

**To:** Hearing Commissioners

**Date:** 9 November 2020

**From:** Jorge Rodriguez – Team Leader Land Development

**Executive Summary**

Kinetic Environmental Consulting Limited have lodged an application for new and replacement resource consents on behalf of McPherson Resources Limited to provide for continued aggregate production and to receive cleanfill (new activity). McPherson Quarry is located at McPhersons Road, Pokeno.

The initial application is dated 14 November 2016 (WRC doc # 9516322), the application was deferred pending application for additional consents, the application for the additional consents is dated 28 September 2018 (WRC doc # 13142673).

The activities sought are listed in Table 1 as follows.

Reference Id	Activity Subtype	Activity Description
AUTH137612.01.01	Water - other	To discharge stormwater
AUTH137612.02.01	Surface water take	To take surface water
AUTH137612.03.01	Land - disturbance	Earthworks and vegetation clearance in High Risk Erosion Areas in association with the operation of McPherson Quarry
AUTH137612.04.01	Land - other	Discharge overburden to land in association with the operation of McPherson Quarry
AUTH137612.05.01	Land - other	Discharge cleanfill to land outside of High Risk Erosion Areas
AUTH137612.06.01	Diversion	Divert Water in association with the operation of McPherson Quarry

The applicant has not specified preferred resource consent durations.

This report assesses the application, the potential effects of the application and the relevant provisions in the Resource Management Act 1991 and the Waikato Regional Council policies and plans. The report recommends whether the consent should be granted for the activity. The notification decision report is WRC document number 14772577.

## **Qualifications and Experience**

My name is JORGE ENRIQUE RODRIGUEZ; I have a Bachelor of Engineering (Geology) and a Postgraduate Diploma in Environment Management from Auckland University.

Currently I am the Team Leader of the Land Development programme within Waikato Regional Council, I have been holding this position since 2014. I oversee consenting and compliance monitoring of all quarries and mines in the Waikato.

Previous to this role have been employed as a Senior Resource Officer for over seven years. My responsibilities have included consent processing, and compliance monitoring duties in relation to large to medium scale quarry and mining activities throughout the Waikato Region. I have processed consent applications and undertaken compliance monitoring activities for large mining and quarrying operators within the Waikato Region. These include New Zealand Steel Ironsand Mines at Taharoa and Waikato North Head, all the operations of Winstone Aggregates in the Waikato Region, all the mining operations of Holcim (New Zealand) Limited and McDonalds Lime Limited (now Graymont) , mining operations by Swap Quarries, Perry Resources, Stevenson Quarries, Rorison Mineral Developments and Omya, among others.

## Table of Contents

1	Background and Description of the Proposal.....	5
2	Status of Activities under the Plans.....	7
2.1	Waikato Regional Plan.....	7
2.2	National Environmental Standards for Freshwater Regulations 2020 NESFW .....	7
3	Process Matters.....	8
4	Consultation Prior to Notification .....	8
4.1	Iwi .....	10
4.2	Department of Conservation.....	11
4.3	Fish and Game .....	11
5	Notification.....	12
5.1	Submissions Received .....	12
6	Statutory Considerations.....	15
6.1	Section 104(1)(a) Assessment of Environmental Effects.....	17
Ecology	.....	18
	Cultural and Archaeological Effects.....	27
	Dust Effects.....	27
6.2	Policy Statements, Plans and Regulations.....	34
6.2.1	National environmental standards.....	34
6.2.2	Other regulations .....	35
6.2.3	National policy statements (including NZ Coastal Policy Statement) .....	35
6.2.4	Regional Policy Statement.....	38
6.2.5	Waikato Regional Plan.....	42
6.2.6	Waikato Regional Plan Change 1 - Waikato and Waipa River Catchments.....	43
6.3	Waikato-Tainui Raupatu (Waikato River) Settlement Claims Act 2010 or Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010.....	43
6.3.1	Vision and strategy .....	43
6.4	Iwi Environmental Plans .....	45
6.5	Section 105 and 107 Matters .....	45
	• <b>Section 104 Considerations</b> .....	46
6.6	Relevant Part 2 Considerations .....	46
7	Discussion and Recommendation .....	47
8	Proposed Consent Conditions .....	48



## 1 Background and Description of the Proposal

McPherson Quarry is located approximately 5km northwest of Pokeno, at 47 McPherson Road, Pokeno. McPherson Quarry is surrounded by pastoral farmland and areas of indigenous vegetation to the west and east which includes a Significant Natural Area (SNA). An unnamed tributary of the Waipunga Stream flows north-south to the south of the quarry, the unnamed waterway is classified in the Waikato Regional Plan water class maps as Waikato Region Surface Water Class and flows approximately 1.8km to an unnamed waterway classified as Indigenous Fisheries. The quarry is within the Waikato River catchment and located approximately 6.5 km from the Waikato River.

McPherson Quarry is a weathered greywacke quarry which has been in operation for over 60 years. The site is 78.89 hectares in total. On review of an aerial photograph, the active quarry area is approximately 10 ha, it is anticipated the staged impact footprint will be approximately 40 ha. The current production rate is approximately 350,000 – 400,000 tonnes of product per year. The proposal includes an overburden disposal area to the south of the pit. The application proposes an aggregate extraction rate of 490,000 tonnes per annum.

Additional to quarrying activities the applicant seeks resource consent to import up to 100,000m<sup>3</sup> of cleanfill per year which will be deposited at the overburden site. The sources of cleanfill will be varied and is intended as back loads to arrive on the trucks that are picking up aggregate.

Stormwater from the quarry catchment is drained into sediment retention ponds prior to discharging into an unnamed tributary of the Waikato River. The primary contaminant is sediment from active areas such as the stockpile areas, the haul road, overburden site, quarry pit and aggregate processing site.

Stormwater Management is set out in the Erosion and Sediment Control Plan (ESCP), Appendix F and G of the application. The ESCP shows the quarry catchment, receiving waterways and the stormwater treatment ponds.

The site layout and staging is shown in Figure 1.



Figure 1: Site Plan sourced from the AEE

## 2 Status of Activities under the Plans

### 2.1 Waikato Regional Plan

The proposed activities trigger the following Waikato Regional Plan (WRP) rules as outlined as follows in Table 2.

**Table 2: Waikato Regional Plan Applicable Rules**

<b>Waikato Regional Plan Rule</b>	<b>Rule Description</b>	<b>Activity Status</b>
5.2.5.5	Large Scale Cleanfill Disposal outside High Risk Locations	Controlled Activity
5.1.4.15	Soil Disturbance, Roding, Tracking, Vegetation Clearance, Riparian Vegetation Clearance in High Risk Erosion Areas	Discretionary Activity
5.2.5.3	Large Scale Overburden Disposal	Discretionary Activity
3.3.4.23	Surface Water Takes	Discretionary Activity
3.5.4.5	Discharges - General Rule	Discretionary Activity
3.6.4.13	Water Diversion	Discretionary Activity
4.3.4.4	Bed Disturbance Activities	Discretionary Activity

### 2.2 National Environmental Standards for Freshwater Regulations 2020 NESFW

The National Environmental Standards for Freshwater regulations came into force on 3 September 2020. The proposed activities trigger the following Standards under the NESFW

**Table 3: National Environmental Standards for Freshwater Regulations 2020**

<b>NES FW Standard</b>	<b>Activity</b>	<b>Activity Status</b>
Regulation 57 (DA)	Reclamation of Stream bed	Discretionary Activity
Regulation 54	Diversion of water from Tributary 1 at wetland 1	Non Complying Activity

Section 43(1) of the RMA states that the NES prevails over the rule unless the rule is more stringent than the standard, therefore I consider that Regulations 54 and 57 D will prevail over the Waikato Regional Plan, for the purposes of this report, the reclamation and diversion of the stream will be assessed under the NESFW.

The application was lodged on 15 November 2016 and placed on hold on 21 November 2018 under s91 RMA pending application for additional resource consents. Application for the additional activities was received on 28 September 2018 and the application taken off hold.

The application was placed on hold under s92(2) RMA to provide time for the consent authority to commission technical peer review reporting specific to aspects of the applicant's AEE. Following discussion on the proposal, the applicant provided an updated AEE on 16 December 2019 and the commissioning of the peer review reports recommenced.

Date	Process Detail
15/11/2016	Lodged
21/11/2016	Active
21/11/2016	On Hold
28/09/2018	Active
04/10/2018	Extension of timeframe (S.37), 20 days
24/10/2018	On Hold s92( 2)
21/04/2020	Active
26/03/2020	Extension of Timeframes s37
2/06/2020	Notification
2/07/2020	Close of Submissions
7 July	Extension of Timeframes s37

#### 4 Consultation Prior to Notification

During the consultation process the applicant obtained several written approvals (Table 3). However, I do not disregard the potential effects on the parties that have given written approval due to changes to the proposal and an updated AEE being provided after the approvals were obtained and that the approvals appear to relate to the district matters only. The changes to the initial proposal include the use of water harvesting to maximise water availability for dust suppression, a change in cleanfill deposition volume *“more than 2,500m<sup>3</sup> of cleanfill will be imported onto the site per annum”* (Section 4.1.3, AEE dated 28 September 2018) changed to *“up to 100,000m<sup>3</sup> will be imported onto the site per annum”* (Section 4.1.3, AEE dated 12 December 2019) and changes to the ecological impact assessment and mitigation. None the less, the written approvals and consultation outcomes do provide relevant information to the notification assessment and are incorporated into the discussion below.



**Table 4: Affected Party Approvals Obtained Prior to Provision of the Updated AEE**

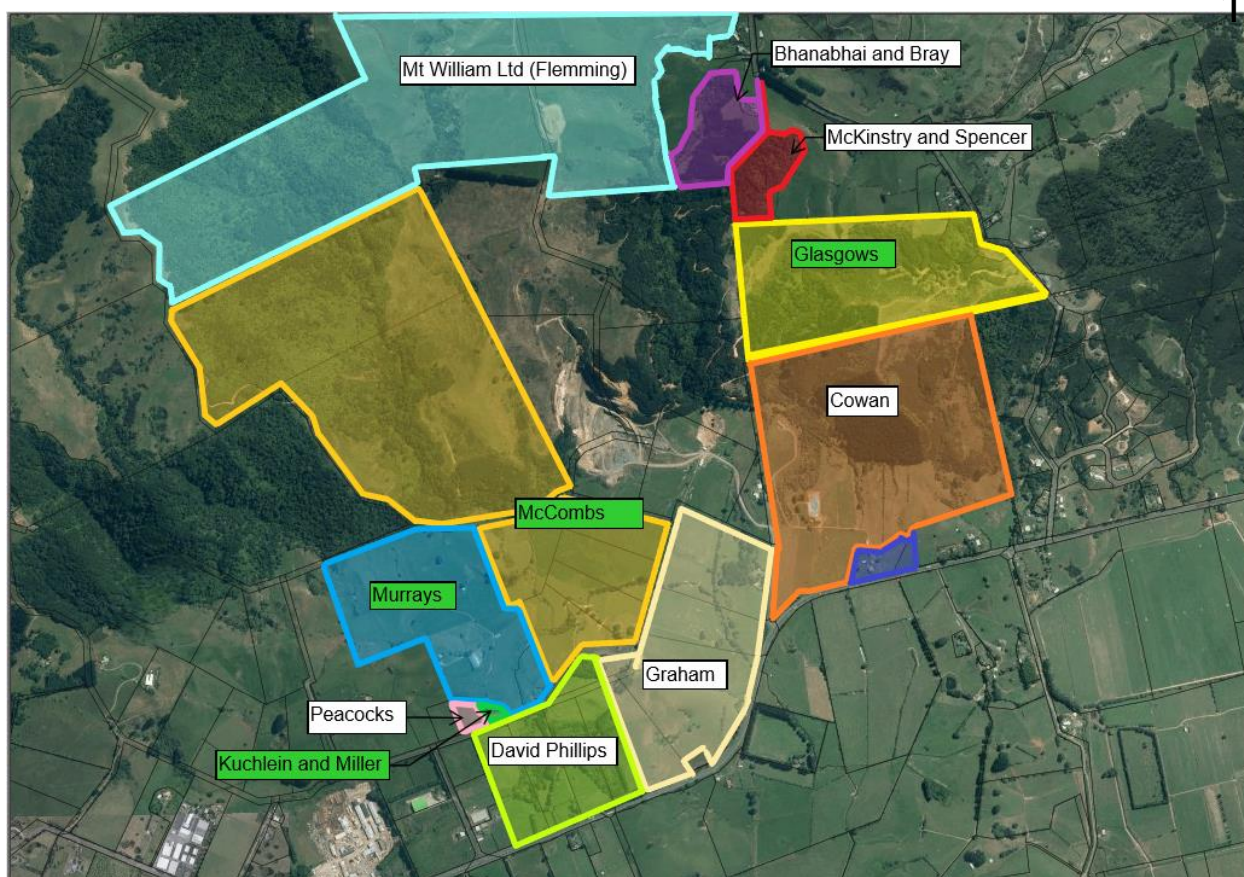
Land	Person	Reason(s)
93 Irish Road, Pokeno	I McComb	Written Approval Provided & owner of land subject to fill placement
91 Pinnacle Hill Road, Pokeno	I Glasgow	Written Approval Provided
57A Irish Road, Pokeno	R Kuchlein & R Miller	Written Approval Provided
67 Irish Road, Pokeno	P & J Murray	Written Approval Provided

The consultation undertaken and consideration of the potentially affected parties is provided under the following subheadings.

### **Neighbouring Properties**

During the consultation process the applicant provided a plan of the neighbouring properties (Figure 2) and a table of consultation outcomes (Table 4).

Written approval from potentially affected parties was obtained from the following parties: McComb WRC doc# 14050052; Glasgow WRC doc# 14050274; Kuchlein & Miller WRC doc# 14050343; and, Murray WRC doc# 14051025. However, as noted paragraph 3A above, the written approvals were provided prior to changes being made to the proposal and AEE, therefore potential effects on those that have given written approval have not been disregarded.



**Figure 2: Plan of neighbouring properties provided by the applicant on 4 April 2019 (WRC doc # 14051421).**

**Table 5: Summary of Consultation Outcomes provided by the Applicant on 9 April 2019 (WRC doc # 1410671).**

Party	Outcome
Mt William Ltd	No response
Bhanabhai and Bray	Not consulted
McKinstry and Spencer	No response
Glasgows	Signed
Cowan	No response
Graham	No response
David Phillips	Not consulted
Kuchlein and Miller	Signed
Peacocks	No response
Murrays	Signed
McCombs	Signed

#### 4.1 Iwi

The applicant has undertaken consultation with Ngati Tamaoho and Ngati Te Ata. Ngati Tamaoho and Ngati Te Ata prepared a joint Cultural Values Assessment (CVA) relating to the existing and future operations at McPherson Quarry (WRC document # 13882929).

Written approval has not been provided for the proposal. However, the CVA indicates that Ngāti Tamaoho and Ngāti Te Ata are not opposed to the resource consents being granted on the basis that recommendations 1 through to 11 listed in the CVA are provided for. On review of the CVA I consider that adverse effects to the interest of Ngāti Tamaoho and Ngāti Te Ata will be no more than minor. As a precautionary measure the notification decision recommends that the application is notified to Ngāti Tamaoho and Ngāti Te Ata.

#### **4.2 Department of Conservation**

The applicant has consulted with the Department of Conservation (DoC). The applicant has summarised the consultation as follows;

*Lastly, a meeting was held with Department of Conservation in early December 2018 to discuss the proposal. No main concerns were raised at that point, but DOC noted that they wished to see a copy of the Ecological Impact Assessment once complete. Upon completion of the updated Ecological Impact Assessment and subsequent Environmental Management Plan (following the peer review completed by AECOM), DOC received a copy of both on 20 November 2019.*

Following the applicant's provision of the EIA to the DoC, I have not received any further update to the outcomes of consultation with DoC. The proposal includes 2.08 ha of indigenous vegetation removal within an SNA (within the Stage 1 Area), 0.37 ha indigenous vegetation removal outside an SNA (Stage 3), stream reclamation (approx. 311m, Tributary 1) and wetland loss.

The DoC has not provided written approval for the proposal. I consider that the potential effects to the DoC to be minor or more than minor. Accordingly, the notification decision recommends that the application was notified to the DoC.

#### **4.3 Fish and Game**

The applicant has consulted with the Auckland/Waikato Fish & Game Council. The applicant has summarised the consultation as follows;

*Contact was also made with David Klee of Auckland/Waikato Fish & Game Council in November 2018 who expressed a desire to meet and discuss water discharge quality. It was agreed that such a meeting would be postponed until some further water monitoring had been completed (and analysed) and draft consent conditions have been prepared (as this is the aspect of most interest to Fish & Game). Following this agreement, we sent some recent water monitoring results to David, which he reviewed and saved for his records.*

I consider the consultation with Fish and Game to be appropriate and that provided best practice erosion and sediment controls are implemented, the effects of stormwater discharge from the site to water quality will be no more than minor. As a precautionary measure and to understand the potential effects of the proposal to Fish and Game, the notification decision recommended that the application was notified to the Auckland/Waikato Fish & Game Council.

## 5 Notification

A decision was made to proceed with the application on a limited notified basis. The notification decision was made on 20 March 2020. WRC DOC#14772577

The application was notified to the following parties.

Party	Location Address
Auckland/Waikato Fish & Game	N/A
Waikato District Council	N/A
Waikato Regional Council	N/A
Department of Conservation	N/A
Ngati Tamaoho	N/A
Ngati Te Ata	N/A
Graham	15 McPherson Road, Pokeno
Cowan & Thompson	40 McPherson Road, Pokeno
Mount Williams Limited	231 Pinnacle Hill Road, Pokeno
McKinstry & Spencer	209 Pinnacle Hill Road, Pokeno
Phillips	219 SH 2, Pokeno
McComb	93 Irish Road, Pokeno
Glasgow	91 Pinnacle Hill Road, Pokeno
Kuchlein & Miller	57A Irish Road, Pokeno
Murray	67 Irish Road, Pokeno

The application was notified concurrently with the Waikato District Council on 2 June 2020 with close of submissions on 2 July 2020.

### 5.1 Submissions Received

5 submissions were received within the submission period , the following table shows the issues raised in the submissions

1	Name	Support/ Oppose/Neutral	Wish to be heard?	Received Date and Issues
2	Auckland/Waikato Fish & Game	Oppose	Y	<p>2 July 2020</p> <ul style="list-style-type: none"> <li>• Insufficient information to assess impacts on receiving waterways</li> <li>• The application does not contain any proffered consent conditions</li> <li>• Fish and Game are concerned about the potential effects on game bird and trout habitat within the catchment and cumulative effects on downstream environments</li> <li>• The site contains ecologically significant freshwater habitat and vegetation that will be impacted.</li> <li>• Any increase in sediment due to the proposal would exacerbate sedimentation occurring in downstream Fish &amp; Game wetlands during flood events.</li> <li>• Cleanfill activity has the potential to release significant quantities of contaminants into the environment</li> <li>• Water quality issues downstream in the Waikato River Catchment</li> <li>• Application not consistent with V&amp;S, RPS&lt; NZCPS, PC1 and Part 2</li> </ul>
3	David W Phillips Isaac D Phillips Stephen Pool Sara Giles Graham White Ian Furse	Oppose	Y	<p>2 July 2020</p> <ul style="list-style-type: none"> <li>• Dust Effects . Provide expert assessment providing an assessment of on dust effects and how it is proposed to mitigate the effects.</li> <li>• Truck movements on site to take place inside a large contained space/building constructed for</li> </ul>

	Lily Nofoagatotoa Mount William Spring Water Limited Hambletonian Limited Heartland Family Trust (prior named Pokeno Farm Family Trust) Heartland Charitable Trust Pokeno Quarry Protection Society Inc (yet to be formed)			this purpose and with those premises having air ventilation with filters, so no dust escaped <ul style="list-style-type: none"> <li>• Seek boundary fences or secure screens be constructed at a height of 10 meters around the quarry operating site areas</li> <li>• 8 x daily watering of quarry operational areas with clean water, to minimise dust becoming airborne</li> <li>• Seek the applicant to pay for the lost rents during vacant tenancies and also for all re-advertising of vacant tenancies; and to reimburse us for this cost over past 5 years</li> <li>• Seek the applicant to pay for and effect the steam cleaning/water blasting of all our property's buildings once every 6 months; and to reimburse us for this cost over past 5 years</li> </ul> Water table effects <ul style="list-style-type: none"> <li>• Seek assurance that the water table and springs at the property is not negatively impacted</li> <li>• Seek no reduction in water volumes and water quality</li> <li>• Assurance that the aquifer from where water is taken for the commercial operation(spring water) on this farm is not impacted.</li> </ul>
4	Marilyn Thompson & Nigel Cowan	Oppose	Y	2 July 2020 <ul style="list-style-type: none"> <li>• Dust including pollution of house water</li> <li>• Water Supply contamination</li> <li>• Health related issues particularly Crystalline Silica</li> </ul>
5	Marja Spencer & Jamie McKirsty	Oppose	Y	1 July 2020

	/Marja Spencer and Pinnacle Road residents			<ul style="list-style-type: none"> <li>• Increase in airborne dust and silica particulates</li> <li>• Dust issues hard to police</li> </ul>
--	--	--	--	---

Consideration of the issues raised in submissions will be discussed in section 6 of this report.

## 6 Statutory Considerations

The RMA section 104(1) refers to matters to which the consent authority must have regard, subject to Part 2, when considering an application for resource consent. Those matter are:

- a. *any actual or potential effects on the environment of allowing the activity; and*
- b. *any relevant provisions of-*
  - (i) *a national environmental standard*
  - (ii) *a regional policy statement or proposed regional policy statement*
  - (iii) *a plan or proposed plan; and*
- c. *any other matters considered relevant and necessary to consider.*

Sections 105 and 107 of the RMA also apply to various activities occasioned by the project. Those sections state:

Section 105:

- (1) *If an application is for a discharge permit to do something that would contravene section 15 or section 15B, the consent authority must, in addition to the matters in section 104(1), have regard to—*
  - (a) *the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
  - (b) *the applicant's reasons for the proposed choice; and*
  - (c) *any possible alternative methods of discharge, including discharge into any other receiving environment.*

*(1) ...a consent authority shall not grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or section 15A allowing—*

*(a) the discharge of a contaminant or water into water; or*

*(b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or*

*(ba) the dumping in the coastal marine area from any ship, aircraft, or offshore installation of any waste or other matter that is a contaminant,—*

*if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:*

*(c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*

*(d) any conspicuous change in the colour or visual clarity:*

*(e) any emission of objectionable odour:*

*(f) the rendering of fresh water unsuitable for consumption by farm animals:*

*(g) any significant adverse effects on aquatic life.*

For discretionary activities, section 104B of the RMA applies, which states:

*After considering an application for a resource consent for a discretionary or non-complying activity, a consent authority—*

- may grant or refuse the application; and*
- if it grants the application, may impose conditions under section 108.*

For Non-Complying Activities Particular Restrictions will apply under s104D

*(1) Despite any decision made for the purpose of notification in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—*

*(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or*

*(b) the application is for an activity that will not be contrary to the objectives and policies of—*

*(i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or*

*(ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or*



(iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.

The following assessment is made within the RMA framework described above.

## 6.1 Section 104(1)(a) Assessment of Environmental Effects

### *The Environment*

Section 104(1)(a) provides that when considering a consent application, the consent authority must, subject to Part 2, have regard to the actual and potential effects on the environment of allowing the activity. Case law has determined that the "environment" must be read as the environment which exists at the time of the assessment and as the environment may be in the future as modified by the utilisation of permitted activities under the plan and by the exercise of resource consents which are being exercised, or which are likely to be exercised in the future. It does not include the effects of resource consents which might be sought in the future nor any past reversible effects arising from the consent being considered.

Case law establishes that activities authorised by expiring regional consents should not be relied on as part of the 'environment'; their effects should be excluded for the purposes of considering and evaluating the effects of the application on the environment.

In *Queenstown Lakes District Council v Hawthorn Estate Limited*, the Court of Appeal has highlighted that the "environment" embraces the current state of the environment and the future state of the environment as it might be modified by permitted activities (activities that can be undertaken as of right) and by resource consents which have been granted, where it appears likely that those resource consents will be implemented.

