

**IN THE ENVIRONMENT COURT
AT CHRISTCHURCH**

ENV-2020-CHC-128

**I TE KŌTI TAIAO
KI ŌTAUTAHI**

UNDER the Resource Management Act 1991

IN THE MATTER of a notice of motion under section
149T(2) of the Act

BY **OTAGO REGIONAL COUNCIL**

Applicant

STATEMENT OF EVIDENCE OF QUINN DAVID MCINTYRE

Dated: 25 February 2022

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Statement of Evidence of Quinn McIntyre

Introduction

- [1] My name is Quinn David McIntyre. I am the Director of Enviroscope Limited (“**Enviroscope**”), an environmental consultancy based in Wanaka.
- [2] I have the qualification of a Master of Science (majoring in Geography) from the University of Otago. I have been a Certified Environmental Practitioner (“**CEnvP**”) since 2013.
- [3] During my professional career, I have practiced as an Environmental Consultant for eight years, specialising in construction environmental management. I have also worked for eight years in various Resource Management Planning roles in both the public and private sectors in Otago including two years as Resource Consents Manager at Queenstown Lakes District Council (“**QLDC**”).
- [4] Over the past 2.5 years, I have prepared Environmental Management Plans (“**EMP**”) and Erosion and Sediment Control Plans (“**ESCP**”) for a range of private clients for submission to both QLDC and more recently Otago Regional Council (“**ORC**”) and have overseen the practical on-the-ground environmental management of these sites. I have also delivered Erosion and Sediment Control (“**ESC**”) training to ORC and representatives from the other Otago territorial authorities. I provide peer review services of EMPs and ESCPs for QLDC.
- [5] I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance with it and I agree to comply with it. This evidence is within my area of expertise, except where I state that I am relying on another person, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Scope of Evidence

- [6] My expertise is in construction environmental management, specifically erosion and sediment control within the Queenstown Lakes district.

- [7] I have been asked by Willowridge Developments Limited (“**Willowridge**”) and Remarkables Park Limited (“**Remarkables Park**”) to provide evidence on the Otago Regional Council’s *Plan Change 8: Water quality to the Regional Plan: Water for Otago* (“**PPC8**”).
- [8] The substantive section of my evidence is structured as follows:
- (a) Review of overlap between QLDC and ORC earthworks controls, including discussion of the nature of consents issued and subsequent reliance on similar management plans.
 - (b) Discussion of the practical concerns that emerge from needing to manage erosion and sediment control measures under two separate consents from two separate consent authorities.
 - (c) Response to ORC’s s 32 Report in support of PPC8.
 - (d) Response to other pertinent matters that have been raised in the evidence of ORC.
 - (e) Discussion, from a practical perspective, on the proposed new permitted activity rule described in Ms Hunter’s evidence.

Overlap between QLDC and ORC Earthworks Controls

- [9] A comparison of the rule framework between the QLDC’s PDP and ORC’s PPC8 has been provided in Ms Hunter’s evidence. The overlapping nature of earthworks controls through the resource consents issued and the environmental management plan documentation required by each regulatory authority is discussed below from a practical perspective.

Comparison of Consent Conditions

- [10] I have reviewed the standard ORC consent conditions (as attached to Ms Strauss’ evidence) against the QLDC conditions (attached as Appendix 1 to my evidence). The ORC conditions have largely adopted the QLDC’s standard conditions suite and have largely adapted these to suit their specific objectives around managing discharges from earthworks sites.

- [11] It is important to note there are a number of conditions in the ORC standard conditions suite that I have not yet seen imposed on consents in practice and therefore I am unsure whether they are utilised. These include conditions relating to adaptive management plans, contaminated sites and baseline monitoring. It is also noted that I have not seen the conditions for low risk sites as these do not trigger the need for engaging my expertise. I can only comment on those ORC consent conditions that I have experience of in practice.
- [12] Both QLDC and ORC require that EMPs and ESCPs are prepared by a Suitably Qualified and Experienced Person (“**SQEP**”). QLDC require that the EMP is prepared in accordance with the *QLDC Guidelines for Environmental Management Plans, (2019)* (“**EMP Guidelines**”). This non-regulatory guideline is available on the QLDC website and provides clear guidance for the level of detail that consent holders and EMP authors must include to ensure that the quality of EMPs are commensurate to the inherent environmental risks of a site. The document is based on industry best practice principles for environmental management including *Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland region. Auckland Council Guideline Document GD2016/005* (“**GD05**”).
- [13] ORC do not have an EMP guideline or similar and instead include standard Environmental Management System (“**EMS**”) requirements and specific environmental controls within the body of the consent conditions. In contrast, QLDC refer back to the EMP guidelines and the conditions require compliance with that document. On the surface, one essentially ends up at the same place. However, there is a key difference in terms of efficiency. Having these specific EMP details in a separate guidance document like QLDC do means that the EMPs can be easily and quickly amended as required. ORC’s approach of including specific management controls in the conditions of consent means that any change to the management measures require a variation to the resource consent conditions. This is problematic as it imposes time and cost delays on the consent-holder.
- [14] As noted earlier, both QLDC and ORC require that EMPs and ESCPs are prepared by a SQEP. This ensures that the person preparing these

documents has the appropriate level of skills and experience to prepare an EMP and ESCP that will effectively manage the environmental effects of the earthworks activity throughout the duration of the project, including the management of any discharges. QLDC clearly define the prerequisite level of experience and qualification and assign these to each of its defined risk categories (high/medium/low) whereas ORC do not define what they consider to be a SQEP. This could be problematic for ORC on high-risk sites, particularly in terms of ongoing erosion and sediment control and management of discharges.

