mr Mulholland confirmed he commenced work on the three projects that are the subject of this complaint in 2017. These projects were some of his first commissions as an independent consulting engineer in New Zealand, and the first time he was engaged to undertake this type of work on his own.

#### Peer reviewers

- 118. In respect of the suitability of the peer reviewer for Property A, Mr Mulholland submitted his view that Mr Peters did not meet the requirements of the Engineering New Zealand Practice Note on Peer Reviews, that is, a peer reviewer should have commensurate experience with the originating engineer. Mr Mulholland stated he had 60 years' experience, whereas the peer reviewer had 15 years' experience. Additionally, he considered the peer reviewer's failure to contact him and discuss the application, combined with his lack of experience (as compared to his own), may explain what Mr Mulholland considers to be misunderstandings/misguided conclusions in the peer reviewer's report.
- 119. At the hearing we asked Mr Mulholland whether, given he had been operating in this specific area of engineering in New Zealand only since 2013, it was possible Mr Peters may have more experience specific to local geotechnical engineering practice than himself. Mr Mulholland replied "he didn't think so". He said most of his geotechnical experience was in Singapore and Malaysia, Thailand and Indonesia, not New Zealand, but his overseas experience was "very valuable nonetheless".
- 120. The suitability of the other peer reviewers was not discussed at the hearing; however we note Mr Mulholland's submission that he was unsure whether they had commensurate experience to his own, and they had not contacted him to discuss their reviews.

<sup>&</sup>lt;sup>16</sup> The New Zealand Geotechnical Society (NZGS) is the affiliated organisation in New Zealand of the International Societies representing practitioners in soil mechanics, rock mechanics and engineering geology. NZGS is also affiliated to the Engineering New Zealand as one of its collaborating technical societies.

#### Phil Cook

- 121. In addition to his written BOE, Mr Cook attended and gave evidence at the hearing. Mr Cook stated in his BOE that the engineering approach taken by Mr Mulholland appeared to rely more heavily on assumptions and validation during construction monitoring, as opposed to conducting a large amount of testing and refining soil parameters during the design phase of the project. For each of the properties, Mr Cook considered there was either geotechnical information or clear evidence of a previous landslide failure available to assess the characteristics of the sites, and there was a considerable amount of existing information about the potential landslide risks at the properties.
- 122. Mr Cook believed Mr Mulholland intended to use the retaining walls and/or long-term slope remedial works (including ongoing maintenance by the owner) to control or manage the landslide risk on the properties and expected to verify his design assumptions for these stabilising measures during construction by observation. Mr Cook commented:

Mr Mulholland could have instead opted for a different approach involving costly investigations and laboratory testing, but I cannot comment as to whether this is common practice for all consultants operating in Whanganui, or whether the costs would have been acceptable to the owner.

- 123. Mr Cook also observed experienced engineers have a potential competitive advantage over other engineers through applying experience and judgment. An experienced engineer will have carried out countless previous projects to guide their decision making, which in turn may save their clients' money and achieve a satisfactory result.
- 124. Mr Cook stated nobody had clearly demonstrated that Mr Mulholland's engineering solutions would not perform satisfactorily. Mr Cook considered both the proposed "construction observation" and "detailed geotechnical investigation and analysis" methods were considered valid and would result in retaining walls or stabilising measures/foundations adequate and safe for the intended purpose. Mr Cook did not believe Mr Mulholland's work on these properties called into question his competence or ethical conduct.
- 125. Mr Cook stated there was scope for improvement in Mr Mulholland's communication with the territorial authority when undertaking alterations to existing buildings for certain projects, as these types of projects may involve concessions on Building Code requirements due to cost constraints. In such circumstances, significant engagement with the territorial authority was required to arrive at a level of risk and/or a solution the territorial authority and owner could accept (referring to section 112 of the Building Act 2004).
- 126. Mr Cook accepted reference to recent MBIE/NZGS geotechnical guidance notes, developed since the CES and Kaikoura earthquakes, would suggest there was scope for more comprehensive testing prior to detailed design and construction verification on the subject sites, to reduce the risk of construction costs inflating due to unforeseen ground conditions.
- 127. Mr Cook submitted a formal complaint should only be accepted by Engineering New Zealand and driven forward by a member with a similar or greater level of experience than the engineer who completed the work. As the complainant was not a geotechnical engineer Mr Cook considered it was problematic for him to question the practice of Mr Mulholland.

#### The complainant

- 128. In respect of the peer reviewer for Property A, the complainant submitted to us WDC signaled its intent to peer review Mr Mulholland's work. However, they said they did not have evidence the peer reviewers had notified Mr Mulholland of their commissions.
- 129. The complainant submitted they were entitled to complain about another engineer, in their capacity as both a Chartered Professional Engineer (which carries an ethical obligation to report potential breaches of the Code of Ethical Conduct), and a member of the public. They said they had never represented themselves as a practising geotechnical engineer.
- 130. The complainant disagreed with Mr McGill's submission that the complaint should be dismissed. He said:

As a member of the public, I wish to formally state that, based on the evidence to date, that I consider such an act or omission, if acceptable to the profession, were to lower the standard of that profession in the eyes of the public. I can confirm that several other members of the public who have knowledge of the case (i.e. my fellow Council Officers seeking advice) have approached me expressing the same view.

131. The complainant commented on Mr Mulholland's submission that as his designs had now been constructed, this was proof they would work:

They seem to take issue with the fact that I am challenging the investigations which inform the design. This misses in my view a fundamental point: a design could be done correctly and to a high standard but could still be based on incorrect fundamental assumptions arising from improper investigations. Should that be the case, no matter how good the design work, the complete solution may be fundamentally flawed. The respondent and [Mr Cook] appear to be oblivious to this risk. Conducting investigations in order to properly inform designs is a core competency of being assessed as a Chartered Professional Engineer.

- 132. The complainant commented on Mr Mulholland's submission that his construction monitoring practices were sufficient to allow site-specific investigation to be either reduced or even omitted. The complainant submitted even if this was the case, the risk of not performing such investigations should be evaluated and clearly communicated as one of the options to be considered by the stakeholders (including the client and the BCA), so they could make informed decisions. Further, given Mr Mulholland's substantial experience, he should be able to produce several detailed examples of similar works to inform the risk evaluation and stakeholders.
- 133. In response to Mr Mulholland's submission that the peer reviewers who reviewed his work did not have commensurate experience; the complainant submitted this seemed to be based purely on the number of years an engineer had been in the industry. In respect of Mr Cook's submission that Mr Mulholland had so much experience there is "barely anyone that can evaluate his work", the complainant submitted this was inappropriate, and would lead to a lack of transparency and accountability of engineers.
- 134. In respect of engaging with the peer review process, the complainant stated Mr Mulholland had several opportunities to engage with the peer reviewers. Mr Mulholland's claims the peer reviewers had misunderstood his work were unfounded, in the complainant's view. Mr Mulholland was given opportunities to respond to the peer reviews, but his responses were unsatisfactory and dismissive. He said he was surprised Mr Cook was attempting to address the peer reviewers' comments at the

Disciplinary Committee stage, when Mr Mulholland had the opportunity to comment in the earlier stages of the formal complaint. He commented Mr Cook had substantially fewer years of experience than Mr Mulholland, which was inconsistent with his logic that only more experienced engineers could review Mr Mulholland's work.