The High Court in *Ngati Rangi Trust v Manawatu-Whanganui Regional Council* has determined that:

- the existing environment cannot include the effects caused by activities for which a renewal consent is sought;
- excluding effects caused by activities for which a renewal consent is the approach required *"unless it would be fanciful or unrealistic to assess the existing environment as though those structures authorised by the consent being renewed did not exist"*

The existing environment for the purposes of this analysis includes the effects on the environment of past quarrying activities (as part of the existing environment) and exclude the effects on the future state of the environment of quarry activities that are authorised under the expired consent (as those consents cannot be assumed to continue and cannot be considered part of the existing environment).

### *Permitted baseline*

Section 104(2) provides that when forming an opinion about the actual or potential effects of the activity, the consent authority may disregard an adverse effect of the activity on the environment if the regional plan permits an activity with that effect. This is often referred to as the "permitted baseline" and calls for a discretionary decision to be exercised by the consent authority as to whether or not to discount such permitted effects. This provision requires consideration of:

"the existing environment overlaid with such relevant activity (not being a fanciful activity) as is permitted by the plan. Thus, if the activity permitted by the plan will create some adverse effect on the environment, that adverse effect does not count in the s104 or s105 assessments...it is deemed to be already affecting the environment...The consequence is that only other or further adverse effects emanating from the proposal under consideration are brought to account." (Arrigato v ARC).

Due to the scale of the proposal and the potential cumulatively nature of the effects of various activities for which consent is sought, there are no rules that provide a helpful or relevant permitted baseline for the consideration of McPherson's Quarry.

The applicant provided an updated AEE on 16 December 2016 (WRC File #15597712, Doc # 15598683).

With respect to the Regional components of the application, the AEE provides an assessment of the actual and potential environmental effects in terms of;

- Dust Effects
- Vegetation Loss
- Ecological Effects
- Erosion and Sediment Effects
- Stormwater Effects
- Water Take Effects
- Land Stability Effects

For the purpose of this report I adopt the applicant's assessment of environmental effects in part and add further assessment for archaeological and cultural effects, dust effects, ecological effects, effects of cleanfill disposal and effects in the event of site abandonment.

The assessment of environmental effects provided in the application document is expanded on in the documentation supplied in response to a request for further information, the s92(2) commissioned peer review reporting and the applicant's responses to the peer review reports. The additional documentation is listed under the following sub-headings;

## **Ecology**

It is anticipated that the impact site will be approximately 40 ha and works will include vegetation loss and stream reclamation. Approximately 2.08 ha of indigenous vegetation will be lost during Stage 1 of the quarry expansion, the 2.08 ha of vegetation loss is within a SNA. Approximately 0.37 ha of indigenous vegetation lost during Stage 3. Approximately 311m of an unnamed stream known as 'Tributary 1' is located within the overburden site and will be filled.

To compensate for the vegetation loss the application proposes planting an ecological corridor on the properties southern boundary to connect fragmented indigenous forest. The ecological corridor will be 100m wide and 4.56 ha.

To offset the loss of the 311m section of Tributary 1, the applicant proposes 7.5m margin riparian planting of a 930m section of an unnamed stream known as 'Stream 1'.

In addition, the proposal will result in the loss of 9,900m<sup>2</sup> of artificial ponds. The applicant proposes for every square metre of pond lost and area of 0.5m<sup>2</sup> of wetland will be established and protected in perpetuity.

The ecological effects assessment and mitigation has been peer reviewed by AECOM.

Assessments provided by the applicant:

- McPherson Quarry Vegetation Assessment, Expansion Stages 1 – 3. Dated 2 October 2018, prepared by OPUS, WRC doc 13212321.
- Ecological Impact Assessment, McPherson Quarry, prepared by Ecology NZ Ltd, dated 13 March 2019, WRC doc 14029630.
- Ecological Management Plan, McPherson Quarry. Prepared by Ecology NZ Limited, dated 16 October 2019.
- Ecological Impact Assessment, McPherson Quarry. Prepared by Ecology NZ Limited, dated 15 October 2019.

Peer Review Reporting.

- Ecological Review of McPherson Resource Limited Resource Consent Application, prepared by AECOM, dated 14 November 2018, WRC doc 13379663
- Ecological Review of McPherson Resource Limited Resource Consent Application, prepared by AECOM, dated 15 May 2019, WRC doc 14286708.
- Minutes Ecological Review of Application including the Section 92 response, dated 24 June 2019, prepared by AECOM, WRC doc 14528863.
- Ecological Review - McPherson Quarry Ecological Impact Assessment (EclA) and Ecological Management Plan (EMP), dated 31 January 2020, prepared by AECOM, WRC doc 15756391. (refer to Appendix 1)
- The AECOM Further Review- S42 Ecological Input dated 5 November 2020 WRC DOC#17572309 (refer to Appendix 1)

The AECOM peer review report of the EclA and EMP, dated 31 January 2020, recommends additional mitigation measures and concludes;

*It is considered that the implementation of the mitigation measures proposed could deliver ecological benefits that exceed those currently on site. However, this is reliant on the mitigation being delivered well and adopting the additional recommendations detailed above.*

The additional mitigation measures and recommendations as they stand have not been accepted by the applicant in entirety (Table 6).

**Table 6: Ecology Peer Review Recommendations and Applicant Response**

AECOM Peer Review Recommendation	Applicant Comments
<p>It is recommended that the conditions on the resource consent are prescriptive in relation to when the northern corridor is delivered. It is recommended that the conditions stipulate that the applicant starts planting the northern corridor a year prior to vegetation removal taking place. The condition should also stipulate that the planting of the corridor (4.16 ha) cannot take more than three consecutive planting seasons.</p>	<p>The applicant objects to this for the reasons outlined in our email of 14 February 2020. However, the applicant is happy to accept a condition stipulating that:</p> <ul style="list-style-type: none"> <li>- Planting commences in the next planting season from when consent is given; and</li> <li>- The northern corridor is planted in no more than three planting seasons.</li> </ul> <p><i>Note: Your last bullet point is addressed below.</i></p>
<p>The conditions should stipulate that the applicant would need to make contact with QEII at the start of the planting and that the northern corridor must be placed under a covenant prior to planting being completed. The responsibility for the maintenance of the planting will remain with the applicant until 75% canopy closure and 90% survival rate has been achieved. The responsibility for pest control will remain with the applicant for the lifespan of the quarry as stipulated in the EMP.</p>	<p>The applicant is happy to accept a condition along the lines of that proposed.</p>
<p>It is recommended that it is stipulated that the applicant must use plant guards to protect the plantings (northern corridor and riparian restoration) as it is not considered appropriate that indigenous bird species (pukeko) should be killed when there is an alternative management approach.</p>	<p>The applicant is happy to accept a condition stipulating that plant guards be required should indigenous bird species be found to be a risk to newly planted seedlings within the northern corridor.</p>
<p>It is recommended that the planting mix for the terrestrial habitat is developed further than that presented in the EMP in Table 8. It is understood that the mix is focused on those species that will ensure rapid canopy closure and there is available seed source in the local area. However, the mix should include a greater diversity of tree species. The mix is focused on low growing species that are generally not long living species.</p>	<p>The applicant has already proffered that:</p> <p>“It is recommended that experienced professional ecological restoration contractors undertake this planting work and be afforded the opportunity to make appropriate changes to species selection, site preparation and timing based on site specific conditions, when deemed necessary.”</p> <p>In other words, the applicant is happy to accept a</p>

AECOM Peer Review Recommendation	Applicant Comments
The conditions should state that the planting mix will require prior approval from WRC.	condition along the lines of that proposed.
The EMP indicated that the northern corridor should be fenced. The conditions should stipulate that the planting must (will) be fenced in accordance with the guidelines stipulated in the EMP prior to any plantings commencing on site.	The applicant is happy to accept a condition along the lines of that proposed.
<p>The EMP indicates two areas of SEA which have been avoided by Project. During the walkover completed by AECOM it was observed that these habitats have been degraded as they are unfenced and stock have been grazing through these areas. It is recommended that the conditions require that these areas are fenced and restored. The approach to restoration in these areas</p> <p>should require approval from WRC prior to works commencing. The restoration of these habitats should start one year prior to vegetation removal within the SEA and should take no longer than three years to complete.</p>	<p>The applicant partially accepts this recommendation. As noted in our email of 14 February 2020, the applicant is happy to accept a condition that stipulates fencing and restoration of the two areas no longer included in Stage 3, on the premise that:</p> <ul style="list-style-type: none"> <li>- The size and exact location of the areas are to be defined and agreed by both parties;</li> <li>- The level of restoration be defined by a SQEP and agreed by both parties;</li> <li>- Removal of the requirement of a 12 month 'hold' period between the SEA removal for Stage 1 and the proposed restoration.</li> </ul>
It is recommended that the conditions stipulate that the riparian planting is to be a minimum of 10m either side of the stream (total width 20 m)1. This is the minimum width required to ensure that stream function is restored. This is particularly relevant to the eastern bank of the stream, where it is proposed that material / overburden will be stored.	The applicant is happy to accept a condition stipulating that when Tributary 1 has been diverted, riparian margin planting along the lines of that proposed be completed.
<p>It is recommended that the planting mix for the riparian margins is developed further than that presented in the EMP in Table 10. It is understood that the mix is focused on those species that</p> <p>will ensure rapid canopy closure. However, the objective of the planting is to provide instream shade in the long term, therefore, the species mix at the top of the embankment needs to be developed to include more tall tree species. The conditions should state that the planting mix will</p>	The applicant is happy to accept a condition along the lines of that proposed.

AECOM Peer Review Recommendation	Applicant Comments
require prior approval from WRC.	
<p>The EMP indicates that there is a section of stream where bank collapse means that plants will be set back from the stream. It is recommended that the conditions state that in areas of erosion or bank collapse the bank should be reprofiled to ensure that the streams natural function is restored on completion of the planting.</p>	<p>The applicant is happy to accept a condition along the lines of that proposed on the premise that the eroded areas be identified, defined and agreed by both parties.</p>
<p>However, it is recommended that the conditions stipulate that there will be additional buffer planting around these features, compared to that specified in the EMP. The buffer (&gt;5m) should</p> <p>include taller tree species and be placed between the wetland and the working area. The objective of the plantings would be to increase the potential for species such as New Zealand dabchick to visit them. It is considered that without this screening it is unlikely that these species would be visit.</p>	<p>The applicant is happy to accept a condition along the lines of that proposed on the premise that the areas be identified, defined and agreed by both parties.</p>
<p>It is recommended that the conditions also specify the inclusion of the following habitat enhancement measures for bats and lizards:</p> <ul style="list-style-type: none"> <li>- The installation of 25 Kent style bat boxes with predator exclusion bands. To be installed at least 5 m above the ground and on trees located at the forest edge or on a linear feature. If bats are found to be present, then the Bat Management Plan (BMP) will need to be updated to ensure that suitable mitigation is provided.</li> <li>- Installation of lizard log piles within the northern corridor (minimum of 5).</li> </ul>	<p>The applicant is happy to accept a condition along the lines of that proposed before commencing on either of Stages 2 and 3 (bat mitigation for Stage 1 has already been completed).</p>
<p>The following management plans will be produced by the applicant and approved by WRC;</p> <ul style="list-style-type: none"> <li>- Bat Management Plan</li> </ul>	<p>The applicant is happy to accept a condition along the lines of that already proffered, namely:</p> <p>“Additional acoustic bat monitoring surveys should be undertaken before the commencement of clearance at Stage 2 and 3 respectively. If bat activity is</p>

AECOM Peer Review Recommendation	Applicant Comments
	detected, then bat management will be recommended at the discrepancy of a competent bat ecologist. This may require the preparation and implementation of a bat management plan."
- Fish Management Plan	The applicant has already proffered a condition requiring a Fish Management Plan.
- Lizard Management Plan	The applicant is happy to accept a condition along the lines of that proposed.
- Erosion and Sediment Control Plan	<p>The applicant has already prepared and lodged an ESCP for Stage 1, which has been accepted by WRC and is being implemented by the applicant. F</p> <p>Further, the applicant has already proffered conditions requiring ESCPs to be prepared for Stages 2 and 3 respectively.</p>

On review of the proposal, expert assessments and the applicant's responses, I consider that the proposal has potential to adversely affect the environment to a minor or more than minor extent. Furthermore, it is unclear whether the proposed vegetation loss within the SNA and the stream reclamation are unavoidable, avoidance is more consistent with the RPS than offering compensation. The level of mitigation offered is likely to compensate the adverse ecological effects of the works provided that the recommendations in Table 6 accepted by the applicant are delivered alongside the mitigation proposed by the applicant. A minor level of uncertainty remains around identifying and defining the mitigation areas listed in Table 6.

With respect to works within the SNA, the Waikato Regional Policy Statement (Obj 3.19, Pol 11.2) addresses the protection of significant indigenous vegetation and significant habitats of indigenous fauna, which reflects s6(c) RMA. Additionally, SNA's have a role in protecting natural heritage. I am of the opinion that the loss of 2.08 ha of manuka dominated forest within the SNA could have minor or more than minor effects in achieving the objectives of the RPS and to the interests of the Department of Conservation, the Waikato Regional Council and the Waikato District Council.

#### *Issues raised in submissions*

Michiel Jonker Principal Ecologist AECOM undertook a review of the issues raised by submitters, Further Review- S42 Ecological Input dated 5 November 2020 WRC DOC#17572309. Appendix 1.

The issues raised by submitters identified in this review in relation to ecology as follows:

- *Removal of indigenous vegetation and quantity of compensation1 planting;*

- *Timing of planting (including ecological corridor);*
- *Stream mitigation for the removal of tributary 1 and effects on stream 1; • Operational effects on stream quality (erosion, sedimentation) and hydrology (water table);*
- *Wetlands and open water;*
- *Protection of Kauri trees from dieback;*
- *Operational effects on surrounding ecological habitats from dust and noise pollution;*
- *Operational effects on game bird and trout fishing within the catchment;*
- *The need for robust, science-based conditions.*

Mr Jonker comments on the issues raised by submitters as well as proposed mitigation measures to ensure mitigation measures are implemented to an extent that any adverse effects on the environment are avoided remedied or mitigated. I have included conditions in the consent requiring the consent holder to provide and Environmental Management and Mitigation Plan(EMMP), the intent of the EMMP will be to achieve net improvement and betterment to the existing environment. The objectives of the EMMP will be to

- a) Minimise wildlife disturbance and water contamination arising from the operation of the quarry and associated activities;
- b) Provide for the restoration, revegetation, enhancement and/or protection of indigenous forest, wetland and stream habitat to remedy, mitigate and environmentally compensate or offset for the habitat removed or adversely affected resulting from the quarry activities.

In addition, I have recommended monitoring conditions in the Habitat Monitoring Plan (which must include Matauranga Maori Monitoring) to ensure that the objectives of the EMMP are met.

In relation to Kauri dieback, I have included conditions to ensure contamination of soils is prevented should there be areas of kauri contamination zones.

I consider that provided consent conditions are complied with, any adverse effects will be minor.

### **Erosion and Sediment Control**

The proposed earthworks activities have the potential to result in a variety of environmental effects which are subject to consideration within the scope of these Regional Council applications.

Stormwater from the quarry catchment is drained into sediment retention ponds prior to discharging into an unnamed tributary of the Waipunga Stream. The primary contaminant is sediment from active areas such as the stockpile areas, the haul road, overburden site, quarry pit and aggregate processing site. The chemical treatment of stormwater will discharge residual flocculent to receiving water which must be managed carefully to avoid ecotoxicity effects to aquatic environments.

Stormwater Management is set out in the Erosion and Sediment Control Plan (ESCP), Appendix F and G of the application. The ESCP shows the quarry catchment, receiving waterways and the stormwater treatment ponds. The Southern Skies ESCP proposes bench testing to determine the benefits of chemical treatment of water and if benefit is shown a Chemical Treatment Management Plan (CTMP)



will be prepared. Until a CTMP has been prepared the type of chemicals and dosage remain unknown, however, will be subject to WRC review and approval.

The ESCP for the current operation proposes a cleanwater diversion drain along the ridge above the quarry. The quarry floor will detain water during heavy rainfall events and which will drain via t-bar decant to SRP 1 prior to discharge to an unnamed tributary of the Waikato River. The quarry working area catchment (5ha) drains to SRP 1 and the fill site (4ha) drains to SRP 2. As the site progresses new ESCP's will be prepared for each new works stage.

Assessments provided by the applicant:

- Stormwater Management is detailed in the *Hydraulics Assessment Report External Stormwater*, prepared by OPUS, dated July 2018 (WRC doc # 13212526);
- Draft Erosion and Sediment Control Plan (ESCP), *Quarry Development Stage # 1*, prepared by OPUS, dated August 2018 (WRC doc # 13212095).
- Erosion and Sediment Control Plan for the operation of the current stage of the McPherson Quarry and the overburden disposal area. Prepared by Southern Skies Limited, dated 17 April 2019 (WRC doc # 14165834).
- The Flocculation Management Plan prepared by Cirtex DOC# 17408595

Peer Review Reporting and Erosion and Sediment Control Observations: (refer to Appendix 2)

- Bryant Environmental Peer Review of the Stage 1 ESCP, hydraulic assessment and USLE. Email of 6 December 2018 & 11 December 2018 (WRC doc # 13527948).
- Bryant Environmental Peer Review of the Southern Skies ESCP for the current operation. Email of 1 May 2019 (WRC doc # 14182888).
- Bryant Environmental Review of the Flocculation Management Plan DOC# 17416944

Subject to implementation of the detailed ESCP prepared by Southern Skies for the current operation, and further detailed ESCP's for each stage of works based upon the above listed high-level plans, I consider the sediment management system to be in accordance with best practice standards outlined within WRCs TR2009/02 Guideline. Appropriate to minimise potential sediment discharge effects from the quarry, fill site and ancillary activities.

However, to quantify and proportionately compensate the effects of cumulative sediment discharge on an annual basis over the consented life of the quarry I recommend that sediment yield be measured on an ongoing and continuous basis. I recommend that consent conditions be imposed to install auto samplers on the outlets of final sediment treatment devices to measure sediment yield and quantify a proportionate level of enhancement to the catchment with a focus on improving water quality.

Based on the above and provided the cumulative sediment discharge effects are measured and compensated, I consider the potential for the erosion and sediment discharges to result in any significant or persistent adverse water quality and subsequent aquatic ecology effects within the downstream receiving environment will be no more than minor.

## Water Take

The application seeks to renew the existing water take consent which authorises the surface water extraction of 50 m<sup>3</sup> per day. The take point is the quarry pit which is situated in the catchment of a modified tributary of the Waipunga Stream. The water is used for dust suppression via sprinklers and water cart.

Rainwater and water from a spring north of the quarry drains into the quarry pit. Water from the pit is stored in two 19,000 litre tanks. In addition to tank storage, the proposal includes water harvesting which entails the storage of water within an existing pond, to increase the water available for dust suppression at times of increased need.

Discussions with WRC following lodgement propose to categorise the water take as a zero-net take in the WRC water allocation calculator. On this basis, draft conditions include recommend a maximum daily take volume of 430m<sup>3</sup>; and maintaining a minimum flow of at least 1.5 litres per second in the unnamed tributary of the Waipunga Stream immediately downstream of the settling pond treatment system by lawfully and continuously discharging water into the unnamed tributary of the Waipunga Stream immediately downstream of the settling pond treatment system. A maximum daily take of 430m<sup>3</sup> would allow 129.6m<sup>3</sup> daily volume to maintain the minimum flow of 1.5l/s and 100m<sup>3</sup> for dust suppression. The portion of the total max take for use being approx. 300m<sup>3</sup>/day.

Strategic management of water would be required to ensure sufficient water storage is available at times of low stream flow or high water use. Two 19,000 litre/19m<sup>3</sup> tanks have been confirmed for storage which offer an increased level of water supply security.

The water take proposal has been reviewed by Cameron King, WRC Principal Consents Advisor – Water Allocation. Mr King has provided an assessment of environmental effects and an assessment under the WRP and statutory requirements (WRC doc # 15731323 & 15758884). For the purpose of the notification assessment I adopt Mr King's assessment in its entirety. Mr King's assessment memo concludes;

*Provided the proposed activity is carried out in accordance with the consent conditions I have drafted, I consider that it:*

- *shall have adverse effects on flow regime and aquatic biota that are less than minor;*
- *is consistent with the relevant provisions of the NES; the NPSFM, the WRPS, the WRP, the NWMA and the MIEMP;*
- *is consistent with Part 2 RMA matters.*

*I note that I have included review conditions that pertain to:*

- *the effectiveness of the conditions of the resource consent in avoiding or mitigating any adverse effects on the environment from the exercise of the resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended resource consent conditions;*
- *the adequacy of and the necessity for monitoring undertaken under the resource consent;*

- the appropriateness of any volume specified within the consent and, if necessary, to address any inappropriateness of any volume by way of reducing any volume.

*I also note that, owing to the take being a zero net take, there is no requirement to include a review condition associated with catchment investigations as per d) of WRP 3.3.3 – Policy 15: Consent Duration for the Taking of Water.*

The applicant has agreed to the consent conditions. Provided the conditions agreed by the consent holder, it is my opinion that any effects as a result of the water takes will be minor.

### **Cultural and Archaeological Effects**

The applicant has undertaken consultation with Ngati Tamaoho and Ngati Te Ata. Subsequently Ngati Tamaoho and Ngati Te Ata prepared a joint Cultural Values Assessment (CVA) relating to the existing and future operations at McPherson Quarry. The CVA is dated January 2019 WRC document # 13882929. The CVA outlines that Ngati Tamaoho and Ngati Te Ata are not opposed to the resource consents being granted on the basis that recommendations 1 through to 11 listed in the CVA are provided for. Further noted is that the CVA is a starting point for further conversation and dialogue.

I have reviewed the recommendations in the CVA and consider the proposal is generally consistent. However, several resource consent conditions have been recommended to specifically address a number of matters raised. Namely, treatment of stormwater discharge, ecological mitigation and associated protection of the mitigation areas in perpetuity, opportunity for ongoing iwi involvement and accidental archaeological discovery protocol.

On review of the WRC mapping programme *Our Maps, Archaeology (SAS)* there are no recorded archaeology sites within the footprint of the proposal. However, I note that the CVA identifies *‘The McPherson quarry sits within a significant cultural landscape, this is evident by the surrounding archaeological sites, that once formed a networked settlement we call ‘waahi nohoanga’ (places of past occupation).’*

The proposed earthworks have the potential to disturb archaeological sites. As a precautionary measure, Schedule 1 recommended conditions include that in the event of any archaeological site or koiwi being uncovered during the exercise of this consent, activities in the vicinity of the discovery shall cease and the Waikato Regional Council and Heritage New Zealand shall be notified as soon as practicable and within 48 hours of a discovery.

The consent holder shall consult with the relevant iwi/hapū and Heritage New Zealand and shall not recommence works in the area of the discovery until the relevant Heritage New Zealand approvals or other approvals to damage, destroy or modify such sites have been obtained where necessary.

Compliance with the recommended conditions should ensure that potential adverse effects on archaeological sites are no more than minor.

### **Dust Effects**

The application was notified in relation to potential dust effects to residential houses within a 500m radius of the footprint subject to the application (Table 6).

Table 6: Residences within 500m of the proposal

Party	Location Address
Graham	15 McPherson Road, Pokeno
Cowan & Thompson	40 McPherson Road, Pokeno
Mount Williams Limited	231 Pinnacle Hill Road, Pokeno
McKinstry & Spencer	209 Pinnacle Hill Road, Pokeno
Phillips	219 SH 2, Pokeno
McComb	93 Irish Road, Pokeno
Glasgow	91 Pinnacle Hill Road, Pokeno
Kuchlein & Miller	57A Irish Road, Pokeno
Murray	67 Irish Road, Pokeno

WRP permitted activity rule 6.1.16.1 includes conditions requiring that:

*The discharge of contaminants to air from any mineral extraction, processing and storage operation is a **permitted activity** subject to the following conditions:*

- a. *Where the operation occurs within 1000 metres of a property boundary and there is a discharge of particulate matter beyond the property boundary the following measures shall be implemented:*
  - i. *the use of water sprays to suppress dust from crushing and screening plants, access ways, haul roads, stockpiles, load out areas and access roads*
  - ii. *the sealing and maintenance of the access road, when it is within 150 metres of a neighbouring residential dwelling.*
- b. *As specified in Section 6.1.8 a) to e) of this Plan.*
- c. *Within seven working days of commencing works at a new site, the operator of the new quarrying site shall provide the Waikato Regional Council with written notification of the location of the site.*

Section 6.1.8 sets out standard conditions for permitted activity rules including:

- d. *There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.*

The proposal includes application AUTH137612.02.01 to take 50m<sup>3</sup> per day of surface water available for dust suppression. The application sets out that up to 6.5 ha of Stage One area could be open at any one time. Within the 6.5 ha there are areas of low risk for generating dust such as the quarry faces, leaving between 4 and 5 ha of open area including haul roads within Stage One.