[15] QLDC require an Environmental Representative for each site. As explained in the EMP Guidelines, this is someone who works on the site every day who will liaise and coordinate the implementation of the EMP onsite. This role is a key tool to ensure that environmental engagement continues day-to-day, and not just when council monitoring staff or the environmental consultant is onsite. This role naturally promotes general environmental awareness over time and in my experience has been a significant help in executing the EMP and environmental management system for the project. The ORC conditions only refer to an Environmental Representative in the “Prestart notification to Consent Authority” condition. Ms Heather also refers to “...*the nomination of an Environmental Representative*” in her evidence when discussing difficulties in obtaining access to site emergency contacts. However, the purpose and responsibilities of this role is not explained by ORC. It appears to me that the Environmental Representative role as it relates to ORC may not be the same key role that the QLDC condition requires.

[16] Both councils impose an environmental induction condition. QLDC refers back to the EMP Guidelines which outline what this induction must include, whereas the respective ORC condition is silent on the details to be included in the induction. These inductions are crucial to ensure that any new staff coming onto the project are acutely aware of the risks associated with the role and the sensitive receptors that must be protected and how such protection is to occur. For high-risk sites, QLDC requires that this induction for key staff be undertaken by the SQEP to ensure that the messaging is clear and to demonstrate to the person who will be inducting others from that point onwards. I have found that

poor performance caused by individual human error often stems from ineffective or no induction received at all. Based on the way the ORC induction condition is worded and without a supplementary EMP guideline to provide clear expectations of content required, the degree to which ORC checks the effectiveness of the site induction content is unknown.

- [17] Both councils require as-built confirmation of the installation of erosion and sediment controls in accordance with the approved ESCP. For high-risk sites, QLDC require that the controls are checked and confirmed by the SQEP. This is critical to ensure the ESCP has been executed correctly and the project starts off on the right note. In my experience first-pass as-built inspections will often find issues or inadequate controls. This provides a level of security on these high-risk sites. Often unforeseen site irregularities require alternatives and minor revision to the ESCPs that the SQEP can advise on, execute and submit at the same time the as-built confirmation is submitted to council, providing for increased effectiveness of control and efficiency of process.
- [18] In terms of as-built confirmation for high-risk sites, QLDC include a 'hold point' beyond which bulk earth works must not occur until the SQEP has confirmed the controls are installed in accordance with the plan. This is crucial to ensure the site is sufficiently protected and ready for bulk earthworks. ORC also requires as-builts for installation of ESCP controls. This condition as viewed in the standard conditions suite (attached to Ms Strauss' evidence) is different to the as-built conditions I have previously seen from ORC which allow for submission of as-builts within "1 month" of installation. The condition within the standard suite appears to be more efficient as a one month delay on ORC's response to the as-built confirmation may cause issues where they are not in agreement with the as-built confirmation (i.e. the contractor may have undertaken earthworks for a full month or more with inappropriate installation of controls in place) This is an environmental risk in terms of erosion, sedimentation and discharges from the site.
- [19] For high-risk sites, QLDC and ORC requires that the SQEP undertakes a monthly monitoring of the site to ensure continued compliance with the EMP and crucially to identify any new issues arising. This is critical to

the ongoing environmental performance as sites can change quickly, unforeseen natural processes or issues may arise, and attitudes can change (e.g. site staff become complacent or tending to cut corners when they fall behind in their scheduling). The fact that ORC do not define the qualifications and experience of a SQEP has the potential to be problematic on high-risk sites where the person undertaking these inspections is not capable of identifying issues as they arise.

- [20] QLDC require that the outcome of these monthly environmental inspections is included in monthly environmental summary reports to be submitted to QLDC. This provides for 'soft' surveillance and more ability for the monitoring team to gain specific information on the site's progress without having to go onsite. This helps to manage compliance costs for consent-holders while creating more efficient council resourcing by ensuring officers are utilised where they are most needed.
- [21] ORC require that water quality performance criteria (including discharge limits) are nominated and accepted prior to issue of consent. In contrast, QLDC leaves this for the SQEP to decide what is appropriate when they prepare the EMP, and this is peer reviewed through the Engineering Acceptance process. ORC provides for more control and is therefore a more robust approach than the QLDC employs.
- [22] ORC have a comprehensive condition relating to Chemical Treatment Management Plans to ensure that any chemicals used in the flocculation of suspended sediments is undertaken such that it does not result in toxic discharges to receiving environments. This is considered to be more effective than QLDC's guidance provided in the EMP Guidelines.
- [23] Within the discharge permits issued by ORC, specific and comprehensive discharge consent conditions are imposed which relate to discharge quality standards and monitoring requirements. This is useful for consent holders.
- [24] Both ORC and QLDC have conditions relating to the management of environmental incidents with ORC's condition specifically referring to discharge exceedances. Both sets of conditions are comprehensive

noting that QLDCs go further to deal with incidents related to other environmental effects, such as noise and vibration.

Comparison of Environmental Management Plan Requirements

- [25] QLDC requires that EMPs be based upon the requirements of their EMP Guidelines document available on the QLDC website. This includes specific details for managing erosion and sediment control including requirements for ESCPs including drawings, design calculations, construction methodology, strategies for managing significant rain events and monitoring and maintenance requirements. Owing to the other land use effects from earthworks that QLDC must regulate, the EMP Guidelines also require this documentation to address other environmental effects such as water quality, dust, noise, vibration, contaminated sites, cultural heritage and chemicals and fuels management. This is all encompassed within an Environmental Management System based on industry best practice to drive continual improvement.
- [26] ORC do not have a specific document for EMPs but they have adopted a similar approach to requiring EMPs that require similar details to QLDC through a range of consent conditions as discussed above.
- [27] QLDC categorise projects by risk and have different levels of EMP detail required according to the risk category of each job. A matrix is included in the EMP Guidelines (below) that define the type of EMP required as well as the prerequisite qualifications and experience for a SQEP that can prepare each risk category. This ensures that the level of capability and experience involved in the design and ongoing support for each particular job is commensurate to the inherent risk of each site.