# DECISION

# THE DISCIPLINARY COMMITTEE'S ROLE

- 135. Professional disciplinary processes primarily exist to protect the public, uphold professional standards, and maintain public confidence in the profession and its regulation. They do this by ensuring members of the profession adhere to certain universal (or accepted) professional standards.<sup>17</sup>
- 136. The role of the Disciplinary Committee in the disciplinary process is to consider whether Mr Mulholland has acted in accordance with accepted professional standards and, if not, whether there are grounds for disciplining him in accordance with the Chartered Professional Engineers of New Zealand Act 2002 and Engineering New Zealand Rules and Disciplinary Regulations.

## THE LEGAL TEST

- 137. The legal test to assess whether Mr Mulholland acted in accordance with acceptable professional standards is whether he acted in accordance with what a reasonable body of his peers would have done in the same situation.
- 138. The assessment of whether an engineer has acted in accordance with accepted standards may be informed by whether reasonable members of the public would "consider such an act or omission, if acceptable to the profession, were to lower the standard of that profession in the eyes of the public".<sup>18</sup>
- 139. If the evidence is that Mr Mulholland acted in accordance with accepted standards, then we will dismiss the complaint. If the evidence is that Mr Mulholland did not act in accordance with accepted standards, then we will uphold the complaint. Where the behaviour meets this criterion, we must consider whether the conduct "falls seriously short of accepted conduct" before imposing a disciplinary sanction.<sup>19</sup>
- 140. This means the matter for the Disciplinary Committee to decide in this case is whether the engineering services provided by Mr Mulholland, as identified in the complaint, met the standard to be reasonably expected of a Chartered member of Engineering New Zealand and a Chartered Professional Engineer.
- 141. Our approach to this question has been to consider the standards that applied at the time, the work undertaken by Mr Mulholland, and whether his performance met those standards.

 $<sup>^{\</sup>rm 17}$  Dentice v Valuers Registration Board [1992] 1 NZLR 720 (HC).

<sup>&</sup>lt;sup>18</sup> Robinson v RA (10 July 2015, Appeal Ruling #21) Chartered Professional Engineers Council. Available at: <u>http://www.cpec.org.nz/appeal-rulings/appeal-21-10-july-2015-robinson-v-ra</u>.

<sup>19</sup> Ibid.

### **ANALYSIS**

#### Preliminary

- 142. The Investigating Committee took the view that the eventual acceptance by WDC of design work similar to Mr Mulholland's was not material to the complaint. Rather, the essence of the complaint is whether Mr Mulholland's geotechnical engineering service is significantly out of step with current practice. The fact designs like those proposed by Mr Mulholland were eventually accepted by WDC does not mean the complainant's concerns about Mr Mulholland's approach to geotechnical analysis and investigation have been resolved or they do not warrant further investigation. The purpose of this complaints process is to uphold professional standards and ensure members of Engineering New Zealand and Chartered Professional Engineers are complying with their obligations regarding competence and conduct. We agree with the Investigating Committee in this respect.
- 143. Engineering New Zealand recommends those concerned about an engineer try to resolve it directly with the engineer first.<sup>20</sup> This is not a requirement; it is guidance on how to deal with engineering concerns. It is not necessary for us to investigate or make a finding on whether the complainant contacted Mr Mulholland before raising his concerns with Engineering New Zealand.
- 144. The only requisite for complaining about a Chartered Professional Engineer or a member of Engineering New Zealand is the complainant is a person.<sup>21</sup> There are no additional requirements as to the experience of either the reporting Chartered Professional Engineer or the person raising the complaint. A high level of trust is placed in engineers, having special areas of knowledge, and an expectation to keep people safe. We disagree with Mr Cook's submission that formal complaints should only be driven forward by certain engineers. It is important that anyone concerned about an engineer's practice can complain to the professional body so public safety and the integrity of the profession are protected.
- 145. In addition, a Chartered Professional Engineer or member of Engineering New Zealand who has reasonable grounds to believe another Chartered Professional Engineer or member has committed a significant breach of the Code of Ethical Conduct must report the matter to the Registration Authority.<sup>22</sup> What constitutes a 'significant breach' is a matter of judgement. Factors might be considered in deciding whether a matter is a 'significant breach' may include the impact of the breach on the health and safety of people, the environment, the reputation of the engineering profession, or the impact on the client/employer.<sup>23</sup> Engineering New Zealand has a process for investigating concerns and complaints to determine whether the Code has, in fact, been breached.

#### Complaint

146. The four aspects to the complaint, in respect of the three properties, are that Mr Mulholland:

a. did not follow good engineering practice for conducting geotechnical investigations and analysis, and the geotechnical investigations and analyses he conducted for these properties were insufficient;

<sup>&</sup>lt;sup>20</sup> Engineering New Zealand "Engineering Concerns". Available at: <u>https://www.engineeringnz.org/our-work/working-engineer/engineering-</u> concerns/

<sup>&</sup>lt;sup>21</sup> Chartered Professional Engineers of New Zealand Rules (No 2) 2002, r 54(1), Engineering New Zealand Disciplinary Regulations, reg 3(1).

<sup>&</sup>lt;sup>22</sup> Chartered Professional Engineers of New Zealand Rules (No 2) 2002, r 431, Engineering New Zealand Code of Ethical Conduct, cl 8.

<sup>&</sup>lt;sup>23</sup> IPENZ Practice Note 8 "Engineers and Ethical Obligations" (version 2, October 2016).

- b. relied heavily on empirical design solutions, and on third party reports produced for limited purposes, without modifying them to suit the conditions that should reasonably have been identified through investigation and analysis;
- c. acted outside his competence by providing geotechnical investigation and analysis without supervision, or demonstrated competence in the field of geotechnical engineering, or continued professional development in that field; and
- d. is not willing to accept advice contained in peer reviews obtained by the WDC, or modify his practice based on their recommendations.

#### 147. We address each of these aspects in turn.

Did Mr Mulholland follow good engineering practice for conducting geotechnical investigations and analysis, and were the geotechnical investigations and analyses he conducted for these properties were sufficient?

- 148. In our view, reasonable engineering practice associated with the preparation of design submissions for building consent would require familiarity with the MBIE Guidelines for the preparation of building consents. In particular, an engineer should be cognisant of the relative obligations of both the designer/submitter and the BCA. Geotechnical designs in a consent submission should also adhere to, and clearly demonstrate compliance with, the relevant standards. These include the Building Act and Code, the requirements of the local District Plan, NZGS guidelines and/or other, internationallyrecognised, published equivalents.
- 149. We would expect a reasonable Chartered Professional Engineer and member of Engineering New Zealand to be been familiar with the MBIE Guidelines, and be aware, as the design engineer, they are responsible for providing information to show how the project would comply with specific local consenting requirements and the Building Code. In that respect they would be expected to provide:
  - (i) design calculations (particularly for a specifically engineered design element like a retaining wall)
  - (ii) technical opinions or appraisals of geotechnical conditions and ground stability where these are identified as particular hazards
  - (iii) codes of practice that have been applied or referenced to confirm acceptable or current standards have been considered.
- 150. We do not have all details of the building consent application submissions prepared by Mr Mulholland to confirm whether his submissions met the requirements of the MBIE Guidelines as described above.<sup>24</sup>
- 151. We do note WDC, in an effort to ensure the proposed works were likely to comply with the Building Code, sought independent peer review of the design submissions. The MBIE Guidelines are clear on the responsibilities of the submitter in respect of the designs for building consent. That is, the submitter is required to demonstrate the proposed works are compliant with the performance requirements of the Building Code based on expected conditions – to the satisfaction of the BCA. We are concerned that three different peer reviewers identified deficiencies in the geotechnical information provided by Mr Mulholland in support of consent applications.

