

BEFORE THE WAIKATO DISTRICT COUNCIL AND WAIKATO REGIONAL COUNCIL

IN THE MATTER of the Resource Management Act 1991 ("**Act**")

AND

IN THE MATTER of an application by McPherson Resources Limited to the Waikato Regional Council and the Waikato District Council to continue to operate and expand a weathered greywacke quarry in Pokeno

**RIGHT OF REPLY OF ELOISE LONNBERG-SHAW
MCPHERSON RESOURCES LIMITED**

8 February 2021

RIGHT OF REPLY OF ELOISE LONNBERG-SHAW MCPHERSON RESOURCES LIMITED

1. INTRODUCTION

Scope of Reply

1.1 This Right of Reply has been prepared by the author in conjunction with all those of the applicant's technical experts referred to herein. For ease of reference, the following experts have prepared comments within their respective area of expertise:

- (a) Eloise Lonnberg-Shaw – responding to the query raised by the Panel regarding the Mining Regulations, as well as commenting on the proposed conditions relating to Community Liaison Group, a QEII covenant, and Conceptual Site Closure and Site Rehabilitation Plans
- (b) Andrew Curtis – comments with respect to the peer review prepared by Dr Terry Brady dated 23 November 2020
- (c) Marc Choromanski – responding to the peer review prepared by Mr Michiel Jonker dated 15 January 2021
- (d) Brett Sinclair – responding to the peer review from Mr Sung Soo Koh dated 14 January 2021

1.2 Lastly, this Reply finishes with some concluding remarks about the proposal.

2. PANEL QUERY AND COMMENTS ON CONSENT CONDITIONS

Mining Regulations 2016 and Associated Guidelines

2.1 The Panel sought clarification on the status of the requirement to limit face heights to no more than 15 meters tall, as referred to in Mr McPherson's evidence.

2.2 The Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016 (Mining Regulations) do not stipulate maximum face heights, which are instead governed by Government issued industry standard guidelines, the Good Practice Guidelines – Health and Safety at Opencast Mines, Alluvial Mines, November 2015 (Worksafe Guide).

- 2.3 The Worksafe Guide is the industry accepted best practice requirements, which can be likened to a Code of Practice issued by the Minister (or under delegated authority) pursuant to the Health and Safety at Work Act 2015, section 222. The Worksafe Guide therefore represents the industry and Government approved definition of taking all steps that are 'reasonably practicable' (ss 22 and 30 of the Act deals with the interpretation of this term and risk management).
- 2.4 Following on from the above, Clause 71 of the Mining Regulations stipulates requirements for ensuring that a geotechnical assessment is completed in situations where identification of ground or strata instability at a quarry. In addition, section 3.2 of the Worksafe Guide stipulates requirements for such identification by noting that a geotechnical assessment should be completed where *"the height of any individual face is more than 15 m"*.
- 2.5 In practical terms, summarising the above means that where a Quarry Manager has identified a face as a principal hazard (such as Mr McPherson has for some of the historical faces which exceed 15 m in height), there are two options:
- (a) A geotechnical engineer is engaged to provide an assessment of any potential instability; or
 - (b) The face height is reduced to meet current standards, i.e. as stipulated by the Worksafe Guide.
- 2.6 In other words, the Mining Regulations and Worksafe Guide are effectively the default mechanisms for determining what is 'reasonably practicable' with respect to face heights. Where a face height is higher than 15 m and there is no geotechnical engineer assessment available (as is the case for some of the historical faces at the McPherson Quarry), the requirements of the Act insofar as taking all steps 'reasonably practicable' could be considered breached which can give rise to prosecution.

Community Liaison Group

- 2.7 During the hearing, we heard from Ms Majoor that a Community Liaison Group is considered necessary to address potential neighbour concerns and to provide a forum for ongoing iwi engagement.
- 2.8 The applicant remains of the view that the proposed condition stipulating that the quarry operate with a Community Liaison Group is a 'nice to have' which is not supported by

technical evidence insofar as environmental effects are concerned (as neither of the processing officers has linked the proposed condition to an actual or potential effect).

- 2.9 Moreover, the proposed suite of consent conditions (insofar as they are accepted by the applicant and agreed upon) is rigorous and supported by technical evidence. Having rigorous conditions such as those proposed for this quarry provide both neighbours and Council with sufficient certainty that the applicant will operate in a manner which adequately addresses all environmental effects, as a failure to do so would be in breach of the consent conditions and therefore open to prosecution.
- 2.10 In addition, it is inappropriate for lay people to provide input into or comment on how to operate a quarry, which is a specialist occupation requiring in-depth understanding, expertise and experience. In that regard, all that can really be achieved by the proposed Community Liaison Group is an offering to the participating parties to ask questions or relay concerns to the Quarry Manager. As noted during the hearing, the applicant is required by other consent conditions (which are agreed to) to hear and act upon any complaints received (through the formal complaints process) which we maintain is the industry standard means for addressing this issue.
- 2.11 Another proposed purpose of the Liaison Group is for the quarry to keep its neighbours abreast of any major upcoming works. Again, this is a matter which can be dealt with in a more efficient manner, such as through the provision of a regular newsletter or email which is sent to all neighbours who express an interest in receiving the same.
- 2.12 With respect to continued engagement with iwi, this is better done through a separate and individual process, given that the concerns raised by iwi differ from those raised by the opposing submitters.
- 2.13 It is important to remember is that this is a commercial enterprise. Community views on how to run that enterprise are irrelevant *unless* those views or opinions relate to legitimate concerns around environmental effects. In that regard, we heard from the technical experts engaged by both the applicant and Council, that the environmental effects of the proposed expansion are able to be readily managed with good operating procedures, many of which have built in contingencies and/or will lead to environmental betterment (to name but a few, the expansive riparian margin planting, the proposed enhanced of the degraded wetlands and the automated flocculation of the Sediment Retention Ponds).

- 2.14 As a final point, it is noted that what is being applied for now is effectively an authorisation to continue operating in the same way as the quarry has been doing over the last years yet with an ability to increase the extraction rate as compared to recent annual tonnages (if there is a demand for such an increase). What that means is that the neighbours are already aware of how the quarry will operate, as no major changes to operations are proposed (other than the stipulated betterments in terms of how to manage air and water discharges). In addition, the submitters have all heard about the measures required to manage any offsite effects which means they are now familiar with the key aspects of the future quarry operations.
- 2.15 In summary, Council has not linked the requirement of the Community Liaison Group to any environmental effects, the technical experts have confirmed that with the mitigation measures proposed any effects will be appropriately managed, and any quarry updates and/or communications can take place on in a more efficient manner (not requiring formal meetings) on an 'as needed' basis when neighbours express an interest in the same or when major works are proposed.

QEII Covenant

- 2.16 During the hearing, Mr Vare and Dr Dutton from Waikato Regional Council raised a query around the proposed QEII National Trust Covenant and what would happen if the Trust refuses to accept the land in question.
- 2.17 It is noted that the proposed draft condition allows for a covenant in perpetuity under *either* the Reserves Act 1977 *or* QEII National Trust, which addresses this issue.

Conceptual Site Closure Plan (CSCP) and Site Rehabilitation Plan (SRP)

- 2.18 Both Councils have recommended that the applicant prepares (and regularly updates) a CSCP and an SRP within 6 months (WDC) or 2 months (WRC) respectively of commencement of consent.
- 2.19 During the hearing, Ms Lonnberg-Shaw and Mr Mansergh gave evidence on the difficulties of providing reliable versions of the proposed plans at this early stage of the process. While this view remains unchanged, in an effort to resolve the matter, the applicant is happy to partially accept the recommendation on the basis that:
- (a) High level plans are prepared within 6 months of commencement of consent; and

- (b) The CSCP and SRP are only updated once, being within 6 months of a decision being made to close the quarry.