Environmental Risk Level for EMP Category	Characteristics of risk level	EMP detail required
Low	<ul style="list-style-type: none"> • Less than 2500m² disturbed surface area open at any one time; and • Less than 15% (6.6 degrees) slope; and • Earthworks not located within 50m of a Sensitive Environmental Receptor; and 	Complete Short Form EMP template

Environmental Risk Level for EMP Category	Characteristics of risk level	EMP detail required
	<ul style="list-style-type: none"> • Controls installed and maintained in accordance with Template EMP including measures to ensure sediment does not enter the stormwater network 	
Medium	<ul style="list-style-type: none"> • Greater than 2500m² disturbed surface area open at any one time; or • Where a Sensitive Environmental Receptor within 50m of the site or specific environmental adverse effect has been identified • All projects not meeting the characteristics of 'Low Risk' (above) and 'High Risk' (below) 	EMP prepared by Suitably Qualified and Experienced Person –and selected Administrative requirements and selected Operational requirements for relevant environmental elements (as outlined in Section 4.1) only
High	<ul style="list-style-type: none"> • Projects which have greater than one hectare of land exposed, or • Projects which have greater than 2500m² disturbed surface area open at any one time and include any of the following characteristics: <ul style="list-style-type: none"> ○ Project working within or discharging to Sensitive; or Environmental Receptors such as a Waterbody or storm water network ○ Topography where any slope is greater than 15% (6.6 degrees) ○ Soils with high erodibility (e.g. silts or other soil types with high silt content) as determined by geotechnical advice. 	EMP prepared by Suitably Qualified and Experienced Person – and all Administrative and Operational requirements for all environmental elements (as outlined in Section 4.1)

Figure 1: Risk matrix from QLDC EMP Guidelines.

[28] ORC also utilise a risk matrix which is attached to Ms Strauss' evidence. I am not familiar with this as it is used internally by ORC consent planners however it appears to score sites in such a way that the threshold for scoring as a high-risk site is higher than the QLDC risk matrix.

[29] As discussed above ORC also require SQEPs to prepare EMPs although the prerequisite experience and qualifications are not defined.

[30] In practice, when consents from the two councils are required, most practitioners prepare a single EMP that satisfies the requirements of both councils. This provides for a higher level of efficiency and simplicity for consent holders and earthworks contractors. However, this also introduces a level of inefficiency as discussed below.

Managing Earthworks Activities with Two Separate Consents

[31] I have been engaged on several projects that require the management of earthworks via two different consents, one from each of QLDC and ORC. My experience is that this duplication of consents often generates confusion for the consent holder and earthworks contractor and their staff. As the Environmental Consultant, this duplication, with its inherent differences between the consents, adds more complexity that can lead to inefficiencies when working out what consent conditions to measure the environmental performance of the site against. This takes time and seems to be an unnecessary cost for consent holders.

[32] Initially on these projects, I am engaged to prepare a draft EMP for the two councils. If these are submitted in parallel, there may be changes requested from either one or both councils. Each time a change is requested, I need to revise the EMP version to the other council who may already have started reviewing the document. This process can be inefficient and costly. In some cases, clients have requested that to save on potential for rework the EMPs should be submitted sequentially which can cause delays to project commencement and stress for project teams. This can inhibit early environmental engagement by some members of the project team who tend to be fairly pragmatic people and often view these inconsistencies with disdain. This is not an optimal way to commence any project and makes my job harder to convince them to engage with the EMP.

[33] Once consents are issued and the job commences, it is common for consent holders, project managers and earthworks contractors to become confused by what conditions they need to comply with, as

compliance with one condition (e.g. from a QLDC consent) may not necessarily mean compliance with a similar condition in the other consent (e.g. the ORC consent) because each consent might have different limits (discharge performance criteria) or requirements (such as confirmation of as-built ESCPs, monitoring and reporting). To date this has only resulted in minor compliance action (e.g. reminder letters for submission of reports) but the differences between the requirements of both councils does have the potential to result in significant non-compliance.

PPC8 Section 32 Report

[34] The s 32 report notes the issue with the current RPW rules framework is that conditions of Rule 12.C.1.1 are “reactive rather than proactive”. The report states:

“...as it currently stands, to ensure compliance with the Water Plan developers may need to apply for resource consent prior to the discharge occurring if there is a chance that a permitted activity criteria may not be met. This is difficult to predict in advance... the requirement for resource consent may only be triggered after the discharge has already occurred.”

[35] The s 32 report and supporting evidence proposes that a hybrid rule framework would trigger a land use consent for specifically targeted earthworks activity allowing consent planners to assess proposed land management practices within the site, including erosion and sediment controls. The report notes that this would enable ORC to regulate the nature of any discharges more effectively via the issue of discharge permits alongside land use consents.

[36] The above situation may benefit some Otago districts, particularly where existing district plan earthworks rules lack rigour to appropriately manage earthworks activity. As discussed in Ms Hunter’s evidence, it is considered that a comprehensive framework of earthworks rules already exists in the QLDC PDP and is supported by a rigorous environmental management system, including appropriate consent conditions and EMP guidance material. This is all geared to ensure best practice erosion and

sediment controls so that in the vast majority of situations, any discharges (e.g. from sediment retention ponds) would comply with the RPW permitted activity standards.