The applicant asserts that the quarry has never been subject to a confirmed dust complaint relating to dust beyond the property boundary and accordingly considers that the current water take of 50m<sup>3</sup> per day is sufficient to suppress dust. Water is stored in two 19,000 litre tanks, the applicant proposes water harvesting to maximise the allocation, on days of low or no water use water is proposed to be harvested and stored in an onsite pond. As discussed in the Water Take section above, recent discussions with the WRC propose the water take to be categorised as a zero net take and an increased maximum daily take volume is sought.

Regardless of whether dust complaints have been received or confirmed, I consider that there is potential for the open areas and haul roads at the quarry to generate dust to objectionable levels beyond the property boundary. Furthermore, no dust monitoring data or technical dust assessment has been provided in support of the application.

The applicant proposes water application via sprinklers and water cart as the primary dust suppression method. With water use alone, I consider that during hot dry weather with moderate wind that a water application rate of 50m<sup>3</sup> per hectare per day (5mm application rate) is required to give an acceptable level of confidence with respect to effective dust suppression. This application rate is written into a standard dust suppression condition that the WRC regularly places on earthworks consents that are of moderate to high risk for generating adverse dust effects beyond the property boundary alongside an effective water application system.

I am of the opinion that the dust management assessment and dust mitigation strategies contained in the application are not sufficient and there is potential for dust to cause an objectionable adverse effect at or beyond the property boundary. I am aware that the applicant has contracted PDP to provide evidence on any potential dust effects.

#### *Issues raised in the submissions*

Submitters raised the issue of adverse effects of fugitive dust produced by the quarry as a result of extraction activities, overburden disposal, dust from trucks and overburden, rehabilitation works and dust generated on haul roads within the site

Some of the submitters close to the operation who derive their water supply from roof water collection are concerned with the potential of dust affecting the quality of the water and potential problems with the maintenance of their water supply system and potential effects from silica.

Waikato Regional Council engaged Dr. Terry Brady to comment on the submissions and air quality effects.

Dr. Brady is of the opinion that with appropriate management techniques and monitoring methods any potential effects on neighbouring properties can be avoided.

Based on Dr. Brady's advice I have recommended consent conditions to be included in the air discharge consent should consents be granted which include:

- i. a general requirement to minimise dust emissions from the site, so as to avoid any offensive or objectionable effects

- ii. a requirement that dust emissions from the site be managed and monitored in accordance with an approved Dust Management Plan
- iii. Installation of TSP or PM10 monitors and a meteorological station
- iv. specification for the contents of the Dust Management Plan
- v. a requirement for maintenance of a Complaints Register
- vi. an annual reporting requirement in relation to dust monitoring results, complaint investigations, and any other relevant matters.

It is my opinion that dust emissions from the proposed site can be minimised provided the applicant applies dust controls methods rigorously and consistently and the conditions of the consent are complied with.

In relation to silica, the applicant has not addressed the issue of crystalline silica raised in Mr. Cowan submission, I would expect the applicant will address this issue at the hearing.

### **Effects of Cleanfill Disposal on Land**

Placement of unsuitable materials has the potential of contaminating waterways and subsoil through leaching of materials as a result of chemical and biological breakdown. Fill material will be restricted to cleanfill as defined in the Waikato Regional Plan, which is as follows:

*“Material that when discharged to the environment will have no adverse effect on people or the environment. This includes natural materials such as clay, soil and rock, and other inert materials such as concrete and brick, or mixtures of any of the above.*

*Cleanfill excludes for example:*

- a. material that has combustible, putrescible or degradable components*
- b. materials likely to create leachate by means of biological or chemical breakdown*
- c. any products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices*
- d. materials such as medical and veterinary waste, asbestos, or radioactive substances that may present a risk to human health*
- e. soils or other materials contaminated with hazardous substances or pathogens*
- f. hazardous substances.”*

The applicant proposes to import up to 100,000 cubic metres of cleanfill per annum. The capacity of the proposed fill site is unclear.

In the event the application is granted, conditions will be imposed on this consent to require records be kept of the source, quantity, and type of incoming cleanfill.

In addition, it is recommended that all incoming fill be inspected both at the time of arrival and at the point of disposal. Any fill that does not match the acceptance criteria shall be rejected at either the acceptance stage, the inspection stage prior to deposit or at the deposit stage. A condition has been proposed that requires the removal of non-cleanfill material from this disposal site. It is recommended that all vehicles associated with the clean fill activity be required to enter through a single entry/exit site and any unauthorised vehicles disallowed entry to the site.

Cleanfill acceptance criteria are subject to research and review on an ongoing basis with numeric standards altering based on new evidence and site specific factors. I have included specific limits in the attached consent schedule that reflects Waikato Regional Council latest thinking on these matters. The current cleanfill acceptance thresholds are outlined in the following three tables;

#### Acceptance Criteria

Trace elements	Acceptance criteria (mg/kg)
Arsenic	17
Boron	15
Cadmium	0.8
Chromium	56
Copper	120
Lead	78
Mercury	1
Nickel	33
Zinc	175
Organic compounds	Acceptance criteria (mg/kg)
TPH C7-C9	120
TPH C10-C14	58
Benzene	0.0054
Ethylbenzene	1.1
Toluene	1.0
Total Xylene	0.61
Benzo[a]pyrene (equivalent)	2
Total DDT	0.7
Hexachlorobenzene	0.02
Gamma BHC (Lindane)	0.02
Heptachlor	0.02
Aldrin	0.02
Dieldrin	0.02

The applicant proposes to import up to 100,000m<sup>3</sup> of cleanfill to the site per annum and deposit it at the overburden/cleanfill disposal area identified in Figure 2. The cleanfill will be brought to the site on trucks that are arriving to pick up aggregate, the sources of the cleanfill are likely to be varied and have not been specified in the AEE.

To ensure compliance with the cleanfill acceptance criteria, I have included a condition of the consent requiring the consent holder undertake testing for each 500 cubic metres of material received on site yet to be deemed cleanfill by way of laboratory testing.

A condition has been recommended to require the consent holder engage an independent suitably qualified and experienced expert to undertake sampling of the fill site annually and report the findings direct to the WRC.

I am satisfied that as long as the controls are implemented through the consent conditions, any potential adverse effects generated by cleanfill disposal such as soil contamination, degradation of water quality and discharges to air will be no more than minor.

### **Stability of Overburden and Cleanfill Placement**

The applicant has provided a geotechnical report with respect to the proposed fill site. The report is titled McPherson Quarry, Earthfill Methodology, dated 20 September 2019. prepared by HD Geo (WRC doc # 15222454).

The proposed disposal area for overburden and imported cleanfill is located south of the quarry on gently sloping pastoral farmland, calculated to be less than 5 degree slope (Figure 3). A watercourse dissects the site and is intended to be filled. A minimum setback of 20m is offered from the stream on the southern boundary of the fill site.

The HD Geo report anticipates little to no site preparation and notes that in the event saturated soil or seeps are discovered that subsoil drainage may be required. Following topsoil stripping the imported fill be spread in 0.3 m layers and track rolled with D10 bulldozers. Design methodology includes minimum 5 m wide benches at maximum 5 m lift heights. Detailed design plans have not been provided. A condition of consent has been recommended to ensure the fill site is designed and supervised by a chartered professional engineer.

The final landform will be limited to an 18-degree maximum overall slope and will maintain a 20m setback from the stream to the southern disposal area boundary. The completed site is intended to be returned to pastoral farmland.





Figure 3: Proposed Cleanfill and Overburden Placement Footprint, shaded area south of quarry

The application estimates that approx. 70% max of overburden will be deposited at the fill site and the remaining 30% will be sold offsite. Under this assumption, overburden disposal calculations have been estimated for Stage One 1,733,900m<sup>3</sup>; Stage Two 2,590,000 m<sup>3</sup>; Stage Three 1,297,100m<sup>3</sup>.

## **Site Abandonment**

If the site is not rehabilitated to an appropriate standard or in the event it is abandoned prior to the site being fully rehabilitated, it has the potential to cause adverse effects on the environment including sediment discharge to water, amenity values, loss of soil productivity and instability. To ensure that in the event of non-performance with conditions or the inability of the applicant to complete any rehabilitation works required, the Council may require a bond to ensure completion of such works.

Compliance with the recommended bond conditions should ensure that potential adverse effects on the environment in the event that the site is abandoned are no more than minor.

## **6.2 Policy Statements, Plans and Regulations**

### **6.2.1 National environmental standards**

There are currently seven National Environmental Standards in effect;

- National Environmental Standards for Air Quality
- National Environmental Standard for Sources of Human Drinking Water
- National Environmental Standards for Telecommunication Facilities
- National Environmental Standards for Electricity Transmission
- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
- National Environmental Standards for Plantation Forestry
- National Environmental Standards Freshwater Management

### **Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins and Other Toxics) Regulations**

The NES for Air Quality Amendment Regulations 2011 came into force on 1 June 2011. Regulation 17(1) of the NESAQ requires a decline of an application for a resource consent to discharge PM10 by more than 2.5 µg/m<sup>3</sup> (24 hr average) in any part of a polluted airshed other than the site on which the consent would be exercised.

The operation proposed mine is located in the “Rest of the Region” airshed, which is a non-polluted airshed, and is located well away from the closest polluted airshed. Therefore the regulation 17 does not apply and the consent cannot be declined on this basis.

### **National Environmental Standard for Sources of Human Drinking Water (NES – Drinking Water)**

The National Environmental Standard for Sources of Human Drinking Water commenced on 20 June 2008. This standard is a regulation enacted by an Order in Council, under s43 of the Resource Management Act. The regulation requires that a regional council must not grant a water or discharge permit for an activity that will occur upstream of a drinking water abstraction point if specific criteria at the point of abstraction are exceeded. The matters to be considered as part of an assessment are dependent on the permit being sought and the level of effects on any drinking water supplier located downstream or down gradient of the activity.

Under this regulation a regional council may also impose a condition of consent on any resource consent application requiring the consent holder to notify, as soon as reasonably practical, the registered drinking-water supply operators and the regional council if the activity leads to an event that, or as a consequence of an event, results in a significant adverse effect on the quality of the water at the abstraction point.

On review of the WRC mapping programme 'OurMaps' there are no recorded drinking water take locations within 2 km of the proposal. Accordingly the NES – Drinking Water is not applicable to the proposal and further assessment is not required.

#### **6.2.2 Other regulations**

- RM (measurement and Reporting of Water takes) Regulations 2010 are relevant to any consumptive water take exceeding 5 l/s.

#### **6.2.3 National policy statements (including NZ Coastal Policy Statement)**

There are currently five National Policy Statements which Regional Policy Statements must give effect to:

- New Zealand Coastal Policy Statement 2010, and Sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 are deemed to be a New Zealand Coastal Policy Statement
- Electricity Transmission
- Freshwater Management
- Renewable Electricity Generation
- Urban Development Capacity

The National Policy Statement on Freshwater Management 2020 (NPS-FM) is applicable to the proposal. Provided that the proposed activities are undertaken in accordance with the resource consent application and the recommended conditions of the resource consent, the proposal is not considered contrary to the objectives of the NPS-FM.

## National Policy Statement for Freshwater Management 2020

The National Policy Statement for Freshwater Management 2020 (NPSFW) came into force on 3 September. It supersedes earlier versions of the NPSFW.

The NPSFW includes **Te Mana o te Wai** – a concept that “*refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.*”. It encompasses six principles as below:

- *Mana whakahaere*: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater
- *Kaitiakitanga*: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations
- *Manaakitanga*: the process by which tangata whenua show respect, generosity, and care for freshwater and for others
- *Governance*: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future
- *Stewardship*: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations
- *Care and respect*: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

Further, there is a hierarchy of obligations in Te Mana o te Wai that informs the objective of the NPSFW – To ensure that natural and physical resources are managed in a way that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems
- (b) second, the health needs of people (such as drinking water)
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

The following table comments on the proposed activities in relation to relevant policies of the NPSFW

Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.	Through this process the applicant has been actively involved Tangata Whenua which resulted in the preparation of the Cultural Values Assessment.
Policy 2: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.	I have recommended conditions of the consent to include Matauranga Maori Monitoring. It is expected that the applicant continue engagement with Tangata Whenua to develop the Ecological Management and Monitoring Plan.
Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.	The applicant has proposed a series of a range of measures that are aimed at improving all freshwater bodies within the site, improving water quality of the discharge and enhance wetlands on site.

	Conditions have been recommended to ensure freshwater values are improved through the mitigation and enhanced measures proposed. It is expected through the implementation of the proposed conditions that a net improvement in ecological values is achieved.
Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.	The two existing wetlands will be enhanced through the implementation of the proposed mitigation measures.
Policy 7: The loss of river extent and values is avoided to the extent practicable.	Although there will be a loss of stream habitat, the mitigation measures proposed such as a 10m riparian planting and fencing of the unnamed tributary of the Waipunga Stream will result in enhanced habitat.
Policy 9: The habitats of indigenous freshwater species are protected.	I have proposed conditions should the consent be granted aiming to enhance habitats in the unnamed tributary of the Waipunga Stream. If conditions are complied with, the proposed measures will result in protection of habitat for indigenous freshwater species.
Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.	The implementation of consent conditions will result in sustainable allocation of water resource as discussed in section 7 of this report
Policy 15: Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.	The operation of the quarry will help to provide for the community social and economic wellbeing. Aggregate is an important resource for the development of housing and infrastructure. The implementation of the monitoring and mitigation measures will ensure that the quarry provides for social, economic and cultural wellbeing while still being consistent with the overall intent of the NPS-FW 2020.

I consider that the proposal is not contrary to the policies in the NPSFW. It is my view that although some stream habitat will be lost in the short term, the proposed mitigation measures will result in long term benefits and enhancement of existing wetland and freshwater habitats around the quarry site.

#### 6.2.4 Regional Policy Statement

The Waikato Regional Policy Statement (RPS) is a high-level broad-based document containing objectives and policies the purpose of which is to provide an overview of the resource management issues of the region and to achieve integrated management of the natural and physical resources of the Waikato Region. The RPS became operative in May 2016, with the most relevant part of the RPS as it relates to this proposal being as follows:

There are a number of objectives relevant to this proposal which are listed as follows:

- 3.2 Resource use and development
- 3.11 Air Quality
- 3.14 Mauri and values of fresh water bodies;
- 3.15 Allocation and use of fresh water
- 3.16 Riparian areas and wetlands;
- 3.18 Historic and cultural heritage
- 3.19 Ecological integrity and indigenous biodiversity
- 3.25 Values of soil.

These are each discussed below.

#### **Objective 3.2 Resource use and development**

*Recognise and provide for the role of sustainable resource use and development and its benefits in enabling people and communities to provide for their economic, social and cultural wellbeing, including by maintaining and where appropriate enhancing:*

*a) access to natural and physical resources to provide for regionally significant industry and primary production activities that support such industry;*

*b) the life supporting capacity of soils, water and ecosystems to support primary production activities;*

*c) the availability of energy resources for electricity generation and for electricity generation activities to locate where the energy resource exists;*

*d) access to the significant mineral resources of the region; and*

*e) the availability of water for municipal and domestic supply to people and communities.*

The proposal provides for the ongoing operation of the greywacke quarry. The quarry and associated cleanfill activity supports development projects, providing rock and receiving cleanfill, it is anticipated to

benefit the local community and their economic and social wellbeing. The proposal incorporates controls to prevent adverse effects to cultural values, water, soils and ecosystems.

### **Objective 3.9 Relationship of tāngata whenua with the environment**

*The relationship of tāngata whenua with the environment is recognised and provided for, including:*

- a. the use and enjoyment of natural and physical resources in accordance with [tikanga](#) Māori, including mātauranga Māori; and*
- b. the role of tāngata whenua as [kaitiaki](#).*

Consultation outcomes..Recommended conditions of consent enable further discussion with tangata whenua in the event that the consent is granted and ensure that best practice environmental controls are implemented to protect aquatic ecosystems and the wellbeing of the Waikato River. Further, the proposal has been assessed as consistent with the Waikato Tainui Environmental Plan.

### **Objective 3.11 Air Quality**

*Air quality is managed in a way that:*

- a. ensures that where air quality is better than national environmental standards and guidelines for ambient air, any degradation is as low as reasonably achievable;*
- b. avoids unacceptable risks to human health and ecosystems, with high priority placed on achieving compliance with national environmental standards and guidelines for ambient air; and*
- c. avoids, where practicable, adverse effects on local [amenity values](#) and people's wellbeing including from discharges of particulate matter, smoke, odour, dust and agrichemicals, recognising that it is appropriate that some areas will have a different amenity level to others.*

The recommended conditions of consent include measures to minimise and monitor the discharges of particulate matter from quarry and cleanfill placement activities prior to rehabilitation.

### **Objective 3.14 Mauri and values of fresh water bodies**

*Maintain or enhance the mauri and identified values of fresh water bodies including by:*

- a) maintaining or enhancing the overall quality of freshwater within the region;*
- b) safeguarding ecosystem processes and indigenous species habitats;*
- c) safeguarding the outstanding values of identified outstanding freshwater bodies and the significant values of wetlands;*
- d) safeguarding and improving the life supporting capacity of freshwater bodies where they have been degraded as a result of human activities, with demonstrable progress made by 2030;*
- e) establishing objectives, limits and targets, for freshwater bodies that will determine how they will be managed;*

*f) enabling people to provide for their social, economic and cultural wellbeing and for their health and safety;*

*g) recognising that there will be variable management responses required for different catchments of the region;*

*h) recognising the interrelationship between land use, water quality and water quantity.*

The proposal and the recommended conditions of consent contain controls to prevent adverse effects to mauri and fresh water resources.

### ***Objective 3.15 Allocation and use of fresh water***

*The allocation and use of fresh water is managed to achieve freshwater objectives (derived from identified values) by:*

- a. avoiding any new over-allocation of ground and surface waters;*
- b. seeking to phase out any existing over-allocation of ground and surface water bodies by 31 December 2030;*
- c. increasing efficiency in the allocation and use of water; and*
- d. recognising the social, economic and cultural benefits of water takes and uses.*

The proposal seeks to maintain the existing allocation volumes and a zero net take, avoiding any new over-allocation of ground and surface waters.

### ***Objective 3.16 Riparian areas and wetlands***

*Riparian areas (including coastal dunes) and wetlands are managed to:*

*a. maintain and enhance:*

- i. public access; and*
- ii. amenity values.*

*b. maintain or enhance:*

- i. water quality;*
- ii. indigenous biodiversity;*
- iii. natural hazard risk reduction;*
- iv. cultural values;*
- v. riparian habitat quality and extent; and*
- vi. wetland quality and extent.*



An unnamed tributary of the Waipunga Stream receives treated stormwater from the McPherson Quarry. The recommended conditions of consent impose water quality triggers to ensure water leaving the site is at a minimum consistent with the respective water class and that best practice erosion and sediment controls are in place.

The land will be revegetated and converted back to pastureland consistent with the current land use.

***Objective 3.19 Ecological integrity and indigenous biodiversity***

*The full range of ecosystem types, their extent and the indigenous biodiversity that those ecosystems can support exist in a healthy and functional state.*

*Full range of ecosystem types – the nine broad ecosystem types that occur in the Waikato region:*

- 1. a) native forest and scrub;*
- 2. b) swamps and bogs;*
- 3. c) streams, rivers and lakes;*
- 4. d) beaches and dunes;*
- 5. e) marine and estuarine ecosystems;*
- 6. f) coastal islands;*
- 7. g) geothermal ecosystems;*
- 8. h) karst ecosystems; and*
- 9. i) high mountain lands.*

It is anticipated that the impact site will be approximately 40 ha and works will include vegetation loss and stream reclamation. Approximately 2.08 ha of indigenous vegetation will be lost during Stage 1 of the quarry expansion and approximately 0.37 ha of indigenous vegetation lost during Stage 2. Approximately 311m of an unnamed stream known as 'Tributary 1' is located within the overburden site and will be filled.

To compensate for the vegetation loss the application proposes planting an ecological corridor on the properties southern boundary to connect fragmented indigenous forest. The ecological corridor will be 100m wide and 4.53 ha.

To offset the loss of the 311m section of Tributary 1, the applicant proposes 7.5m margin riparian planting of a 930m section of an unnamed stream known as 'Stream 1'.

In addition, the proposal will result in the loss of 9,900m<sup>2</sup> of artificial ponds. The applicant proposes for every square metre of pond lost and area of 0.5m<sup>2</sup> of wetland will be established and protected in perpetuity.

**Objective 3.18 Historic and cultural heritage**

*Sites, [structures](#), landscapes, areas or places of [historic and cultural heritage](#) are protected, maintained or enhanced in order to retain the identity and integrity of the Waikato region's and New Zealand's history and culture.*

There are no recorded archaeological sites within the subject site. Recommended conditions of consent will ensure that appropriate protocols are followed in the event of accidental archaeological discovery to ensure the preservation of historic and cultural heritage.

**Objective 3.19 Ecological integrity and indigenous biodiversity**

*The full range of ecosystem types, their extent and the indigenous biodiversity that those ecosystems can support exist in a healthy and functional state.*

The applicant proposes mitigation and compensation with regard to adverse effects to the environment. As discussed in the AEE, the mitigation proposed by the applicant and the additional mitigation recommended by AECOM is considered appropriate. However, the additional mitigation has not yet been accepted by the applicant. Additionally, the proposed loss of 2.08ha manuka forest within the SNA has not been adequately mitigated or demonstrated as unavoidable.

On the basis of the above, I consider the activity to be contrary to Obj 3.19, and specifically with regard to works within the SNA contrary to Policy 11.2.

**Objective 3.25 Values of soil**

*The soil resource is managed to safeguard its life supporting capacity, for the existing and foreseeable range of uses.*

The topsoil from stripping will be stockpiled for use during the rehabilitation stage. Completed overburden and cleanfill areas will be progressively rehabilitated consistent with current land use.

**General**

In assessing this application I have had regard to what are considered to be the most relevant issues, objectives and policies contained within the RPS. Overall, the proposal will be consistent with the relevant matters covered by the RPS.

**6.2.5 Waikato Regional Plan**

The Waikato Regional Plan (WRP) is operative. The purpose of regional plans is to help the Council carry out its functions under s30 of the RMA. The proposal has been bundled to Discretionary Activity status as identified in Section 3 of this report.

The key WRP provisions are as follows:

- Section 3 - Water Module; Chapter 3.2 – Management of Water Resources
- Section 5 - Land and Soil Module; Chapter 5.1 – Accelerated Erosion
- Section 6 – Air Module; Chapter 6.1 - Regional and Local Air Management

In assessing this application I have given regard to the objectives and policies of the relevant sections of the WRP. I consider that this proposal is consistent with the WRP, provided that the recommended consent conditions and requirements of the relevant rules are complied with.

#### **6.2.6 Waikato Regional Plan Change 1 - Waikato and Waipa River Catchments**

The proposed Waikato Regional Plan Change 1 (PWRP – Change 1) is applicable to the Waikato and Waipa River catchments and gives effect to the National Policy Statement on Freshwater Management (NPS-FM) and the Vision and Strategy. The PWRP – Change 1 was notified on the 22 October 2016. The purpose of the proposed plan change is to reduce point source and non-point sources of contaminants – nitrogen, phosphorus, sediment and bacteria - entering waterbodies (including groundwater) within the Waikato and Waipa River catchments.

The proposal is within the Waikato River Catchment. Conditions will be imposed on this resource consent to ensure that best practicable options are applied to avoid, remedy and mitigate potential adverse effects of sediment discharges entering waterbodies. I consider that the proposal is not contrary to the objectives and policies of the PWRP – Change 1.

#### **6.3 Waikato-Tainui Raupatu (Waikato River) Settlement Claims Act 2010 or Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010**

##### **6.3.1 Vision and strategy**

As of 24 September 2010 Waikato Regional Council, in addition to any requirement specified in the RMA, must have particular regard to the vision and strategy (Schedule 2 of the Settlement Claims Act). These Acts apply to applications relating to the Waikato River; or activities in the catchment that affect the Waikato River.