- 2.20 The above would ensure that the comments made by Mr Rodriguez with respect to having access to sufficient detail to determine a bond amount are met, while removing an unreasonably onerous requirement with no link to environmental effects of providing an update of the two plans every few years.

Updated conditions

- 2.21 The applicant has prepared two documents containing updated consent conditions in conjunction with both Councils, which are attached to this Reply as **Appendix A** (WDC) and **Appendix B** (WRC) respectively.

3. AIR DISCHARGE EFFECTS

- 3.1 One of the submitter concerns raised during the hearing was in reference to tracking on McPherson Road. In his evidence, Mr Curtis' commented on the same and suggested that various mitigation measures be implemented onsite which will help mitigate such effects (such as regular cleaning of the road, sealing the top part of the access road, washing the wheels with the help of the fixed sprinklers and upgrading the sprinkler system to achieve greater coverage on the access road). The applicant has accepted these recommendations and should consent be granted, these measures will be implemented immediately. In that sense, the quarry will operate with much stricter dust management procedures moving forward than is has to date, meaning any dust effects will be reduced as compared to currently.
- 3.2 One submitter suggested that watering should occur 24/7 to address any dust concerns. As it is watering cannot and should not occur 'permanently' as this could give rise to other environmental issues (such as tracking based on muddy haul routes). There is a fine line between watering enough to deal with dust issues, and watering too much and creating a mud/tracking issue. Mr Curtis took this into account when making suggestions for dust management.
- 3.3 During the hearing some submitters raised concerns about the risks of crushing creating silica dust. This has been addressed by both of the dust experts and Dr Brady has since provided evidence confirming that if the dust control measures proposed by Mr Curtis are

implemented, dust will be adequately controlled which will address any potential risks of silica disposal as well.

3.4 One submitter provided anecdotal evidence with respect to dust plumes being created onsite. It is important to note that the applicant does not dispute that quarrying creates dust. In saying that, there is no requirement to internalise all dust within a quarry, but rather to ensure that dust does not result in nuisance effects *off-site*. Thus, the fact that dust is visible within the site from time to time is not in and of itself an indicator of off-site effects. In any event, the proposed dust monitoring will help demonstrate the effectiveness of the mitigation measures over time and will ensure that any failings in dust management are identified and acted upon swiftly. Dr Brady also confirmed that with the available water proposed for dust suppression, the quarry will be able to operate with very low dust emission.

3.5 Lastly, Dr Brady suggested in his evidence and proposed conditions that Waikato Regional Council should be able to change the monitoring measurement for dust 'at any time'. The applicant questions whether that level of openness in a consent condition is appropriate or reasonable for any consent holder, particularly if it was to involve having to alter the monitoring equipment. As a way to address this matter, the applicant suggests that it is more appropriate to include only TSP monitoring and to adopt the Ministry For Environment GPG Monitoring Triggers for TSP in a moderately sensitive receiving environment. These trigger levels are as follows:

(a) 250 µg/m³ for a 1-hour averaging period (short period); and

(b) 80 µg/m³ for a daily/24-hour period (as a rolling average)

3.6 The applicant therefore proposes that draft Condition 17 of Schedule 1 of the proposed Waikato Regional Council consents be amended accordingly (updated Waikato Regional Council conditions are appended as **Appendix B**).

4. GROUNDWATER EFFECTS

4.1 At the hearing, Mr Brett Sinclair gave evidence on what potential environmental effects could be anticipated with respect to the spring located at no. 219 State Highway 2 (Mr Phillip's property), speaking to his report prepared in advance of the hearing assessing the same (in response to directions received from the Panel).

- 4.2 During the course of the hearing, the Panel raised further questions with respect to potential groundwater effects associated with lowering the pit levels beyond where it is now. As a result of these discussions, Waikato Regional Council sought further information with respect to the same, which was confirmed in a direction from the Panel (dated 4 December 2020). These aspects were addressed in a report prepared by Mr Sinclair dated 17 December 2020.
- 4.3 On 18 January 2021, Waikato Regional Council provided the applicant with a technical peer review of Mr Sinclair's December 2020 report along with updated draft consent conditions.
- 4.4 Mr Sinclair's response to said peer review is attached to this reply as **Appendix C**. In brief terms, this report proposes the following measures be undertaken to address the concerns around lack of field data to support the stream depletion calculation (as raised by Waikato Regional Council's scientist):
- (a) The applicant monitors and evaluates groundwater flows into the quarry and base flows in the adjacent streams for two consecutive summers;
 - (b) Once the relevant data is available, stream base flows will be reassessed and any potential rates of stream depletion recalculated, which is then presented to and discussed with Waikato Regional Council;
 - (c) Once a maximum percentage of stream depletion has been set, this can be built into either of the Environmental Management and Monitoring Plan (EMMP) already required by the draft conditions (being a live document which will require changes and technical certification from the Council from time to time), or into the consent conditions themselves.
- 4.5 The proposed changes to the conditions set out in **Appendix B** reflect the above.

5. ECOLOGY EFFECTS

- 5.1 During the hearing, Waikato Regional Council (in its capacity as neutral submitter) raised concerns regarding the process and methodology undertaken to assess and mitigate against ecological effects. As a result, caucusing between the ecologists (appointed by the applicant, both Councils and the submitter respectively) was carried out at the request of the Panel.
- 5.2 The caucusing resulted in agreement being reached with respect to:

- (a) The historical vegetation removal: additional mitigation planting has been added in the draft conditions to address all historical removals of indigenous vegetation (insofar as such removal was outside of the permitted baseline);
- (b) The Ecological Mitigation and Management Plan: this now includes conditions relation to the habitat monitoring proposed by the submitter.

5.3 The proposed changes to the conditions set out in **Appendix B** reflect the above.

5.4 In addition, on 18 January 2021 the applicant received an ecological peer review of the assessment of potential aquatic ecology effects caused by base flow changes provided to the Panel on 18 December 2020. In response, Mr Choromanski has provided the below answers (each linked to Mr Jonker's four recommendations):

Recommendation 1: The loss of residual value associated with the upper portion of Tributary 1 (middle reach) should be included within the Environmental Management and Monitoring Plan (EMMP):

- (a) This will require the applicant to establish if this middle reach is ephemeral or intermittent, which can be done as part of finalising the EMMP.

Recommendation 2: The potential ecological effects, specifically for the upper end of potential baseflow reduction within the eastern stream, should be assessed. Any subsequent loss in ecology value should be considered within the EMMP.

- (b) This is best done after the proposed base flow monitoring (for two consecutive summers) has been completed and the results of the same are available. If it was to happen before the data is available, 1-D modelling would be required to generate predicted ecological effects on fish habitat. Such modelling is not frequently used in New Zealand and as such, the applicant proposes that this assessment be delayed until the base flow data is available.

Recommendation 3: The viability to maintain existing and proposed new wetlands needs to be explained within the EMMP. To this end, the applicant should demonstrate that impacts on wetlands will be avoided through the proposed mitigation. 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.

- (c) It is accepted that water will have to be diverted to these two wetlands to ensure their survival in the long-term. As it stands and based on the availability of water running through the quarry, appropriate water diversions can be designed and built for each of the three stages to allow for this. As provided through other consent conditions, such designs will have to be reviewed and technically certified by Waikato Regional Council in advance of each new stage commencing.