[37] It is my view that the QLDC framework generally requires a higher water quality standard than both Rule 12.C.1.1 of the current RPW and the new PPC8 Rule 14.4.1.1. The QLDC EMP Guidelines provides for a limit of 50 mg/L Total Suspended Solids (“TSS”). In some instances, this will not be appropriate (e.g. in pristine environments such as spring-fed waterways). In most cases however, the 50 mg/L TSS limit will be at a significantly higher quality than what the PPC8 rule 14.4.1.1 requires:

‘The discharge of sediment does not result in any of the following effects in receiving waters, after reasonable mixing:

...

ii. any conspicuous change in the colour or visual clarity’

I agree with the evidence of Ms Heather and Ms Boyd, that most discharges occur during significant rain events. Therefore, the receiving waters themselves will generally have highly elevated sediment loads during these events. As an example, if the Cardrona River was flowing at an elevated level of 500 mg/L TSS, to effect a change in colour or visual clarity after reasonable mixing as directed by PPC8, the sediment load in any discharge would need to be significantly higher than 50 mg/L. This is particularly relevant for earthworks activity that is not captured by the ORC permitted standard rule (i.e. non-residential earthworks, or earthworks on sites of less than 2,500m²).

[38] The s 32 report notes that Method 15.5.1 of the Water Plan states that ORC will encourage and support the development and use of non-regulatory measures such as codes of practice and environmental management systems that reduce effects on water resources. However, the s 32 report notes to date these methods have not been implemented in respect of discharges from earthworks. In contrast, QLDC has developed the EMP Guidelines which, in 2019, replaced previous guidance documents for earthworks that were outdated and not fit for purpose. The EMP Guidelines have led to best practice design of onsite

environmental controls as well as the comprehensive environmental management systems that drives continue improvement within the district.

- [39] The s 32 report undertakes a cost/benefit analysis of the environmental, economic, social and cultural effects anticipated by the implementation of PPC8 as proposed.
- [40] In terms of economic factors, the report notes that consent holders will benefit from having certainty over their activities and the adequacy of on-site mitigation measures proposed. This may be the case in some districts where a robust environmental management framework is absent, but this level of certainty is already present in the Queenstown Lakes District. In my experience from talking to consent holders and earthworks contractors, this additional set of requirements through PPC8 is not providing more certainty, but is instead adding a layer of confusion when laid across existing requirements from QLDC.
- [41] The economic cost analysis does not appear to consider the costs to consent holders in having monitoring officers from both the QLDC and ORC essentially monitoring the same aspects in terms of onsite control measures. To the ORC officers' credit, they do try to coordinate these visits with QLDC officers. When these site visits are not coordinated this means more time that contractors must "down tools" to liaise with these officers which has caused frustration amongst contractors and consent holders. Ms Heather notes in her evidence that in some instances QLDC and ORC take turns to monitor consents and report back to each other which is helpful for consent holders. This should become a more formalised approach, if the outcome of this process is that there will be continuing overlapping ORC/QLDC land use consents.
- [42] In terms of social benefits, the s 32 report notes that PC8 will provide more clarity for plan users about acceptable minimum standards for earthworks activities. Again, this may be the case in some districts where this information is currently absent, but in the case of the Queenstown Lakes District, the duplication often confuses plan users, particularly given the potential for different discharge limits and gap in EMP guidance

provided to consent holders by the two regulatory authorities. The s 32 report does identify this issue but stops short of investigating further.

Response to Other Pertinent Matters Raised in ORC's Evidence

Slope

[43] I agree with the ORC evidence that slope is an important factor in determining the erosion risk for a site. The effect that increasing slope may have on sedimentation generation has been outlined in Ms Ozanne's evidence. Because slope is such an important factor in determining erosion and sedimentation risk, in my opinion rules that include slope in combination with an area threshold will ensure that consenting is more focused and avoids a requirement for consents for activities in areas that may have little to any risk of discharge of sediment-laden water offsite. It is noted that other factors, such as proximity to receiving environment, would also need to be considered (e.g. on flat areas of land a consent requirement may still be appropriate to help manage risk where the site is in proximity to a water body).

[44] Evidence from the ORC raise concerns around the implementation of slope in terms of how slope is interpreted in practice due to the various ways that slope could be interpreted. My understanding from previous discussions with QLDC staff is that slope is taken from any part of the exposed earthworks footprint where 10% is exceeded and as far as I am aware from discussions with QLDC staff this has not caused any issues for QLDC consents or general compliance with the rule.

Auckland's Erosion and Sediment Control Guide

[45] PC8 Rule 14.4.1.1 restricts its discretion to compliance with GD05. I agree with the s 32 report that GD05 is considered to be the best practice guidelines nationally for erosion and sediment control with many other councils having adopted GD05 in full (including QLDC) or adapted their own guidance document from GD05.

[46] Ms Strauss in her evidence notes that strict compliance with GD05 may not always be possible, necessary or desirable given the differences between Otago and Auckland conditions. From practical experience

applying GD05 in the Queenstown Lakes context, I agree with Ms Strauss. The agreed changes by parties at mediation to replace “compliance” with the “extent to which the activity complies with” should achieve a practical level of flexibility for designers of ESCPs. Recent interactions I have had with ORC’s peer reviewers have demonstrated this flexible approach to GD05.

Practical Difficulties with Compliance Aspects of the RPW

[47] Ms Heather’s evidence discusses the practical difficulties with compliance aspects of the RPW provisions which included compliance with a permitted activity rule rather than monitoring of a resource consent. It is useful to understand the challenges facing the ORC compliance team particularly in terms of where they see the gaps between the RPW and PPC8 when it comes to enforcement associated with discharges.

[48] From a practical implementation sense, I accept that the PPC8 frameworks makes the ORC compliance team’s job easier and more effective in managing discharges. However, in my opinion, the duplicated monitoring of earthworks controls in the Queenstown Lakes district is not the most efficient approach to improving the management of discharges, given the established QLDC PDP rules and associated environmental management system regulated by the QLDC which I have discussed above.

