## BEFORE A HEARING PANEL CONSTITUTED BY NELSON CITY COUNCIL

IN THE MATTER of an application by CCKV Maitahi

**Development Co LP** and **Bayview Nelson Limited** for a change to the Nelson Resource Management Plan (Plan

Change 28)

IN THE MATTER of Part 5 and Schedule 1 of the Resource

Management Act 1991

# STATEMENT OF REBUTTAL EVIDENCE OF MICHAEL JOHN PARSONSON

#### **EROSION AND SEDIMENT CONTROL**

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Name, qualifications and experience

- [1] My name is Michael John Parsonson.
- [2] My qualifications and relevant experience are provided paragraphs 2 to 6 of my primary statement of evidence<sup>1</sup> (primary statement).

Expert Code

[3] I reaffirm that I have read the Code of Conduct for expert witnesses issued as part of the Environment Court Practice Note 2014 (Part 7). I agree to comply with the Code of Conduct. I am satisfied that the matters addressed in this statement of rebuttal evidence are within my expertise. I am not aware of any material facts that have either been omitted or might alter or detract from the opinions expressed in this statement of evidence.

Role in Project

[4] My role in the project is explained in paragraphs 9 to 11 of my primary statement.

Scope of Evidence

- [5] This statement of rebuttal evidence responds to the evidence presented by submitters, and the s42A Addendum Report prepared for Nelson City Council (NCC). It is limited to matters relevant to the potential effects and management of sediment discharges during the development phases of the Private Plan Change 28 (PPC28) area. Those matters are raised directly or indirectly in the following statements.
  - Evidence of Roger Young for Friends of the Maitai, 27 June 2022
  - Evidence of Dali Suljic for Save the Maitai Inc, Stormwater, 27 June 2022

<sup>&</sup>lt;sup>1</sup> Statement of Evidence of Michael John Parsonson, Erosion and Sediment Control; 15 June 2022

- Evidence of Kelly Joanne McCabe for Save the Maitai Inc, Planning,
  27 June 2022
- Section 42A Addendum Report of Graeme Ridley Erosion and Sediment Control Specialist, Ridley Dunphy Environmental, On behalf of Nelson City Council, 23 June 2022
- S42A Addendum Report: Appendix H Erosion and Sediment Control
- S42A Addendum Report: Planning Addendum Report

## Section B – Executive Summary

- [6] Evidence prepared on behalf of Friends of the Maitai and Save the Maitai Inc raise the following general concerns that are relevant to the scope of my primary statement and involvement in the project:
  - Lack of certainty and insufficient information presented on the likely location, extent and scale of earthworks that may occur.
  - Potential effects on receiving environments, including direct discharges during construction, and hydrological effects.
  - Lack of integration and adoption of water sensitive design (WSD) principles.
  - Lack of clarity on how proposed provisions will be effectively engaged during consent processing.
- [7] The s42A Addendum report continues to seek greater definition on the location and extent of earthworks, and sediment yield modelling to facilitate the assessment of likely effects and acceptability of the proposed land use change. These are matters that I have addressed in my primary statement, and I retain my conclusions in that regard.
- [8] The Addendum Report also seeks stronger rule and policy linkages to ensure that the erosion and sediment control best-practice principles that are

included in PPC28 are engaged in the consideration of all earthworks consent applications. Having discussed this matter further with Mr Lile, I am satisfied that the proposed rule, policy, matters, assessment criteria and information requirements are consistent with the existing function of the NRMP. Consequently, the proposed provisions will be engaged for resource consent applications for earthworks within the PPC28 area.

[9] I have provided additional comment on the relationship between the consenting and control of earthworks and WSD. In my opinion, the assessment of earthwork consent applications will be underpinned by the updated Stormwater Management Plan (SMP), additional provisions that promote integrated catchment management, and the adoption of best-practice erosion and sediment control principles and measures. This provides a regulatory mechanism to ensure that construction sediment yield is consistent with the proposed freshwater and recreational outcomes.

[10] I remain of the opinion that the suite of existing and proposed provisions of the Nelson Resource Management Plan (NRMP) provide an appropriate assessment and decision-making framework to ensure that the sediment related effects of development with the PPC28 area can be acceptably minimised. I do not consider additional information to be necessary during this plan change process to inform that opinion.