<sup>&</sup>lt;sup>24</sup> We note Mr McGill's submission that the Investigating Committee did not comment on Mr Mulholland's designs; however we are not constrained by the findings of the Investigating Committee, its report, or the evidence relied on by the Investigating Committee (see Engineering New Zealand Disciplinary Hearing Procedure, dated 5 March 2020, cl 7).

- 152. In accordance with the WDC District Plan rules, before any work can be undertaken a suitability qualified and experience geotechnical engineer must provide a report demonstrating the risk of landslide activity is low, based on the qualitative risk assessment process described in the LRM Guidelines.<sup>25</sup> It is clear WDC's expectation is that works proposed on the subject sites are undertaken by a suitably qualified and experienced geotechnical engineer. WDC relies entirely on the practice areas published on the Engineering New Zealand register of Chartered Professional Engineers, in determining which engineers are suitably qualified and experienced.
- 153. In New Zealand engineering practice, it can be acceptable to rely on qualitative risk assessment procedures for assessing landslide risk in relation to a sub-division resource consent application. However, when it comes to a specific building consent, with works to be completed in accordance with the Building Code on a site identified as landslide prone, such qualitative, opinion-based, approaches are generally not considered sufficient.
- 154. For building consents, site-specific analysis would generally be expected, including a stability analysis with a geotechnical assessment of the ground, ground characterisation, and analysis of potential landslide mechanisms for specific SLS/ULS design events (static, extreme ground water level, earthquake loads). BCAs have to be satisfied the site, with any improvements or stabilisation measures, will exhibit acceptable margins of safety against the mobilisation of a landslide mechanism which could pose a threat to site occupants or detrimentally impact the property and/or neighbouring sites. In our experience, it would be unusual for a BCA to accept and approve a building consent based on qualitative experience not supported by calculations or analysis.
- 155. We are concerned Mr Mulholland did not complete a stability analysis for any of the subject sites. Mr Mulholland's assertion to WDC that his proposed solutions would improve the stability and not increase the landslide risk was based on a qualitative observation that, in his experience, similar measures had been successful in the past. Furthermore, we are concerned that at the hearing Mr Mulholland did not express a sound understanding of why such an analysis may be required. He did not quantify what potential landslide mechanisms could mobilise at the respective sites. He did not determine what earth pressure loads would be imposed on his walls or foundations by the mobilisation of a potential landslide mechanism, and he did not offer any indication of what margins of safety against the activation of any landslide mechanism would be achieved by the installation of his proposed slope stabilising measures.
- 156. Mr Mulholland's comment that no one had required him to calculate the margin of safety his solution offered, and therefore, he did not do it, is deeply concerning to us, as the Building Code states "buildings, building elements and sitework shall have a low probability of rupturing, becoming unstable, losing equilibrium or collapsing during construction or alteration and throughout their lives".<sup>26</sup> The performance criteria definition of 'low probability of becoming unstable' described in the Building Code is "gross deformation of foundations that could lead to collapse to be avoided e.g. bearing failure, sliding".<sup>27</sup> If Mr Mulholland were familiar with the MBIE Guidelines for preparing

http://www.legislation.govt.nz/regulation/public/1992/0150/latest/whole.html#DLM164788

<sup>&</sup>lt;sup>25</sup> Whanganui District Council Plan, cl 11.51. Available at: <u>https://www.whanganui.govt.nz/files/assets/public/district-plan/chapter-11-natural-hazards.pdf</u>

<sup>&</sup>lt;sup>26</sup> Building Regulations 1992. Schedule One: Building Code, cl B1.3.1. Available at:

<sup>&</sup>lt;sup>27</sup> NZGS Guidelines: Earthquake Geotechnical Engineering Module 1 – Overview of the guidelines. Page 32, Table B.1: Building Code Performance Requirements of Clause B1 (Structure). Available at: <u>https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-</u> <u>structure/geotechnical-guidelines/geotech-module-1.pdf</u>

building consent applications and the supporting design calculations a BCA could reasonably expect to receive in relation to a consent application for a property on a site identified as landslide prone, he would understand an overall stability analysis should have been completed.

- 157. We are of the opinion Mr Mulholland's use of the LRM Guidelines did not represent good engineering practice, particularly in relation to the qualitative terminology for use in assessing risk to property described in Appendix C. We do not consider this to be good engineering practice.
- 158. We are further concerned by Mr Mulholland's statement that he did not incorporate earthquake design for the retaining wall at Property C, as the WDC District Plan did not require it. If Mr Mulholland had considered the guidance in B1/VM4 Foundations Appendix C he would have identified the requirement to consider earthquake loads in a simple gravity retaining wall, and therefore this should perhaps have also been considered in his design. In respect of his comment that the ABuild design did not include earthquake loads – we do not have any building consent design documentation prepared by ABuild for the wall and cannot confirm this assertion. However, it would seem to contradict ABuild's stated position that earthquake design loads must be considered for the wall. We are concerned Mr Mulholland appeared to consider the errors unimportant and other factors in the design could compensate for his oversights.
- 159. In respect of the work undertaken by Mr Mulholland for Property A, he designed a cross-braced timber pole foundation system with a minimum pole depth of 1500mm. He said the cross-braced pole foundation type was designed to specifically reduce the effect of slippage on the house from "low to moderate" to "low". Mr Mulholland at the hearing conceded the cross-bracing design was not, in fact, intended to resist any landslide effects. We are concerned that Mr Mulholland's design incorporated no advice on the minimum concreted embedment into hard ground (below the 1.5m depth) that was required to resist land slippage. We understand from Mr Mulholland's evidence this might have been determined by observation.
- 160. The Company A report Mr Mulholland pointed us to at the hearing for Property A, postdates Mr Mulholland's application for resource consent and the peer review. It also postdates the date of the complaint. It appears to be a commentary on the design concept not a detailed review of the design. On this basis, we do not consider this to be evidence of Mr Mulholland's geotechnical investigations for the purpose of applying for resource consent.
- 161. We do not consider the referenced statements in Mr Mulholland's BOE, and his subsequent explanations of the foundation system he proposed for the Property A building consent, represent good engineering practice.
- 162. In respect of Property B, we are concerned that: despite T&T's report stating there was a risk of further damage if nothing was done to repair the wall that failed; and the larger problem of the local slope presenting a non-imminent risk<sup>28</sup> to the property, Mr Mulholland's application to WDC did not provide it with adequate information to satisfy itself that the work would comply with the Building Act. Mr Mulholland had not carried out any calculations or determined the margins of safety. We would expect a reasonable engineer in these circumstances to have provide this information. When Mr Mulholland's work was peer reviewed, the peer reviewer raised the issue of the larger problem of the local slope. We consider the peer reviewers comments that the information provided by Mr Mulholland is "insufficient to determine if the proposed works mitigate, to a sufficient degree, the landslide risk to

<sup>&</sup>lt;sup>28</sup> Not seen as imminent within the next 12 months as a direct result of the landslip that had occurred.

people and property" appropriate. We are concerned with Mr Mulholland's response to the peer reviewer that the works proposed would serve no purpose.