[49] Ms Heather notes the difficulties in assessing changes in visual clarity including challenges obtaining a representative sample in lakes, the influence of tannins and the difficulty of obtaining clarity readings in certain conditions such as poor light. I agree with Ms Heather’s statements, and I assume they are intended to highlight current issues with PPC8 Rule 14.4.1.1. However, I note that ORC consent planners provide for alternative sampling methods and discharge limits such as TSS and turbidity, similar to what the QLDC EMP Guidelines already provide for.

[50] Ms Heather notes that ‘reasonable mixing’ is not defined in the RPW and presents issues for enforcement officers to assess whether reasonable

mixing has occurred causing inconsistencies within the department. To overcome this issue, ORC have adopted a definition based on the ORC Science team's advice in the *ORC Water Sampling Guidelines for Incident Management and Compliance* (2021). I have not viewed this document so cannot comment on this solution. With 'reasonable mixing' being carried through to Rule 14.4.1.1, a clear definition associated with the rule would be helpful to avoid any confusion.

[51] Ms Heather notes that PPC8 will enable enforcement officers to better understand and monitor the potential effects of using chemical treatment in sediment retention ponds that flocculate or assist with more rapid drop-out of suspended sediments prior to discharge. The issue is that water becomes more acidic as more chemical, generally polyaluminium chloride ("**PAC**"), is added which has the potential to cause adverse effects on receiving environments and aquatic flora and fauna. The QLDC EMP Guidelines requires the management of chemical treatment based on best practice methods. According to GD05 this is the preparation and implementation of Chemical Treatment Management Plans ("**CTMP**"). GD05 requires that samples from the site are bench-tested with the chemical to ensure that optimum doses are deployed that are both appropriate for discharge and also settle out sediment efficiently. The bench testing method utilised is outlined in GD05. The EMP Guidelines require that water quality performance criteria must include monitoring pH for all discharges. It is noted that ORC consents are also requiring CTMPs based on the GD05 bench-testing method along either pH performance criteria for discharges.

[52] Ms Heather notes the logistical difficulties in locating discharge points on earthworks sites and gaining immediate access to site emergency contacts where they do not have an ORC consent. These points are accepted however it is assumed that this information could easily be provided to ORC by QLDC. It appears this sharing of information may already happen to some degree given Ms Heather's discussion at paragraph 84(a) where a shared online spreadsheet is discussed.

Environmental Performance in QLDC

- [53] Ms Heather's evidence notes that she continues to witness poor practice in the management of earthworks and sediment in the Queenstown Lakes district despite QLDC's District Plan rules and consenting framework. I agree with Ms Heather that there are occasional instances of poor practice. However, on the ground I have witnessed that earthworks management practice in the district has generally improved significantly over the past 2.5 years since the industry has been working under the revised QLDC earthworks framework.
- [54] I have found that these instances of poor practice are usually caused by a consent holder/contractor still learning the new environmental requirements and how to comply with them. This is often where a contractor has won a large, complex job that is inherently riskier than they are used to from an erosion and sediment/ receiving environment perspective. Part of my role as an environmental consultant is to educate, set expectations and provide advice to ensure these operators are appropriately prepared and supported. Over the past 2.5 years, I have been the SQEP assisting on no less than 20 High Risk projects and can confidently report that all of those consent holders/ operators have improved both their technical skills in erosion and sediment control and their engagement in environmental management.
- [55] Another common cause of poor practice is from individual human error where a simple mistake may lead to a major issue. To protect against this, the EMS required by conditions of consent issued by QLDC and the EMP Guidelines ensure that any breaches of the EMP or incidents are identified, corrected and then fed back into the ongoing revision of the EMP. This feedback loop drives 'continual improvement' through the industry.
- [56] In my view, both situations described above would likely occur whether QLDC or ORC were regulating onsite earthworks activity. Some operators learn faster than others and unfortunately a small number need additional motivation via enforcement action.
- [57] Ms Heather in her evidence provides some useful enforcement data for the five Otago territorial authorities over the past five years. She notes

the two prosecutions in 2017 are from a sediment discharge from a substantial residential earthworks site in the Queenstown Lakes district. By way of background, this situation was the catalyst for the extensive improvements in earthworks management by QLDC. Today, that site is in my view one of the best examples of continual improvement in earthworks management in the district.

- [58] In my opinion, given the QLDC framework for earthworks activity that already exists, the requirement for an additional ORC land use consent for earthworks activity would not improve environmental outcomes in the Queenstown Lakes District.

Different Focus for QLDC and ORC Officers

- [59] Ms Heather provides working examples of how the focus of QLDC and ORC consent planners differ when assessing earthworks consents.

- [60] The first example relates to appropriate discharge standards and discusses a project that I was engaged on within the Bullock Creek catchment in Wanaka. Ms Heather notes that QLDC issued the consent (RM200689) with a 50 mg/L TSS limit on the discharge. Ms Heather's view is that this should not have been issued with a TSS limit this high given the nature of the stream into which the stormwater was discharged. In that case the receiving environment was Bullock Creek, a spring-fed stream that has very high water quality. In my opinion, the ORC consent planner is right to question this discharge limit.

- [61] Since then, I have provided training to QLDC staff resource consents staff on the importance of ensuring the appropriate TSS limits are imposed, including getting ecological advice on what is appropriate for the receiving environment in certain situations and encouraging applicants to seek advice regarding the need for ORC discharge consents.

- [62] Ms Heather also discusses ORC's expertise in relation to discharges and their function under the RMA to better understand cumulative effects of discharge on receiving environments and water bodies. I agree with Ms Heather on that point. Ms Heather discussed an example (which happens to be another project I am working on) at Cardrona where ORC

granted a consent that focused on the discharge itself rather than limits or criteria for the receiving environment. I consider this is good practice.

- [63] Ms Heather states that, while she acknowledges there is some overlap between the compliance functions of the respective councils in relation to earthworks consents issued, she notes “..in my opinion it is only in what we are each monitoring, not why we are monitoring”. I agree with Ms Heather’s statement and consider this should be kept in mind when considering Ms Hunter’s alternative permitted activity rule.