Recommendation 4: Residual uncertainty within the successful implementation of the proposed mitigation measures should be addressed within a remedial action plan. This plan should outline measurable indicators of successful implementation of the proposed mitigation measures as well as remedial action to adjust/update mitigation strategies, offset or compensate for wetland loss.

- (d) This is captured by Waikato Regional Council Schedule 1 condition 40 D.

6. CONCLUDING REMARKS

6.1 During the hearing, a number of submitters made the point that they are not seeking a decline of the application but rather a change to the proposal to cater for their concerns. In brief terms, the key proposed changes can be summarised as follows:

- (a) Not going over any of the northern ridgelines
- (b) Not removing the SNA in stage 1
- (c) Maintaining an internal 500m setback
- (d) Keeping the operations at 'status quo'

6.2 Reflecting on the above, it is important to note that quarrying by its very nature is a daylighting activity. It requires more soil to be disturbed and more land to be exposed over time in order to access the resource (which is buried). As a result, the footprint of a quarry will always increase over time, whether you keep operations at 'status quo' (which refers to intensity) or allow for an expansion of operations (i.e. an increase in extraction rates).

6.3 Limiting the proposal in the way described by the submitters is simply not feasible, as it would mean that very limited new ground would be able to be broken, which in turn would restrict the viability of the quarry.

- 6.4 Likewise, keeping the quarry activities at 'status quo' effectively means that the McPherson Quarry is nearing or at the end of its life, as the quarry currently has just about exhausted the aggregate resource available in the open areas. New ground has to be broken soon, in order to extract more aggregate and in order to do that, a raft of design principles (and legislative requirements) have to be taken into account which impacts on where further soil disturbance is required (as discussed in Mr McPherson's evidence).
- 6.5 Perhaps most importantly however is the fact that quarries do not have the luxury or flexibility of 'selecting' an area for their activities. Rather, they have to be located where the identified resource is. In that sense, a quarry operation is entirely constrained to certain locations in a way that most other activities are not (such as residential subdivisions or lifestyle blocks).
- 6.6 In addition, the technical specialist assessments and proposed staging for the next phases of operation are all based on a 'worst case scenario', meaning the quarry operating at full capacity at all times (or extracting 490,000 tonnes per year, every year). While that is an appropriate way of assessing environmental effects, it is nevertheless unlikely to happen for some time based on historical demand. If the application had instead been based on an average of the annual extraction rates achieved over the last 10 years (during which time the quarry has extracted on average 240,000-295,000 tonnes per year), the predicted staging times would in fact be significantly higher and may look something as follows:
- (a) Stage 1 – 20-30 years
 - (b) Stage 2 – 10-20 years
 - (c) Stage 3 – 30-50 years
- 6.7 What this means is that each stage is likely to be more gradual than the consent application allows for, meaning that any anticipated environmental effects would have less impact than the technical specialists have predicted.
- 6.8 It is also worth noting that Stage 2 is the stage which concerned most of the submitters, as it will remove a ridge to the north of the quarry which impacts on views of the operations from the north. As mentioned, some submitters requested that this stage be altered and/or removed and in response we heard from the applicant that this is not possible if the quarry is to be viable.

- 6.9 The Panel also made reference to Stage 3 and whether this would/should be authorised as part of this consent process. In reply, we note that the applicant's experts confirmed that Stage 3 is more benign than Stage 2 in terms of environmental effects, meaning there should be no reason to not grant approval for Stage 3, however distant it may be.
- 6.10 While the application is being treated as a green field application by the Waikato District Council (on the basis of Council not accepting that the quarry had any existing use rights after 1997), the actual effects of the activity are already experienced by the surrounding environment and property owners. In that sense, while the extraction rate is proposed to increase (subject to demand, as noted above), to some extent the improved operating procedures will make that change much less noticeable than anticipated or feared by the surrounding neighbours, based on the fact that the effects are less well managed at the moment than they will be should consent be granted. In addition, all effects have been identified as being able to be managed so that they are within a reasonable range.
- 6.11 Lastly, the applicant is not arguing that the quarry operations will result in no effects, which is not the legal requirement for a consent application under the RMA. Rather, what is required is to ensure that the actual and potential environmental effects are avoided, mitigated or remedied against. This will be achieved through the imposition of the (mostly) agreed consent conditions, as supported by the technical expert assessments and the relevant peer reviews of the same.

Eloise Lonnberg-Shaw

Senior Planner

APPENDIX A

WAIKATO DISTRICT COUNCIL DRAFT CONDITIONS

LUC0123/19
Suggested Consent Conditions- Updated (1/12/20)

General

1. The quarrying and filling activities at the site shall be undertaken in general accordance with the information and plans submitted by the Consent Holder in support of application number LUC0123/19 and officially received on the 1st October 2018 and further information provided on 12th October 2018, 18th February 2019 and 7th October 2020 except as amended by the conditions below. Copies of the approved plans are attached. In the case of inconsistency between the application and the conditions of this consent, the conditions of this consent shall prevail.

2. The following definitions are applicable to this consent:

Quarrying activities means the extraction, blasting, processing, storage and distribution of rock from the site and includes ancillary activities such as overburden removal and the treatment of stormwater together with ancillary buildings and structures.

Cleanfill means materials such as clay, soil and inert materials such as concrete, brick or demolition materials, which are free of combustible materials and are not subject to biological and chemical breakdown.

Filling activities means the deposition of cleanfill and overburden on the site.

Commencement of this consent has the same meaning as section 116 of the Resource Management Act 1991.

Extraction

3. The total volume of aggregate extracted shall not exceed 490,000 tonne per annum and the total volume of cleanfill material deposited shall not exceed 100,000m³ per annum.

Indigenous Vegetation Removal

4. The total area of Indigenous Vegetation Removal shall not exceed 2.45ha (2.08ha SNA in Stage 1 and 0.37ha indigenous vegetation in Stage 3).
5. Earthworks within the SNA shall not exceed 1,300,000~~1,249,468~~m³.

Commented [VM1]: Applicant has requested 1,500,00m³. This is much higher than what was applied for. I would be more comfortable with 1,300,000m³

Commented [EL2R1]: Happy with that

Administration

6. Pursuant to Section 36 of the Resource Management Act 1991 the consent holder shall pay the actual and reasonable costs incurred by the Waikato District Council when monitoring the conditions of this consent.

Management Plans

7. A copy of this consent and the approved Management Plans shall be kept on site at all times the activities are being undertaken and shall be produced without unreasonable delay upon request from any authorised officer of the Waikato District Council.

Developers Representative

8. Prior to commencing any engineering designs or construction works, the Consent Holder shall appoint an appropriately qualified and competent Developer's Representative(s), acceptable to the Waikato District Council.
9. The Consent Holder's representative/s shall be responsible for:
 - (a) project management of the quarrying and filling activities during the planning, construction and operational phases of the development;
 - (b) arranging design, and obtaining necessary geotechnical investigation and reports for the quarrying and filling activities, including the preparation of engineering documents and obtaining any necessary approvals from Waikato District Council;
 - (c) supervision of the works;
 - (d) arranging the necessary testing and inspections;
 - (e) identifying any non-compliant work and arranging for correction; and
 - (f) certification upon completion that the works have been carried out in accordance with the approved documents and sound engineering practice.

Prior to Giving Effect to the Consent

10. The Consent Holder shall notify the Waikato District Council Monitoring Team Leader at least 10 days prior to the commencement of any activities associated with this consent. Such notification shall include the following details:
 - (a) names and telephone number/s of the consent holder's representative/s;
 - (b) site address to which the consent relates;
 - (c) the Waikato District Council land use consent reference number;
 - (d) works to be undertaken; and
 - (e) expected duration of the entrance upgrade works.