- 163. We reviewed Mr Mulholland's design calculations and sketches for the retaining wall at Property C. When we queried Mr Mulholland on these calculations it was apparent they contained some fundamental soil mechanic errors and the design calculations as presented are flawed. We note Mr Mulholland's PS1 for the anchored retaining wall stated the wall had been designed in accordance with compliance documents issued by MBIE, and referenced B1/VM1, but there is no verification method in the Building Code for anchored retaining walls.
- 164. We do not accept Mr Mulholland's arguments pursuant to section 112 of the Building Act 2004. This provision relates to alterations to existing buildings. We do not consider a failed retaining wall due to landslide an "alteration" for the purposes of this section.
- 165. We similarly disagree with Mr Cook's submissions in respect of s 112(2) of the Building Act 2004 for the same reasons. Additionally, we have not been provided with any evidence which indicates WDC gave written notice to the owners of the subject properties to alter the retaining walls without complying with the Building Code.

# Did Mr Mulholland rely heavily on empirical design solutions, and on third party reports produced for limited purposes, without modifying them to suit the conditions that should reasonably have been identified through investigation and analysis?

- 166. Mr Mulholland is an experienced engineer. We are impressed by the length, depth and breadth of his engineering experience acquired over the last 60 years. We accept engineers draw from their professional experience when preparing a solution for their client. However, this should form only part of an engineer's analysis. Analysis should be informed by relevant evidence and supported by applicable standards, guidelines, and regulatory compliance documents. This is at the core of good professional engineering practice and it is not evident through the hearing process, or the consenting and peer review process of the subject matters, whether Mr Mulholland was able to support his professional judgement with such documentation.
- 167. We are concerned by Mr Mulholland's use of reports prepared by third parties for different purposes as a substitute for thorough geotechnical analysis. Whilst we agree such reports may provide useful background information, they should not be relied upon to determine design criteria as Mr Mulholland has done.
- 168. We are concerned about use of the reports prepared by MWH. We were alarmed at the hearing when Mr Mulholland stated such a landslide event would be triggered by something like the CES and there would be inevitable widespread damage, but he did not consider the consequences of such an event should be considered in his design, or specific measures incorporated to mitigate the potential effects.
- 169. The two T&T reports relied on by Mr Mulholland were prepared for insurance purposes and were based on visual inspection only. T&T recommended further geotechnical investigation should at least be considered – when designing for these properties, it was Mr Mulholland's role to do this, or to ensure an appropriately skilled geotechnical engineer did. The conceptual solutions included by T&T were clearly identified as being for assessing an insurance claim and were not for construction.
- 170. We conclude Mr Mulholland did rely on empirical design solutions and did not support them with appropriate analytical justification. We find Mr Mulholland also relied on third party reports, although it would seem, at least in respect of the MWH report, he was prepared to dismiss their recommendations without any analysis. The reports Mr Mulholland referred to in his work can be

considered largely advisory. That is, they were based on visual inspections, background knowledge of the geology and character of the slopes in the area and qualitative assessment of stability hazards. Mr Mulholland followed a similar approach in his designs for building consents – at no point was it apparent he understood his designs had to be supported by detailed analysis to demonstrate their efficacy and satisfy the performance requirements of the Building Code. We do not consider this to be the standard reasonably expected of a Chartered Professional Engineering or member of Engineering New Zealand.

Did Mr Mulholland act outside his competence by providing geotechnical investigation and analysis without supervision, or demonstrated competence in the field of geotechnical engineering, or continued professional development in that field?

- 171. To answer this question we need to consider what work Mr Mulholland actually executed. In terms of geotechnical investigations, Mr Mulholland put down Scala penetrometer tests. It is commonly understood by practising geotechnical engineers that, on its own, this is not a tool that would usually be considered appropriate for the investigation of a landslide prone slope, as it will not identify or differentiate geology, varying soil types, characteristic material properties or groundwater to any significant depth.
- 172. Aspects of Mr Mulholland's designs were discussed at the hearing including:
  - a. The cross-bracing design to resist landslide forces at Property A where Mr Mulholland's evidence misrepresented the purpose of the design.
  - b. The retaining wall calculations for Property C that contain multiple, fundamental errors in soil mechanics theory and analysis. Mr Mulholland considered these errors to be unimportant given the proposed anchorage would compensate and provide all the necessary support.
  - c. The seismic design of retaining walls loads where Mr Mulholland confirmed he had not checked his designs against an appropriate seismic load case on the understanding a well-designed retaining wall for static loads should also satisfactorily resist earthquake loads.
- 173. It is not uncommon for small, residential projects to have extremely limited budgets for geotechnical investigations. Where these projects are located on sites identified as landslide prone, the risks associated with a deficient or inadequate investigation are elevated. There are cost-effective options for conducting geotechnical site investigations and analysis. While a client's budget constraints must be considered, they are not an acceptable justification for failing to conduct sufficient investigation and analysis.
- 174. On a site that has experienced a landslide, or simply a landslide prone site that has limited or unreliable factual geotechnical investigation data, a geotechnical engineer may set up a simple slope stability model to back-analyse an actual event or postulate multiple landslide scenarios to capture plausible variations in soil profiles, characteristic material properties and groundwater conditions. The software tools for such work are readily available and in a short space of time will generate useful data on possible ground profiles, slope instability mechanisms and the range of likely safety margins against landslide mobilisation.
- 175. We agree with the critiques of Mr Mulholland's work by the peer reviewers. Mr Mulholland's investigation fell well short of what we consider would be implemented by a reasonable Chartered Professional Engineer practising geotechnical engineering. Mr Mulholland did not undertake any geotechnical analyses of the slope stability issues at the sites.

- 176. The Building Act 2004,<sup>29</sup> and the MBIE Guidelines<sup>30</sup> are clear. The submitter is required to demonstrate the proposed works are compliant with the performance requirements of the Building Code based on expected conditions to the satisfaction of the BCA. We are concerned Mr Mulholland failed to explain to the BCA his intentions by using the "construction observation" approach.
- 177. We have carefully considered Mr Mulholland's "construction observation" arguments but are left with several concerns:
  - a. In our opinion it would be unusual for a BCA to accept and approve a consent submission for stabilising measures on a residential property, or a proposed foundation solution to resist potential landslide mechanisms, that relied upon "construction observation" with no supporting analysis documenting how the proposed or baseline solution was expected to function for the "assumed" conditions.
  - b. We can accept that if a BCA was satisfied the proposed, or baseline, solution was acceptable for the "assumed" conditions then it may decide to issue consents, however, that is not the case here. The assumed conditions were not defined and Mr Mulholland offered no calculations to demonstrate what margins of safety the proposed solution provided.
  - c. In Mr Mulholland's PS1 for the anchored retaining wall at Property C he states construction monitoring to CM3 would be required. This appears to be inconsistent with the stated objectives of his construction observation philosophy which would indicate more frequent on-site review and availability to issue instructions to the builder would be required.
  - d. In relation to Property A, Mr Mulholland:
    - did not calculate what loads would be imposed on his proposed foundations from any potential landslide mechanism (be it a small, shallow slide triggered by a heavy rainfall event or a much larger, potentially life-threatening, landslide resulting from a significant earthquake);
    - (ii) did not calculate what capacity would be provided by the embedded depth of his proposed foundations to resist the loads of a potential landslide mechanism; and
    - (iii) did not specify what strength had been assumed in his design for the foundation soils, to be confirmed during construction observation to either validate or modify his design.
- 178. We accept Mr Mulholland is an experienced engineer. However, when questioned at the hearing about his continuing professional development and knowledge of current best practice, Mr Mulholland could not identify any specific geotechnically-focused continuing professional development. While not a requirement of practising as a geotechnical engineer, Mr Mulholland is not a member of the NZGS. The benefits of being a member of a technical society in your chosen areas of practice include keeping abreast of developments and best practice. The NZGS has published guidelines describing the body of knowledge and skills expected of a Chartered Professional Engineer (Geotechnical). These are available on the NZGS website, first published in August 2017 and revised in May 2019. We are concerned that Mr Mulholland was not aware of the existence of the NZGS or any of their published guidelines on practice standards.

