Before the Expert Panel appointed under the Fast-track Approvals Act 2024

Under	the Fast-track Approvals Act 2024
And	
In the Matter of	an application for approvals by NZSki Limited to upgrade existing infrastructure at the Remarkables Ski Area, including a new passenger transport lift, carparking areas, and expanding the ski field into the adjacent Doolans Basin

Statement of Evidence of **Doyle James Richardson** on behalf of NZSki Limited in response to Section 53 Comments

Wastewater

Dated: 3 November 2026

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INTRODUCTION

1. My name is Doyle James Richardson.

2. I hold a Bachelor of Science Degree majoring in Geography and a Post Graduate Diploma in Environmental Science from the University of Otago. I also hold a National Diploma in Wastewater Treatment through the Industry Training Organisation Connexis.

3. I was employed as an Associate at Mitchell Daysh Limited, a specialist resource management consultancy based in Invercargill, from March 2022 until August 2026 and have recently been engaged by them as a sub-consultant through my recently formed business DR Environmental Limited. Prior to that I was employed by Alliance Group Limited for over six years, with almost five years of that as the Group Environmental Manager where I was responsible for all environmental aspects of the business, including the management of its seven processing sites across New Zealand. Prior to that I was employed as a Principal Planner at Environment Southland and worked in environmental consultancies for over 10 years prior to that in the North Island of New Zealand and Australia.

4. Much of my experience since 2015 relates to industrial activities, with a large focus on wastewater discharges and the management of them in accordance with the Resource Management Act 1991 (**RMA**). This includes being responsible for and overseeing compliance requirements for discharges and managing wastewater discharge consent applications.

5. This statement is given as part of NZSki Limited's (**NZSki**) response to comments on the Remarkables Ski Area Upgrade and Doolans Expansion (**Project**) made under Section 53 of the Fast-track Approvals Act 2024 (**FTA**). This statement responds to specific comments raised by:

    (a) Otago Region Council (**ORC**) Section 53 comments on the substantiative application in paragraph 82;

    (b) Dr Christopher Ronald James Kavazos, Department of Conservation (**DOC**) Section 51 response, Appendix B – Expert Statement Freshwater in paragraphs 175 – 179; and

    (c) Dr Michael Greer, ORC Section 53 Response, Appendix 2: Surface water ecology and water quality technical expert advice in Section 3.1, Section 3.4.2.4, Section 3.4.3, and 3.7.3.2.

6. My evidence should be read in conjunction with the evidence from:

   (a) Mark Hamer from e3 Scientific who addresses potential effects of the wastewater discharge on the aquatic health of the Rastus Burn.

   (b) Simon Bloomberg from e3 Scientific who addresses the historical effects and potential future effects of the wastewater discharge on water quality and the aquatic health of the Rastus Burn.

   (c) Marc Jensen from Stantec who addresses the nature of the historical wastewater discharge and the ability of an upgraded wastewater treatment system to meet proposed discharge limits.

   (d) B-10 Rastus Burn Wastewater Freshwater Ecological Impact Assessment.

   (e) B-11 Wastewater Discharge Impact Assessment.

   (f) B-18 Wastewater Treatment and Disposal Feasibility Study.

7. My evidence ties the above evidence together in forming the proposal for the wastewater discharge.

8. I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023. The reports I have prepared are within my area of expertise, except where I state that I am relying on material produced by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in my reports.

SPECIFIC RESPONSE TO COMMENTS

Wastewater Management Approach

9. Paragraph 82 of the ORC Section 53 comments on the substantiative application states that "*Mr Baker considers that the proposed approach of undertaking further investigations and finalising the WWTP design following consent approval is acceptable, notwithstanding that this is an unusual approach*".

10. I do not agree that finalising the wastewater design (in other words completing the detailed design) following consent approval is unusual. I have experience with projects from elsewhere where the Waste Water Treatment Plant (**WWTP**) design has not been finalised prior to consent approval, particularly when the WWTP upgrade is not scheduled to be implemented for several years, which is the case here. Condition WW.41 requires NZSki to prepare and submit a Wastewater Treatment Upgrade Plan by 30 September 2028 and Condition WW.43 requires

NZSki to commission the upgraded WWTP prescribed in the Wastewater Treatment Upgrade Plan prior to the opening of amenities in the Doolans Basin that are connected to the WWTP located in the Rastus Burn or prior to 10 April 2030[1] (whichever is sooner).

11. By way of example, in 2019 Alliance Mataura applied for resource consent to continue the discharge of treated wastewater to the Mataura River. At the time of preparing the application it was recognised that further treatment of the wastewater was necessary to manage potential recreational impacts from pathogens discharged to the Mataura River, but it was unknown what the finalised design of the WWTP would be. However, an *e.coli* limit was proposed to manage effects that came into effect at a future date; i.e. in three years.