### Section C - Evidence

Evidence of Roger Young for Friends of the Maitai

- [11] Mr Young has addressed a range of potential water quality and aquatic ecology effects that he considers may arise through the development of the PPC28 area.
- [12] At paragraph 22, Mr Young identifies effects including sediment inputs into downstream waterways, smothering in-stream habitat, reduced food quality for aquatic organisms and reduced water clarity. In paragraph 24, Mr Young states that "detailed assessments of effects will be required during the resource consent process, but I consider that sufficient information is needed now at the Plan Change state to determine whether the size and scope of proposed mitigation tools

can be implemented and if they will be sufficient to address potential effects". I infer that Mr Young does not consider sufficient information has been provided to date.

- [13] I have addressed these matters extensively in my primary statement. I agree that sediment effects during earthworks can be significant if not appropriately minimised and mitigated. Those two elements are key principles of best practice erosion and sediment control and management. I am confident that these would be required through earthworks consents assessed under the existing and proposed provisions of the NRMP. Underpinning those matters would be the Structure Plan and various proposed provisions including RE6.3 that would require an updated SMP prior to consenting that addresses integrated catchment management, and the adoption of best-practice erosion and sediment control principles and measures to ensure that construction sediment yield is consistent with freshwater and recreational outcomes; including swimming holes, the avoidance or minimisation of earthworks on steepest slopes, and staging and progressive stabilisation.
- In paragraph 28(g) Mr Young suggests that proposed Schedule X.9 should [14]include "erosion and sediment control management and vegetation clearance" as an additional best practice principle to "avoid or reduce the effects of development on ecological values in the Kākā Stream and downstream waterways". I have noted above the inclusion of these matters in the proposed amendments to Policy RE6.3. In my primary statement, I also note proposed Schedule X.12 which provides specific principles to be adopted "To ensure that that development within the Structure Plan area appropriately minimises adverse sediment effects, and is consistent with the relevant ecology, water quality and recreation provisions of the NRMP and NPSFW". While I would not oppose the addition Mr Young has proposed for Schedule X.9, I do not consider it to be necessary to achieve the anticipated sediment management outcomes within the PPC28 area.
- [15] In paragraph 32 Mr Young states that "it was impossible to determine the location of roading and housing, where earthworks will occur, the likely scale of issues like erosion and sediment export, where the biggest risk areas were likely to be located" and other uncertainty on the location and sizing of wetlands and stormwater ponds. The matters raised by Mr Young have been extensively addressed in my primary statement. I consider that the information currently

available is sufficient in terms of managing potential effects of future earthworks that are to be consented under the NRMP. This includes the information available on the site and receiving environments, my understanding of the existing and proposed plan provisions, and proven best management practices. Detailed assessments of specific earthworks proposals, potential receiving environment effects, and site management and monitoring can be addressed at the consenting phase.

Evidence of Dali Suljic for Save the Maitai Inc, Stormwater

- [16] Mr Suljic's evidence is focussed on potential changes in post-development hydrology associated with urbanisation of the PPC28 area.
- [17] In paragraph 31 to 36, Mr Suljic proposes the need for WSD to be adopted for urban development. As addressed in my primary statement, I am satisfied that earthworks necessary to facilitate development of the PPC28 area can be appropriately managed through proven best practice erosion and sediment control management systems and measures. In my opinion, the suite of existing and proposed provisions provides an appropriate assessment and decision-making framework to ensure that the sediment related effects of development with the PPC28 area can be acceptably minimised, and that they are consistent with the principles of WSD. This includes the outcomes and principles provided in Schedule X.12, and RE6.3 which would require an updated SMP that addresses integrated catchment management.
- [18] In paragraph, Mr Suljic considers that "there is insufficient information provided to enable the understanding of the sensitivity of the receiving environment, the existing site hydrology, and its relationship to ecology, geology, and topography". As I noted above in relation to Mr Young's evidence, I consider there to be sufficient information available with respect to the management and minimisation of potential sediment related effects during the earthworks phase of development.
- [19] In paragraph 57, Mr Suljic states "A further associated concern is the potential for bulk earthworks consents to be applied for independently of ultimate land use consents, which has the effect of predetermining the feasibility of

stormwater management approaches and can preclude the implementation of best practice WSD". I anticipate that this matter is best responded to by Mr Lile in the planning context or others in the context of the SMP. In my primary statement, I do anticipate that the consenting and implementation of earthworks may be progressive. However, I also consider it relevant that the PPC28 area within the Kākā Valley is predominantly owned by CCKV with a small area owned by BNL, integrated with the balance of its holding across the Bayview ridge. It is apparent that subdivision (including completion of earthworks for roads, services and lots) will need to be given effect before significant fragmentation of ownership occurs. This allows a high level of consenting control across the PPC area.