<sup>&</sup>lt;sup>29</sup> Building Act 2004, s 49.

<sup>&</sup>lt;sup>30</sup> Department of Building and Housing "Guide to applying for a building consent (residential buildings)" Second edition, October 2010, cl 1.6. Available at: <u>https://www.building.govt.nz/assets/Uploads/projects-and-consents/guide-to-applying-for-a-building-consent.pdf</u>

- 179. We also accept that Mr Mulholland was not aware of the geotechnical practice area when he was first registered as a CPEng. However, Mr Mulholland applied for continued registration in 2019 and he chose not to have his competence assessed in geotechnical engineering.
- 180. Regarding the letter Mr Mulholland obtained from the Registration Authority in 2016, we agree being registered as a civil/structural engineer does not preclude Mr Mulholland from undertaking work with a geotechnical element within his competency. However, it does not establish his credentials as a suitably qualified and experienced geotechnical engineer as defined by the NZGS guidelines, or as required by WDC to undertake work in Stability Hazard Zone B of their District Plan.
- 181. Compared with current geotechnical engineering practice, the documentation provided in relation to each of the three properties shows insufficient site-specific investigation and analysis. It also raises significant questions about Mr Mulholland's skill and competence in the field of geotechnical engineering, as there are significant gaps and/or errors in his overall approach and work which we consider to be a serious departure from the standards reasonably expected of a professional engineer.
- 182. Based on the above we conclude Mr Mulholland did act in areas beyond his competence and experience in relation to geotechnical investigations, analysis and design. Mr Mulholland's approach to, and reliance upon, "construction observation" to deliver a safely engineered and compliant design solution in these cases does not represent good engineering practice. Furthermore, Mr Mulholland has not provided us with any evidence to suggest he has carried out any continuing professional development in the field of geotechnical engineering, which we would expect from an engineer practising in the geotechnical space. We consider Mr Mulholland has worked outside of his areas of competence.

# Is Mr Mulholland not willing to accept advice contained in peer reviews obtained by the WDC, or modify his practice based on their recommendations?

183. The Engineering New Zealand Practice Note: Peer Review (June 2003) is the relevant practice note applicable at the time the peer reviewers carried out their reviews. The Practice Note states :<sup>31</sup>

A peer reviewer must be recognised by fellow members of the appropriate learned society as at least equal in experience and technical capability to the designer/author. Often the peer reviewer will have more experience of similar works than the designer/author.

- 184. A peer review is an umbrella term for several types of review, including a regulatory review. The Practice Note states the purpose of a regulatory review is to assess whether the design complies with pertinent regulations, consent requirements and laws. A regulatory review does not assess the design objectives, process, options, assumptions or method, but only the submitted design, testing the outcome against regulatory parameters.<sup>32</sup>
- 185. The Practice Note goes on to say:

There is no direct relationship between the peer reviewer and the designer, although the designer may be asked questions about inconsistencies in the work. Access to the designer by the peer reviewer is important. An ethical consideration arises for the peer reviewer when there are concerns with the design. The peer reviewer should contact the designer to

<sup>&</sup>lt;sup>31</sup> Engineering New Zealand, Practice Note 02 (June 2003). Available at:

https://www.engineeringnz.org/documents/84/Practice Note 2 Peer Review.pdf

<sup>&</sup>lt;sup>32</sup> Ibid.

indicate any differences between the peer reviewer's documentation and the designer's design before the peer reviewer issues a report. This allows the designer to comment and state a position before the report is submitted.

The peer reviewer's role is to identify areas of the design that need to be addressed and to invite the designer to resolve them to the peer reviewer's satisfaction. The peer reviewer does not become involved in resolving the issues.

- 186. The stated purpose of the peer reviews commissioned by WDC was to review the information provided in application for resource consents, which were required in support of provisional building consents. We consider the peer reviewers were carrying out a regulatory review of Mr Mulholland's work.
- 187. We do not consider Mr Mulholland's experience and the cost of completing the suggested work were relevant to the peer reviewers' determination of whether Mr Mulholland's work met the regulatory standards necessary in order to grant the consents.
- 188. We note Mr Mulholland's experience in work related to local residential property development, the New Zealand Building Code and the regulatory requirements associated with building and resource consent submissions is limited to the period since 2013. In relation to the three subject sites, Mr Mulholland was engaged as the lead technical advisor for the works as an independent consulting engineer, in his first year of operating in that capacity.
- 189. Mr Mulholland submitted the peer reviewers engaged by WDC to review his work did not have commensurate engineering experience to review his work, in accordance with the Engineering New Zealand Practice Note on Peer Reviews. We disagree. It is our view that the requirement is the peer reviewer should have competence and commensurate experience in the type of work under review. We consider the peer reviewers had the requisite experience and technical competence required to peer review the relevant work on the three subject properties. We note two of the reviewers were Chartered Professional Engineers with geotechnical engineering listed as a practice area and the other reviewer was an experienced engineering geologist whose report was co-signed by a very experienced Chartered Professional Engineer, who had geotechnical engineering listed as his practice area.
- 190. We note by the time the peer reviewers carried out their work (late 2017) the ethical obligation in the Code of Ethical Conduct not to review other engineers' work without taking reasonable steps to inform them and investigate had been revoked.<sup>33</sup> We find no issue with the peer reviewers not contacting Mr Mulholland prior to them reviewing his work.
- 191. We would expect a reasonable Chartered Professional Engineer and member of Engineering New Zealand would address the issues raised by the peer reviewers and work through them.

### CONCLUSION

192. In coming to our decision, we have appreciated the rationale the Investigating Committee have helpfully set out in its decision. We have made the following determination about Mr Mulholland's competency to practise engineering in respect of section 21(1)(c) of the Chartered Professional Engineers of New Zealand Act 2002 (the Act) and Rule 4.3 of the Engineering New Zealand Rules.

<sup>&</sup>lt;sup>33</sup> CPEng Rules (No2) 2002, r 53 (revoked on 1 July 2016).

- 193. We may make an order for discipline against a Chartered Professional Engineer and/or member of Engineering New Zealand, if we are satisfied an engineer has performed engineering services in a negligent or incompetent manner, or that the engineer has breached the Code of Ethical Conduct.
- 194. To determine whether Mr Mulholland acted negligently or incompetently we refer to the decision of the Chartered Professional Engineers Council in *R v K*:<sup>34</sup>

The starting point is to consider what standard sets the benchmark for negligent or incompetent behaviour. We consider that incompetence is a more serious allegation than negligence. One can be negligent without being incompetent, but it is highly unlikely that someone who is incompetent is not also negligent.