The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 was enacted in May 2010 with the purpose of implementing co-management of the Waikato River. The overarching purpose of the Act is to restore and protect the health and wellbeing of the Waikato River for future generations. Through this piece of legislation it is intended to implement the “Vision and Strategy” for the River and consequently aims to meet the objectives of Waikato Tainui for the Waikato River through:

- a) the restoration and protection of the health and wellbeing of the Waikato River;
- b) the restoration and protection of the relationship of Waikato – Tainui with the Waikato River, including their economic, social, cultural and spiritual relationships;
- c) the restoration and protection of the relationships of Waikato Iwi according to their tikanga and kawa with the Waikato River, including their economic, social, cultural and spiritual relationships;

- d) the restoration and protection of the Waikato Region's communities, with the Waikato River, including their economic, social, cultural and spiritual relationships;
- e) the integrated, holistic and coordinated approach to management of the natural, physical, cultural and historic resources of the Waikato River;
- f) the adoption of a precautionary approach towards decision that may result in significant adverse effects on the Waikato River, and in particular those effects that threaten serious or irreversible damage to the River;
- g) The recognition and avoidance of adverse cumulative effects, of activities undertaken both within the Waikato River and within its catchments on the health and wellbeing of the Waikato River;
- h) The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities;
- i) The protection and enhancement of significant sites, fisheries, flora and fauna;
- j) The recognition that the strategic importance of the Waikato River to New Zealand's social, cultural, environmental and economic wellbeing, requires the restoration and protection of the health and wellbeing of the Waikato River;
- k) The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length;
- l) The promotion of improved access to the Waikato River to better enable sporting, recreational, and cultural opportunities;
- m) The application of the above of both matauranga Maori and the latest available scientific methods.

The vision and strategy forms part of the Proposed Waikato Regional Policy Statement and is given effect through the plans administered by Regional and territorial authorities along the river. The settlement also provides for joint management agreements between Waikato-Tainui and the local authorities; participation in river-related resource consent decision-making; recognition of a Waikato-Tainui environmental plan; provision for regulations relating to fisheries and other matters managed under conservation legislation and an integrated river management plan.

The subject site is located within the Waikato River catchment. The proposed activities incorporate design features which are considered appropriate to maintain the quality of water and to avoid remedy or mitigate any potential adverse effects on any of the associated water bodies with consent conditions recommended to address these items. Ultimately the implementation of best practice environmental management procedures will be provided for on site.

Furthermore, the applicant proposes to deliver the ecological enhancement identified in the following ecological reporting;

- McPherson Quarry Vegetation Assessment, Expansion Stages 1 – 3. Dated 2 October 2018, prepared by OPUS, WRC doc 13212321.
- Ecological Impact Assessment, McPherson Quarry, prepared by Ecology NZ Ltd, dated 13 March 2019, WRC doc 14029630.
- Ecological Management Plan, McPherson Quarry. Prepared by Ecology NZ Limited, dated 16 October 2019.
- Ecological Impact Assessment, McPherson Quarry. Prepared by Ecology NZ Limited, dated 15 October 2019.

In my opinion, the measures proposed by the applicant in terms of fencing and planting of riparian margins, the enhancement of wetlands and the creation of a natural corridor, the proposed activities will contribute toward the betterment of the Waikato River.

#### **6.4 Iwi Environmental Plans**

The Waikato-Tainui Environmental Plan provides a background to, and identifies key, resource based issues for Waikato-Tainui. The plan sets out Waikato-Tainui vision statement for environmental and heritage issues and key strategic objectives such as tribal identity and integrity, including “to grow our tribal estate and manage our natural resources.” The plan is designed to enhance Waikato-Tainui participation in resource and environmental management.

I have assessed this proposal against the objectives and outcomes within this plan. Provided that the works are carried out in accordance with the application and the Council approved conditions are adhered to, I consider that the proposal is consistent with this Iwi Environmental Plan.

#### **6.5 Section 105 and 107 Matters**

Section 105(1) of the RMA outlines additional matters that must be taken into consideration for a discharge to water or land which contravenes section 15 of the RMA.

Recommended conditions of consent will ensure that the erosion and sediment controls are in general accordance with the WRC Erosion and Sediment Control Guidelines and that stormwater will be treated with flocculent if required to achieve suspended solids water quality standards set out in section 3.2.4.6 of the WRP.

Furthermore, conditions have been imposed to ensure that the fill material received at the site complies with the definition of ‘cleanfill’ in the WRP and is tested to ensure compliance with contaminant concentration criteria. Provided the recommended conditions of consent are complied with, the discharge of cleanfill to land will have no adverse effect on people and the environment.

On the basis of the above and in consideration of the AEE, it is considered the discharge of stormwater from the subject sites is consistent with the requirements of s105 RMA.

Section 107 of the RMA outlines restrictions on the granting of discharges to water or land if it is likely to give rise to all or any of the following effects in the receiving waters;

- c. the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:
- d. any conspicuous change in the colour or visual clarity:
- e. any emission of objectionable odour:
- f. the rendering of fresh water unsuitable for consumption by farm animals:
- g. any significant adverse effects on aquatic life

On the basis of the assessment of effects and recommended conditions, it is not considered that the proposed treated stormwater discharge and the discharge of cleanfill to land will result in the above effects.

- **Section 104 Considerations**

As assessed in section 2 of this report, under the National Environmental Standards for Freshwater Regulations 2020 the diversion of the stream is a Non Complying Activity.

Section 104D(1) of the RMA applies, and states that:

*Despite any decision made for the purposes of section 93 in relation to minor effects, a consent authority may grant a consent for a non-complying activity only if it is satisfied that either –*

- (a) the adverse effects of the activity on the environment (other than an effect to which section 104(3)(b) applies) will be minor; or*
- (b) the application is for an activity that will not be contrary to the objectives and policies of-*
  - (i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or*
  - (ii) the relevant proposed plan, if there is a proposed plan but not relevant plan in respect of the activity; or*
  - (iii) both the relevant plan and the relevant proposed plan in respect of the activity.*

This is commonly referred to as the “gateway test” which is discussed below.

#### **Section 104D(1) (a) Effects on the Environment**

##### **Adverse Water Quality Effects**

On review of the information provided by the applicant and the conditions proposed in the schedule of conditions, and provided the appropriate mechanisms are in place for the treatment and management of the discharges from the site and the proposed consent conditions are complied with, then any adverse effects as a result of the water discharges from the site will be minor.

##### **Effects on Aquatic Habitat**

As confirmed by Mr Jonker, information provided by the applicant and proposed mitigation measures are satisfactory and any effects on aquatic habitats will be offset in the long term by habitat enhancement through the enhancement of wetland areas and riparian fencing and planting of the stream.

#### **Section 104D(1) (b) Policies and Plans**

In terms of the second test, of s104 D, based on the assessment of all the relevant statutory documents and in particular of the Waikato Regional Plan, and the National Environmental Standards for Freshwater Regulations 2020 I consider that the activity will not be contrary to these objectives and policies.

### **6.6 Relevant Part 2 Considerations**

Section 104 of the RMA is subject to Part 2 of the Act:

- Section 5 of the RMA outlines the Act's purpose, the basic principle of which is sustainable management.
- Section 6 of the RMA outlines matters of national importance.
- Section 7 outlines the other matters for consideration.
- Section 8 concerns the principles of the Treaty of Waitangi.

I have established throughout my report that the activity will have a less than minor effect on the environment and is consistent with the policy intent of the relevant objectives and policies of the Waikato Regional Plan and the National Environmental Standards for Freshwater (Regulations 2020) and National Policy Statement Freshwater.

Overall, the application is considered to meet the relevant provisions of Part 2 of the RMA as the proposal achieves the purpose (section 5) of the RMA, being the sustainable management of natural and physical resources.

## **7 Discussion and Recommendation**

In considering the subject resource consent the main potential adverse environmental effects associated with the proposed works have been identified as follows;

- Dust Effects
- Vegetation Loss
- Ecological Effects
- Erosion and Sediment Effects
- Stormwater Effects
- Water Take Effects
- Land Stability Effects
- Archaeological Effects
- Cultural Effects
- Effects of Cleanfill Disposal
- Effects in the event of Site Abandonment

However, for the reasons outlined in 6.1 of this report, I am satisfied that these adverse effects can be avoided, remedied or mitigated such that the adverse environmental effects associated with the works are likely to be minor.

The overall proposal has been assessed in respect to their consistency with the objectives and policies of the Regional Council's policies and plans, and the statutory provisions of the RMA. Provided the activity is undertaken in accordance with the application for consent and subsequent supporting documentation, and the recommended consent conditions in the attached schedule of proposed

conditions, I consider that the application will not be inconsistent with Council's policy and plans, or the statutory provisions of the RMA.

## 8 Proposed Consent Conditions

There are a number of matters that should be addressed by way of consent conditions. These conditions are included in the schedule attached to this report. For completeness, I summarise below the key matters that the recommended conditions seek to address.

### Site Management Plan

A number of management plans will have to be incorporated in the overall Site Management Plan which will encompass most of the aspects related to the establishment, through the day to day operation and post closure of the quarry. The Site Management Plan shall be prepared by the applicant and provided to the Waikato Regional Council for its approval acting in a technical certification capacity before any activity commencing on site.

The site management Plan will require to incorporate at least the following:

- a) The Overburden Management Plan
- b) An Erosion and Sediment Control Plan
- c) The Flocculation Management Plan
- d) A Dust Management Plan
- e) Ecological Management and Monitoring Plan
- f) The Conceptual Site Closure Plan
- g) The Rehabilitation Management Plan in

The Site Management Plan will contain specific management plans as required by conditions of this consent. These plans are to be provided to outline the parameters and methodology required to give effect to the conditions of the consent and in particular the elements that will be employed to minimise as far as practicable any adverse effects associated with the operation and post closure of the quarry.

The management plans will have to be updated as required by consent conditions throughout the duration of the consents. Any update to the Site Management Plan or any update of the individual management plans required by the proposed conditions will have to be approved in writing by the Waikato Regional Council prior to any of the proposed changes being implemented.

### Monitoring:

Most of the management plans will include a monitoring component. Within the specific management plan, the consent holder will have to provide a monitoring programme and the measures that the consent holder will put in place to monitor environmental effects for the different aspects of the quarry.



## Bond

Section 108(1)(b) allows a consent authority to impose a condition of a consent which requires a bond be given in respect of the performance of any one or more conditions of the consent.

The bond quantum should at least cover the following items (within the scope of Waikato Regional Council's functions);

- a) The cost of implementing parts of the site rehabilitation plan that, for any reason, are not carried out by the consent holder,
- b) The cost of any unforeseen reparation or clean-up works that, for any reason, are not carried out by the consent holder,
- c) The cost of any aftercare measures including any post closure monitoring, and
- d) Costs of any monitoring required should the applicant default its obligations under these consents

At the time of writing this report, the applicant has not provided information regarding approximate costs involved to offset all environmental risks associated with the rehabilitation and aftercare of the quarry. In the event that consents are granted, I have proposed that the consent holder, shall within one year of the consents being granted, provide a Conceptual Site Closure Plan, which shall include estimated costs achieving the rehabilitation of the mine.

I have included in the conditions of the consents mechanisms to ensure resolutions of any disputes when fixing the bond amount and mechanisms for reviewing the bond every three years if necessary.

## Review

As mentioned above, there may be still uncertainties on the levels of effects as a result of the proposed activities. While I consider that in the event of consents being granted, these uncertainties can be managed through the implementation of the proposed consent conditions and adequate monitoring programs, I have included review conditions in the event that it is determined through monitoring that more than minor effects are generated, or to review the effectiveness or adequacy of consent conditions. I have recommended a review frequency of once every three years for these consents, if required.

## Consent Duration

The applicant has not specified preferred consent durations, I consider that in this case a consent duration of 20 years is appropriate. The applicant has not demonstrated the projected lifespan of the quarry and the proposed expansion. A 20 year term will be sufficient to provide certainty to the submitters and provide certainty to the consent holder in relation to planning for the quarry expansion and the value of investment.

In making this recommendation I have taken into account the following:

- Consistency with consent term for other quarries in the region;
- consistency with the regional policy statement;
- compliance with regional plan requirements;

- consistency with WRC internal guidelines regarding consent duration (document no. 1211789);
- consistency with the Resource Management Act

### Recommended Decision

The proposed activities subject to these consents applications have been assessed as Discretionary and Non –Complying Activities under section 104B and section 104D of the Resource Management Act 1991. The proposal has been considered in terms of the environmental effects, the Waikato Regional Council's policies and plan's, the provisions of the Resource Management Act 1991 and relevant regulations.

I have discussed the potential environmental effects as a result of the proposed activities in section 8 of this report. I consider that I have addressed potential adverse effects on the environment and issues raised by submitters through consent conditions. Based on this assessment and the advice provided by experts related to the issues considered, I am of the view that provided the consent is exercised in accordance with the proposal and the proposed consent conditions are complied with, the overall impacts of the operation will be minor. It is therefore my recommendation that all applications should be granted.

I recommend that in accordance with s104B and S104D, resource consent applications be granted in accordance with the duration and proposed conditions prescribed in the attached schedule for the following reasons:

- The activities will have minor actual or potential adverse effects on the environment
- The activities are not contrary to any relevant plans or policies
- The activity is consistent with the purpose and principles of the Resource Management Act 1991

## PROPOSED RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH137612.01.01

**File Number:** 60 04 84A

*Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:*

McPherson Resources Limited  
C/- Michael McPherson  
47 McPherson Road  
RD 1  
Pokeno 2471

(hereinafter referred to as the Consent Holder)

**Consent Type:** Discharge Permit

**Consent Subtype:** Water - other

**Activity authorised:** To discharge stormwater

**Location:** McPherson Rd - Pokeno

**Map reference:** NZTM 1781144 E 5879449 N

**Consent duration:** This consent will commence on the date of decision notification and expire on 31 December 2040.

**Subject to the conditions overleaf:**

## CONDITIONS

1. The Consent Holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One – General Conditions.

### Water Quality and Sampling

2. The Consent Holder shall measure the suspended solids concentration and turbidity at the sampling locations:
  - a) Upstream at a point in the unnamed tributary of the Waipunga Stream unaffected by quarrying
  - b) At a point prior to enter the Stream but after passing through the site stormwater treatment
  - c) At a point no less than 100 metres downstream of the final discharge
3. Sampling required in condition 2, shall be undertaken where there is a rainfall event of greater than 15 millimetres in the preceding 24 hours. The Consent Holder shall within four hours of the rainfall reading being taken, measure the suspended solids concentration and turbidity at the discharge points specified in condition 2. Results shall be forwarded to the Waikato Regional Council on a monthly basis.
4. Within two working days of taking any samples required, the consent holder shall have those samples analysed for suspended solids and turbidity and, pH, and soluble aluminium. The results of the analysis shall be forwarded to the Waikato Regional Council within 7 days of the consent holder receiving results of the analysis.
5. The discharges to the shall be managed such that:
  - a) the discharge does not increase the suspended solids concentration in the receiving water; and,
  - b) suspended solids concentrations after reasonable mixing do not exceed 100 grams per cubic metre; and,
  - c) the discharge does not result in any conspicuous change in the clarity of the unnamed tributary of the Waipunga Stream Stream
6. The Consent Holder shall ensure that:
  - a) the soluble aluminium concentration of any sediment retention pond discharge shall not exceed 0.1 grams per cubic metre; and,
  - b) the pH of any sediment retention pond discharge shall not be less than 6.5 or greater than 8.0 pH units.
7. All earthmoving machinery, pumps, generators and ancillary equipment shall be operated in a manner, which ensures spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities

shall be carried out away from any water body, ephemeral water body, or overland flow path, such that any spillage can be contained so that it does not enter surface water and in accordance with the Hazardous Substances and Spill Prevention Plan.

8. The Consent Holder shall notify the Waikato Regional Council as soon as practicable and as a minimum requirement within 24 hours, of the Consent Holder becoming aware of the limits specified in condition 5 and 6 of this resource consent being exceeded. The Consent Holder shall, within 7 days of the incident occurring, provide a written report to the Waikato Regional Council, identifying the exceedance, possible causes, steps undertaken to remedy the effects of the incident and measures that will be undertaken to ensure future compliance.

### **Flocculation**

9. Within two months of the consent being granted, the consent holder shall provide the Waikato Regional Council with an updated Flocculation Management Plan (FMP). The FMP shall be submitted to the Waikato Regional Council for approval – acting in a technical certification capacity - prior to bulk earthworks commencing. The FMP shall include as a minimum:
  - a) An analysis identifying which ponds require flocculation, this analysis taking into account;
    - (i) The soil's reactivity to flocculants based on soil tests;
    - (ii) The size of the contributing catchment that the pond is treating; and,
    - (iii) The likely duration of the ponds use.
  - b) Specific design details of the flocculation system;
  - c) Monitoring (including pH and any other testing procedures), maintenance (including post-storm) and including a record system;
  - d) Details of optimum dosage (including assumptions);
  - e) Results of any initial flocculation trial; and,
  - f) Contact details of the person responsible for the operation and maintenance of the flocculation treatment system and the organisational structure to which this person shall report.
10. The consent holder shall undertake all activities authorised by this consent in accordance with the certified FMP and any certified changes.

### **Sediment Deposition Monitoring Plan**

11. Within two months of commencement of this consent, the consent holder shall provide the Waikato Regional Council with a draft **Sediment Deposition Monitoring Plan (SDMP)** for certification. The purpose of this plan is to outline the specific monitoring and mitigation measures that will be implemented throughout the duration of this consent to identify, respond to and mitigate for any potential sediment deposition effects occurring within the unnamed tributary of the Waipunga Stream a result of the site earthworks activities on site. The SDMP shall include at least the following:
  - a) Baseline surveys of pre-works sediment composition;
  - b) Specific surveillance and monitoring methods to be implemented during the earthworks to identify any potential areas of sediment deposition occurring as a result of the site earthworks activities (e.g post rainfall/discharge inspections);
  - c) Where any sediment deposition effects are identified, methods for measuring and

quantifying the depth and extent of these effects within;

- d) Trigger levels for implementing further investigation and assessment of sediment deposition effects;
- e) Where identified triggers are breached, methods for investigating and assessing the effects of sediment deposition;
- f) Methods to mitigate or environmentally compensate or offset for adverse effects that cannot be avoided or remedied in accordance with Condition 11(b).
- g) Methods to compile the monitoring information including the suspended solids and/or turbidity autosampler results and calculate the annual cumulative sediment load from the area and activities subject to this resource consent. Timeframe for the provision of the annual cumulative sediment load calculations to be on no less than an annual basis. If requested in writing by the Waikato Regional Council, the measures to calculate the annual cumulative sediment load shall include;
  - i. The use of autosamplers which collect real time turbidity readings of the discharge at each of the final sediment retention device outlets;
  - ii. Methods to estimate a correlation between suspended solids and turbidity;
  - iii. Flow rate meters fitted to each of the final sediment retention device outlets to measure water volumes discharged.
  - iv. Methodology to estimate the discharge of sediment over each sediment retention structure emergency spillway.

The SDMP shall be prepared by a suitably qualified ecologist and approved in writing by the Waikato Regional Council acting in a technical certification capacity. The consent holder shall implement the SDMP as required over the duration of the earthworks.

12. In the event that the trigger levels in the SDMP are breached and/or the cumulative annual sediment load is greater than background levels, the consent holder shall implement the following measures:

- a) The consent holder shall immediately implement measures to the satisfaction of the Waikato Regional Council to repair, modify or upgrade the site erosion and sediment control measures and shall amend the E&SCP (if required) to prevent any ongoing sediment deposition effects;
- b) The consent holder shall prepare a **Sediment Deposition Mitigation Plan** prepared by a suitably qualified ecologist outlining proposed ecological mitigation measures that will be implemented to offset any adverse sediment deposition or cumulative annual sediment discharge effects occurring as a result of the site earthworks activities. The ecological mitigation measures shall be commensurate to the identified scale of any offsite sediment discharges and sediment deposition effects occurring and shall comprise measures which contribute to the maintenance of the ecological values of the Waipunga Stream such as riparian plantings, pest control or any other ecological mitigation activity determined to present opportunity for maintenance of ecological values.

The Sediment Deposition Mitigation Plan shall be submitted to the Waikato Regional Council for certification within two months of confirmation of the adverse sediment deposition effects occurring and shall be implemented in accordance with the timeframes specified within the certified Sediment Deposition Mitigation Plan.

13. The Waikato Regional Council may engage a suitably qualified ecologist (at the cost of the consent holder) to monitor compliance with the approved SDMP and undertake a peer review of the cumulative sediment load assessment of effects and proposed mitigation measures.

*In terms of s116 of the Resource Management Act 1991, this consent commences on*

#### **Advice Notes - General**

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
- Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

# PROPOSED RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH137612.02.01

**File Number:** 60 04 84A

*Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:*

McPherson Resources Limited  
C/- Michael McPherson  
47 McPherson Road  
RD 1  
Pokeno 2471

(hereinafter referred to as the Consent Holder)

**Consent Type:** Water Permit

**Consent Subtype:** Surface water take

**Activity authorised:** To take surface water

**Location:** McPhersons Rd - Pokeno

**Map reference:** NZTM 1781144 E 5879449 N

**Consent duration:** This consent will commence on the date of decision notification and expire on 31 December 2040.

**Subject to the conditions overleaf:**



## CONDITIONS

1. The Consent Holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One – General Conditions.
2. The water taken pursuant to this consent must only be used for the following purposes:
  - a) suppressing dust;
  - b) augmenting the volume of water stored in the quarry pit and/or any off-stream storage system.
3. The instantaneous take rate must not exceed 20 litres per second.
4. The daily take volume must not exceed 430 cubic metres.

**Advice Note**

This surface water take is categorised as a zero net take in the Waikato Regional Council (“WRC”) water allocation calculator. The rationale for this categorisation is set out in a memo – identifier 15731323 – stored in the WRC document management system.

5. A water measuring system must quantify water taken from the take location on a continuous basis. The system must have a reliable calibration to water flow and must be maintained to an accuracy of +/- 5%. Within three months of the grant of this consent, evidence of calibration to an accuracy of +/- 5 percent must be provided in writing to WRC.
6. Additional calibration of the water measuring system required by condition 4 must be undertaken by the consent holder:
  - a) at the written request of WRC;
  - b) at a frequency of no less than five yearly from the date that evidence of calibration to an accuracy of +/- 5 percent has been provided to WRC pursuant to condition 4;
  - c) to the satisfaction of WRC.
  - d) Evidence documenting each respective additional calibration must be forwarded to WRC within one month of the calibration being completed.
7. The consent holder must maintain at all times a minimum flow of at least 1.5 litres per second in the unnamed tributary of the Waipunga Stream immediately downstream of the settling pond treatment system by lawfully and continuously discharging water into the unnamed tributary of the Waipunga Stream immediately downstream of the settling pond treatment system.
8. The consent holder must operate a reliable flow calibrated system for managing the exercise of this consent in accordance with condition 6.
9. The consent holder must telemeter – via a telemetry system that is compatible with WRC telemetry system standards and data protocols – continuous 15 minute values of:
  - a) take volume from the quarry pit (in units of cubic metres);
  - b) discharge volume from the settling pond treatment system into the unnamed tributary of the Waipunga Stream.

These data must be reported once daily to WRC via the telemetry system. For data (a) and (b) there must be 96 values, respectively, per daily report. When no water is being taken from the quarry pit the data must specify the take volume as zero.

10. Any intake must be screened with a mesh aperture size not exceeding 3 millimetres by 3 millimetres (or 3 millimetre diameter holes).
11. The velocity of water through any intake screen must not exceed 0.3 metres per second at all times. If requested by WRC, the consent holder must provide information on how this velocity requirement is achieved.
12. At any time during the period July through September, inclusive, WRC may, following service of notice on the consent holder, commence a review of the conditions of this consent pursuant to section 128(1) of the Resource Management Act 1991 for the following purposes:
  - a) to review the effectiveness of the conditions of this consent in avoiding or mitigating any adverse effects on water resources or persons from the exercise of this consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions;
  - b) to review the adequacy of and the necessity for monitoring undertaken by the consent holder;
  - c) to review the consistency of conditions of this consent with future changes to the Vision and Strategy set out in Schedule 2 of the Waikato-Tainui Raupatu (Waikato River) Settlement Claims Act 2010 and, if necessary, to address any inconsistency of the conditions of this consent with the changes to the Vision and Strategy by way of further or amended conditions.
  - d) to review the appropriateness of any take rate and/or volume specified in this consent and, if necessary, to address any inappropriateness of any rate and/or volume by way of reducing any rate and/or volume.
  - e) to review the appropriateness of the minimum flow rate specified in this consent and, if necessary, to address any inappropriateness of the minimum flow rate by way of increasing the minimum flow rate.