Site Management Plan

11. Within two (2) months of the commencement of this consent, the Consent Holder shall submit to Waikato District Council's Monitoring Team Leader for certification, a Site Management Plan (SMP).

The objective of the SMP is to set out practices and procedures to be undertaken during the quarrying and filling activities in order to avoid, remedy or mitigate adverse effects of the extraction activities and to comply with the conditions of this consent.

The SMP shall include, but not be limited to, the following matters:

- (a) Quarry extraction areas including alignment, maximum quarry face length and approximate RL, and, approximate maximum depth RL;

(b) Measures to maintaining safe and stable batter slopes;

~~(b)(c)~~ Aggregate processing areas including site locations and areas;

~~(e)(d)~~ Stockpile areas including site locations and areas;

~~(d)(e)~~ Drainage plans for the areas identified in a) to c) above;

~~(e)(f)~~ Erosion and Sediment Control Plan (ESCP);

~~(f)(g)~~ Overburden Management Plan (OMP);

~~(g)(h)~~ Cleanfill Management Plan (CMP);

~~(h)(i)~~ Dust Management Plan (DMP);

~~(i)(j)~~ Quarry Circulation and Loading Management Plan (QCLMP)

~~(j)(k)~~ Ecological Mitigation and Monitoring Plan (EMMP);

~~(k)(l)~~ Landscape Mitigation and Management Plan (LMMP).

~~(l)~~ Conceptual Site Closure Plan (CSCP);

~~(m)~~ Site Rehabilitation Plan (SRP);

12. The Consent Holder shall exercise this consent in accordance with the Site Management Plan certified in Condition 11. Any subsequent changes to the Site Management Plan must only be made with the written approval of Waikato District Council's Monitoring Team Leader. 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.

Erosion and Sediment Control Plan

13. Within two (2) months of the commencement of this consent the Consent Holder shall submit to the Waikato District Council's Monitoring Team Leader for certification an Erosion and Sediment Control Plan (E&SCP) for Stage 1 of the expansion. E&SCPs for Stages 2 and 3 (respectively) shall be submitted to the Waikato District Council's

Commented [EL3]: The applicant maintains that the timing of the SMP and all related management plans requires careful consideration and that allowing 6 months for this is more reasonable for any new management plans (noting that some of the plans exist in draft already).

Commented [VM4]: This addition is a result of deleting condition 67

Commented [EL5R4]: Accepted, with the proposed addition of 'measures' to make it measurable for the applicant and Council.

Commented [VM6]: This is a result of changing timeframes for CSCP and SRP from two months to six months

Monitoring Team Leader for certification a minimum of two (2) months prior to commencing on each respective Stage.

Commented [VM7]: Applicant requested this change. I have no issues but this needs to be consistent with WRC condition

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.
14. The Consent Holder shall ensure that the E&SCP is implemented on site in accordance with the methods and timeframes outlined for the various components within the E&SCP certified in Condition 13 to the satisfaction of Waikato District Councils Monitoring Team Leader. Any changes to the E&SCP must only be made with the written approval of Waikato District Councils Monitoring Team Leader.

Overburden Management Plan

15. Within two (2) months of commencement of this consent, the Consent Holder shall submit to Waikato District Council's Monitoring Team Leader for certification, an Overburden Management Plan (OMP).

The objective of the OMP is to set out the detail and procedures that will be implemented to manage overburden removal and placement and to comply with the conditions of this consent.

The OMP shall include, but not be limited to the following matters:

- (a) A description of the methodology for overburden stripping and disposal;
- (b) Areas to be quarried over the next 12 months;
- (c) Plans for overburden stripping and disposal over the next 12 months;
- (d) Details of maintenance activities undertaken in the previous 12 months, and maintenance activities proposed over the next 12 months;
- (e) The specific location of the placement area;
- (f) The design and construction procedures;
- (g) How sediment losses to natural water will be avoided;
- (h) Earthworks procedures to be adopted during overburden stripping and disposal;
- (i) Measures to avoid the over compaction of soils;
- (j) Timetable of works and re-vegetation;
- (k) Maintenance and inspection procedures;
- (l) Monitoring; and
- (m) Contingency and mitigation measures.

16. The OMP plan shall be updated on the 1 April each year or as otherwise agreed in writing with Waikato District Council's Monitoring Team Leader. Any changes to the OMP shall be to the satisfaction of Waikato District Council's Monitoring Team Leader.

17. The Consent Holder shall undertake the placement of overburden in accordance with the OMP certified in Condition 15.

Cleanfill Management Plan

18. Within two (2) months of the commencement of this consent, the Consent Holder shall submit to Waikato District Council's Monitoring Team Leader for certification, a Cleanfill Management Plan (CMP).

The objective of the CMP is to set out practices and procedures to be undertaken to manage the receipt and disposal of cleanfill at the site and to comply with the conditions of this consent.

The CMP shall include, but not be limited to the following matters:

- (a) procedures to record the name and address of contractors dumping cleanfill at the site;
- (b) the specific location of the cleanfill placement areas;

Commented [EL8]: As above – this is a new management plan and as such, the applicant maintains that 6 months to prepare this and all other new plans is reasonable

Commented [EL9]: As a draft of this plan exists already, the applicant is happy to accept a 2 month period for completing the same

- (c) cleanfill Acceptance Criteria for cleanfill to be disposed on site;
- (d) a description of operational procedures and monitoring that will be implemented to prevent unauthorised material from entering the site;
- (e) quarantine area and contingency measures for addressing unacceptable fill;
- (f) specific design details, construction and certification procedures to ensure long term stability of cleanfill areas;
- (g) description of the stormwater management system (including design specification, location and management of all structures; and
- (h) procedures for improving and/or reviewing the CMP.

19. The Consent Holder shall operate the site in accordance with the CMP certified in Condition 18. Any changes to the CMP must only be made with the written approval of Waikato District Council's Monitoring Team Leader.

Quarry Circulation and Loading Management Plan

20. Within two (2) months of the commencement of this consent, the Consent Holder shall prepare and submit a Quarry Circulation and Loading Management Plan (QCLMP) to Waikato District Council's Senior Land Development Engineer for certification.

The objective of the QCLMP is to demonstrate that the internal vehicle circulation avoids any impacts on McPherson Road such as queuing or parking within the shoulders/berm. The QCLMP shall include but not be limited to the following:

- (a) swept paths to demonstrate two-way movements through the gate;
- ~~(b)~~ identify holding/waiting areas for trucks waiting for the weighbridge;
- ~~(c)~~ weighbridge location;
- ~~(d)~~(b) loading areas and arrangements;
- ~~(e)~~(c) internal circulation roads including any passing bays; and
- ~~(f)~~(d) internal parking arrangements for staff and visitors.

21. The Consent Holder shall operate the site in accordance with the QCLMP certified in Condition 20. Any changes to the QCLMP must only be made with the written approval of Waikato District Council's Senior Land Development Engineer.

Dust Management Plan

22. Within two (2) months of the commencement of this consent, the Consent Holder shall submit a Dust Management Plan (DMP) to the Waikato District Councils Monitoring Team Leader for certification.

Commented [EL10]: As above – this is a new management plan and as such, the applicant maintains that 6 months to prepare this and all other new plans is reasonable

Commented [EL11]: As above – this is a new management plan (with new infrastructure required to be installed onsite) and as such, the applicant maintains that 6 months to prepare this and all other new plans is reasonable

The objective of the DMP is to set out the methods and procedures to minimise any potential dust nuisance effects beyond the boundary of the site and comply with conditions of this consent.