#### 195. Further, Robinson v RA states:<sup>35</sup>

Whether engineering services have been performed in an incompetent manner is a question of whether there has been a serious lack of competence (or deficit in the required skills) judged by the areas of competence which in this case are encapsulated by Rule 6 [of the Chartered Professional Engineers Rules (No 2) 2002 (the Rules)].

- 196. Chartered Professional Engineers are assessed against the 12 elements set out Rule 6 of the Rules to establish their competence, they are:<sup>36</sup>
  - a. comprehend, and apply his or her knowledge of, accepted principles underpinning-
    - (i) widely applied good practice for professional engineering; and
    - (ii) good practice for professional engineering that is specific to New Zealand; and
  - b. define, investigate, and analyse complex engineering problems in accordance with good practice for professional engineering; and
  - c. design or develop solutions to complex engineering problems in accordance with good practice for professional engineering; and
  - d. exercise sound professional engineering judgement; and
  - e. be responsible for making decisions on part or all of 1 or more complex engineering activities; and
  - f. manage part or all of 1 or more complex engineering activities in accordance with good engineering management practice; and
  - g. identify, assess, and manage engineering risk; and
  - h. conduct his or her professional engineering activities to an ethical standard at least equivalent to the code of ethical conduct; and
  - i. recognise the reasonably foreseeable social, cultural, and environmental effects of professional engineering activities generally; and
  - j. communicate clearly to other engineers and others that he or she is likely to deal with in the course of his or her professional engineering activities; and
  - k. maintain the currency of his or her professional engineering knowledge and skills.

<sup>&</sup>lt;sup>34</sup> R v K, Appeal Ruling 11/14, Chartered Professional Engineers Council at [36] and [38].

<sup>&</sup>lt;sup>35</sup> Robinson v RA (10 July 2015, Appeal Ruling #21) Chartered Professional Engineers Council at [40(c)].

<sup>&</sup>lt;sup>36</sup> Chartered Professional Engineers of New Zealand Rules (No 2) 2002, s 6.

- 197. The Code of Ethical Conduct states that Chartered Professional Engineers, and members of Engineering New Zealand must act competently by: <sup>37</sup>
  - a. ensuring that their relevant knowledge and skills are kept up to date; and
  - b. only undertake engineering activities that are within their competence; and
  - c. undertake engineering activities in a careful and competent manner.
- 198. A finding of negligence or incompetence is a more serious finding than a breach of the obligation to perform engineering services in a careful and competent manner. An engineer may breach the Code of Ethical Conduct requirement without meeting the threshold for negligence or incompetence.
- 199. In our view, Mr Mulholland actions were not consistent with the elements of competence required of a Chartered Professional Engineer found in Rule 6(a) –(b),(d), (g), (h) and (k).
- 200. We find Mr Mulholland's engineering activities fell below the accepted standard of a Chartered Professional Engineer and a reasonable Chartered Member of Engineering New Zealand. We consider Mr Mulholland acted incompetently.
- 201. We therefore conclude Mr Mulholland has met the grounds for discipline under section 21 of the Act, and Rule 4.3 of the Engineering New Zealand Rules.
- 202. Having considered all the evidence, we have decided to uphold the complaint about Mr Mulholland.
- 203. Having found Mr Mulholland in breach of his obligations to act competently, we need to determine what orders, if any, should be made against him.

# ORDERS

- 204. There is a range of disciplinary actions available to us as set out in section 22(1) of the Act. There is also a range of sanctions in respect of Mr Mulholland's membership with Engineering New Zealand under Engineering New Zealand's Disciplinary Regulation 17(3).
- 205. On 7 September 2020, our reserved decision was sent to the parties and they were invited to make submissions on penalty. The complainant made submissions on 16 September 2020. Mr Mulholland made submissions on 9 October 2020 and additional submissions as to costs on 20 October 2020.

## **RELEVANT LAW**

- 206. In *Roberts v A Professional Conduct Committee of the Nursing Council of New Zealand<sup>38</sup>*, the High Court outlined a number of principles to be applied by the Health Practitioners Disciplinary Tribunal in determining the appropriate penalty to impose in disciplinary proceedings. The High Court determined that a disciplinary penalty must:
  - a. protect the public (including through deterrence of other practitioners from engaging in similar conduct);
  - b. set and maintain professional standards;
  - c. where appropriate, rehabilitate the practitioner back to the profession;
  - d. be comparable with penalties imposed on practitioners in similar circumstances;

<sup>&</sup>lt;sup>37</sup> Chartered Professional Engineers of New Zealand Rules (No 2) 2002, r 42E and Engineering New Zealand Code of Ethical Conduct, cl 4. <sup>38</sup> [2012] NZHC 3354.

- e. reflect the seriousness of the practitioner's conduct, in light of the range of penalties available;
- f. be the least restrictive penalty that can reasonably be imposed in the circumstances; and
- g. be fair, reasonable, and proportionate in the circumstances.
- 207. The High Court also stated that while penalty may have the effect of punishing a practitioner, punishment is not a necessary focus for the Tribunal in determining penalty.
- 208. The principles in *Roberts* are broadly applicable to our power to make disciplinary orders under Rule 10 of the Engineering New Zealand Rules and they are the principles we rely on when considering the appropriate penalty orders in this case.
- 209. The principles have general application to professional disciplinary proceedings in the light of the Supreme Court's decision in *Z v Dental Complaints Assessment Committee*.<sup>39</sup> In *Z*, the Supreme Court makes general statements about the purposes of professional disciplinary proceedings, noting that such proceedings are designed to:

Ascertain whether a practitioner has met appropriate standards of conduct in the occupation concerned and what may be required to ensure that, in the public interest, such standards are met in the future. The protection of the public is the central focus.

- 210. This is consistent with *Roberts*, as *Roberts* lists public protection and the maintenance of professional standards as the foremost considerations relevant to penalty.
- 211. The Supreme Court in *Z v Dental Complaints Assessment Committee*<sup>40</sup> also states that while professional disciplinary proceedings are not intended to punish practitioners, they may have a punitive effect in practice. This is also consistent with the principles set out in *Roberts*, in that the penalty must be the least restrictive penalty and that punishment is not a necessary focus of a disciplinary penalty.
- 212. The reasoning underlying *Roberts'* focus on practitioner rehabilitation is less relevant to penalties under the Act in light of the fact that the removal or suspension of a Chartered Professional Engineer's registration does not prevent the individual practising as an engineer but does prevent use of the Chartered Professional Engineer title.
- 213. It is appropriate that disciplinary penalties mark the profession's condemnation of the relevant conduct, noting that to do otherwise would not be consistent with the purpose with the purpose of professional disciplinary processes, or of the Act to establish the title of Chartered Professional Engineer as a mark of quality.

#### **SUBMISSIONS**

#### The complainant

214. The complainant submitted:

a. The Registration Authority should formally, and urgently, withdraw the generic letter issued to Mr Mulholland on 5 August 2016 titled "Practice Area Description", as this letter has now been shown to be inaccurate, and the general public should not be further misled through its contents.

<sup>&</sup>lt;sup>39</sup> [2008] NZSC 55.

<sup>40</sup> Ibid.