New Permitted Activity Rule as Proposed in Ms Hunter’s Evidence

- [64] Ms Hunter in her evidence has proposed a new permitted activity rule into the PPC8 provisions as follows:

Rule 14.5.1.1A

The use of land, and the associated discharge of sediment into water or onto or into land where it may enter water, for earthworks for residential development where it is undertaken in general accordance with an existing resource consent granted by the Queenstown Lakes District Council after 1 August 2015 is a permitted activity providing:

- (a) The consent has not lapsed, been surrendered or expired;*
- (b) An Erosion and Sediment Control Plan (ESCP) must be prepared and submitted to the Consent Authority for acceptance.*

- [65] From a practical perspective, this rule would remove the requirement to obtain two separate overlapping land use consents in the Queenstown Lakes District which would effectively remove the inherent issues in this duplication as discussed above. This would provide an opportunity for ORC to be notified of all applications for earthworks consents in the Queenstown Lakes district and the ability to provide input into those ESCPs. To enable greater efficiency and integration between the councils, ORC could potentially lend their peer review panel to undertake the review. Naturally there would need to be a cost-sharing arrangement

agreed but his could be a solution to enable greater efficiencies through the consenting process for earthworks consents.

[66] Crucially, ORC would be able to identify and advise QLDC resource consent applicants when discharge consents would be required or otherwise advise QLDC of appropriate discharge conditions to ensure permitted activity standards are met. This would also ensure that ORC can effectively monitor earthworks consents that require discharge permits.

[67] To keep ORC informed of progress on high-risk sites that do not require discharge permits, QLDC could send ORC the regular Monthly Environmental SQEP Inspection Reports that all high-risk sites currently submit to QLDC. This would assist ORC to make informed decisions around any compliance required where they suspect potential discharges that do not comply with permitted activity rules.

[68] It is my view that the combination of the existing QLDC earthworks rules and supporting environmental system alongside the PPC8 discharge framework as described above, provides for a robust, streamlined and integrated framework to manage earthworks activity and any resulting discharges in the Queenstown Lakes district.

Conclusion

[69] Landowners and developers undertaking earthworks in the Queenstown Lakes district are currently needing to obtain similar land use consents from both the QLDC and ORC. This overlap is creating confusion on the ground and can negatively impact on levels of environmental engagement, particularly for earthworks contractors who are tasked with undertaking the works.

[70] I consider that the environmental benefits of PPC8 as outlined in the s 32 report and ORC evidence do not outweigh the challenges created by requiring two similar land use consents, particularly given the robust framework for onsite earthworks management that QLDC regulates. However, I accept ORC evidence that improvements are required via PPC8 to enable ORC to more effectively assess and regulate discharges as a result of the earthworks activity in the Queenstown Lakes district.

[71] In my view, the proposed new permitted activity rule in Ms Hunter's evidence will provide ORC with an effective tool to manage discharges associated with earthworks whilst ensuring that duplication of land use consents is avoided. The combination of existing QLDC earthworks rules and supporting environmental system alongside the PPC8 discharge framework would provide for a robust, streamlined integrated framework to manage earthworks activity and any resulting discharges in the Queenstown Lakes district.

Quinn McIntyre

25 February 2022

Environmental Management

Advice notes for Environmental Management Conditions (x –x):

- 'Suitably Qualified and Experienced Person' is defined in the Queenstown Lakes District Council's Standard for Environmental Management Plans.
- **HOLD POINT** means a mandatory confirmation point beyond which no further construction activities may commence until Council has provided notice to the Consent Holder that the HOLD POINT matter(s) have been accepted as suitable.
- 'Consent Holder' may also refer to the nominated Principal Contractor where those functions and duties have been delegated. However, the ultimate responsibility for ensuring these conditions are complied with will continue to be with the Consent Holder.

First we need to categorise the environmental risk for the application...

Environmental Risk Level for EMP Category	Characteristics of risk level	EMP detail required
Low	<ul style="list-style-type: none"> • Less than 2500m² disturbed surface area open at any one time; and • Less than 15% (6.6 degrees) slope; and • Earthworks not located within 50m of a Sensitive Environmental Receptor; and • Controls installed and maintained in accordance with Template EMP including measures to ensure sediment does not enter the stormwater network 	Complete Short Form EMP template
Medium	<ul style="list-style-type: none"> • Greater than 2500m² disturbed surface area open at any one time; or • Where a Sensitive Environmental Receptor within 50m of the site or specific environmental adverse effect has been identified • All projects not meeting the characteristics of 'Low Risk' (above) and 'High Risk' (below) 	EMP prepared by Suitably Qualified and Experienced Person –and selected Administrative requirements and selected Operational requirements for relevant environmental elements (as outlined in Section 4.1) only
High	<ul style="list-style-type: none"> • Projects which have greater than one hectare of land exposed, or • Projects which have greater than 2500m² disturbed surface area open at any one time and include any of the following characteristics: <ul style="list-style-type: none"> ○ Project working within or discharging to Sensitive; or Environmental Receptors such as a Waterbody or storm water network ○ Topography where any slope is greater than 15% (6.6 degrees) ○ Soils with high erodibility (e.g. silts or other soil types with high silt content) as determined by geotechnical advice. 	EMP prepared by Suitably Qualified and Experienced Person – and all Administrative and Operational requirements for all environmental elements (as outlined in Section 4.1)

For Low Risk Sites:

1. Prior to any works commencing on site the Consent Holder shall complete the Short Form Environmental Management proforma:

<https://www.qldc.govt.nz/media/vprartis/emp-short-form-template-for-environmental-management-plans-small-scale-builds-june-2019.pdf>

At all times during the works, environmental management measures onsite shall be installed and carried out in accordance with this document.