The DMP shall include, but not 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 PM₁₀ 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.

23. The Consent Holder shall undertake all works within the site in accordance with the DMP certified in Condition 22. Any subsequent changes to the Dust Management Plan shall only be made with the written approval of Waikato District Council's Monitoring Team Leader.

Ecological Management and Mitigation Plan

24. Within two (2) months of the commencement of this consent and prior to any vegetation clearance, the Consent Holder shall submit an Ecological Management and Mitigation Plan (EMMP) prepared by a suitably qualified and experienced ecologist to the Waikato District Councils Monitoring Team Leader for certification.

The objective of the EMMP is to set out the methods and procedures to remedy, mitigate and environmentally compensate or offset 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:

Commented [EL12]: Relying on Mr Curtis' evidence, the applicant disagrees that this paragraph is appropriate and asks that it be removed.

Commented [EL13]: As a draft of this plan already exists (and has been subject to several peer reviews), the applicant is happy to accept a 2 month timeframe to finalise the same

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

25. The ecological mitigation measures addressed in the EMMP 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~~ 5.925ha 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 tributary to Waipunga Stream insofar as it is situated within the Project Site
 - iii. The riparian plantings shall be at least 930 linear metres of stream;
 - iv. Additional buffer planting around wetlands of at least 5 metres to those stipulated in the Ecological Management Plan submitted with the application

Commented [EL14]: Proposed addition to avoid any misunderstandings (as the main channel of Waipunga Stream does not run through the site, but a tributary of the same does – refer to EcIA report)

~~(b) 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.~~

Commented [VM15]: Ecological experts agreed that this be removed as it is inconsistent with the results of the baseline survey

~~(c) Lizard Management, which will consist of additional survey effort to be undertaken (being no less than two (2) additional nights spotlighting and three (3) checks of artificial cover objects and manual searches) by a suitably qualified ecologist. If lizards are detected during the surveys, the consent holder shall prepare a Lizard Management Plan which will outline methodologies to search for and relocate lizards into retained habitat of equal or greater value on-site. Lizard Management Plan, including the installation of minimum 5 lizard log piles within the northern corridor.~~

Commented [EL16]: The proposed wording reflects the agreement reached between Mr Jonker and Mr Choromanski

~~(d)~~ (b) Bird Management Plan.

~~(e)~~ (c) Pest and Weed Management Plan including measures and controls to prevent Kauri dieback.

~~(f)~~ (d) Planting Management Plan, including as a minimum:

- i. Site plantings including species to be planted, size of plants, and where they are to be planted, density of planting, sourcing of plants and fertilising;
- ii. Site preparation for planting including weed and pest control;
- iii. Timeline for planting;
- iv. Ongoing weed and pest control;
- v. Supplementary/replacement planting plans specifications; and

- vi. Timing of monitoring maintenance inspections; and
- vii. Methods to ensure that the plantings are protected and maintained in perpetuity.

26. The Consent Holder shall ensure that the EMMP is implemented on site in accordance with the methods and timeframes outlined for the various components within the EMMP certified in Condition 24 to the satisfaction of Waikato District Councils Monitoring Team Leader. Any changes to the EMMP must only be made with the written approval of Waikato District Councils Monitoring Team Leader.
27. Within the first planting season after the commencement of this consent, the Consent Holder shall undertake planting of the ecological corridor in accordance with the recommendations of the LMMP and EMMP. The planting of the corridor (~~4.56 ha~~ 5.925ha) cannot take more than three consecutive planting seasons.
28. The Consent Holder shall provide an updated EMMP to determine if physical habitat values that develop in new or restored channels, wetland and planting areas are greater in ecological value and diversity than baseline conditions (~~Year 0 — restored channels and wetlands~~) or of equivalence to the SNA impact site (ecological corridor and other terrestrial habitat planted areas). The updated plan shall detail:
 - (a) ~~Mitigation measures for the effects on the upper reach of Tributary 1.~~
 - (b) Identification of suitable sampling sites and sampling regimes.
 - (c) ~~Methods for pre and post works monitoring of aquatic stream and wetland habitat for a minimum of 6 years, undertaken on Year 0 (Pre riparian planting), 2, 4, and 6. These should provide enough detail to measure variation in habitat value from baseline conditions. For wetlands, this should include accurate reference to wetland extent (determined through vegetation, soil and hydrology indicators) and condition (including but not limited to: flow modification, water quality, erosion, sedimentation and biota).~~
 - (d) Methods for pre and post works monitoring of ecological corridor terrestrial habitat continue until ecological equivalence is determined by a suitably qualified and experienced practitioner or for maximum of 15 years, undertaken every two years to demonstrate recruitment/utilisation of the corridor. Key ecological outcomes to ~~determine corridor establishment~~ be used as a proxy for corridor functionality will include, but not be limited to: canopy closure, flora and fauna abundances and diversity, evidence of natural regeneration/emergence of understory species, etc.
 - (e) ~~Details on how the proposed wetland mitigation measures will be implemented, including specific reference to the maintenance and improvement of wetland form and function should be included within the EMMP.~~
- 28A. Within three (3) months of commencement of this consent the Consent Holder shall invite representatives of Ngāti Tamaoho and Ngāti Te Ata to develop a Matarauanga Māori Monitoring Framework (Framework) and protocols to ensure the Framework is maintained with respect to the habitat monitoring stipulated by condition ~~39~~28. The Framework may include references to Cultural Health Indicators and methodologies for

monitoring and/or ~~sampling aquatic and~~ or terrestrial habitat and shall, upon completion, be provided to the Consent Holder for their records.

- 28B. Provided a Framework has been completed and shared with the Consent Holder pursuant to condition 28A, at least three (3) working days prior to any planned monitoring stipulated by condition 28 and/or the EMMP, the Consent Holder shall invite iwi representatives to attend the visit and provide a report on the results to the Consent Holder within one (1) of the same for inclusion in the annual report stipulated by condition ~~45~~73.
29. The Consent Holder shall include details of the monitoring stipulated by condition 28 and 28A (insofar as it exists) in the annual report stipulated by condition ~~45~~73, outlining 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 matters to cover shall include, but will not be limited to:
- (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 terrestrial ~~and aquatic~~ monitoring required by condition 28;
 - (c) Details and outcomes of any plant or animal pest control works including any follow up monitoring of pests.
 - (d) Where key ecological outcomes (recruitment/utilisation) required by condition 28 are not met (as identified through monitoring – Condition 29(a)-29(c), further plans and implementation protocols need to be developed and enacted.

Landscape Mitigation and Management Plan

30. Within two (2) months of the commencement of this consent, the Consent Holder shall submit to Waikato District Council's Monitoring Team Leader for certification, a Landscape Mitigation and Management Plan (LMMP) prepared by a suitably qualified landscape architect.

The objective of the LMMP is to identify those landscape features and attributes of the site which are to be maintained, and the finished form of the site to manage the visual and landscape effects of the quarrying and filling activities to an acceptable level.