12. At the time of preparing the Alliance Mataura consent application, a UV treatment option was put forward with a capital cost of $4.14 m as a potential option to treat the wastewater to achieve the *E.coli* limit, but the option was concept only and not finalised. Following approval of the treatment wastewater discharge consent, Alliance undertook further design development, including detailed design and continued to investigate options to treat the wastewater for *E.coli* ultimately landing on and successfully implementing technology that was only commercialised in New Zealand in 2021, after the application had been approved[2].

13. The cost of this technology was approximately $2.13 million, so almost half of the option that had been conceptually developed at the time of preparing the application.

14. In my view, the key matters to consider in assessing an application that requires a WWTP upgrade is that it is known that there is a need to upgrade the WWTP, that there is a commitment to upgrade the WWTP, that there are performance standards, environmental limits and triggers in place to assist in achieving the necessary environmental outcomes and that there are WWTP options available to achieve those performance standards, environmental limits and triggers.

15. In this case, it is recognised by all technical experts and NZSki that there is a need to upgrade the WWTP and this is committed to by Conditions WW.41 to WW.43. There are proposed performance standards, environmental limits and triggers as secured by Conditions WW.8A to WW8.G and as per the evidence of Mr Jensen and Mr Bloomberg and as detailed in the application, there are WWTP options available to achieve these proposed performance standards, environmental limits and triggers. In my experience, the approach proposed by NZSki is common in the

[1] 10 April 2030 is the expiry date of the existing treated wastewater discharge permit (Consent No. RM14.336.01).
[2] https://www.farmersweekly.co.nz/technology/alliance-group-mataura-gets-state-of-the-art-uv-water-treatment-tech/

consenting of large projects where detailed design work is finalised after consent approval, with the consent conditions providing the necessary framework and controls for that work.

Total Nitrogen Load Limit

16. It appears to be agreed between Mr Bloomberg, Dr Greer and Dr Kavazos that a limit on the amount of Total Nitrogen (**TN**) discharged each year is appropriate.

17. Paragraph 176 of Dr Kavazos' comments states that "*the load the applicant proposes to maintain is 750 kg of nitrogen and 100 kg of phosphorus per year. This nitrogen figure is higher than the 601 to 701 kg N/year discharged between 2016 and 2023*". This is likely based on the e3 Scientific B.11 Wastewater Discharge Impact Assessment[3] provided with the substantive application, which used measured wastewater discharge flows and measured contaminant concentrations in the wastewater to derive these values.

18. Similar to Dr Kavazos, the evidence of Dr Greer in Section 3.1 raises concerns about the certainty that the proposed TN limit of 750 kg/yr reflects the historical wastewater discharge.

19. Two different approaches have been explored to assist in determining what the annual TN load limit should be. The first is based on measured discharges as set out in the e3 Scientific B.11 Wastewater Discharge Impact Assessment and the second adopts a 'first principals' approach as set out in the Stantec B.18 Wastewater Treatment and Disposal Feasibility Study. Each of these is discussed below.

20. As set out in the e3 Scientific B.11 Wastewater Discharge Impact Assessment[4], the Stantec B.18 Wastewater Treatment and Disposal Feasibility Study and the evidence of Mr Jensen, there are potential limitations with the discharge values included in the e3 Scientific B.11 Wastewater Discharge Impact Assessment. This is because of metering not reporting a wastewater discharge when it was occurring and the type and timing of wastewater sampling used to collect historical discharge information, among other things. Therefore, while 750 kg of TN per year is greater than the measured discharges loads of 601 kg or 701 kg of TN, it does not necessarily exceed the amount of TN that has actually been discharged historically. Given the nature of the issues identified with the underlying data, the measured load likely under reported the actual load discharge. Work is currently underway to confirm whether this is correct or not as discussed in paragraphs 23 to 26 and 33 below.

[3] Except that those numbers relate to 2022 and 2023 only, rather than 2016 to 2023.
[4] See section 6.1.1 and section 6.1.2.

21. Due to the potential limitations with the historically measured TN load, a 'first principals' assessment of what was potentially historically discharged was undertaken by Stantec and included in the B.18 Wastewater Treatment and Disposal Feasibility Study. This focused on the 2022 year which the B.11 Wastewater Discharge Impact Assessment recommended the maximum load limit be based on, because 2022 was the lower of the 2022 and 2023 years where a potential effects threshold was exceeded. The evidence of Mr Jensen sets out how that was done and it is noted that his view is that 750 kg N/year is likely 150 kg N/year below what he estimated was discharged.

22. For these reasons, it was decided that a discharge limit of 750kg N/year would be adopted and proposed for the Project. However, given the acknowledged limitations, conditions were and have been proposed to review this. In the 3 September 2026 version of the consent conditions (H.02), Condition WW.10 required representative samples of treated wastewater to be collected during the ski season from July to October 2026. These representative samples were to be time proportional composite sample comprising 24 individual aliquots, collected at approximately hourly intervals. The samples were to be combined into a sample and analysed for TN and TP in accordance with previously proposed Condition WW.15A.