- b. Mr Mulholland's chartered status should be either restricted or suspended until he is reassessed, with a specific focus on the deficiencies identified by the Disciplinary Committee of his practice area.
- c. A suitably qualified Geotechnical Engineer should be appointed to the re-assessment panel assuming Mr Mulholland still wishes to do geotechnical engineering work in the future.
- d. If Mr Mulholland wishes to pursue geotechnical work, that his practice area is updated to be specific about the kind of geotechnical work (if any) he has demonstrated competence in, with specific focus on whether or not work relating to hazardous instability zones is within his practice area.
- e. Mr Mulholland's updated practice area is clearly communicated to the relevant Territorial Authorities he submits building consent applications to, at the time of the reinstatement of his chartered status.
- f. This case and its outcomes are clearly communicated/publicised (with appropriate suppression if needed) for further reference to other engineers, and the general public.

#### **David Mulholland**

- 215. Mr Mulholland submitted he accepted the Disciplinary Committee's decision, and said he defended the complaint on the honest but mistaken belief that he was suitability qualified to provide geotechnical engineering advice and the methods he was using were appropriate.
- 216. Mr Mulholland accepts the complainant's criticism that his communication with WDC, peer reviewers and the Investigating Committee could and should have been better. He further accepts our finding that he acted incompetently but submitted this was at the lower end of the scale, and the penalty should reflect that.
- 217. In respect of the orders available to us Mr Mulholland submitted that:
  - a. Suspension or removal from the register/membership is not warranted, and he will no longer carry out geotechnical engineering.
  - b. No fine should be ordered, but if we are minded to impose one, it should be in the vicinity of \$1,500.
  - c. Censure will provide the punitive component of the disciplinary orders.
- 218. Mr Mulholland submitted that he is 81 years old with over 60 years engineering experience. He was genuinely trying to achieve the best results for his clients and defended the complaint on the basis of his honest but mistaken belief that he was acting within his sphere of experience. However, he has now accepted the Committee's findings and learned from the experience. He submitted the imposition of a costs award at 50% will have a punitive effect over and above any other orders the Committee has made.
- 219. Mr Mulholland submitted that he should not be named, and that given his age it would be unduly punitive, particularly where his actual designs do not pose any threat to the public and he accepts censure.

#### DISCUSSION

220. Engineers hold significant knowledge and specialised expertise. They can make judgements, apply their skills and reach informed decisions in relation to their work that the general public cannot. The

decisions engineers make and the services they provide often do not only impact the engineer and their client but have wide-reaching effects on the public.

- 221. The public places significant trust in engineers to self-regulate. As a professional, an engineer must take responsibility for being competent and acting ethically. The actions of an individual engineer also play an important role in the way in which the profession is viewed by the public.
- 222. The Disciplinary Committee has found that Mr Mulholland has departed from what could be expected of a reasonable engineer. That is, Mr Mulholland has acted incompetently.
- 223. In our view, Mr Mulholland's actions, if condoned, would undermine the public's trust in the engineering profession and reduce the public confidence in the Chartered Professional Engineer title. We consider that Mr Mulholland's actions are towards the middle of the scale, and our orders need to reflect our view of the seriousness of the breach of his obligation to act competently.

#### **Registration and membership**

- 224. In respect of orders relating to registration, the Disciplinary Committee may order that: an engineer's registration be removed, and that they may not apply for re-registration before the expiry of a specified period; that their registration be suspended for a period of no more than 12 months or until they meet specified conditions relating to the registration; that the engineer be censured; that the engineer must pay a fine not exceeding \$5,000. Where a Disciplinary Committee orders that the engineer's registration be removed, they may not order a fine.<sup>41</sup>
- 225. In *A v Professional Conduct Committee*<sup>42</sup> the High Court said, in relation to a decision to cancel or suspend a professional's' registration, that four points could be expressly and a fifth impliedly derived from the authorities:

First, the primary purpose of cancelling or suspending registration is to protect the public, but that 'inevitably imports some punitive element.' Secondly, to cancel is more punitive than to suspend and the choice between the two turns on what is proportionate. Thirdly, to suspend implies the conclusion that cancellation would have been disproportionate. Fourthly, suspension is most apt where there is 'some condition affecting the practitioner's fitness to practise which may or may not be amendable to cure'. Fifthly, and perhaps only implicitly, suspension ought not to be imposed simply to punish.

226. In the recent decision of Attorney-General v Institution of Professional Engineers New Zealand Incorporated and Reay<sup>43</sup> the High Court set out the standard the public expects when an engineer is a member of Engineering New Zealand:

[M]embership of a professional body, such as the Institution, can confer a status that signals trustworthiness to the public. This status reflects the value that society places upon the training and skill acquired by members and upon the Institution's ability to maintain the standards of its members through ongoing education, training and disciplinary processes.

227. The Court also went on to set out the public expectation of Engineering New Zealand's role in maintaining the standard of the profession:<sup>44</sup>

<sup>&</sup>lt;sup>41</sup> Chartered Professional Engineers of New Zealand Act 2002, s 22.

<sup>&</sup>lt;sup>42</sup> A v Professional Conduct Committee [2008] NZHC 1387 at [81].

<sup>43 [2018]</sup> NZHC 3211 at [52] and [55].

<sup>44</sup> Ibid at [56]

There is, however, a counterbalance to the public trust that is reposed in members of professional bodies such as the Institution. That counterbalance is the public expectation that the Institution will tightly regulate admission into its ranks and ensure members maintain high professional standards. The public expects that if a person is to be afforded the status of membership of the Institution, then those individuals will maintain professional standards and that those standards will be enforced by the Institution through, if necessary, disciplinary proceedings. If a professional body, such as the Institution, wishes to maintain that public trust, and the value associated with membership status, then it must act in accordance with this expectation.

- 228. We consider that the Court's comments in respect of membership with Engineering New Zealand are equally applicable to its role as the Registration Authority and regulator of Chartered Professional Engineers.
- 229. We are heartened to hear that Mr Mulholland accepts our decision, and that he acknowledges that his communication with the WDC and the Investigating Committee was lacking. We also acknowledge his submission that he will discontinue practising geotechnical engineering.
- 230. We have decided that censure plus a fine is an appropriate and proportionate penalty.
- 231. We do not agree with Mr Mulholland's submission that a fine is not necessary. Mr Mulholland's departure from expected standards was not a one-off. He went to some lengths to insist that he was able to competently practice geotechnical engineering, to both his clients and to WDC, using the letter from the Registration Authority to justify his claims. He also showed an unwillingness to engage with, or learn from, peer reviewers engaged to review his work. His actions caused WDC to invest significant effort and resource in an attempt to resolve the issues raised in this complaint.
- 232. We have set the fine at \$2,500. This reflects the departure from expected standards being the middle of the scale. This is also consistent with previous Disciplinary Committee decisions.
- 233. As stated above, Mr Mulholland's behaviour fell below the standard expected of a professional engineer, and it is important that the Registration Authority and Engineering New Zealand condemns this behaviour and that this condemnation is reflected in the penalty ordered.

#### Costs

- 234. The Disciplinary Committee can order that the engineer pay costs and expenses of, and incidental to, the inquiry by the Registration Authority and Engineering New Zealand.<sup>45</sup> The ordering of payment of costs is not in the nature of penalty.
- 235. When ordering costs, it is generally accepted that the normal approach is to start with a 50% contribution. That, however, is a starting point and other factors may be considered to reduce or mitigate that portion. Those factors include whether the hearing was able to proceed on an agreed statement of facts, any co-operation from or attendance at the hearing by the engineer, and consistency with the level of costs in previous decisions. The balance of costs after the orders must be met by the profession itself.<sup>46</sup>

<sup>&</sup>lt;sup>45</sup> Chartered Professional Engineers of New Zealand Act 2002, s 22(4).