2. Prior to commencing ground-disturbing activities, the Consent Holder shall nominate an Environmental Representative for the works program in accordance with the requirements detailed on **pages 9 and 10** of the [Queenstown Lakes District Council's Guidelines for Environmental Management Plans](#).
3. Prior to commencing ground disturbing activities, the Consent Holder shall ensure that all staff (including all sub-contractors) involved in, or supervising, works onsite have attended an Environmental Site Induction in accordance with the requirements detailed on page 8 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
4. The EMP shall be accessible on site at all times during work under this consent.
5. In accordance with **page 9** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*, where any Environmental Incident where the EMP has failed leading to any adverse environmental effects offsite occurs the Consent Holder shall report to QLDC details of any Environmental Incident within 12 hours of becoming aware of the incident.

For Medium Risk Sites:

To be completed prior to the commencement of any works on-site:

1. At least 15 working days prior to any works commencing on site the Consent Holder shall submit an Environmental Management Plan (EMP) to Council's Monitoring and Enforcement Team for review and acceptance **HOLD POINT 1**. This document must be prepared by a Suitably Qualified and Experienced Person. The EMP shall be in accordance with the principles and requirements of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans* and specifically shall address the following environmental elements as specified in the guidelines:
 - a) Administrative Requirements
 - (i) Weekly site inspections
 - (ii) Notification and management of environmental incidents
 - (iii) Records and registers
 - (iv) Environmental roles and responsibilities of personnel (including nomination of Principal Contractor)
 - (v) Site induction
 - b) Operational Requirements *(remove those that are not required)*
(remove the following elements that are not required)
 - (i) Erosion and sedimentation (including Erosion and Sediment Control Plan) ***(generally always required and if this needs to be prepared by an appropriately qualified person include the following...)*** (to be prepared by a Suitably Qualified and Experienced Person)
 - (ii) Water quality
 - (iii) Dust ***(generally always required)***

- (iv) Cultural heritage (*generally always required - for accidental finds*)
- (v) Noise (*If this needs to be prepared by an appropriately qualified person include the following...*) (to be prepared by a Suitably Qualified and Experienced Person)
- (vi) Vibration (*If this needs to be prepared by an appropriately qualified person include the following...*) (to be prepared by a Suitably Qualified and Experienced Person)
- (vii) Contaminated sites (*If this needs to be prepared by an appropriately qualified person include the following...*) (to be prepared by a Suitably Qualified and Experienced Person)
- (viii) Indigenous vegetation clearance
- (ix) Chemical and fuel management
- (x) Waste management

The EMP (and any sub-plans e.g. ESCP described below) shall also be consistent with any recommendations outlined in the **xxx** report. (*This is for specific geotech, contaminated land or other such reports - remove if not relevant*)

2. Prior to ground-disturbing activities on the initial stage of works or any subsequent new stage of works, the Consent Holder shall engage an Appropriately Qualified Person to prepare and submit an Erosion and Sediment Control Plan (ESCP) to Council's Monitoring and Enforcement Team for review and acceptance. This plan shall be a sub-plan of the overarching EMP and must be prepared in accordance with the requirements outlined on **pages 13 – 18** in *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*. These plans must be updated when:
 - a) The construction program moves from one Stage to another; or
 - b) Any significant changes have been made to the construction methodology since the original plan was accepted for that Stage; or
 - c) There has been an Environmental Incident and investigations have found that the management measures are inadequate.
3. Prior to commencing ground-disturbing activities, the Consent Holder shall nominate an Environmental Representative for the works program in accordance with the requirements detailed on **pages 9 and 10** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
4. Prior to commencing ground disturbing activities, the Consent Holder shall ensure that all staff (including all sub-contractors) involved in, or supervising, works onsite have attended an Environmental Site Induction in accordance with the requirements **detailed on page 8** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.

During construction:

5. All works shall be undertaken in accordance with the most current version of the EMP as accepted as suitable by Council.
6. The EMP shall be accessible on site at all times during work under this consent.
7. The Consent Holder shall establish and implement document version control. Council shall be provided with an electronic copy of the most current and complete version of the EMP at all times.
8. The Consent Holder shall develop and document a process of periodically reviewing the EMP as outlined on **page 6** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*. No ground disturbing activities shall commence in any subsequent stage of

development until an EMP has been submitted and deemed suitable by Council's Monitoring and Enforcement Team.

9. The Consent Holder shall undertake and document weekly and Pre and Post-Rain Event site inspections as detailed on **pages 10 and 11** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
10. In accordance with **page 9** of the Queenstown Lakes District Council's Guidelines for Environmental Management Plans, where any Environmental Incident where the EMP has failed leading to any adverse environmental effects offsite occurs the Consent Holder shall:
 - a) Report to QLDC details of any Environmental Incident within 12 hours of becoming aware of the incident.
 - b) Provide an Environmental Incident Report to QLDC within 10 working days of the incident occurring as per the requirements outlined on **page 9** of *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
11. Environmental records are to be collated onsite and shall be made available to QLDC upon request; immediately if the request is made by a QLDC official onsite and within 24 hours if requested by a QLDC officer offsite. Records and registers to be managed onsite shall be in accordance with the requirements outlined on **page 9** of the Queenstown Lakes District Council's Guidelines for Environmental Management Plans.