*In terms of s116 of the Resource Management Act 1991, this consent commences on*

#### **Advice Notes - General**

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The consent holder may apply to change the conditions of the resource consent under s.127

RMA.

- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
- Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

# PROPOSED RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH137612.03.01

**File Number:** 60 04 84A

*Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:*

McPherson Resources Limited  
C/- Michael McPherson  
47 McPherson Road  
RD 1  
Pokeno 2471

(hereinafter referred to as the Consent Holder)

**Consent Type:** Land Use Consent

**Consent Subtype:** Land - disturbance

**Activity authorised:** Earthworks and vegetation clearance in High Risk Erosion Areas in association with the operation of McPherson Quarry

**Location:** McPhersons Rd - Pokeno

**Map reference:** NZTM 1781144 E 5879449 N

**Consent duration:** This consent will commence on the date of decision notification and expire on 31 December 2040.

**Subject to the conditions overleaf:**

## CONDITIONS

1. The Consent Holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One – General Conditions.

### Erosion and Sediment Control Plan

2. The consent holder shall provide an **Erosion and Sediment Control Plan** (E&SCP) to the Waikato Regional Council by 31 January 2019 for review and approval – acting in a technical certification capacity. The E&SCP shall as a minimum be based upon and incorporate all the relevant principles and practices for the activity authorised by this consent and contained within the Waikato Regional Council document titled “Erosion and Sediment Control – Guidelines for Soil Disturbing Activities” (Technical Report No. 2009/02 – dated January 2009), and shall include, but not be limited to, the following;
  - a) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation if required;
  - b) The design criteria and dimensions of all key erosion and sediment control structures;
  - c) A site plan of a suitable scale to identify;
    - i. The locations of waterways;
    - ii. The extent of soil disturbance and vegetation removal;
    - iii. Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses;
    - iv. Areas of cut and fill;
    - v. Locations of topsoil stockpiles;
    - vi. All key erosion and sediment control structures;
    - vii. The boundaries and area of catchments contributing to all stormwater impoundment structures;
    - viii. The locations of all specific points of discharge to the environment;
    - ix. The location and details of stream stabilisation works in areas of damming, diversion or clearing; and,
    - x. Any other relevant site information.
  - d) Construction timetable for the erosion and sediment control works and the bulk earthworks proposed;
  - e) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
  - f) Maintenance, monitoring and reporting procedures;
  - g) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures;
  - h) Procedures and timing for review and/or amendment to the erosion and sediment control measures listed in the E&SCP; and,

- i) Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.

### **Erosion and Sediment Control**

3. The works authorised by this consent shall be undertaken in such a manner so as to avoid causing any new or exacerbating any existing flooding effects on adjacent land.
4. All disturbed or cut vegetation, soil or debris shall be deposited or placed in a position where it will not enter any water body or cause diversion, damming or erosion of any waterway.
5. The consent holder shall ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site shall be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder shall also ensure the outfall(s) of these systems are protected against erosion.
6. The consent holder shall ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls. A record shall be maintained of the date and time of inspections undertaken, any maintenance requirements identified, and of maintenance undertaken to all erosion and sediment control structures. Records associated with the maintenance of all erosion and sediment control structures shall be made available to the Waikato Regional Council at all reasonable times.
7. Within two months of the commencement or within two weeks of any changes to the Erosion and Sediment Control Plan being implemented, the consent holder shall, submit to the Waikato Regional Council "As Built Certification Statements" signed by an appropriately qualified and experienced professional certifying that erosion and sediment control structures have been constructed in accordance with the certified SMP. Certified controls shall include clean water diversion channels/bunds, sediment retention ponds and decanting earth bunds. The As Built Certification Statements shall be supplied to the Waikato Regional Council within 7 working days of the completion of the construction of those controls. Information contained in the certification statement shall include at least the following:
  - a) Confirmation of contributing catchment areas;
  - b) the location, capacity and design of each structure;
  - c) position of inlets and outlets;
  - d) stability of structures;
  - e) measures to control erosion; and
  - f) any other relevant matter.

#### **Advice Note:**

*An example template and the information required for the As Built Certification Statement can be found on the Waikato Regional Council website [www.waikatoregion.govt.nz/earthworks](http://www.waikatoregion.govt.nz/earthworks).*

### **Winter Works**

8. Earthworks (including stripping) shall not be conducted during the period 1 May to 30 September inclusive during any year that this consent is current, apart from necessary maintenance works,

unless agreed to in writing by the Waikato Regional Council.

9. Requests to undertake earthworks during the period 1 May to 30 September inclusive, for any year that this consent is current, shall be submitted in writing to the Waikato Regional Council by 1 April.

**Advice Note:** *In considering a request for the continuation of winter earthworks, the Waikato Regional Council will consider a number of factors; including:*

- *The nature of the site and the winter soil disturbance works proposed;*
- *The quality of the existing/proposed erosion and sediment controls;*
- *The compliance history of the site/operator;*
- *Seasonal/local soil and weather conditions;*
- *Sensitivity of the receiving environment; and*
- *Any other relevant factor.*

#### **Site Stabilisation and Removal of Controls**

10. The removal of any erosion and sediment control measure from any area where soil has been disturbed as a result of the exercise of this consent shall only occur after consultation with, and written approval has been obtained from, the Waikato Regional Council - acting in a technical certification capacity. In this respect, the Waikato Regional Council will need to be satisfied as to:
  - a) The quality of the soil stabilisation and/or covering vegetation;
  - b) The quality of the water discharged from the rehabilitated land; and,
  - c) The quality of the receiving water.
11. The consent holder shall ensure those areas of the site where earthworks have been completed are stabilised against erosion as soon as practically possible and within a period not exceeding 14 calendar days after completion of any works authorised by this consent. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural) that will minimise sediment runoff and erosion to the satisfaction of the Waikato Regional Council - acting in a technical certification capacity.
12. Re-vegetation and/or stabilisation of all disturbed areas is to be completed in accordance with the measures detailed in the document titled "*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*" (Technical Report No. 2009/02 – dated January 2009) and the approved ESCP.

#### **Stability**

13. The consent holder shall engage a Chartered Professional Engineer with geotechnical and civil engineering experience to direct and supervise appropriate site investigations and undertake supervision and certification of all works to ensure that cut slopes and fill sites are individually and appropriately assessed for stability during and following individual cutting and filling operations, and to ensure that appropriate drainage is installed at each site. Assessment report and certificate for each site shall be provided to the Resource Use Directorate of the Waikato

Regional Council within 10 working days of the Engineer completing the assessment.

*In terms of s116 of the Resource Management Act 1991, this consent commences on*

#### **Advice Notes - General**

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
- Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.



# PROPOSED RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH137612.04.01

**File Number:** 60 04 84A

*Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:*

McPherson Resources Limited  
C/- Michael McPherson  
47 McPherson Road  
RD 1  
Pokeno 2471

(hereinafter referred to as the Consent Holder)

**Consent Type:** Discharge Permit

**Consent Subtype:** Land - other

**Activity authorised:** Discharge overburden to land in association with the operation of  
McPherson Quarry

**Location:** McPhersons Rd - Pokeno

**Map reference:** NZTM 1781144 E 5879449 N

**Consent duration:** This consent will commence on the date of decision notification and  
expire on 31 December 2040 .

**Subject to the conditions overleaf:**

## CONDITIONS

1. The Consent Holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One – General Conditions.
2. The activities authorised by this consent shall comply at all times with the standards of resource consent AUTH137612.03.01 which authorises earthworks activities within the site.
3. The consent holder shall ensure that all stormwater runoff shall be directed into purpose built storm water settling ponds for treatment prior to discharge into any watercourse. The quality of the discharge from these treatment ponds shall be in accordance with the conditions of resource consent number AUTH137612.01.01, which permits these discharges.

### Overburden Management Plan

4. Within two months of commencement of this consent, the consent holder shall submit an Overburden Management Plan (OMP) at least 20 working days prior to the exercise of this consent. The OMP shall detail the procedures that will be implemented to operate in accordance with the conditions of this resource consent and the procedures that will be put into place to control stormwater, minimise the potential for sediment runoff from the site and minimise emissions to air. The plan shall also include but not be limited to the following:
  - i. A description of the methodology for overburden stripping and disposal,
  - ii. Areas to be mined over the next 12 months;
  - iii. Plans for overburden stripping and disposal over the next 12 months;
  - iv. Details of maintenance activities undertaken in the previous 12 months, and maintenance activities proposed over the next 12 months;
  - v. The specific location of the placement area;
  - vi. The design and construction procedures;
  - vii. How sediment losses to natural water will be avoided;
  - viii. Earthworks procedures to be adopted during overburden stripping and disposal;
  - ix. Measures to avoid the over compaction of soils;
  - x. Timetable of works and re-vegetation;
  - xi. Maintenance and inspection procedures,
  - xii. Monitoring,
  - xiii. Contingency and mitigation measures;
5. This plan shall updated on a yearly basis or as otherwise agreed in writing with the Waikato Regional Council and shall be lodged with the Waikato Regional Council by 1 April each year. Any changes to the plan shall be to the satisfaction of the Waikato Regional Council, and shall be confirmed in writing by the consent holder following consultation with the Waikato Regional Council.
6. The consent holder shall undertake the placement of overburden in accordance with the approved Overburden Management Plan.

**Erosion/Instability**

7. The consent holder shall construct the overburden disposal area in accordance with accepted civil engineering practices.
8. The consent holder shall be responsible for maintaining the re-contoured site in a stable condition and for any erosion and/or slumping that may occur within and adjacent to the site in accordance with the OMP as required by condition 4 of this consent. The consent holder shall undertake and maintain any works that become necessary to avoid, remedy or mitigate the effects of erosion and/or slumping. Works in this regard shall be to the satisfaction of the Waikato Regional Council acting in a technical certification capacity.


*In terms of s116 of the Resource Management Act 1991, this consent commences on*

**Advice Notes - General**

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
- Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to

continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

# PROPOSED RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH137612.05.01

**File Number:** 60 04 84A

*Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:*

McPherson Resources Limited  
C/- Michael McPherson  
47 McPherson Road  
RD 1  
Pokeno 2471

(hereinafter referred to as the Consent Holder)

**Consent Type:** Discharge Permit

**Consent Subtype:** Land - other

**Activity authorised:** Discharge cleanfill to land outside of High Risk Erosion Areas

**Location:** McPhersons Rd - Pokeno

**Map reference:** NZTM 1781144 E 5879449 N

**Consent duration:** This consent will commence on the date of decision notification and expire on 31 December 2040.

**Subject to the conditions overleaf:**

## CONDITIONS

### General

1. The Consent Holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One – General Conditions.
2. Activities authorised by this resource consent shall not intercept groundwater and excavations shall be at least one metre above groundwater levels.

### Cleanfill Management

3. The consent holder shall record the source, measure the quantity, and identify and log incoming cleanfill. The consent holder shall provide this information to the Council annually, by 31 July, for each year that this consent is exercised.
4. All fill material deposited shall be limited to cleanfill as defined as material that when discharged to the environment will have no adverse effect on people and the environment. This includes natural materials such as clay, soil and rock, and other inert materials such as concrete and brick, or mixtures of any of the above. There shall be no organic material mixed with the fill and/or placed in a position where it may lead to land instability. Cleanfill, deposition authorised by this consent shall exclude;
  - a) material that has combustible, putrescible or degradable components
  - b) materials likely to create leachate by means of biological or chemical breakdown
  - c) any products or materials derived from hazardous waste treatment, hazardous
  - d) waste stabilisation or hazardous waste disposal practices
  - e) materials such as medical and veterinary waste, asbestos, or radioactive substances that may present a risk to human health
  - f) soils or other materials contaminated with hazardous substances or pathogens
  - g) hazardous substances.
5. The consent holder shall provide the Waikato Regional Council with a Cleanfill Management Plan which details the procedures that will be implemented to operate in accordance with the conditions of this resource consent. This plan shall be lodged with the Waikato Regional Council at least three weeks prior to the commencement of any activities authorised by this consent and shall be approved by the Waikato Regional Council acting in a technical certification capacity. This plan shall be reviewed by the consent holder and updated by 31 December 2011, and every three years thereafter. Any changes to the plan shall be confirmed in writing by the consent holder and shall be approved by the Waikato Regional Council, acting in a technical certification capacity.

The Cleanfill Management Plan shall include, but may not be limited to, the following:

- i). the specific location of the cleanfill placement area;
  - ii). Acceptance criteria for cleanfill to be disposed on site
  - iii). Contaminant levels shall be specified at least for the following contaminants: Arsenic, Cadmium, Cyanide, Chromium, Copper, Mercury, Nickel, Lead, Zinc, VOCs and SVOCs and PAHs.
  - iv). a description of operational procedures and monitoring that will be implemented to minimise unauthorised or contaminated material entering the site,
  - v). specific design details, construction and certification procedures to ensure long term stability of cleanfill areas;
  - vi). development of a comprehensive stormwater management system (including design specification, location and management of all structures proposed);
  - vii). measures to avoid the over compaction of soils;
  - viii). timetable of works and re-vegetation measures;
  - ix). contingency and mitigation measures;
  - x). maintenance, monitoring, and inspection procedures;
  - xi). specific dust control measures to ensure that dust emissions are kept to a practicable minimum;
  - xii). site plans showing the location of infrastructure and all other relevant information, and;
  - xiii). procedures to review the management plan.
6. For each 500 cubic metres of material received on site, a composite sample shall be analysed for the following contaminants. Each sample will consist of six sub-samples of equal volume. Results will be compared with the cleanfill acceptance thresholds in the table below.

Table 1: Acceptance Criteria

Trace elements	Acceptance criteria (mg/kg)
Arsenic	17
Boron	15
Cadmium	0.8
Chromium	56
Copper	120
Lead	78
Mercury	1
Nickel	33
Zinc	175
Organic compounds	Acceptance criteria (mg/kg)
TPH C7-C9	110
TPH C10-C14	58
Benzene	0.11
Ethylbenzene	10
Toluene	19
Total Xylene	25
Benzo[a]pyrene (equivalent)	2.8
Total DDT	1.9
Dieldrin	0.1

Unless otherwise agreed with the Waikato Regional Council in writing, the fill material shall be deemed to meet the cleanfill acceptance thresholds when the concentration of each individual constituent is less than the threshold concentration in the table above. In the event that a sample fails to meet the cleanfill acceptance thresholds for one or more analysed constituents, the consent holder shall remove the fill material from the disposal site and dispose to an authorised site.

7. Analysis of the testing shall be undertaken by an appropriately registered laboratory.
8. The consent holder shall measure the quantity, and identify the source of the material and log incoming cleanfill and provide this information to the Waikato Regional Council by 31 March (for the period 31 March to end of February), for each year that this consent is exercised.
9. The consent holder shall engage a Suitably Qualified and Experienced Practitioner to undertake 'end of life' composite sampling of each fill stage prior to capping and rehabilitation of the respective area to confirm the fill site complies with the Maximum Fill Acceptance Criteria. The samples shall be analysed by an accredited laboratory for the full suite of contaminants listed in Condition 8, the test results shall be provided to the Waikato Regional Council within five working days of becoming available.


*In terms of s116 of the Resource Management Act 1991, this consent commences on*

#### Advice Notes - General

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but



not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.

- Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

# PROPOSED RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH137612.06.01

**File Number:** 60 04 84A

*Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:*

McPherson Resources Limited  
C/- Michael McPherson  
47 McPherson Road  
RD 1  
Pokeno 2471

(hereinafter referred to as the Consent Holder)

**Consent Type:** Water Permit

**Consent Subtype:** Diversion

**Activity authorised:** Divert Water in association with the operation of McPherson Quarry

**Location:** McPhersons Rd - Pokeno

**Map reference:** NZTM 1781144 E 5879449 N

**Consent duration:** This consent will commence on the date of decision notification and expire on 31 December 2040.

**Subject to the conditions overleaf:**

**CONDITIONS**

1. The Consent Holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One – General Conditions.
2. The activities authorised by this consent shall comply at all times with the standards of resource consent AUTH137612.01.01 which authorises the discharges from the site.
3. The consent holder shall ensure diversion of clean water shall be in accordance with the Erosion and Sediment Control Plan as required by condition 2 of resource consent AUTH137612.01.02
4. The consent holder shall inform the Waikato Regional Council in writing at least 20 working days prior to undertaking of channel or diversion works, and shall include at least the following information;
  - i. location of proposed works or structures
  - ii. Type and description of the proposed works,
  - iii. Construction and design details,
  - iv. Construction procedures,
  - v. Measures to minimise upstream flooding,
  - vi. Measures to minimise adverse fish passage effects,
  - vii. Measures to minimise erosion,
  - viii. Measures to minimise sediment losses to natural water
  - ix. Mitigation measures
  - x. Timetable of works,
5. The consent holder shall design all structures and diversion channels for a design flow capacity of 1 in 100 years flow events. (1% AEP Annual Exceedance Probability) unless otherwise approved in writing by the Waikato Regional Council acting in a technical certification capacity.
6. The consent holder shall submit to the Waikato Regional Council 'As Built Certification statements', signed by an appropriately qualified and experienced person to certify that cleanwater diversions have been constructed in accordance with the certified Erosion and Sediment Control Plan. . The 'As Built Certification Statement' shall include all information as specified in the 'As Built Certification Sheets' located on the Waikato Regional Council website (<http://www.waikatoregion.govt.nz/earthworks>) and supplied to the Waikato Regional Council within 5 working days of the completion of the construction of those controls.
7. Where practicable the consent holder shall control and divert stormwater which is not affected by mining activities away from areas disturbed by mining activities.
8. The consent holder shall ensure that water diversions authorised by this consent are carried out in a manner that erosion of the diversion is minimised.
9. The consent holder shall ensure that scour protection is constructed in any outlet structures

10. The consent holder shall ensure that all water diversion channels are maintained in good working order and clear of obstructions at all times.
11. The consent holder shall ensure that the diversion channels at the site are inspected on a weekly basis or within 24 hours of each rainstorm event exceeding 20 millimetres within the preceding 24 hour period. A record shall be maintained of the date, time and any maintenance undertaken in association with this condition which shall be forwarded to the Waikato Regional Council within 5 working days of completion of the works.


*In terms of s116 of the Resource Management Act 1991, this consent commences on*

#### **Advice Notes - General**

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
- Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

**SCHEDULE ONE – GENERAL CONDITIONS TO BE ATTACHED TO CONSENTS AUTH137612.01.01, AUTH137612.02.01, AUTH137612.03.01, AUTH137612.04.01, AUTH137612.05.01 AND AUTH137612.06.01**

**CONDITIONS**

**General**

1. Except as modified by the conditions below and subject to final detailed design, the activities authorised by this consent shall be undertaken in general accordance with the information provided by the applicant in the resource consent application dated 14 November 2016 (WRC doc # 9516322), the application for additional resource consents dated 28 September 2018 (WRC doc # 13142673); and the following supporting documents;
  - a) Report titled '*McPherson Quarry Vegetation Assessment, Expansion Stages 1 to 3*', prepared by OPUS, dated 2 October 2018 (WRC doc # 132112321).
  - b) Report titled '*McPherson Resources Ltd Draft Erosion and Sediment Control Plan (ESCP), Quarry Development Stage #1 – for Resource Consent Application*', prepared by OPUS, dated August 2018 (WRC doc # 13212095).
  - c) Report titled '*McPherson Quarry Resource Consent Support, Hydraulics Assessment Report External Stormwater*', prepared by OPUS, dated July 2018 (WRC doc # 13212526).
  - d) Updated AEE Titled '*Resource Consent Application & Assessment of Environmental Effects*', prepared by Kinetic Environmental Limited, dated 11 September 2018, received by the WRC 11 October 2018 (WRC doc # 13211538).

Where there may be differences or apparent conflict between the general conditions and conditions contained in either the individual consents contained within this suite, or any other consent referred to below, the conditions contained in the respective individual consents shall prevail.

2. The consent holder shall be responsible for all contracted operations relating to the exercise of this resource consent, and shall ensure contractors are made aware of the conditions of this consent and ensure compliance with those conditions.
3. A copy of this resource consent shall be kept onsite at all times that the works authorised by this consent are being undertaken, and shall be produced without unreasonable delay upon request from a servant or agent of the Waikato Regional Council.
4. The consent holder shall appoint a representative(s) prior to the exercise of this resource consent who shall be the Waikato Regional Council's principal contact person(s) in regard to matters relating to this resource consent. The consent holder shall inform the Waikato Regional Council of the representative's name and how they can be contacted, prior to this resource consent being exercised. Should that person(s) change during the term of this resource consent, the consent holder shall immediately inform the Waikato Regional Council and shall also give written notice to the Waikato Region Council of the new representatives name and how they can be contacted.

### Site Management Plan

5. Within two months from the commencement of the consents, The consent holder shall submit a **Site Management Plan (SMP)** to the Waikato Regional Council for review and approval - acting in a technical certification capacity. The consent holder shall also provide a copy to Nga Uri Whakatupu o Mahanga for their perusal and comment. The SMP shall detail the management, operation and monitoring procedures, methodologies and contingency plans necessary to comply with the conditions of this consent. The SMP shall also specify/include detail on the following:
  - a) Quarry extraction areas including alignment, maximum quarry face length and approximate RL, and, approximate maximum depth RL;
  - b) Aggregate processing areas including site locations and areas;
  - c) Stockpile areas including site locations and areas;
  - d) Drainage plans for the areas identified in a) to c) above;
  - e) Erosion and Sediment Control Plan
  - f) Water quality monitoring sampling sites.
  - g) Overburden Management Plan
  - h) The Cleanfill Management Plan;
  - i) Dust Management Plan
  - j) Conceptual Site Closure Plan;
  - k) Site Rehabilitation Plan
  - l) Ecological Mitigation and Monitoring Plan
6. The consent holder shall exercise this consent in accordance with the approved Site Management Plan. Any subsequent changes to the Site Management Plan must only be made with the written approval of the Waikato Regional Council. In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Site Management Plan, then the conditions of this consent shall prevail.
7. The consent holder must ensure that a copy of the approved Site Management Plan, including any approved amendments, is kept on-site at all times that activities authorised by this consent are being undertaken and the on-site copy of the Site Management Plan shall be updated within 5 working days of any amendments being approved.

### Conceptual Site Closure Plan

8. The consent holder shall rehabilitate all disturbed land. To this end, the consent holder shall develop a **Conceptual Site Closure Plan**. The Conceptual Site Closure Plan shall be provided to the Waikato Regional Council by within two months of the consents being granted for review and approval - acting in a technical certification capacity. The consent holder shall review and update the plan every five years and within 6 months of any decision to cease quarrying at the site. The revised Conceptual Site Closure Plan shall be forwarded for review and approval by the Waikato Regional Council, acting in a technical certification capacity. As a minimum, the Conceptual Site Closure Plan shall address the following:

- a) Future landforms following all quarrying activities at the site;
- b) Future groundcover following all quarrying activities at the site;
- c) Reporting procedures; and,
- d) Review procedures.

### Site Rehabilitation Plan

9. The consent holder shall develop a **Site Rehabilitation Plan**. The Site Rehabilitation Plan shall be provided to the Waikato Regional Council within two months of the consents being granted for review and approval - acting in a technical certification capacity. The Site Rehabilitation Plan shall detail rehabilitation objectives, goals and success criteria to be followed in order to achieve the future landforms and groundcovers detailed within the Conceptual Site Closure Plan. The consent holder shall review and update this plan every 5 years and within 6 months of any decision to cease quarrying at the site. The revised plan shall be forwarded for review and approval by the Waikato Regional Council, acting in a technical certification capacity. As a minimum, the Site Rehabilitation Plan shall include the following:
  - a) Procedures for progressive rehabilitation;
  - b) Any specific measures to control erosion;
  - c) Procedures for pest control;
  - d) Procedures for noxious weed control;
  - e) Land and vegetation maintenance procedures;
  - f) Post closure maintenance methods and after care plans;
  - g) Approximate timeframes for landscape and rehabilitation events;
  - h) Approximate costs associated with the implementation of this plan to the stage of conceptual site closure;
  - i) Monitoring procedures; and,
  - j) Reporting and review procedures.
10. The rehabilitation of the Quarry shall be undertaken such that:
  - a) Where appropriate, and where subsoils and topsoils are available, these shall be used for rehabilitation and the land shall be managed to actively develop stable topsoil mantles generally consistent with topsoils on adjacent areas of land unaffected by quarrying.
  - b) Where practical the rehabilitated land cover is generally consistent with that on adjacent land unaffected by quarrying.
  - c) The quality of the water discharging from the rehabilitated land is consistent with that discharging from adjacent catchments unaffected by quarrying.
11. The rehabilitation of the quarry shall be undertaken in accordance with the Site Rehabilitation Plan required pursuant to condition 30 of this consent and shall be implemented under the supervision of persons with appropriate restoration or rehabilitation experience.
12. The discharge of untreated surface runoff from rehabilitated land and into surface waters shall only occur after written approval has been obtained from the Waikato Regional Council acting in a technical certification capacity. In this respect the main issues which will be considered by the Waikato Regional Council include:
  - a) The quality of runoff from the rehabilitated land;

- b) the quality of runoff from surrounding land under a similar landuse;
- c) the quality of the receiving water;
- d) the potential effects of increased flow within the receiving water course;
- e) intended on-going land management practices; and,
- f) the provision of any ongoing monitoring programme.