The LMMP shall include, but not be limited to the following matters:

- (a) An annotated planting plan(s) which outlines the proposed location and extent of all areas of planting, including any revegetation, reinstatement planting, mitigation planting and natural revegetation. Location of planting shall be in general accordance with the mitigation plan prepared by Mansergh Graham Landscape Architects and the updated ecological corridor planting plan dated 21 September 2020, ~~and shall also include additional planting to:~~
 - (i) ~~Mitigate the landscape and visual amenity effects of the proposal from the dwelling at 209 Pinnacle Hill Road.~~

Commented [VM17]: Included this new condition- replaces the WRC habitat monitoring plan condition and is agreed by ecological experts (also consistent with WRC condition). Given this affects the SNA removal, have only included this in relation to removal of indigenous vegetation

Commented [EL18]: As above – this is a new management plan (which indirectly relies on the completion of some of the other management plans) and as such, the applicant maintains that 6 months to prepare this and all other new plans is reasonable

Commented [VM19]: Check numbering from here

~~(ii) Mitigate landscape and visual amenity effects of the proposal from views from Mt William Summit by planting to the west of stage 3.~~

- (b) A plant schedule based on the submitted planting plan(s) which details specific plant species, plant sourcing, the number of plants, height and/or grade (litre) / Pb size at time of planting, and estimated height / canopy spread at maturity.
- (c) Details of draft specification documentation for any specific drainage, soil preparation, tree pits, staking, irrigation and mulching requirements.
- (d) An annotated pavement plan and related specifications, detailing proposed site levels and the materiality and colour of all proposed hard surfacing.
- (e) A landscape maintenance plan (report) and related drawings and specifications for all aspects of the finalised landscape design, including in relation to the following requirements:
 - (i) Irrigation;
 - (ii) Weed and pest control;
 - (iii) Plant replacement;
 - (iv) Inspection timeframes; and
 - (v) Contractor responsibilities.
- (f) A detailed staging maintenance plan prepared by a landscape architect or suitably qualified person. The staged maintenance plan should outline performance targets for proposed screening planting and should include but not be limited to:
 - (i) Minimum heights of trees;
 - (ii) Planting density; and
 - (iii) Screening requirements.

31. The Consent Holder shall ensure that the LMMP is implemented on site in accordance with the methods and timeframes outlined for the various components within the LMMP certified in Condition 30 to the satisfaction of Waikato District Councils Monitoring Team Leader. Any changes to the LMMP must only be made with the written approval of Waikato District Councils Monitoring Team Leader.

Conceptual Site Closure Plan

32. Within ~~six (6) to (2)~~ months of the commencement of this consent, the Consent Holder shall submit to the Waikato District Council's Monitoring Team Leader for certification a Conceptual Site Closure Plan (CSCP). 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.

33. The Consent Holder shall review and update the CSCP ~~every five years and~~ within six months of any decision to cease quarrying at the site. The Consent Holder shall submit any revised CSCP to the Waikato District Council's Monitoring Team Leader for certification.

Commented [EL20]: The applicant agrees with the recommendation of preparing one high level CSCP within 6 months of commencement, subject to removal of the need to update this every 5 years (as below)

Commented [EL21]: The applicant maintains that requiring an update of this plan every 5 years both highlights the speculative nature of the plan itself (making each rendition of limited value) as well as places an unduly onerous cost obligation on the applicant. Instead, it is appropriate to update the plan once and to do so within 6 months of closure of the quarry.

Site Rehabilitation Plan

34. Within ~~six (6) to two (2)~~ months of the commencement of this consent, the Consent Holder shall submit to the Waikato District Council's Monitoring Team Leader for certification a Site Rehabilitation Plan (SRP). 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. As a minimum, the SRP 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.
35. The Consent Holder shall review and update the SRP ~~every five years and~~ within six months of any decision to cease quarrying at the site. The Consent Holder shall submit any revised SRP to the Waikato District Council's Monitoring Team Leader for certification
36. 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.
37. The rehabilitation of the quarry shall be undertaken in accordance with the Site Rehabilitation Plan certified Condition 34 of this consent and shall be implemented under the supervision of persons with appropriate restoration or rehabilitation experience.

Commented [EL22]: The applicant agrees with the recommendation of preparing one high level CSCP within 6 months of commencement, subject to removal of the need to update this every 5 years (as below)

Commented [EL23]: The applicant maintains that requiring an update of this plan every 5 years both highlights the speculative nature of the plan itself (making each rendition of limited value) as well as places an unduly onerous cost obligation on the applicant. Instead, it is appropriate to update the plan once and to do so within 6 months of closure of the quarry.

Fencing of Indigenous Vegetation

38. The consent holder shall ensure that the ecological corridor as shown on the Ecological Corridor Plan dated 21 September 2020 is fenced with a stock proof fence, generally along the covenant boundaries and in accordance with the Ecological Corridor Plan dated 21 September 2020. The consent holder's attention is drawn to the following minimum standards for fencing:

Number of wires	7
Posts	5 metres apart maximum
Battens	5 between posts minimum

The fence is to be otherwise in accordance with Clause 7 of the Second Schedule to the Fencing Act 1978.

Conservation Covenant

39. The Consent Holder shall agree to a Covenant in perpetuity under the Reserves Act 1977 or Queen Elizabeth II National Trust 1977 being registered on [Allotment 22 and Allotment 139-140 Suburban Section 1 Parish of Maungatawhiri and Allotment 161 and Allotment 163 Parish of Maungatawhiri \(RT NA2D/412\) and Section 164 Parish of Mangatawhiri \(RT NA2D/961\)](#) [or any new allotments or RT's created covering the relevant areas](#) to the effect that the ecological corridor referred to in this consent is fenced with a stock proof fence in accordance with conditions of this consent and is to be protected in perpetuity.

The Conservation Covenant is required to refer to the Ecological Impact Assessment prepared by Ecology NZ and dated October 2019 and the Ecological Mitigation and Management Plan certified in Condition 26.

The Conservation Covenant will be prepared by Waikato District Council's Solicitor at the consent holder's expense.

Advice Note: for the avoidance of doubt this condition shall be satisfied once planting is complete (within the first three planting seasons).

Hours of Operation

40. The hours of operation, for all truck movements and for activities associated with the quarrying and filling activities shall be as follows:

Hours of Work:	Monday to Friday	0700 – 1900
	Saturday	0700 – 1900

The site shall not operate on a Sunday or on any public holidays.

41. The entrance to the site shall be securely locked outside of the above hours of operation.

SH2/McPherson Road Intersection

42. The Consent Holder shall provide evidence of a Traffic Management Plan and Consent to Work on the Highway being submitted and approved by the New Zealand Transport

Agency at least seven working days prior to the commencement of any works on the state highway.

Advice Note: NZTA require prior approval for works undertaken within State Highway 2 pursuant to Section 51 of the GRPA.

43. The Consent Holder shall ensure that any works undertaken within the state highway are undertaken in accordance with the Traffic Management Plan approved in Condition 42.
44. ~~At least 20 working days prior to the implementation of this consent, the~~ The Consent Holder shall submit detailed engineering design plans for the SH2/McPherson Road intersection to the New Zealand Transport Agency for approval prior to any works ~~being undertaken on SH2 associated with its construction commencing~~. Detailed design shall be in general accordance with Opus drawing 3-39019.00_SK001 and shall include, but not be limited to the following:
 - (a) Superelevation and drainage for surface water on the pavement as per Austroads guidelines;
 - (b) Heavy vehicle turning paths;
 - (c) Cross-sectional drawings to indicate batter slopes, drainage lane width and property boundaries;
 - (d) Traffic movement at the intersection for calculation of right turn bay length;
 - (e) Re-alignment of guardrail;
 - (f) An advance warning sign for heavy vehicle crossing as per MOTSAM (sign to be located to the west of the SH2/McPherson Road intersection).
45. An independent safety audit must be conducted during detailed design of the intersection with State Highway 2 and post construction. Each audit shall be carried out by an appropriately qualified auditor experienced with intersection design and appointed in consultation with the New Zealand Transport Agency. Any recommendations made by the auditor that require changes to design and construction shall be approved by the New Zealand Transport Agency.
46. The Consent Holder shall ensure that the required sight lines of 151 metres are achieved in perpetuity.