Evidence of Kelly Joanne McCabe for Save the Maitai Inc

- [20] In paragraph 29, Ms McCabe identifies additional information that she considers should have been provided in support of the PPC28 proposal. That includes:
  - "b. Plans and details that demonstrate the anticipated location and extent of earthworks necessary to support the plan change outcomes. This would have informed both the practicality of stormwater management and other functions of the PPC28 proposal":; and
  - "f. A master plan and/or staging plan would have assisted in understanding the potential extent of effects associated with the implementation of PPC28".
- [21] In paragraph 87 Ms McCabe notes what she considers to be an information gap in the identification of "an approximate scale and extent of all earthworks required for the development, the proximity to wetlands (and other waterways), and the anticipated final landform". In paragraph 89 she acknowledges the principles now proposed in Schedule X.12 but at paragraph 90, expresses uncertainty on how those principles will engaged through future consenting processes and permitted activity earthworks.
- [22] Having discussed this matter further with Mr Lile and being reliant on his local experience, I am satisfied that the proposed rule, policy, matters, assessment criteria and information requirements are consistent with the existing function of the NRMP. The proposed provisions will be engaged for applications for earthworks within the PPC28 area.

[23] In my primary statement at paragraph 58, I suggest that the provisions of the NRMP could be strengthened to explicitly state that permitted activity earthworks must implement best-practice erosion and sediment control measures, being the Nelson Tasman Guideline<sup>2</sup>. I have now modified my position on this matter. While I still consider that the NRMP would be strengthen by such a change, this a city and district wide matter which I anticipate can be addressed through the upcoming plan change required to give effect to the National Policy Statement for Freshwater Management. I understand this must be notified in 2024. Given that permitted activity scale (individual lot) earthworks with the PPC28 area are unlikely to occur for several years, it is my understanding that they would be subject to such a future plan change. Consequently, I do not consider it necessary or appropriate to amend the permitted activity standards through the PPC28 process.

[24] In paragraph 91 Ms McCabe states that "While earthworks generally are of a temporary nature, the earthworks required for PPC28 will be long-term and will feature somewhat permanently for an extended period of time. The resultant adverse effects arising from poor sediment management can also be long-term or permanent on sensitive receiving environments within or in close proximity to the plan change site". I agree.

[25] With the design and consenting regime that I anticipate will be required under the existing and proposed NRMP provisions, best-practice erosion and sediment control will be required. It is my understanding that poor compliance with best-practice measures required through consent conditions cannot be assumed or taken into account when considering a plan change or consent application. However, it is also my understanding that specific, effects related requirements can be conditioned through resource consents, such as additional site monitoring and reporting through adaptive management, to further reduce the risk of unanticipated outcomes. Based on current Council practice, I anticipate that consented earthworks would also be monitored by NCC compliance inspectors.

<sup>&</sup>lt;sup>2</sup> Nelson Tasman Erosion and Sediment Control Guidelines; July 2019

- [26] Mr Ridley, the erosion and sediment control specialist acting on behalf of NCC, has provided a response to my primary evidence. Having considered his addendum, my conclusions expressed in my primary statement have not changed. I provide specific comment as follows.
- [27] Mr Ridley describes in paragraph 6 what he considers to be particularly high-risk likely earthworks and described in paragraph 7 a "driving" principle of the Nelson Tasman Guideline to "Fit earthworks, construction techniques and methodologies to site conditions, constraints and opportunities land sensitivity", including avoiding or minimising earthworks on higher risk areas. I support those principles and have anticipated that they will be taken into account in the design and consenting of the development of the PPC28 area. These principles have been given early phase recognition in the revised Structure Plan and proposed zoning presented by Mr Milne in his primary statement, and in the Indicative Masterplan provided and described in Mr Nicholson's rebuttal statement.

## [28] In paragraph, Mr Ridley states:

'In the absence of the knowledge and assessment of earthwork locations and associated sediment yields and risk assessment, PPC28 ignores this principle and bypasses a fundamental element of assessment of the overall feasibility of the earthworks themselves. If earthworks are undertaken in these higher risk locations, or areas where they are not suitable, irrespective of the nature of the erosion and sediment control best practice measures implemented, there will be unnecessary earthworks activity with potentially adverse effects resulting. These elements require confirmation at this PPC28 level to ensure that zoning and development form is reflective of all considerations."