## Dust

13. The consent holder shall operate mining and associated processes and other operations in such a manner that the emission of dust, smoke and odours are reduced to a practicable minimum, in accordance with at least the following measures.

- a) The use of water carts or sprays to suppress dust from coal extraction and handling, topsoil and overburden removal, handling and storage, and from site access roads, haul roads and other frequently trafficked areas, on an as required basis;
- b) The revegetation of disturbed land which is currently not being worked;
- c) The regrassing of topsoil stockpiles;
- d) Surface remediation of the OPA and any bunds to promote vegetation cover as soon as possible after working areas are completed
- e) Where practical, locating topsoil stockpiles where they provide wind protection for exposed/excavated areas;
- f) Restricting vehicle speeds on dry days and during periods of strong wind
- g) The installation of a truck wash near the site exit, and construction and maintenance of a sealed section of road between it and the public road; and
- h) Covering or dampening of loads on vehicles leaving the quarry which could create a dust nuisance.
- i) Use of fixed sprinkler systems for dust control on and around the site offices and coal stockpiles

14. The consent holder shall ensure that no particulate matter resulting from activities authorised by this resource consent causes an objectionable or offensive effect beyond the boundary of the site being that land described as: CT NA2D/412: Allot 22 PSH of Mangatawhiri , Allot 139 and 140 PSH “ Allot 161 and 163 PSH “.; CT NA2D/497: Allot 162 PSH “; CT NA2D/961 Allot 164 PSH “; CT NA423/102 Allot 159 and 160 PSH of Mangatawhiri; CT NA577/25 Allot 23, 24, 26, 130, 132, 133 Sbrn Sec 1 PSH of Mangatawhiri.

Note: For the purpose of condition 3 of this resource condition, the Waikato Regional Council will consider an effect that is objectionable or offensive to have occurred if any appropriately experienced officer of the Waikato Regional Council deems it so after having regard to:

- a) The frequency, intensity, duration, amount, effect and location of the suspended or particulate matter; and/or



- b) receipt of complaints from neighbours or the public: or
  - c) relevant written advice or a report from an Environmental Health Officer of a territorial authority or health authority.
15. Should an emission of particulate matter occur that has an objectionable or offensive effect, the consent holder shall inform the Waikato Regional Council within 24 hours of the incident and provide a written report to the Waikato Regional Council within five days of being notified of the incident. The report shall specify:
- a) the cause or likely cause of the event and any factors that influenced its severity;
  - b) the nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and
  - c) the steps to be taken in future to prevent recurrence of similar events.
16. The discharge shall not significantly impair visibility beyond the boundary of the land described in condition 14 above

### **Dust Management Plan**

17. The consent holder shall provide the Waikato Regional Council with a Dust Management Plan within 20 working days from the commencement of the consents. This Plan shall be submitted to the Waikato Regional Council for its approval to ensure compliance with conditions of this consent. The aim of the Plan shall be to minimise any potential dust nuisance effects beyond the boundary of the property and shall address, but not necessarily be limited to, the following matters:
- a) Procedures for undertaking a daily site inspection, including summarising the outcome of the inspection in a daily environment diary. This could also include but is not limited to:
    - i. Operation of watercart;
    - ii. Any dust mitigation implemented; and
    - iii. Any exceedance of dust monitoring alert levels and the result of any investigations in to the causes of the exceedance.
  - b) Procedures that will be adopted to ensure that fugitive dust emissions are minimised from the roadways, working areas and stockpiles, including wind speed triggers that shall initiate specific mitigation measures;
  - c) Details of the dust mitigation measures to be used on the site, including both fixed and temporary systems;
  - d) Identification of roles and positions of responsibility, including responsibility for ensuring the effective application of dust control measures identified in b) and c) above;
  - e) Provision and maintenance of 20 kph speed limit signs on all unsealed access roads;

- f) Total Suspended Particulates (“TSP”) or PM<sub>10</sub> particulate monitoring locations, alert levels and trigger levels and actions;
  - g) Details of how the nett TSP concentrations will be calculated.
  - h) Maintenance procedures for the monitoring equipment and weather station;
  - i) Shelterbelts or windbreak fences to minimise dust issues for neighbouring dwellings.
  - j) Reporting procedures;
  - k) Dust Management Plan review procedures;
  - l) Complaint receipt and response procedures.
18. The Dust Management Plan required by condition 17 shall be certified in writing by the Waikato Regional Council acting in a technical certification capacity prior to any works authorised by this consent commencing.
19. The consent holder shall undertake all works within the site in accordance with the certified Dust Management Plan. Any subsequent changes to the Dust Management Plan shall only be made with the written approval of the Waikato Regional Council, acting in a technical certification capacity and prior to the implementation of any changes proposed.
20. The consent holder shall ensure that a copy of the certified Dust Management Plan, including any approved amendments, is kept onsite and this copy is updated within 5 working days of any amendments being approved. The Dust Management Plan shall be produced without unreasonable delay upon request from a servant or agent of the Waikato Regional Council.

### **Monitoring and Reporting**

21. Within two months of commencement of this consent, the consent holder shall install, operate, and maintain continuous dust monitoring equipment for Total Suspended Particulates (TSP) or PM<sub>10</sub> particulate. The methodology, number location and of the monitors shall be agreed with the Waikato Regional Council acting in a technical certification capacity and in accordance with the approved Dust Management Plan pursuant to condition 17 of this consent. Monitoring shall be carried out for a minimum period of two years at each location, after which time the methodology, frequency and location may be reviewed by the Waikato Regional Council.
22. The monitoring equipment shall be fitted with an alarm system linked to a site office, with the alarm set at a ‘trigger level’ approved in writing by the Waikato Regional Council requiring immediate action to be taken as necessary to reduce site dust emissions from the site.
23. Within two months of the commencement of this consent, the consent holder shall install and maintain equipment onsite that accurately monitors and records wind speed and direction at a location that will record wind patterns that are representative of the site environs.. The wind speed and direction sensors shall have minimum stall and start speeds of 0.5 metres per second. The meteorological station shall be serviced and maintained at least annually and in accordance with the

manufacturer's instructions. A log shall be maintained of the meteorological data recorded under this condition. The log shall be made available to the Waikato Regional Council on request.

24. Within two months of the commencement of this consent, the consent holder shall install and maintain a rain gauge onsite and shall record rainfall data on a daily basis. The consent holder shall keep accurate records of daily rainfall data.
25. The consent holder shall record the following in a daily log
  - a) Any dust control equipment malfunctions and any remedial action(s) taken;
  - b) Any visible emission of dust and the source;
  - c) The frequency of watercart use and the volume of water applied;
  - d) The volume of water used for dust suppression other than watercart usage; and
  - e) The date and signature of the person entering the information.
26. A summary of all the information recorded shall be submitted to the Waikato Regional Council in the Annual Monitoring Report As required by condition 45 of Schedule 1 General Conditions. Records shall be made available to the Waikato Regional Council within 10 working days upon request.

#### **Targeted Dust Management Measures**

27. The consent holder shall cease excavation and overburden placement activities within 400 metres of dwelling locations immediately north of the mine when the wind is blowing from the south and the wind speeds exceed 10 metres per second, as verified by the sites weather monitoring station
28. The consent holder must ensure that overburden placement, rehabilitation activities and the spreading of topsoil is avoided, within 400 metres of dwelling locations east and northeast of the OPA when the wind is blowing from the direction of the OPA towards those properties and wind speeds exceed 10 metres per second, as verified by the sites weather monitoring station.
29. The consent holder shall maintain 20 kph maximum speed signs along the access roads and ensure that these vehicle speed restrictions are complied with at all times.
30. Rehabilitation and re-vegetation of the site shall be conducted as soon as practicable, to minimise dust emissions.

#### **Other Measures**

31. The consent holder shall be solely responsible for maintaining on-site vehicles in good mechanical order so as to minimise nuisance exhaust emissions.
32. The consent holder shall undertake on-going consultation with potentially affected residents, in accordance with the Dust Management Plan required pursuant to condition 17 of this consent to ensure any reasonable concerns are addressed
33. If so required by the Waikato Regional Council, the consent holder shall carry out immediate sealing of any problematic dust generating surfaces within the site using hydro-seed/hydro-mulch, polymer soil stabilisers or a similar dust control product to provide instant remediation of dust effects to the satisfaction of the Waikato Regional Council.

34. The consent holder shall ensure that an adequate supply of water for dust control and an effective means for applying that quantity of water, is available at all times during construction, and until such time as the site is fully stabilised unless otherwise agreed in writing with the Waikato Regional Council

### **Ecological Management Plan**

35. The consent holder shall develop a fully detailed **Ecological Management and Mitigation Plan** (EMMP) to remedy, mitigate and environmentally compensate or offset for all ecological effects of the quarrying and associated activities with the intent of achieving net improvement and betterment of the existing environment. The EMMP objectives, among other matters, are to:

- c) Minimise wildlife disturbance and water contamination arising from the operation of the quarry and associated activities;
- d) Provide for the restoration, revegetation, enhancement and/or protection of indigenous forest, wetland and stream habitat to remedy, mitigate and environmentally compensate or offset for the habitat removed or adversely affected resulting from the quarry activities.

36. Prior to submitting the EMP required in accordance with condition 25, or undertaking a review of, or amending the EMP, the consent holder shall:

- a) Forward to the relevant key stakeholders (i.e. Fish & Game NZ, Waikato Regional Council and relevant Iwi ) a draft copy of the EMMP (or draft changes to the EMMP) requesting their comments in writing within 10 working days;
- b) Provide at least 10 working days notice of a meeting time to the stakeholders who have commented on the EMMP in which they can meet together with the consent holder (either together or separately) to discuss their comments;
- c) Consider modifying the EMMP in relation to any comments raised by the stakeholders listed in part (a) of this condition. Where the consent holder determines that some or part of any comments provided by any stakeholder listed in part (a) of this condition should not result in a modification to the EMMP then commentary justifying this decision shall be provided to the Waikato Regional Council when the EMMP is submitted.

37. The ecological mitigation measures addressed in the EMMP shall be prepared by a suitably qualified and experienced ecologist(s) and shall be based on the remediation, mitigation, and environmental compensation or offset measures documented in the application and further technical reviews.

Without limiting the above, the ecological remediation, mitigation, and environmental compensation or offset measures shall specifically include the following:

- a) Restoration and enhancement of a minimum (indigenous re-vegetation equivalent):
  - i. Planting of native species to form the 4.56ha ecological corridor (and any additional planting to offset historic removal of indigenous vegetation)
  - ii. Planting with native species of 10 m either side of the Waipunga Stream
  - ii. The riparian plantings shall be at least 930 linear metres of stream;
  - iii. Additional buffer planting around wetlands of at least 5 metres to those stipulated in the Ecological Management Plan submitted with the application

- b) The wetland enhancement plan
- c) Bat Management Plan, including the installation of 25 Kent style bat boxes with predator exclusion bands. To be installed at least 5 m above the ground and on trees located at the forest edge or on a linear feature. If bats are found to be present, then the Bat Management Plan (BMP) will need to be updated to ensure that suitable mitigation is provided.
- d) Lizard Management Plan, including the installation of minimum 5 lizard log piles within the northern corridor.
- e) Fish Management Plan which shall include details of the measures to be used to avoid and minimise adverse effects on aquatic habitats and biota but not limited to:
  - i. Measures to minimise disturbance and sedimentation in habitats known to support “Threatened” and “At Risk” freshwater fauna,
  - ii. Measures to capture and relocate indigenous fish from stream to be diverted;
  - iii. Measures to minimise potential for indigenous fish
  - iv. Measures to salvage and translocate fish in the stream to be diverted

38. The ecological mitigation measures identified in the certified EMMP shall be implemented:

- a) As soon as practicable within any area of ecological habitat values within the site; or
- b) As soon as areas practicable during the first planting season after the consent is granted
- c) Generally in accordance with the recommendations in the report Ecological Review - McPherson Quarry Ecological Impact Assessment (EcIA) and Ecological Management Plan (EMP), dated 31 January 2020, prepared by AECOM, WRC doc 15756391.

#### **Habitat Monitoring Plan**

39. The Consent Holder shall provide a Habitat Monitoring Plan to determine if physical habitat values that develop in new or restored channels, wetland and mitigation areas are similar or better than those present in the original channel including:

- a) Methods for pre and post works monitoring of aquatic stream habitat for a minimum of 3 years;
- b) Identification of suitable sampling sites and sampling regimes.
- c) Matauranga Maori Monitoring

40. Each year for a minimum of five years, and every fifth year thereafter after the consent is granted the consent holder shall prepare an Ecological Mitigation Monitoring Report which outlines the details of any ecological mitigation and associated monitoring works required under the EMMP which have been undertaken within the preceding 12 month period. The plan shall include, but will not be limited to, the following items:

- a) Details of any planting or plant maintenance works including the outcomes of any maintenance inspections of established plantings;
- b) Details and outcomes of any aquatic monitoring;
- c) Details and outcomes of any plant or animal pest control works including any follow up monitoring of pest

The monitoring report shall be forwarded to the Resource Use Directorate of WRC by 31 July each year for the first 5 years and by the same date every fifth year thereafter.

41. If Kauri is identified within 50 metres, of the future overburden stripping area, a vehicle and equipment hygiene procedure shall be adopted including the following:

- a) Define the individual kauri contamination zones comprising either individual kauri trees or kauri management stands that will be affected by the land disturbance,
- b) Divert overland flows away from the contamination zone,
- c) Establish entry and exit routes from each kauri contamination zone,
- d) Establish the on the ground infrastructure necessary to ensure that all vehicles and equipment are cleaned to be free of soil and organic material, or changed for clean gear before moving into, out of, or between kauri contamination zones,
- e) Use inspection and cleaning checklists for each kauri contamination zone and for all equipment and personnel, and retain these records on-site for Council inspection, and
- f) Soil and organic material retrieved from cleaned vehicles and equipment must be either retained within the kauri contamination zone from which it originated, or else retained within the Whangapoua Quarry site.

**Advice Note:** *A kauri management stand is a group of kauri where the kauri contamination zones overlap and is treated as one kauri contamination zone.*

42. Soil and organic material stripped from kauri contamination zones must be either retained within the kauri contamination zone from which it originated, or else retained within the quarry site.

### **Machinery**

43. The consent holder shall ensure that all machinery used in the exercising of this consent is cleaned prior to being transported to the site to ensure that all seed and/or plant matter has being removed and documented in accordance with the National Pest Control Agencies A series, best practice (Code A16) guidelines, available to download from <https://waikatoregion.govt.nz/assets/WRC/Services/plant-and-animal-pests/Keepitclean.pdf>.

### **Accidental Discovery**

44. In the event of any archaeological site or koiwi being uncovered during the exercise of this consent, activities in the vicinity of the discovery shall cease and the Waikato Regional Council and Heritage New Zealand shall be notified as soon as practicable and within 48 hours of a discovery. The consent holder shall consult with the relevant iwi/hapū and Heritage New Zealand, and shall not recommence works in the area of the discovery until the relevant Heritage New Zealand approvals or other approvals to damage, destroy or modify such sites have been obtained where necessary.

Works may recommence with the written approval of the Waikato Regional Council. Such approval shall only be given after the Council has considered:

- a) Tāngata Whenua interests and values;
- b) Protocols agreed upon by Tāngata Whenua and the consent holder;
- c) The consent holders interests;
- d) Any Heritage New Zealand authorisations; and,
- e) Any archaeological or scientific evidence.

### **Annual Report**

45. The consent holder shall provide to the Resource Use Group of the Waikato Regional Council a report by March each year that any of the consents listed at the top of this Schedule are current. As a minimum this report shall include the following:

- a) overburden stripping undertaken during the preceding 12 months and overburden stripping proposed to be carried out during the following 12 months;
- b) any water quality data collected in relation to resource consent AUTH139828.05.01;
- c) all daily rainfall records;
- d) all daily and annual water take volumes;
- e) the cleanfill volumes and sampling results collected
- f) a compliance audit of all consent conditions;
- g) any reasons for non-compliance or difficulties in achieving compliance with all consent conditions;
- h) recommendations on alterations to monitoring required by consent conditions; and,
- i) any other issues considered important by the consent holder.

### **Bond**

46. Within 12 months of the commencement of this consent the Consent Holder shall provide and maintain, or shall have a third party provide and maintain, a bond in favour of the Consent Authority to enable:

- a) Rehabilitation (including contouring, drainage, revegetation,) of the quarry site and overburden areas to a standard such that the activities and works authorised by this consent no longer require resource consent;
- b) Operation and maintenance of treatment systems on the site to ensure that discharges meet the resource consent requirements while rehabilitation on the site is being completed; and,

- c) Compliance with all the conditions of this consent related to site rehabilitation and site closure.

47. The quantum of the bond shall be sufficient to cover:

- a) The estimated costs (including any contingency necessary) of the activities outlined in condition 46; and,
- b) Any further sum which the Consent Authority consider necessary for monitoring any adverse effect on the environment that may arise from the site including monitoring anything which is done to avoid, remedy, or mitigate an adverse effect.

48. The bond shall be in a form approved by the Consent Authority and shall, subject to these conditions, be on the terms and conditions required by the Consent Authority.

49. Unless the bond is a cash bond, the performance of all the conditions of the bond shall be guaranteed by a guarantor acceptable to the Consent Authority. The guarantor shall bind itself to pay for the carrying out and completion of any condition of the bond in the event of any default of the consent holder, or any occurrence of any adverse environmental effect requiring remedy.

50. The amount of the bond shall be fixed within 12 months of commencement of this consent and every third anniversary thereafter by the Consent Authority. The amount of the bond shall be advised in writing to the consent holder at least one month prior to the review date.

51. Should the Consent Holder not agree with the amount of the bond fixed by the Consent Authority then the matter shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996. Arbitration shall be commenced by written notice by the consent holder to the Consent Authority advising that the amount of the bond is disputed, such notice to be given by the Consent Holder within two weeks of notification of the amount of the bond. If the parties cannot agree upon an arbitrator within a week of receiving the notice from the consent holder, then an arbitrator shall be appointed by the Chief Executive Officer of the Institute of Professional Engineers of New Zealand. Such arbitrator shall give an award in writing within 30 days after his or her appointment, unless the consent holder and the Consent Authority agree that time shall be extended. The parties shall bear their own costs in connection with the arbitration. In all other respects, the provisions of the Arbitration Act 1996 shall apply. Pending the outcome of that arbitration, the existing bond shall continue in force. That sum shall be adjusted in accordance with the arbitration determination.

52. If the amount of the bond to be provided by the Consent Holder is greater than the sum secured by the current bond, then within one month of the consent holder being given written notice of the new amount to be secured by the bond, the Consent Holder and the guarantor shall execute and lodge with the Consent Authority a variation of the existing bond or a new bond for the amount fixed on review by the Consent Authority. Activities authorised by the consent shall not be undertaken if the variation of the existing bond or new bond is not provided in accordance with this condition.

53. The bond may be varied, cancelled, or renewed at any time by agreement between the Consent Holder and the Consent Authority.



54. The bond shall be released on completion of Closure of the site.

**Advice Note:** *Completion of Closure means when resource consents for the site are no longer required. The Consent Holder shall pay all costs relating to the bond.*

#### **Administration**

55. The consent holder shall pay to the Waikato Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act.

#### **Review**

56. At any time during 2023, and during every third year thereafter for the term of the consent, the Waikato Regional Council may, following service of notice on the consent holder, commence a review of the conditions of this resource consent pursuant to section 128(1) of the Resource Management Act 1991 for the following purposes:

- a) To review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on the environment from the exercise of this resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; or,
- b) To review the adequacy of and the necessity for monitoring undertaken by the Consent Holder and specifically to review the method and frequency of record collection for the purposes of determining the most appropriate method and frequency; or,
- c) If necessary and appropriate, to require the holder of this resource consent to adopt the best practicable option to remove or reduce adverse effects on the environment.

# APPENDIX 1

Ecological Review - McPherson Quarry Ecological Impact Assessment (EcIA) and Ecological Management Plan (EMP), dated 31 January 2020, prepared by AECOM, WRC doc 15756391.

AECOM New Zealand Limited	+64 9 967 9200	tel
8 Mahuhu Crescent	+64 9 967 9201	fax
Auckland 1010		
PO Box 4241		
Auckland 1140 New Zealand		
www.aecom.com		

31 January 2020

Emma Cowan  
Resource Officer  
Environment Canterbury

Dear Emma

Ecological Review - McPherson Quarry Ecological Impact Assessment (EcIA) and Ecological Management Plan (EMP) 1.0 Introduction

A review of ecological documentation submitted by McPherson Quarry 'the applicant' to Waikato Regional Council (WRC) was completed in November 2018. This documentation included:

Ecology New Zealand (2018) Ecological Impact Assessment (EcIA) - McPherson Quarry  
WSP-Opus (2018) McPherson Quarry Vegetation Assessment Report.

The review identified the need for further information and the following documentation illustrates the exchange of information;

AECOM (2019) McPherson Quarry - Ecological Review.

Ecology New Zealand (2019) Additional information provided in response to the Section 92 request.

AECOM (2019) Response to additional information provided in response to the Section 92 request.

To address the information gaps the applicant has submitted the following documentation for review;

Ecology New Zealand (2019) Ecological Impact Assessment – McPherson Quarry V4.

Ecology New Zealand (2019) Ecological Management Plan (EMP).

## 2.0 Review of Ecological Impact Assessment

The EcIA identified that the quarry expansion would have the following ecological impacts and consequently ecological effects, without mitigation;

The loss of 2.45 ha of kanuka dominated forest which is designated as a Significant Natural Area (SNA) – **Low effect.**

The loss of 311 m of permanent stream (Tributary 1) – **Low effect.**

The loss of three ponds (Pond 1, 2 and 3 - 0.99 ha) – **Low effect.**

The loss of habitat suitable for at risk bird species recorded on site – New Zealand Dabchick ('At

Risk – recovering) and Black / little black shag ('At Risk – Naturally uncommon') – **Not assessed** in Section 4 – Section 5 states effects on terrestrial fauna will be low.

The loss of habitat suitable for long-tailed bats (Threatened -Nationally Critical) recorded on site – **Not assessed** in Section 4 – Section 5 states effects on terrestrial fauna will be low.

The potential loss of indigenous lizard habitat (long grassland and the kanuka dominated forest). However, it is noted that after a detailed survey that indigenous lizards were not recorded on the site – **Not assessed** in Section 4 – Section 5 states effects on terrestrial fauna will be low.

There is the potential for indirect impacts on Waipunga Stream (Stream 1) through sediment discharge, which discharges into the Mangatowhiri River and then the Waikato River – **Very high effect**.

The loss of habitat supporting longfin eel ('At Risk – Declining') and the potential for indirect impacts on inanga ('At Risk – Declining') was recorded in Waipunga Stream (Stream 1) – **Not assessed**.

The EclA recommends the following mitigation;

Nesting birds – avoidance through timing of vegetation clearance works or nesting bird checks prior to clearance.

Lizards – resurvey prior to clearance of the kanuka dominated forest.

Bat – resurvey prior to vegetation clearance and if bats are found to be present undertake appropriate preclearance checks of trees.

Terrestrial habitat – plant an ecological corridor between the two SNAs to the north of the quarry. Deliver pest control in this habitat.

Freshwater habitat – creation of wetlands to compensate for the loss of open water (ponds) (1:0.5 ratio).