<sup>&</sup>lt;sup>46</sup> PCC v Van Der Meer 1019/Nur18/422P. Available at: <u>https://www.hpdt.org.nz/portals/0/1019Nur18422P.pdf</u>

236. In respect of the medical profession, the Court in Vatsyayann v PCC said:47

[P]rofessional groups should not be expected to bear all the costs of a disciplinary regime and that members of the profession who appeared on disciplinary charges should make a proper contribution towards the costs of the inquiry and a hearing; that costs are not punitive; that the practitioner's means, if known, are to be considered; that a practitioner has a right to defend [themselves] and should not be deterred by the risk of a costs order; and that in a general way 50% of reasonable costs is a guide to an appropriate costs order subject to a discretion to adjust upwards or downwards.

- 237. While we are well aware of Mr Mulholland's age and years of experience and the mistaken belief that he was acting in the best interests of his clients, these factors alone do not support any suggestion that the normally accepted level of costs would be inappropriate in this case. In assessing costs, we are mindful that costs associated with disciplinary processes are a burden on the engineering profession and the body of Chartered Professional Engineers should not be expected to be burdened with full costs when one of their number is disciplined.
- 238. We reiterate that an order for costs is not in the nature of penalty but arises from the investigation and hearing of the complaint. Mr Mulholland defended the complaint, as he is entitled to do. It was only after receiving our decision that Mr Mulholland indicated any acceptance that his work fell below the expected standard.
- 239. We have considered Mr Mulholland's submissions and the factors set out at paragraph 235 as they relate to Mr Mulholland's level of co-operation and attendance at the hearing, along with maintaining consistency with other Disciplinary Committee orders for costs.
- 240. We do not consider Mr Mulholland has provided any compelling argument that would justify departing from the accepted starting point for costs of 50%. We have not been given any evidence that Mr Mulholland would suffer extreme financial hardship or that there are other mitigating circumstances.
- 241. Taking all factors into account, it is the decision of the Disciplinary Committee that Mr Mulholland pay 50% of costs incurred by Engineering New Zealand, which is consistent with previous disciplinary orders.

#### Naming

- 242. In addition to notifying any orders made against an engineer on the register of Chartered Professional Engineers, the Registration Authority must notify the Registrar of Licensed Building Practitioners appointed under the Building Act 2004 of the order and the reasons for it and may publicly notify the order in any other way that it thinks fit.<sup>48</sup>
- 243. Naming is the starting point and will only be inappropriate in a limited number of circumstances where the engineer's privacy outweighs the public interest. In *Y v Attorney-General*<sup>49</sup> the Court of Appeal

<sup>&</sup>lt;sup>47</sup> [2012] NZHC 1138 at [34].

<sup>&</sup>lt;sup>48</sup> Chartered Professional Engineers of New Zealand Act 2002, s 22(5).

<sup>&</sup>lt;sup>49</sup> [2016] NZCA 474.

explored the principles that should guide the suppression of the names of parties, witnesses, or particulars in the civil context. The starting point is the principle of open justice.<sup>50</sup>

- 244. The question is then whether the circumstances justify an exception to the principle of open justice. In a professional disciplinary context, a practitioner is "likely to find it difficult to advance anything that displaces the presumption in favour of disclosure".<sup>51</sup> This is because the practitioner's existing and prospective clients have an interest in knowing details of the conduct, as this allows them to make an informed decision about the practitioner's services.<sup>52</sup>
- 245. The Act and the Disciplinary Regulations do not prescribe factors we should consider when deciding whether to name an engineer. Although the legislative powers afforded to us differ, we are guided by the public interest factors considered when deciding whether to name a health practitioner. These include openness and transparency in disciplinary proceedings; accountability of the disciplinary process; public interest in knowing the identity of the practitioner; the importance of freedom of speech; unfairly impugning other practitioners; and that where adverse disciplinary finding has been made, it is necessary for more weighty private interest factors (matters that may affect a family and their wellbeing, and rehabilitation of the practitioner) to be advanced to overcome the public interest factors for publication.<sup>53</sup>
- 246. Consistent with these precedents, the starting point is that naming of engineers subject to a disciplinary order is the normal expectation. This is because public protection is at the heart of disciplinary processes, and naming supports openness, transparency, and accountability.
- 247. We have considered the factors in the public interest, and the private interests advanced by Mr Mulholland, that is, his age and the length of time that he has been a practising engineer.
- 248. We do not consider that Mr Mulholland's private interests outweigh the public interests sufficiently to justify the departure from the fundamental principle of naming. The public interest outweighs any risk of potential prejudice. We order publication of our decision in full and a press release issued.
- 249. We have also considered the complainant's submission that Mr Mulholland's practice area is limited to exclude geotechnical engineering, and Mr Mulholland's submission that he agreed to this.
- 250. We note that Chartered Professional Engineers and Members of Engineering New Zealand are already bound to act only within their areas of competence; and limiting practice areas is not a power

<sup>&</sup>lt;sup>50</sup> Ibid at [25].

<sup>&</sup>lt;sup>51</sup> Ibid at [32].

<sup>&</sup>lt;sup>52</sup> Ibid.

<sup>&</sup>lt;sup>53</sup> Professional Conduct Committee of the Pharmacy Council of New Zealand v El-Fadil Kardaman 100/Phar18/424P at [113] – [114]. Under s 95(2) of the Health Practitioners Competence Assurance Act 2003, the Tribunal is required first to consider whether or not it is desirable to make an order under the section, "after having regard to the interests of any person [...] and to the public interest." The Tribunal is then given discretion to make an order prohibiting the publication of the name of any person. We note the orders available in our jurisdictions are different. Tribunals must undertake a two-stage test before making orders to prohibit publication, whereas the Disciplinary Committee is not required to undertake any test before publicly notifying the order in any other way that we think fit.

available to us. Given Whanganui is where Mr Mulholland undertook the engineering services complained of, we order that WDC is notified of our decision.

251. We know that Mr Mulholland will be disappointed that he is named in this decision. However, the fact that Mr Mulholland is approaching the end of his career is not a reason to grant name suppression. It is important that the professional disciplinary process is open and transparent.

### **SUMMARY OF ORDERS**

252. In exercising our delegated powers, we order that:

- a. Mr Mulholland is censured; and
- b. Mr Mulholland is to pay a fine of \$2,500 excluding GST; and
- c. Mr Mulholland is to pay \$10,615 plus GST towards the costs incurred by the Registration Authority in inquiring into Mr Mulholland's conduct (approximately 50% of Engineering New Zealand's total costs).
- 253. In addition to notifying these orders in the register, the Registration Authority will, subject to any appeal by Mr Mulholland:
  - a. notify the Registrar of Licensed Building Practitioners appointed under the Building Act 2004 of the order and the reasons for it; and
  - b. publish the Disciplinary Committee's final decision on this complaint both on its website and in a public press release and in any other communication it considers appropriate. It will also notify the Whanganui District Council.

254. Mr Mulholland's interim name suppression is lifted.

Henchjord

Jenny Culliford Chair of Disciplinary Committee