Advice Note: Batter slopes and vegetation removal may be required on part Allotment 200A Parish of Mangatawhiri to achieve the required sight lines of 151 metres in perpetuity. Written notice of any works on part Allotment 200A Parish of Mangatawhiri shall be provided to Waikato District Council's Parks and Facilities Team.
47. ~~Within 12 months of the commencement~~ ~~Prior to the implementation~~ of this consent, the Consent Holder shall upgrade the SH2/McPherson Road intersection in accordance with the design plans for the SH2/McPherson Road intersection approved in Condition 44.

47.1 The Consent Holder shall provide to Waikato District Council's Senior Land Development Engineer written approval from Waka Kotahi (NZTA) that the SH2/McPherson Road intersection has been upgraded to their satisfaction and to meet the requirements of conditions 44-47.

47.2 Until condition 47.1 has been satisfied, the Consent Holder shall ensure that the heavy vehicle movements to and from the site do not exceed:

- (a) Daily maximum of 150 trucks/day; and
- (b) Daily average of 112 trucks/day (calculated over a three month period).

Site Entrance

48. At least 20 working days prior to construction, the ~~The~~ Consent Holder shall submit engineering plans detailing the vehicle crossing and proposed haul road to Waikato District Councils Senior Land Development Engineer for approval in a technical certification capacity in advance of any construction works being undertaken. The design of the vehicle crossing should be in general accordance with the RITS diagram D3.3.4 and accommodate left turn in and right turn out movements by heavy vehicles, including:

- (a) Tracking for the design vehicle.
- (b) Relocating the gates to be set back at least 22m from the edge of the McPherson Road carriageway.
- (c) Sealing the vehicle crossing (grade 3/5 chip) and the driveway for a minimum of 40m within the site.
- (d) Removal of vegetation to improve sight distance at the vehicle crossing.

Advice Note: Prior to undertaking any works within the Council road reserve, a Corridor Access Request (CAR), including traffic management plan, for the works to be carried out in the road reserve, and submitted to the Waikato District Council for approval not less than fifteen (15) working days before starting these works.

49. Within three (3) months of the commencement of this consent, The ~~The~~ Consent Holder shall upgrade the site entrance in accordance with the design plans certified in Condition 48.

Traffic Movements and Vehicle Register

50. The Consent Holder shall ensure that heavy vehicle movements to and from the site occur only within the site's hours of operation and do not exceed the following levels:

- (a) Daily maximum of 210 HCV movements/day; and
- (b) Daily average of 165 HCV movements/day (calculated over a three-month period).

51. The Consent Holder must keep a register of total daily truck movements, daily aggregate quantity leaving the site and daily cleanfill quantity entering the site. The register shall contain the following:

- (a) registration number of vehicle;

- (b) time of arrival and time of departure;
- (c) approximate size of the cleanfill load deposited;
- (d) source and type of cleanfill material to be deposited;
- (e) comments on whether the cleanfill material is accepted or not; and;
- (f) weight of aggregate extracted.

52. The daily incoming and outgoing logs shall be retained on site at all times and be made available for Waikato District Council inspection during working hours. A copy of the logged information shall be forwarded to the Waikato District Council's Monitoring Team Leader on a six (6) monthly basis from the commencement of this consent.

Heavy Vehicle Impact Fee

Commented [VM24]: Agreed by applicant that this stay as is given the bulk of the fee is in stage 1.

53. The Consent Holder shall pay the Waikato District Council a pavement impact fee of ~~\$63,704.54~~ ~~\$58,492~~ plus GST. The pavement impact fee shall be ~~paid within three years from the commencement of this consent~~ completely paid within 6 years of commencement of this consent.

54. The pavement impact fee shall be re-assessed by a suitably qualified person upon exceeding a cumulative total of 14,400,000 tonnes of material being extracted from the quarry.

~~54.55.~~ The Consent Holder shall, within ten (10) working days of payment, provide Waikato District Council's Monitoring Team Leader with written notice of the date on which the payment of the pavement impact fee is paid to Council, the amount that was paid, and how the amount was calculated.

Advice Note: the Consent Holder is advised that should a period of 13 or more months pass between payments the Council may start enforcement proceedings against the consent holder, which may include, but is not limited to debt collection.

Noise Management and Compliance Monitoring

~~55.56.~~ The Consent Holder shall ensure that all activities on the site, measure at or within the notional boundary of any other site in the Rural Zone, shall not exceed the following noise limits:

- (a) 50 dBL_{Aeq} 0700 to 1900 all days
- (b) 45 dBL_{Aeq} 1900 to 2200 all days
- (c) 40 dBL_{Aeq} and 65 dB_{AFmax} 2200 to 0700 all days

Advice Note: Notional boundary means a line 20 metres from any side of a dwelling, or the legal boundary where this is closer to the dwelling.

~~56.57.~~ Noise shall be measured in accordance with New Zealand Standard NZS 6801:2008 *Acoustics – Measurement of Environmental Sound* and assessed in accordance with NZS 6802:2008 *Acoustics – Environmental noise*.

~~57.58.~~ Within three (3) months of giving effect to this consent, and at any other time when requested by Waikato District Council, the Consent Holder shall engage a suitably qualified acoustic engineer to undertake noise level monitoring from all activities on the site to confirm compliance with Condition ~~5653~~. The results of this monitoring shall be reported to the Waikato District Council Monitoring Team Leader within 10 working days of the completion of the monitoring.

~~58.59.~~ Where the monitoring of noise levels required by Condition ~~5853~~ demonstrates a non-compliance with Condition ~~5653~~, the Consent Holder shall take action within five (5) working days to ensure that compliance is achieved and shall report to the Waikato District Council's Monitoring Team Leader, the mitigation actions to be implemented. Following implementation of such mitigation measures a further noise level survey shall be undertaken confirming that compliance with the relevant noise criteria has been achieved, and those results forwarded to the Waikato District Council's Monitoring Team Leader within ten (10) working days of the completion of the monitoring.

Vibration and Blasting for Quarry Activities

~~59.60.~~ All blasting and resultant vibration occurring on the site shall comply with the following:

- (a) The noise created by the use of explosives for any blasting activity within the quarry measured at or within the notional boundary of any other site shall not exceed a peak sound pressure of 128dB_{Zpeak}; and
- (b) All blasting shall be restricted to between 1000 and 1600 hours Monday to Saturday, except where blasting is required for safety reasons; and
- (c) Blasting shall be confined to two occasions per day, except where necessary for safety reasons; and
- (d) The vibration created by the use of explosives for any blasting activity within the quarry shall not exceed 5mm/s PPV at any building not on the same site; and
- (e) Each blast shall be notified [to relevant parties via siren/text message] 30 minutes and again 1 minute prior to the blast occurring; and
- (f) records and monitoring results of two (2) blasts, over the calendar year, shall be submitted to Waikato District Council Monitoring Team Leader within the Annual Report to confirm compliance with Condition ~~6057~~.

Dust and Debris Mitigation

~~60.61.~~ 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: RT NA2D/412: Allot 22 PSH of Mangatawhiri, Allot 139 and 140 PSH, Allot 161 and 163 PSH, RT NA2D/497, Allot

162 PSH, RT NA2D/961 Allot 164 PSH, RT NA423/102 Allot 159 and 160 PSH of Mangatawhiri, RT 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 District Council will consider an effect that is objectionable or offensive to have occurred if any appropriately experienced officer of the Waikato District 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.