Fish – salvage of fish from the ponds and Tributary 1 prior to and during dewatering.

### 3.0 Review of the Ecological Management Plan

The EMP presents the proposals for terrestrial and freshwater habitat restoration in detail. It is considered that this document would provide sufficient guidance to the contractors to deliver the proposed restoration and for WRC to check compliance.

### 4.0 Recommendations

The EclA indicates that the applicant has sought to reduce the impacts that the quarry expansion would have on the SNA, albeit, that the loss of SNA habitat will still occur. It is considered that the magnitude of effect on terrestrial habitats and associated fauna (bats, birds) is greater than the EclA indicates – low ecological effect. However, it is considered that the habitat linkage that will be provided by the northern corridor could provide ecological benefits that are not currently present on site (connectivity), if delivered appropriately.

It is recommended that the conditions on the resource consent are prescriptive in relation to when the northern corridor is delivered. It is recommended that the conditions stipulate that the applicant starts planting the northern corridor a year prior to vegetation removal taking place. The condition should also stipulate that the planting of the corridor (4.16 ha) cannot take more than three consecutive planting seasons.

The conditions should stipulate that the applicant would need to make contact with QEII at the start of the planting and that the northern corridor must be placed under a covenant prior to planting being completed. The responsibility for the maintenance of the planting will remain with the applicant until 75% canopy closure and 90% survival rate has been achieved. The responsibility for pest control will remain with the applicant for the lifespan of the quarry as stipulated in the EMP.

It is recommended that it is stipulated that the applicant must use plant guards to protect the plantings (northern corridor and riparian restoration) as it is not considered appropriate that indigenous bird species (pukeko) should be killed when there is an alternative management approach.

It is recommended that the planting mix for the terrestrial habitat is developed further than that presented in the EMP in Table 8. It is understood that the mix is focused on those species that will ensure rapid canopy closure and there is available seed source in the local area. However, the mix should include a greater diversity of tree species. The mix is focused on low growing species that are generally not long living species. The conditions should state that the planting mix will require prior approval from WRC.

The EMP indicated that the northern corridor should be fenced. The conditions should stipulate that the planting must (will) be fenced in accordance with the guidelines stipulated in the EMP prior to any plantings commencing on site.

The EMP indicates two areas of SEA which have been avoided by Project. During the walkover completed by AECOM it was observed that these habitats have been degraded as they are unfenced and stock have been grazing through these areas. It is recommended that the conditions require that these areas are fenced and restored. The approach to restoration in these areas should require approval from WRC prior to works commencing. The restoration of these habitats should start one year prior to vegetation removal within the SEA and should take no longer than three years to complete.

The stream offsetting proposed is to mitigate for the loss of stream length caused when 311 m of permanent stream will be reclaimed and to manage the risks of indirect impacts to Waipunga Stream.

Although stream loss should be avoided wherever practical, it is considered that if the stream restoration of Waipunga Stream was implemented appropriately, suitable Erosion and Sediment Control was in place and the discharge of water from the site was managed appropriately e.g. volumes, that overall the ecological outcome could be positive as Waipunga Stream.

The EclA proposes that 7.5 m either side of Waipunga Stream is replanted with native riparian species for 930 m.

It is recommended that the conditions stipulate that the riparian planting is to be a minimum of 10m either side of the stream (total width 20 m)<sup>1</sup>. This is the minimum width required to ensure that stream function is restored. This is particularly relevant to the eastern bank of the stream, where it is proposed that material / overburden will be stored.

It is recommended that the planting mix for the riparian margins is developed further than that presented in the EMP in Table 10. It is understood that the mix is focused on those species that will ensure rapid canopy closure. However, the objective of the planting is to provide instream shade in the long term, therefore, the species mix at the top of the embankment needs to be developed to include more tall tree species. The conditions should state that the planting mix will require prior approval from WRC.

---

<sup>1</sup> Becker, K., Blackford, C., Bowden, D., Jamieson, A., Lovegrove, T., Maxted, J., Viljevac, Z. (2001). Riparian zone management – Strategy guideline, planting guide. Auckland Regional Council Technical Publication TP148.

The EMP indicates that there is a section of stream where bank collapse means that plants will be set back from the stream. It is recommended that the conditions state that in areas of erosion or bank collapse the bank should be reprofiled to ensure that the streams natural function is restored on completion of the planting

It is considered that the proposed wetlands could provide greater ecological value to the ponds currently on site if delivered as specified.

However, it is recommended that the conditions stipulate that there will be additional buffer planting around these features, compared to that specified in the EMP. The buffer (>5m) should include taller tree species and be placed between the wetland and the working area. The objective of the plantings would be to increase the potential for species such as New Zealand dabchick to visit them. It is considered that without this screening it is unlikely that these species would be visit.

It is recommended that the conditions also specify the inclusion of the following habitat enhancement measures for bats and lizards.

The installation of 25 Kent style bat boxes with predator exclusion bands. To be installed at least 5 m above the ground and on trees located at the forest edge or on a linear feature. If bats are found to be present, then the Bat Management Plan (BMP) will need to be updated to ensure that suitable mitigation is provided.

Installation of lizard log piles within the northern corridor (minimum of 5).

The following management plans will be produced by the applicant and approved by WRC;

Bat Management Plan

Fish Management Plan

Lizard Management Plan

Erosion and Sediment Control Plan

The Ecological Management Plan should be updated to include the recommendations detailed above.

## 5.0 Conclusion

It is considered that the implementation of the mitigation measures proposed could deliver ecological benefits that exceed those currently on site. However, this is reliant on the mitigation being delivered well and adopting the additional recommendations detailed above.

If you have any questions in relation to my comments please do not hesitate to contact me. Yours faithfully



Lyndsey Smith

Principal Environmental Scientist - Ecologist [lyndsey.smith@aecom.com](mailto:lyndsey.smith@aecom.com)

Direct Dial: +6499679146 Direct

Fax: +6499679201

The AECOM Further Review- S42 Ecological Input dated 5 November 2020 WRC  
DOC#17572309



Auckland 1010

PO Box 4241

Auckland 1140 New Zealand [www.aecom.com](http://www.aecom.com)

12 October 2020

Victoria Majoor

Senior Planner

Waikato District Council

Dear Victoria

Specialist Ecological Input - Consideration of Ecological Submissions in relation to McPherson Quarry  
Ecological Impact Assessment (EclA) and Ecological Management Plan (EMP) 1.0 Introduction

This report considers submissions received by the Waikato District Council for an application from McPherson Resource Limited to expand and continue to operate the mineral extraction activities at the McPherson Quarry with associated overburden removal and placement, deposition of cleanfill and vegetation ('the Proposal'). The historical removal of a portion the Significant Natural Area (SNA) to the east of the existing operations have not been included in this statement. This matter will be redressed by Council, as part of the monitoring and compliance process.

## 2.0 Scope

The scope of this statement includes:

Review and address the ecological submissions received;

Based on the review, provide recommendation for the consent conditions;

Considering the provisions of the new National Policy Statement for Freshwater Management, 2020 (NPS-FM).

## 3.0 Assessment of submissions relevant to ecology

The submissions addressed in this document were grouped under the following heading:

Removal of indigenous vegetation and quantity of compensation<sup>1</sup> planting;

Timing of planting (including ecological corridor);

Stream mitigation for the removal of tributary 1 and effects on stream 1;

Operational effects on stream quality (erosion, sedimentation) and hydrology (water table);

Wetlands and open water;

Protection of Kauri trees from dieback;

Operational effects on surrounding ecological habitats from dust and noise pollution;

Operational effects on game bird and trout fishing within the catchment;

The need for robust, science-based conditions.

Table 1 in Section 4 provides a summary of references to individual submissions addressed within this statement.

---

<sup>1</sup> The term compensation has been used by the applicant and the submitters. The NZ Offset Guidelines (2014) defines offset as: “*measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and/or rehabilitated or restored, in order to achieve no net loss loss net gain of biodiversity*”. The word compensation is applied in this context throw-out this statement.

### 3.1 Removal of indigenous vegetation and quantity of compensation planting

Ecological mitigation should be calculated based on the level of planting needed to meet the same ecological value as that of the vegetation to be removed or affected. The compensation quantity should consider the representativeness (ecological health/ degree of modification) of the vegetation to be removed as well as the ecological importance of that vegetation. Additional consideration should be given the “lag period” or the time it will take for compensation planting to provide the same ecological value as the vegetation that has been removed.

The value of native vegetation impacted by the Proposal was assessed as **High** for Kanukadominated forest. The proposed quarry expansion will result in the loss of 2.45 ha of Kanuka dominated forest, of which 2.08 ha is designated as an SNA<sup>2</sup>. The overall ecological effect of this loss is assessed as **Low**. The main reasons likely informing this level of effect include:

The relevant areas that meet the significance criteria is relatively small (5% of the overall proposed expansion area);

Kanuka-dominated forest vegetation units are identified as Least Concern<sup>3</sup>;

The significance classification is mainly informed by the position of the native vegetation in relation to Mt William Walkway to the west and the Hunua Ranges to the east and the potential to support species of conservation significance (At Risk and Threatened species). The baseline species assessment determined the residual capacity of the native vegetation to support species of conservation concern is limited and this also influences the connectivity function (position relative to other ecological nodes);

The ecological health of the native vegetation associated with the proposed expansion is affected by exotic species, livestock damage, pest species and fragmentation. The ability of the native vegetation to provide its ecological services are impaired. The applicants EMMP aims to address these impediments.

The applicant provided the following management measures to mitigate the effects of native vegetation removal:

---

<sup>2</sup> EclA report, Section 4.1.1 page 26

<sup>3</sup> Singers N, Osborne B, Lovegrove T, Jamieson A, Boow J, Sawyer J, Hill K, Andrews J, Hill S, Webb C. 2017. Indigenous terrestrial and wetland ecosystems of Auckland. Auckland Council;

Compensation planting of 4.16 ha, at a ratio of 2:1, for the Kanuka-dominated forest (2.08 ha) to the east of the quarry;

Compensation planting of 0.37 ha, at a ratio of 1:1, for the Kanuka-dominated forest located next to the pond;

The compensation planting will extend over 4.53 ha and form an east-west ecological corridor between the two SNAs to the north of the quarry. The corridor will be fenced prior to planting, and pest control will take place. It is recognised that the successful establishment of the proposed corridor will have substantial ecological benefits, as it will reconnect native vegetation areas to the west of the quarry with the Hunua Ranges.

Considering the above, the EMMP for the loss of native vegetation is considered fit for purpose provided the following recommendations are implemented:

Planting within the corridor should start as soon as possible, but with consideration to any seasonal time constraints that may exist (also refer to Section 3.2);

Planting within the corridor should be completed as soon as possible, but should not extend over more than three consecutive planting seasons;

It is recommended that the planting mix for the terrestrial habitat is developed further than that presented in the EMMP in Table 8. It is understood that the mix is focused on those locally available species that will ensure rapid canopy closure. However, the mix should include a greater diversity of tree species. The mix is focused on low growing species that are generally not

---

long living species. The conditions should state that the planting mix will require prior approval from WRC;

Plant covers must be applied if Pukeko disturbs planting efforts;

The conditions should stipulate that the applicant would need to contact QEII at the start of the planting and that the northern corridor must be placed under a covenant prior to planting being completed.

The responsibility for the maintenance of the planting will remain with the applicant until 75% canopy closure and 90% survival rate has been achieved;

The responsibility for pest control will remain with the applicant for the lifespan of the quarry as stipulated in the EMMP.

### 3.2 Timing of planting

A concern was raised regarding the timing of planting. Following a strict interpretation of the like-for-like principle, the lag time should be as small as possible. The applicant therefore needs to demonstrate consideration to lag time and measures taken to minimise the lag period. To this end two measures have been included:

The inclusion of plant species that ensure quick reestablishment of canopy cover;

Although not stated as a deliberate intent within the EMMP, the compensation ratio used (e.g.

2:1) also assists in mitigating for the “lag” in ecological utility between planting and vegetation removal.

The significance of the lag period needs to be assessed against the loss of ecological functions within the areas where native vegetation will be removed. As discussed in Section 3.1, the significance of the vegetation to be removed relates to its relative position between other ecological nodes and the

potential presence of species of conservation significance. The relevance of the former is limited due to the extent of existing fragmentation, while the latter is limited based in the findings of the baseline assessment. With consideration to the residual functions and the potential implication of a protracted lag period the following is recommended to be included within the consent conditions:

Planting must commence in the next planting season from when consent is given; and

The northern corridor is planted in no more than three planting seasons.

### 3.3 Stream mitigation for the removal of Tributary 1 and effects on Stream 1

Some submissions expressed concern about the mitigation for the loss of 311 m of permanent stream associated with Tributary 1 and the downstream effects on the receiving Stream 1 (Waipunga). Submissions include comments on: (1) the direct loss of 311 m permanent stream habitat, (2) hydrological changes (both surface and groundwater) and (3) sediment and potential contamination from the cleanfill material.

The EclA assessed Tributary 1 as a degraded system of **Low** ecological value. Although the tributary retains some connectivity to its upper catchment, its instream and riparian habitat reflect a loss in ecological health. Therefore, the ability of the stream to provide its ecological goods and services are impaired. The loss of ecosystem health may be attributed to the surrounding land use, livestock access, exotic species and lack of indigenous vegetation. A single valley head pond (higher up in the catchment) also contributes to some hydrological modification of the stream. The trajectory of ecological degradation is expected to be negative given the status quo, as the causal drivers will remain in place over the medium to long term (if the proposed activities do not occur). Two important features associated with Tributary 1 include a likely NPS FM (2020)<sup>4</sup> natural wetland (NPS wetland) to the north (from the wooded footslopes) and a likely NPS wetland to the south (prior to the confluence with the Waipunga Stream).

The EclA determined a **High** level of effect on Tributary 1 due to the loss of the permanent stream. A considerable portion of the catchment of the northern wetland will be lost during

---

Stage 3 expansion and may therefore impact on the hydrological maintenance of this wetland. Similarly, the hydrological pathway maintaining the southern wetland will be impacted by the reclamation of Tributary 1. The ecological value (**Low**) of Tributary 1 and the anticipated level of effect (**High**) informed the restoration of 930 m reach of receiving Waipunga Stream. Restoration will include planting, fencing and pest control. The Waipunga Stream is assessed as a **High Value** permanent stream, but with some loss in ecosystem health (due to stock access, exotic species, bank erosion and riparian fragmentation etc.). The trajectory of ecological change is likely to be negative given the current land use and drivers of ecological change.

The proposed mitigation for the loss of Tributary 1 within a reach of the Waipunga Stream is based on improving the ecological health of the Waipunga Stream and averting the potential future loss by removing some of the causes of ecological degradation. Based on this the proposed stream mitigation is considered fit for purpose provided the following: a. The proposed restoration on the Waipunga Stream is completed effectively;

Natural wetlands will be hydrologically maintained and will not be affected;

Erosion and sediment control will be implemented effectively;

---

<sup>4</sup> National Policy Statement for Freshwater Management, 2020.

Hydrological modification that may result due to changes in runoff characteristics, groundwater levels and water management are managed in such a way as to not cause a loss in ecological health of the Waipunga Stream and the downstream environment;

To this end the following additional recommendations are provided:

The proposed 7.5 m planting either side of Waipunga Stream is increased to 10 m on either side of the stream banks<sup>5</sup>. This is considered to be the minimum width required to ensure that stream function is restored. This is particularly relevant to the eastern bank of the stream, where it is proposed that material / overburden will be stored;

It is recommended that the planting mix for the riparian margins is developed further than that presented in the EMMP in Table 10. It is understood that the mix is focused on those species that will ensure rapid canopy closure. However, the objective of the planting is to provide instream shade in the long term, therefore, the species mix at the top of the embankment needs to be developed to include taller tree species. The conditions should state that the planting mix will require prior approval from WRC;

The EMMP indicates that there is a section of stream where bank collapse means that plants will be set back from the stream. It is recommended that the conditions state that in areas of erosion or bank collapse the bank should be reprofiled to ensure that the streams natural function is restored on completion of the planting.

In terms of hydrological effects to the **wider** downstream receiving environment, a basic analysis of catchment contributions show that the Waipunga Stream drains a catchment of approximately 420 ha of which Tributary 1 contributes about 12.2 ha or 3%. The Mangatawhiri River (immediately downstream of the quarry) drains a catchment of some 930 ha of which the existing and future quarry footprint represents approximately 7%. The total extent of catchment modification is therefore relatively limited, and the potential magnitude of catchment scale hydrological change is expected to be relatively low.

The hydrological effects to the **immediate** downstream environment will be localised but more pronounced. The wetland near the confluence of Tributary 1 (southern wetland) and the Waipunga Stream is likely depended on Tributary 1 for its hydrological maintenance. It is not clear how the potential effect on this wetland will be managed through the

---

implementation of the EMMP. Similarly, the northern wetland may decrease in extent due to a decrease in catchment size during Stage 3 quarry expansion. The increase in the proposed wetland extension (as part of the EMMP) to the north will further reduce the water budget for the wetland in the south and the catchment modification (specifically the reclamation of Tributary 1) will influence the hydrology of the southern wetland. It is therefore possible that impacts to both wetlands will not be avoided and are not accounted for in the EMMP.

The fitness of the EMMP to maintain existing wetlands needs to be improved. To this end, the applicant must demonstrate that impacts on wetlands will be avoided through the proposed geomorphological and stormwater management. The applicant also needs to demonstrate that the water requirements for the wetlands (and the proposed constructed wetlands) can be met under the proposed EMMP.

---

<sup>5</sup> Becker, K., Blackford, C., Bowden, D., Jamieson, A., Lovegrove, T., Maxted, J., Viljevac, Z. (2001). Riparian zone management – Strategy guideline, planting guide. Auckland Regional Council Technical Publication TP148.

An additional recommendation in this regard include: the conditions stipulate that there will be additional buffer planting around the existing and proposed wetland features. The buffer (>5m) should include taller tree species and be placed between the wetlands and the working area. The objective of the plantings would be to increase the potential for species such as New Zealand dabchick (*Poliiocephalus rufopectus*) to visit them. It is considered that without this screening it is unlikely that these species would occur.

3. The pre-mitigation effect of sediment on the receiving Waipunga Stream and downstream receiving environment was assessed as **Very High**. Operation effects due to erosion and sedimentation is discussed separately below.

#### 3.4 Operational effects on stream quality (erosion, sedimentation) and hydrology (water table)

Submissions referring to stream quality due to erosion and sedimentation are discussed below. The likely implications of hydrological changes are contextualised in Section 3.3 under point 2.

The potential for indirect impacts on Waipunga Stream (Stream 1) through sediment discharge have been assessed as **Very High** prior to mitigation. These effects also have the potential to alter instream habitat of value for native longfin eel and inanga. Erosion and sediment related risks can be managed through the implementation of erosion and sediment management plan. The scope of the ecological review did not include an erosion and sediment plan, but it is assumed that an erosion and sediment management plan will be a condition of consent (if granted). Key aspects to be included within the erosion and sediment control plan must include:

Clear guidelines on controlling the extent of vegetation and soil disturbance to the authorised extent;

Control measures must be in place prior to the onset of authorised disturbance;

Measures must be inspected at a frequency that will allow rapid response and corrective action;

Monitoring of the receiving environment must include relevant measures such as Total Suspended Solids (TSS) or appropriate proxies such as turbidity. The receiving environment must be monitored at a frequency that will allow the detection of chronic or acute sediment inputs and must include a control (upslope) location;

The ecological consequences of potential sediment exposure should be assessed against the ecological health of the receiving environment. This can be achieved through included aquatic ecological monitoring at strategically located control and test sites;

Although the potential effect of erosion and sedimentation has been assessed as **Very High**, these effects are preventable through the implementation a suitable erosion and sediment control plan.

#### 3.5 Wetlands and open water

One submission referred to effects on wetlands to the north of the quarry. This is a separate consideration from the wetlands associated with Tributary 1. The wetland indicated within the submission forms part of the headwaters of the stream to the east of the quarry activities and is upslope from the existing and proposed quarry activities. It is therefore unlikely that this wetland specific wetland be affected. However, the EcIA identified several artificial open water bodies (ponds) within the proposed footprint of the quarry. It is not clear from the EcIA how the classification of these features relates to the definition of an NPS wetland and if they indeed can be considered artificial.

It was stated that the ecological functioning and therefore the ecological value of the ponds were low. Subsequently a compensation ratio of 1:0.5 for the ponds were recommended within the EMMP. This mitigation measure includes the expansion of wetland features around the Tributary 1 NPS wetlands (refer to section 3.3, point 2). It is important that the EMMP recognises functional services associated

with the ponds and consider the provisions of the NPS FM (2020). Functional services are referred to as regulatory and supporting ecosystem services and may include flood attenuation, streamflow regulation, sediment trapping, nutrient and toxicant assimilation and erosion control. It is likely that some or all these ecosystem services are provided by the ponds and the palustrine wetland environment associated with their margins. Conversely, the retention capacity of the ponds may have negative implications for the downstream environment in terms of water availability and hydrology.

The suitability of the EMMP to compensate for the loss of the ponds should take into consideration the habitat value, functional value and potential to improve or degrade catchment hydrology as well as the provisions of the NPS FM (2020). The EclA does not outline specific consideration to the functional services of the ponds within the EMMP, but it is likely that most of these will be represented within the proposed wetland enhancement and creation plan. This notion is based on the successful implementation of the wetland compensation plan (refer to Section 3.3, point 2 for limitation regarding this plan). However, it is recommended that these features and the proposed mitigation measures be assessed in terms of the provisions of the NPS FM (2020).

### 3.6 Protection of Kauri trees from dieback

Some submissions raised a concern regarding Kauri dieback. Kauri dieback is known to be spreading in parts of the Waitākere, Hunua Ranges across the upper north Island. The EclA and EMMP did not refer to the presence of Kauri trees within the proposed footprint or enhancement areas.

Subsequent ecological reviews of the EclA and EMMP also did not specifically identified Kauri dieback as an issue. However, given the presence of Kauri trees within the surrounding landscape and the soil disturbance that will occur with the project footprint, it is considered that precautional measures must be implemented.

Kauri dieback is the result of contamination with the *Phytophthora agathidicida* pathogen. The pathogen is soil-borne and can spread via water or root to root contact. Water movement through the soil and soil disturbance by humans and animals are the main vectors for transmission.

The existing and proposed project footprint spans between Mt William and Pouraureroa Stream Bush.

The Mt William walkway is under DoC control and they currently implement dieback control measures. The native bush to the east of the quarry is connected to the Hunua Ranges of the Auckland Region where dieback is also controlled. The requirement for the control of dieback will depend on the presence of Kauri and the associated pathogen in areas to be disturbed and the likelihood that it will spread. With regards to the water flow contamination pathway, most of the area to be disturbed drains to the south and away from adjacent native bush. The likelihood of contamination through flow is therefore limited. However, soil to soil contamination is possible if contaminated soil, from areas to be disturbed, are transferred to adjacent areas where Kauri trees may occur.

Mitigation measures include hygiene stations, avoidance of soil disturbing activity within a predefined distance of the dripline of kauri trees and avoidance of soil disturbing activity within the wetter months in locations where dieback may occur. It is therefore recommended that access to native bush on either side of the proposed expansion be controlled to prevent the potential spread of dieback to these areas. Access should be restricted as far as possible and where unavoidable, control measures must include soil cleaning and sterilisation stations. Only approved disinfectants (such as Sterigene) must be used at control stations. Details regarding access and dieback should be included into the employee induction and reference should be made to available Kauri dieback resources.

### 3.7 Operational effects on surrounding ecological habitats from dust and noise pollution

Details regarding dust control measures have not been reviewed. The EcIA and EMMP also do not make specific reference to noise and dust pollution. However, it is understood that, with the increase in water allocation for dust suppression in the way proposed, all potential and actual dust effects will be managed to a standard considered appropriate by the WRC. Moreover, buffer planting will further assist in mitigating operational dust and noise impacts to the receiving environment. Operational activity will be restricted to daytime, thus reducing the potential effects on nocturnal species such as potentially occurring longtail bat.

### 3.8 Operational effects on game bird and trout fishing within the catchment

Of the 13 game birds, two upland species have been recorded within the baseline assessment. These included California quail (*Callipepla californica*) and Common pheasant (*Phasianus colifronica*). Both inhabit a wide variety of open habitats including grasslands and pastures. No detail is available of the number of individuals supported by the habitat associated with the proposed footprint, or the significance of the local population in a wider context. However, given the adaptability of these species and the large extent of alternative habitat that can be utilised it is not expected that the proposed activities will result in a meaningful impact to local quail and pheasant counts.