[29] I do not consider that PPC28 ignores these principles. They are embedded in Policy RE6.3 and Schedule X.12 as well as other policies, and are reflected at a conceptual stage in the Structure Plan and Indicative Masterplan. The policies and schedule promote WSD and require best practice erosion and sediment control, which in this instance is the Nelson Tasman Guideline. The principles must also be reflected in the SMP that is to be updated prior to consenting.

- [30] I agree with the general principle of minimising earthworks through design. This has been taken into account in the development of the Structure Plan and Indicative Masterplan. However, I do not consider that avoidance of higher risk areas is the only way to avoid unacceptable sediment effects during development, where the need for earthworks is sufficiently justified. There are many examples of significant earthworks undertaken on steep land that drains to sensitive receiving environments, which have appropriately minimised downstream effects. The Ara Tuhono Puhoi to Warkworth motorway extension (Ara Tuhono) I referenced in my primary statement is an example. I also consider it common to undertake specific earthworks to stabilise geotechnically unstable land during urban development. The need for and location of these works can be minimised in accordance with WSD design principles but may still be required to achieve necessary engineering standards.
- [31] In paragraph 19 Mr Ridley promotes a more direct rule framework that provides greater certainty that they PPC28 provisions will be engaged during consenting. As I have responded above, I consider that the proposed framework will appropriately engage the proposed provisions on which I rely in my assessment.
- In paragraph 21, Mr Ridley supports the inclusion of provisions that require [32] permitted activity earthworks to incorporate best-practice erosion and sediment control. As I have responded to above, this would be a useful city and district wide inclusion that could be addressed through a separate plan change process.
- [33] In paragraph 23 Mr Ridley states that adaptive monitoring and management for earthworks of the scale and location anticipated by the plan change must be explicitly required through provisions. I note that Schedule X.12 includes the text provided below. I am satisfied that adaptive management is explicitly noted as a management technique to be adopted.
  - "7) Implement adaptive management methodology and plan that incorporates measures to monitor the effectiveness of erosion and sediment control measures, and contingency responses if effects are identified that exceed those anticipated during the consenting of earthworks."

### S42A Addendum Report: Planning Addendum Report

The Planning Addendum report has been prepared by Ms Sweetman, addressing the management of earthworks in paragraphs 27 to 29, and 59. Ms Sweetman agrees with the general approach taken by Mr Ridley and I do not comment further on that. Ms Sweetman also identifies what she considers to be a gap in the regulatory mechanisms necessary to engage the Schedule X.12 principles into consent evaluations, and to ensure permitted activity earthworks incorporate best-practice erosion and sediment control. My conclusions are based on those principles being engaged in the consideration of earthworks consents. Having discussed this matter with Mr Lile, I am satisfied that the appropriate linkages are incorporated in the existing and proposed provisions. I understand that Mr Lile will address this further in his rebuttal.

#### Conclusions

- [34] I have read and considered the statements of evidence provided on behalf of submitters that are relevant to the scope of my primary statement and my role in the project. The evidence presented on behalf of submitters generally covers matters that I have addressed in my primary statement.
- [35] I have read and considered the s41A Addendum Report. My responses remain generally consistent with those provided in my primary statement.
- [36] I am satisfied that the proposed rule, policy, matters, assessment criteria and information requirements are consistent with the existing function of the NRMP. The proposed provisions on which my assessment relies will be engaged for applications for earthworks within the PPC28 area.
- [37] I remain of the opinion that the suite of existing and proposed provisions provides an appropriate assessment and decision making framework to ensure that the sediment related effects of development with the PPC28 area can be acceptably minimised. I do not consider additional information to be necessary during this plan change process to inform that opinion.
- [38] Best-practice erosion and sediment control measures are required through the Nelson Tasman Guideline. The performance of the measures and other

management tools are well understood and proven. The need for additional measures, including staging and adaptive monitoring and management, can be assessed and confirmed during the resource consent phase, and do not need to be explicitly defined in the plan change.

[39] I support more explicit standards for permitted activity earthworks but do not consider such provisions to be necessary or appropriate through PPC28.

Dated 6 July 2022

Michael Parsonson