For High Risk Sites:

To be completed prior to the commencement of any works on-site:

1. At least 15 working days prior to any works commencing on site the Consent Holder shall submit an Environmental Management Plan (EMP) to Council's Monitoring and Enforcement Team for review and acceptance **HOLD POINT 1**. This document must be prepared by a Suitably Qualified and Experienced Person. The EMP shall be in accordance with the principles and requirements of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans* and specifically shall address the following environmental elements as specified in the guidelines:
 - a) Administrative Requirements
 - (i) Weekly site inspections
 - (ii) Monthly environmental reporting
 - (iii) Independent audit by Suitably Qualified and Experienced Person
 - (iv) Notification and management of environmental incidents
 - (v) Records and registers
 - (vi) Environmental roles and responsibilities of personnel (including nomination of Principal Contractor)
 - (vii) Site induction
 - b) Operational Requirements *(remove those that are not required)*
(need to include all for High Risk sites)
 - (i) Erosion and sedimentation (including Erosion and Sediment Control Plan) **(generally always required and if this needs to be prepared by an appropriately qualified person include the following...)** (to be prepared by a Suitably Qualified and Experienced Person)
 - (ii) Water quality
 - (iii) Dust **(generally always required)**
 - (iv) Cultural heritage **(generally always required - for accidental finds)**
 - (v) Noise *(If this needs to be prepared by an appropriately qualified person include the following...)* (to be prepared by a Suitably Qualified and Experienced Person)

- (vi) Vibration *(If this needs to be prepared by an appropriately qualified person include the following...)* (to be prepared by a Suitably Qualified and Experienced Person)
- (vii) Contaminated sites *(If this needs to be prepared by an appropriately qualified person include the following...)* (to be prepared by a Suitably Qualified and Experienced Person)
- (viii) Indigenous vegetation clearance
- (ix) Chemical and fuel management
- (x) Waste management

The EMP (and any sub-plans e.g. ESCP described below) shall also be consistent with any recommendations outlined in the **xxx** report. *(This is for specific geotech, contaminated land or other such reports - remove if not relevant)*

2. Prior to ground-disturbing activities on the initial stage of works or any subsequent new stage of works, the Consent Holder shall engage an Appropriately Qualified Person to prepare and submit an Erosion and Sediment Control Plan (ESCP) to Council's Monitoring and Enforcement Team for review and acceptance. This plan shall be a sub-plan of the overarching EMP and must be prepared in accordance with the requirements outlined on **pages 13 – 18** in *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*. These plans must be updated when:
 - a) The construction program moves from one Stage to another; or
 - b) Any significant changes have been made to the construction methodology since the original plan was accepted for that Stage; or
 - c) There has been an Environmental Incident and investigations have found that the management measures are inadequate.
3. Prior to commencing ground-disturbing activities, the Consent Holder shall nominate an Environmental Representative for the works program in accordance with requirements outlined on **pages 9 and 10** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
4. Prior to commencing ground disturbing activities, the Consent Holder shall ensure that all staff (including all sub-contractors) involved in, or supervising, works onsite have attended an Environmental Site Induction in accordance with the requirements on page 8 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.

During construction:

5. Prior to bulk earthworks operations (and vegetation clearance) for the initial stage or any subsequent new stage of works, the Consent Holder must install erosion and sediment controls in accordance with the ESCP as well as provide As-built documentation for these controls by Suitably Qualified and Experienced Person **HOLD POINT 2**. It is noted that earthworks required to construct environmental management controls are allowed to commence once Council has provided notice that **HOLD POINT 1** has been met.
6. All works shall be undertaken in accordance with the most current version of the EMP as accepted as suitable by Council.
7. The EMP shall be accessible on site at all times during work under this consent.
8. The Consent Holder shall establish and implement document version control. Council shall be provided with an electronic copy of the most current and complete version of the EMP at all times.

9. The Consent Holder shall develop and document a process of periodically reviewing the EMP as outlined on **page 6** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*. No ground disturbing activities shall commence in any subsequent stage of development until an EMP has been submitted and deemed suitable by Council 's Monitoring and Enforcement Team.
10. The Consent Holder shall undertake and document weekly and Pre and Post-Rain Event site inspections as outlined on **pages 10 and 11** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
11. A SQEP shall monitor the site monthly to ensure that the site is complying with its EMP, identify any new environmental risks arising that could cause an environmental effect and suggest alternative solutions that will result in more effective and efficient management. This must include a specific audit by the SQEP of the effectiveness of the ESCP. The outcome of these inspections should be included in the Monthly Environmental Report referred to **Condition 12** below.
12. The Consent Holder shall complete and submit exception reporting to QLDC in the form of a monthly environmental report. The monthly environmental report shall be submitted to QLDC's Regulatory Department within five (5) working days of the end of each month.
13. In accordance with **page 9** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*, where any Environmental Incident where the EMP has failed leading to any adverse environmental effects offsite occurs the Consent Holder shall:
 - a) Report to QLDC details of any Environmental Incident within 12 hours of becoming aware of the incident.
 - b) Provide an Environmental Incident Report to QLDC within 10 working days of the incident occurring as per the requirements outlined in Section 3.3.1 of *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
14. Environmental records are to be collated onsite and shall be made available to QLDC upon request; immediately if the request is made by a QLDC official onsite and within 24 hours if requested by a QLDC officer offsite. Records and registers to be managed onsite shall be in accordance with the requirements outlined on **page 14** of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.
15. Any Discharge (refer definition in the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*) that leaves the site shall comply with the Water Quality Discharge Criteria outlined on page 19 of the *Guideline*. *(If sensitive receiving waters e.g. spring fed stream similar to Bullock Creek or as specified by aquatic ecologist then add...)* , with the exception of Total Suspended Solids which should be at a concentration of no more than 25mg/L. *(or as directed otherwise by ecologist)*

Independent Audits: *(rare and for extremely High Risk sites only)*

16. The Consent Holder engage an independent SQEP (to be approved by QLDC), to assess the compliance of the erosion and sediment control measures against:
 - a) The accepted ESCP.
 - b) Erosion and sedimentation section of the Guideline specifically the ESCP principles outlined.
 - c) Discharge criteria specified in the water discharge table on **page 19**.

The Consent Holder shall submit the independent review report to QLDC with proposed and completed actions undertaken to address the issues identified during the audit not more than seven (7) working days following the audit.