None of the wetland game birds have been recorded within the proposed footprint. Furthermore, the project footprint does not extend over any obvious flight paths between larger waterbodies where wetland species may commute. The proposed enhancement of existing wetlands and constructed wetlands (if constructed successfully) will provide suitable habitat for potentially occurring wetland game birds, including some of the duck species (mallards and paradise shelduck).

Potentially occurring trout fish include brown (*Salmo trutta*) and rainbow trout (*Oncorhynchus mykiss*), although neither of these fish are expected to occur in Tributary 1, they have been sampled within the Mangatawhiri River (NFFDB- NIWA 2020). The potential effect of the proposed activities on these species will depend on the potential for indirect impacts on Waipunga Stream (Stream 1) through sediment discharge, which discharges into the Mangatawhiri River and then the Waikato River (refer to Section 3.4). Therefore, the effective implementation of the erosion and sediment plan is likely to manage negative effects on trout species within the receiving environment. Flow effects are not considered pose a meaningful risk to instream habitat and biological cues for trout at a catchment scale (refer to Section 3.3, point 2).

### 3.9 The need for robust, science-based conditions

The ecological baseline assessment applied industry standard assessment methods for avifauna, bats and lizards, while similar standard approaches were applied for the aquatic ecology assessment. The terrestrial vegetation assessment could benefit from a tree count of species with a DBH exceeding 15cm. This will be particularly useful to inform the compensation quantity for the northern corridor enhancement area.

The assessment of wetlands followed an improvised qualitative approach considering aspects that are likely to indicate habitat value. These included connectivity, thermal regulation and vegetation composition. The EcIA does not outline how these aspects have been applied within the overall value assessment. Clarkson *et al.* (2003) provides a New Zealand guideline for determining wetland condition<sup>6</sup> and it is recommended that this method (or a repeatable version of it) be incorporated into the preconstruction monitoring of the natural wetlands.

---

<sup>6</sup> Clarkson BR, Sorrel BK, Reeves PN, Champion PD, Partridge TR and Clarkson BD. 2003. Handbook for the monitoring of wetland condition. Coordinated monitoring of New Zealand Wetlands. A ministry for the Environment Sustainable Management Fund Project (5105)



Given the potential risk related to erosion and sedimentation to the downstream environment, uncertainties regarding impacts on natural wetlands and the success of efforts to construct additional wetlands, it is recommended to include monitoring of the following into the EMMP:

Following the completion of a robust wetland baseline assessment, include the same wetland monitoring on an annual basis. Monitoring should be undertaken during December to February. Reoccurring monitoring efforts should take place during the same period as the initial baseline assessment;

Annual aquatic biomonitoring should be included for control and test locations on the Waipunga Stream and the Mangatawhiri River. The biomonitoring regime should at least

---

include habitat and response metrics from the baseline assessment that are sensitive to sedimentation and flow modification.

#### 4.0 Summary of submissions

Table 1 provides a summary of the ecological submissions and references to the relevant sections for this S42 report.

**Table 1: Summary of submissions relevant to the ecological review with corresponding reference**

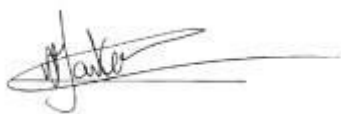
No	Reasons	Response reference
14	No consideration of effects on wetlands to the north of the quarry	Section 3.2, point 2, Section 3.5 and Section 3.9
	Impacts from quarry operation on these wetlands	Section 3.2, point 2, Section 3.5
17	Justification for removal of indigenous vegetation	Section 3.1
	Location of the proposed ecological corridor shown where stage 4 is (not subject to this application)	Section 3.1
	Compensation of 2:1 and 1:1 insufficient	Section 3.1
	Mitigation for removal of tributary 1 and effects on stream 1 inadequate	Section 3.2 and Section 3.9
19	Justification for removal of indigenous vegetation	Section 3.1
	Timing on removal of indigenous vegetation- no timeframe on removal	Section 3.2
	Timing on planting of ecological corridor	Section 3.2
21	Destruction of any indigenous vegetation.	Section 3.2
22	Destruction of any indigenous vegetation.	Section 3.2
27	Need for robust scientific conditions	Section 3.9
	Measures implemented to manage effects on Kauri dieback	Section 3.6
29	Removal of indigenous vegetation resulting in reduction in oxygen, erosion, increase noise and loss of bird habitats	Section 3.2, Section 3.4, Section 3.7 and Section 3.9
	Further destruction of indigenous vegetation	Section 3.1 and Section 3.2

	Effects of quarrying activities on habitats	Section 3.1, Section 3.2, Section 3.3 and Section 3.9
	Kauri dieback	Section 3.6
30	Removal of SNA and impacts of this removal on neighbouring sites	Section 3.1
31	Oppose any destruction of any indigenous vegetation	Section 3.1
32	Impacts on game bird and trout habitat within the catchment	Section 3.8
	Cumulative effects on downstream environments	Section 3.3, Section 3.4, Section 3.5 and Section 3.9

10

No	Reasons	Response reference
	No proffered consent conditions to determine whether effects will be avoided, remedied or mitigated	All sections
	Increase in sediment and impacts downstream	Section 3.3, Section 3.4 and Section 3.9
	Potential for contamination in waterways due to proximity of cleanfill areas to streams	Section 3.3 and Section 3.9
33	Removal of SNA setting a precedent	Section 3.1
	Timing of planting of ecological corridor	Section 3.2
	Concern that there is additional mature native trees not been considered that will be impacted	Section 3.1
	Impacts on flora and fauna from operation.	Section 3.7 and Section 3.8
35	Removal of SNA	Section 3.1 and Section 3.2
36	Removal of SNA	Section 3.1 and Section 3.2

Yours faithfully



Michiel Jonker

Principal Environmental Scientist (Ecologist) D +64 9 967 9335 C +64 27 343 1425

[michiel.jonker@aecom.com](mailto:michiel.jonker@aecom.com)

# APPENDIX 2

Bryant Environmental Peer Review of the Stage 1 ESCP, hydraulic assessment and USLE. Email of 6 December 2018 & 11 December 2018 (WRC doc # 13527948).

<b>From:</b>	landmanagement@xtra.co.nz	<b>Sent Date:</b>	11/12/2018 10:36
<b>To:</b>	'Steve Bryant'; Emma Cowan	<b>Received Date:</b>	11/12/2018 10:36
<b>CC:</b>			
<b>BCC:</b>			
<b>Subject:</b>	RE: Workbrief - Steve, McPherson Quarry		

Hi guys

Apologies for the delay in getting on to this.

I have reviewed the USLE calcs and the actual calculations are generally accurate. They have made some assumptions which you need to do with a site of this scale and timeframe of works, so it may be worthwhile revisiting the USLE calcs on a regular basis if any of these assumptions change. What the ESCP/USLE is generally lacking, though, is a discussion on the USLE results, what these mean, and how they can be used to fine tune the ESCP. They have presented calculated sediment discharge on an annual basis across the catchments, which is fine and gives an estimation of annual sediment loss, however if they presented these same results on a catchment basis they might tell more of a story of where the potential hot spots are within the site from which other tools can be used (e.g. upgrading of controls, flocculation, contour drains, progressive stabilisation etc.) to minimise sediment generation from the hot spots. They should be using the USLE to provide comparative information across the site, and then using the results to fine tune the ESCP.

SO, while the USLE provided gives some starting information, more interpretation is required from the applicant in order to best utilise the information in the formation of the ESCP.

Happy to discuss further, let me know if you need any further input from me.

Thanks  
Kerry

Bryant Environmental Peer Review of the Southern Skies ESCP for the current operation. Email of 1 May 2019 (WRC doc # 14182888).

From: Steve Bryant <steve@bryantenvironmental.co.nz>  
 Sent: Thursday, 6 December 2018 9:39 AM  
 To: Emma Cowan <Emma.Cowan@waikatoregion.govt.nz>  
 Cc: Kerry Pearce <landmanagement@xtra.co.nz> <landmanagement@xtra.co.nz>  
 Subject: RE: Workbrief - Steve, McPherson Quarry

Hi Emma

I have reviewed the ESCP and the associated hydraulic assessment documents. Set out below is my initial draft assessment of the ESCP. Ideally I would need to visit the site to further determine the appropriateness of the proposal.

Also I will ask Kerry Pearce to review the USLE as he is our in house expert.

I also note that the detail in the hydraulic assessment is not totally clear as to which catchments are 'dirty' and this can lead to confusion when working out what controls are required, ie there is reference to existing ponds which may be for sediment control purposes?

Page 11 of the ESCP proposes a range of erosion and sediment control measures, some of which are not 'Best Practice' and are not current options in the WRC Guidelines.

1. Perimeter controls include the use of Silt Fences for Clean Water Diversions, this is not an appropriate use for Silt Fences.

1. It is stated that SRPs/DEBs may not be constructed to the dimensions shown in Table 2, Page 12. The dimensions shown are more or less 3:1 length to width ratio which is important for efficiency purposes.

1. Some DEBs exceed 3,000m<sup>2</sup> and the volume is 2%. The use of DEBs and associated volume should be matched to the USLE information.

1. DEBs are proposed with Snorkel Decants which are inefficient and not 'Best Practice', with an update to floating decants available in the WRC Guidelines.

1. There is a proposal to use U shaped sediment traps, and in the back of the document a selection of photos of example structures. These are not an 'approved' sediment control measure and need to be rejected as an option for this site

1. There is extensive use of Silt Fences proposed. Given that quarrying is a long term operation, Silt Fences are not considered a viable option and they are generally only 50% efficient. Also they are prone to damage.

1. There is a section in Page 12 referring to Culvert inlet protection which offers addition sediment trapping. I would challenge such a statement and ask for an explanation as to how?

1. There is mention of dewatering as per Auckland Councils GD05 . Dewatering needs to have a site specific management plan.



Happy to discuss further.

Thanks, Steve Bryant

0274 418 366

Bryant Environmental Solutions Ltd

[www.bryantenvironmental.co.nz](http://www.bryantenvironmental.co.nz)<<http://www.bryantenvironmental.co.nz/>>

Bryant Environmental Review of the Flocculation Management Plan DOC#  
17416944

<b>From:</b>	Kerry Pearce	<b>Sent Date:</b>	12/10/2020 10:13
<b>To:</b>	Jorge Rodriguez	<b>Received Date:</b>	12/10/2020 10:13
<b>CC:</b>			
<b>BCC:</b>			
<b>Subject:</b>	RE: McPherson Quarry - ESCP update		

Hi Jorge

I managed to get this to work and have reviewed the Flocc Management Plan. The assumptions and bench testing seem sound, and I agree with the conclusions reached. I note that the main SRP is to be dosed with an electronic dosing system. This has its advantages in that you are dosing based on volume entering the SRP, however monitoring of the system and in particular pH will need to be vigilant to ensure no overdosing of the system.

I would also like to see rainfall recorded on the monitoring sheets, so the monitoring officer can correlate rainfall with the maintenance undertaken on the system.

I trust that assists in your assessment, give me a yell if you have any questions.

Kerry

# APPENDIX 3

Surface Water Take Assessment

## Memo

<b>To:</b>	Emma Cowan	<b>From:</b>	Cameron King
<b>Date:</b>	24 January 2020	<b>File:</b>	60 04 84A
<b>Subject:</b>	APP137612 – McPherson Resources Ltd – surface water take unnamed tributary of Mangatawhiri River		

### 9 Introduction

McPherson Resources Ltd (“applicant”) has applied for consent to take water from an unnamed tributary of the Mangatawhiri River at NZTM 1781144 E 5879449 N, ca. 800 metres upstream of where SH2 crosses said tributary.

A maximum daily take volume of 200 cubic metres is being sought and the water will be used for dust suppression within the quarry operation.

This application is not seeking to renew a previously authorised activity though I note that the applicant is asserting that stormwater discharge consent 105348 provides the applicant with the lawful ability to take water from a particular stormwater pond and use the water to suppress dust.

Neither a maximum take rate nor a maximum annual take volume have been proposed by the applicant but in this particular case I consider this is appropriate and would not look to set limits via conditions for these parameters for the following reasons:

- water will be taken from stormwater ponds that have been or will be constructed in off-stream areas; and
- WRC have categorised the proposed water take as a zero net take for water quantity accounting purposes in the WRC water allocation calculator – refer Appendix 1.

Notwithstanding the advice that was provided to the applicant re the matter – refer Appendix 2 – I note that the application has incorrectly described the rationale for WRC being able to categorise the proposed water take as a zero net take.

This could be seen as being somewhat academic – after all it has been categorised as a zero net take – but given current and future Waikato River catchment allocation pressures and the fact that the application would not be able to be progressed outside of the first in first served priority queue unless it

is categorised as a zero net take, it is important for the rationale to be appropriately set out so as to avoid any current or future misunderstanding on the part of the applicant or any other party.

So, for the avoidance of doubt, WRC have categorised the proposed water take as a zero net take as per the rationale set out at Appendix 1 and reject the rationale provided by the applicant.

I have prepared draft conditions for the water take that I consider embody the intent of the proposal, WRP, RMA and our current practice – refer Appendix 3.

With respect to term, there is clear policy provision, as noted in the application, for a water take activity of this type to exceed 15 years.

I've noted a couple of gaps regarding activities that need to be allowed in law with respect to the overall operation of the site.

The first relates to the intake structure(s) that will be employed to take water from the ponds. The applicant needs to identify the applicable permitted activity rule to allow an intake structure or apply for a consent to allow an intake structure or provide a rationale as to why an intake structure in this particular case is not within the purview of the RMA.

The second relates to damming of water in an off-stream area associated with the “synthetic lined stormwater pond” described in the application and/or any other current or pending pond on the site. The applicant needs to identify the applicable permitted activity rule to allow the damming of water or apply for a consent to allow the damming of water or provide a rationale as to why damming of water in this particular case is not within the purview of the RMA.

## 10 Status of Activities under the Plans

CHECK CULLEN FOR EXAMPLE CALLING IT A ZERO NET TAKE BUT HAVING A MINIMUM FLOW EQUIVALENT TO THE Q<sub>5</sub>

For each local off-stream catchment associated with each respective stormwater water pond, the Q<sub>5</sub> is considered to be 0 cubic metres per second. As per the WRP, the primary allocable flow is 0 cubic metres per second (5 percent of the Q<sub>5</sub>) and the secondary allocable flow is also 0 cubic metres per second (25 percent of the Q<sub>5</sub>). This means that the combined primary and secondary allocable flow for each local catchment is 0 cubic metres per second and that any take will exceed the combined primary and secondary allocable flow.

However, as noted at 1 above, WRC have categorised the proposed take as a zero net take so this means that, as per WRP 3.3.3 – *Policy 7: How Surface Water Takes Will Be Classified in Catchments Where*

*Existing Takes Exceed the Table 3-5 Allocable Flows*, water is available for allocation as a discretionary activity for each local off-stream catchment.

Three downstream catchments are relevant to the proposed water take, namely Mangapu Stream at Waipa River, Waipa River at Waikato River and Waikato River at landward boundary of the coastal marine area.

Given the current level of cumulative allocation, water is presently available for allocation, as per WRP 3.3.3 – *Policy 8: How Surface Water Takes Will Be Classified in Catchments that do not Exceed the Table 3-5 Allocable Flows*, within the primary allocable flow as a controlled activity for Mangapu Stream at Waipa River and within the primary allocable flow as a restricted discretionary activity for both Waipa River at Waikato River and Waikato River at landward boundary of the coastal marine area.

In the event of a grant of this application for a zero net take there shall be no increase in cumulative allocation for any of the relevant catchments across all months of the year.

The strictest activity status applies; the water take is discretionary pursuant to WRP 3.3.4.23 *Discretionary Activity Rule – The Taking of Surface Water*.

With respect to the use of water for dust suppression, this is allowed via WRP 3.4.5.4 *Permitted Activity Rule – Use of Water*.

## 11 Statutory Considerations

Section 104(1) of the RMA sets out matters that the consent authority must, subject to Part 2 RMA, have regard to when considering an application for a resource consent. In addition to any actual and potential effects on the environment of allowing the activity, matters particularly relevant to this application include:

- The Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (NESHWDW);
- The National Policy Statement for Freshwater Management 2014 (NPSFM);
- Waikato Regional Policy Statement (WRPS);
- The Waikato Regional Plan (WRP);
- Nga Wai o Maniapoto (Waipa River) Act 2012 (NWMA);
- Maniapoto Iwi Environmental Management Plan (MIEMP).

### 11.1 Assessment of Environmental Effect

It is my view that the actual and potential adverse environmental effects that should be considered in respect of this application are effect on flow regime and effect on aquatic biota. It should be noted that no adverse effects have been discounted on the basis that those effects are allowed by permitted activities in a plan.

### 11.1.1 Effect on Flow Regime

Given the WRC rationale for categorising the proposed take as a zero net, I consider that adverse effects on the flow regime – and consequently the matters that flow regime provides for as set out in WRP 3.3.3 Policy 1: Establish Allocable and Minimum Flows for Surface Water – shall be less than minor.

I note that zero net takes are categorised Priority SW-A activities as per WRP 3.3.3 – *Policy 18: Levels of Priority to Apply During Water Shortages* and as such do not require the inclusion of water shortage conditions. With this being the case none have been included in my draft conditions.

### 11.1.2 Effect on Aquatic Biota

There is the potential for the entrainment of aquatic biota when water is being taken. While the ponds are in an off-stream area and likely not abundant in aquatic biota, I've used WRP 3.2.4.2 *Waikato Region Surface Water Class Standards* for guidance with respect to nominating mesh size – 5 millimetre – and velocity – 0.3 metres per second – performance standards that should provide for a less than minor effect on any aquatic biota via entrainment.

## 11.2 Regulations, Policy Statements and Plans

### 11.2.1 NESHDW

The NESHDW commenced 20 June 2008. This standard is a regulation enacted by an Order in Council, under s43 of the Resource Management Act. The regulation requires that a regional council must not grant a water or discharge permit for an activity that will occur upstream of a drinking water abstraction point if specific criteria at the point of abstraction are exceeded. The matters to be considered as part of an assessment are dependent on the permit being sought and the level of effects on any drinking water supplier located downstream or down gradient of the activity.

A search of the National Environmental Standards Drinking Water Supply data set yields water treatment plants that source surface water from the main stem Waikato River downstream of the water take site and no water treatment plants that source groundwater from within a 2 kilometer radius of the water take sites. I observe from this search that regulations 7 and 8 are applicable to the application and note that I do not consider that a grant is likely to result in any of the outcomes set out in regulations 7 and 8.

### 11.2.2 NPSFM

The NPSFM sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. Provisions that I consider relevant to the proposed activity are:

- Objective B1;
- Objective B2;
- Objective B3;
- Objective B5;
- Policy B5.

I do not consider that the activity will be contrary to these provisions provided that it is carried out as per the consent conditions I have drafted.



### 11.2.3 WRPS

WRPS provisions that I consider relevant to the proposed activity are as follows:

- Issue 1.1 State of resources
- Issue 1.5 Relationship of tāngata whenua with the environment (te taiao)
- Issue 1.6 Health and wellbeing of the Waikato River catchment
- 2 Te Ture Whaimana o Te Awa o Waikato – Vision and Strategy for the Waikato River
- 3.1 Integrated management
- 3.1A Resource use and development
- 3.2 Decision making
- 3.3 Health and wellbeing of the Waikato River
- 3.7 Ecosystem services
- 3.8 Relationship of tāngata whenua with the environment
- 3.9 Sustainable and efficient use of resources
- 3.13 Mauri and values of fresh water bodies
- 3.14 Allocation and use of fresh water
- 3.18 Ecological integrity and indigenous biodiversity
- Policy 4.1 Integrated approach
- Policy 4.3 Tāngata whenua
- Policy 4.4 Regionally significant industry and primary production
- Policy 8.3 All fresh water bodies
- Policy 8.5 Waikato River catchment
- Policy 8.6 Allocating fresh water
- Policy 8.7 Efficient use of fresh water

I do not consider that the activity will be contrary to these provisions provided that it is carried out as per the consent conditions that I have drafted.

### 11.2.4 WRP

WRP provisions that I consider relevant to the proposed activity are as follows:

- 3.1.2 – Objective
- 3.2.3 – Policy 1: Management of Water Bodies
- 3.2.3 – Policy 4: Waikato Region Surface Water Class
- 3.2.4.1 – Water Management Classes
- 3.2.4.2 – Waikato Region Surface Water Class Standards
- 3.3.2 – Objective
- 3.3.3 – Policy 1: Establish Allocable and Minimum Flows for Surface Water
- 3.3.3 – Policy 2: Determining the level of minimum flows, primary, secondary and water harvesting allocable flows
- 3.3.3 – Policy 3: Determining the combined level of surface water allocation within a catchment
- 3.3.3 – Policy 7: How Surface Water Takes Will Be Classified in Catchments Where Existing Takes Exceed the Table 3-5 Allocable Flows
- 3.3.3 – Policy 8: How Surface Water Takes Will Be Classified in Catchments that do not Exceed the Table 3-5 Allocable Flows
- 3.3.3 – Policy 11: Consent Application Assessment Criteria – Surface Water
- 3.3.3 – Policy 15: Consent Duration for the Taking of Water
- 3.3.3 – Policy 16: Water Take Recording and Reporting
- 3.3.3 – Policy 17: Water Shortage Conditions
- 3.3.3 – Policy 18: Levels of Priority to Apply During Water Shortages
- 3.3.4.23 – Discretionary Activity Rule – Surface Water Takes

- 3.3.4.27 – Standard - How Water Shortage Restrictions Shall Apply
- Table 3-5: Allocable Flows for Surface Water
- 3.4.3 – Policy 1: Manage the Use of Water
- 3.4.3 – Policy 2: Efficient Use of Water
- 3.4.5.4 – Permitted Activity Rule – Use of Water

I do not consider that the activity will be contrary to these provisions provided that it is carried out as per the consent conditions that I have drafted.

#### **11.2.5 NWMA**

Section 8 of the NWMA requires WRC to have particular regard to the vision and strategy for the Waipa River – being part of the Waikato River – in its entirety as set out in Schedule 1 of the NWMA. This applies to applications for activities relating to the Waipa River, including activities in the catchment that affect the Waipa River.

Given its categorisation as a zero net take and provided that it is carried out as per the consent conditions I have drafted, I do not consider that the activity will be contrary to the vision and strategy.

I also note that I have drafted a condition that provides opportunity for review of the conditions of consent if it is necessary to address – via further or amended conditions – any inconsistency of the conditions of consent with the content of the vision and strategy, as potentially amended in the future, subsequent to the grant of this consent.

#### **11.2.6 MIEMP**

The MIEMP summarises, from Maniapoto's perspective, the current state of the environment within the Maniapoto rohe, sets out the issues and concerns Maniapoto have for their environment and sets some goals and objectives for the future.

It is my view that essentially all of the strategic matters in the MIEMP pertaining to both current and future resource management can likely only be given effect to in a policy development or governance forum. With this being the case, I do not consider that these matters are particularly relevant to consideration of the proposed activity.

### **11.3 Part 2 Considerations**

I am confident that the WRP and the relevant policies have been competently prepared having regard to Part 2 (sections 5 through 8) RMA but have nevertheless considered the proposed activity subject to Part 2. Provided that it is carried out as per the consent conditions I have drafted, I consider that the proposed activity is consistent with Part 2 matters

## **12 Conclusions**

Provided the proposed activity is carried out in accordance with the consent conditions I have drafted, I consider that it:

- shall have adverse effects on flow regime and aquatic biota that are less than minor;

- is consistent with the relevant provisions of the NES; the NPSFM, the WRPS, the WRP, the NWMA and the MIEMP;
- is consistent with Part 2 RMA matters.

I note that I have included review conditions that pertain to:

- the effectiveness of the conditions of the resource consent in avoiding or mitigating any adverse effects on the environment from the exercise of the resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended resource consent conditions;
- the adequacy of and the necessity for monitoring undertaken under the resource consent;
- the appropriateness of any volume specified within the consent and, if necessary, to address any inappropriateness of any volume by way of reducing any volume.

I also note that, owing to the take being a zero net take, there is no requirement to include a review condition associated with catchment investigations as per d) of WRP 3.3.3 – *Policy 15: Consent Duration for the Taking of Water*.