23. Condition WW.10 also required a grab sample of the treated wastewater to be collected between 7am and 12pm (ideally 10 am), on the same day as the representative sample of treated wastewater was collected, to reflect how historical treated wastewater samples were collected.

24. Both the representative and grab treated wastewater samples were collected over the 2026 ski season. Issues with the flow meter were also addressed prior to the ski season.

25. As set out in Condition WW.37A and the evidence of Mr Bloomberg, this information is being used to undertake a sensitivity analysis of historical loads to determine whether the annual TN and TP loads included in Condition WW.8A (derived from the Stantec B.18 Wastewater Treatment and Disposal Feasibility Study) adequately characterises wastewater flows and nutrient concentrations to maintain water quality and aquatic ecology health in the Rastus Burn or whether they need to be reduced to maintain water quality and aquatic ecology health in the Rastus Burn. If the limits need to be reduced, the suitably qualified and independent expert must provide a recommendation about what the reduced limit/s should be

26. If the review required by Condition WW.37A recommends that a reduced total nitrogen and/or a total phosphorus limit is needed to maintain water quality and aquatic ecology health in the Rastus Burn then NZSki must within 1 month of the

review being completed provide written advice to the ORC about whether they propose to implement the reduced limit and whether any variation to the conditions of the consent are needed (see Condition WW.38A).

27. If NZSki does not propose to implement a reduced limit/s identified in Condition WW.37A, the reasons for not implementing the reduced limit must be provided in the written advice to ORC in accordance with Condition WW.38A.

28. Condition WW.45 then provides ORC the ability to review the consent conditions for the purposes of determining whether the conditions (including the TN limit) are adequate to maintain water quality and aquatic ecology in the Rastus Burn. This condition could be utilised by ORC if they are not satisfied with the NZSki response to the TN limit review required by Condition WW.38A.

29. The evidence of Dr Greer at Section 3.1, he advises:

"…that the existing evidence supports the conclusion that the current wastewater discharge is not causing significant adverse effects. Any load limits should therefore be informed by historical operations and should neither unnecessarily constrain the existing discharge nor permit materially greater loads without supporting evidence. This could be achieved by:

(a) Scientifically confirming through the Fast-track Approval process that the proposed limit of 750 kg TN/year reflects historical operations, or providing an alternative limit that does;

(b) Requiring the limit to be amended if subsequent investigations identify a discrepancy; or

(c) Adopting an instream ammoniacal nitrogen limit based on the ANZG (2018) 99% species protection DGV, assessed against an annual 95th percentile."

30. This list reads so as to provide options for addressing concerns with the TN limit.

31. The proposal to include an instream ammoniacal nitrogen limit based on the ANZG (2025) 99% species protection DGV, assessed against an annual 95th percentile, as set out in the evidence of Mr Bloomberg satisfies point 3 of Mr Greers options.

32. This, combined with the proposed consent conditions that require the TN limit to be reviewed as per my evidence above, appear to address the concerns that Dr Greer has with the proposed TN limit.

33. Finally, it should be noted that because the monitoring work to inform the TN and TP limit review required by Condition WW.10 in the 3 September 2026 version of the conditions has since been completed, this condition has been deleted from the latest set of conditions and Condition WW.37A has been updated to reflect this.

Sample Collection

34. There was a clause in the since deleted Condition WW.10 that stated:

> *"If the samples of treated wastewater required by Condition WW.10(1) and (3) are unable to be collected (for reasons beyond the Consent Holder's control), the Consent Holder must advise the Otago Regional Council in writing within five working days after the sampling day. The advice must include reasons why the sample was unable to be collected."*

35. There are similar clauses in WW.11A, WW.12, WW.13 and WW.14.

36. In Section 3.7.3.2 of his evidence, Dr Greer advised that clause (4) of Condition WW.10 "*… appears to constrain ORC's ability to undertake enforcement action because it would first require ORC to determine whether the exceedance or non-compliance was beyond the consent holder's control.*"

37. This clause has been developed from a similar condition (Condition 9(b)) included in the existing treated wastewater discharge consent (Consent No. RM14.336.01). I understand from discussion with R Lawrence that this clause is rarely used and is in place to reflect the unique conditions of the alpine environment where sampling locations can be affected by snow cover.

38. In my view, this clause does not constrain ORC from undertaking enforcement action if the requirement to collect a sample is not met. This is because the clause does not say that NZSki is excused from complying with the requirement to collect a sample in those circumstances. This clause simply requires NZSki to notify Council of difficulties in collecting samples when they arise; i.e. it is an additional reporting obligation only.

39. For this reason, no changes are proposed to the conditions where this clause is used.



Doyle James Richardson

3 November 2026