~~61.62.~~ Should an emission of particulate matter occur that has an objectionable or offensive effect, the consent holder shall inform the Waikato District Council within 24 hours of the incident and provide a written report to the Waikato District 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.

63. The Consent Holder must ensure that any debris tracking/spillage onto any McPherson Road as a result of the exercise of this consent shall be removed as soon as practical, and with a maximum of 24 hours after the occurrence, or as otherwise directed by a Waikato District Council's staff member, to the satisfaction of the Waikato District Council's Team Leader Monitoring. The cost of the cleanup of the roadway and associated drainage facilities, together with all temporary traffic control, shall be the responsibility of the consent holder.

64. The consent holder, upon becoming aware of the need to clean up the roadway, shall advise Waikato District Council's Monitoring Team Leader of the need for the road to be cleaned up, and what actions are being taken to do so.

~~65. The consent holder shall maintain a truck wheel wash facility in an appropriate location near the site weighbridge and shall require all trucks leaving the site to travel over the site wheel wash.~~

Additional Engineering Requirements

~~66.65.~~ All works forming part of the consent which require engineering design, supervision, and testing shall be certified by the Certifying Engineer and/or a Geo-professional (who

is one of the consent holder's representatives) who shall be a Chartered Professional Engineer. Once appointed, the Certifying Engineer shall not be changed without the approval of the Waikato District Council's Senior Land Development Engineer.

~~67.66.~~ Geotechnical investigations, completion and site stability/suitability reports with respect to the cleanfill/overburden filling area shall be prepared and signed by a Geo-professional (as defined in NZS4404:2010), who shall provide evidence of suitable professional indemnity insurance cover for the works being investigated, supervised and certified.

~~68.67.~~ Where subsoil drainage measures or toe bunds are recommended by a Geo-professional, these are to be installed and inspected, recorded and verified by the Geo-professional prior to burial. The Consent Holder shall provide evidence of this certification to Council in the Annual Report required by Condition ~~7375~~.

~~69.~~ ~~Rock and soil slopes shall be inspected annually by a Geo-professional, to confirm compliance with the EDMP and confirm whether any changes to the EDMP are required. A report detailing the findings of the inspection shall be provided to Council in the Annual Report required by Condition 75.~~

~~70.~~ ~~All stormwater runoff management, drainage, and erosion and sediment control measures shall be constructed and maintained in good working order at all times to the satisfaction of Waikato District Council's Team Leader Monitoring and in accordance with the Waikato Regional Council's Erosion and Sediment Control Guidelines for Soil Disturbing Activities: January 2009.~~

~~71.68.~~ The Consent Holder shall ensure that, as soon as possible, and within a maximum of 12 months, the areas where filling activities have been undertaken are covered with topsoil and revegetated (or by other approved means) to achieve a minimum 80% coverage. This work shall be undertaken to the satisfaction of the Waikato District Council's Team Leader-Monitoring.

~~72.~~ ~~Erosion and sediment controls shall be maintained and remain in place until (at least) the minimum required cover is achieved, and may only be removed once the Waikato District Council's Monitoring Team Leader is satisfied that the risk from erosion and instability has been reduced to a less than minor risk, and has provided approval in writing.~~

Community Liaison Group

~~73.69.~~ Within three (3) months of the commencement of this consent the Consent Holder shall establish a Community Liaison Group. Members of this group shall include two representatives of the Consent Holder, local residents (from Pinnacle Hill Road, McPherson Road, Irish Road and SH2) Ngati Tamaoho, Ngati Te Ata and Waikato District Council to discuss any issues associated with the operation of the site. The prime purpose of meetings with the Community Liaison Group will be to:

- a) Explain the progress of the quarry and filling;
- b) Listen to and discuss as far as practicable any community and cultural concerns with the quarry and filling operation; and
- c) Present and discuss the complaints register and results of any monitoring and/or reporting as required by the conditions of this consent.

74.70. The Community Liaison Group shall meet every three (3) months after the commencement of this consent, month (1) for the first year of the operation, and thereafter six (6) monthly unless the members of the Community Liaison Group wishes to have the meetings at a more regular interval. A copy of the minutes of each meeting shall be sent to Waikato District Councils Monitoring Team Leader within 20 working days from the date of the meeting.

Commented [EL25]: For the reasons outlined in the evidence of Eloise Lonnberg-Shaw and the Right of Reply, the applicant rejects this condition in its entirety.

Complaints register

75.71. The Consent Holder shall maintain and keep a complaints register for substantiated complaints about the activity received by them. The register shall record:

- (a) the date, time and duration stated by the complainant as to when the event/incident (if possible, specify nature of incident e.g. dust nuisance) was detected;
- (b) the possible cause of the event/incident;
- (c) the weather conditions and wind direction at the site when the event/incident allegedly occurred;
- (d) any corrective action undertaken by the consent holder in response to the complaint; and
- (e) any other relevant information.

The consent holder shall ensure that the appropriate contact details of the site manager and/or staff member of equivalent position shall be supplied to all people who could be affected by this activity.

76.72. The complaints register shall be made available to the Waikato District Council at all reasonable times. Complaints received by the consent holder or sub-contractor shall be forwarded to the Waikato District Council, Monitoring Team Leader as soon as practicable and within at most 24 hours of the complaint being received.

Annual Report

77.73. The Consent Holder shall submit to the satisfaction of Waikato District Council's Team Leader Monitoring, an Annual Performance Report for each year that the consent is exercised. The Annual Performance Report shall include details of the following:

- (a) Ecological Monitoring results as required by conditions 28A and 28B or any updates to the Ecological Mitigation and Management Plan (EMMP)
- (b) daily and monthly truck movements;
- (c) monthly volumes of rock extracted and cleanfill accepted;
- (d) pavement impact fees paid;
- (e) geotechnical monitoring undertaken;

Commented [VM26]: New clause A to reflect new conditions 28-39

- (f) general compliance with the conditions of this consent

~~78.74.~~ The first Annual Report shall be submitted twelve (12) months after the consent holder has given effect to this consent, and all further reports shall be submitted by 31 July for each following year.

Archaeological Discovery

~~79.75.~~ In the event of any archaeological site or waahi tapu being discovered or disturbed while undertaking works to give effect to the conditions of this consent, the works in the area of the discovery shall cease immediately, and Iwi (Ngati Te Ata and Ngati Tamaoho) and the Waikato District Council shall be notified within 48 hours. Works may recommence with the written approval of the Waikato District Council. Such approval shall be given after the Waikato District Council has considered:

- (a) Tangata Whenua interests and values;
- (b) the consent holder's interests; and
- (c) any archaeological or scientific evidence.

Review Condition

~~80.76.~~ The Waikato District Council may, by giving notice to the consent holder of its intention to do so under section 128 of the Resource Management Act 1991, review the conditions of this consent 12 months after the date of the commencement of the consent and at the expiry of every 12 months thereafter for the following purposes:

- (a) to review the effectiveness of the conditions of this consent in avoiding, remedying or mitigating any adverse effect on the environment that may arise from the exercise of this consent and, if necessary, avoid, remedy or mitigate such effects by way of further or amended conditions. In particular, adverse effects in relation to:
 - i) noise arising from quarrying and filling activities;
 - ii) dust arising from quarrying and filling activities and/or vehicle movements;
 - iii) traffic effects and pavement effects on McPherson Road;
 - iv) the value of the pavement impact fee; and
 - v) the performance and success of any rehabilitation and the site's geotechnical stability.
- (b) to address any adverse effects on the environment which have arisen as a result of the exercise of this consent that were not anticipated at the time of granting this consent, including addressing any issues arising out of complaints;
- (c) to review the adequacy of, and necessity for, any monitoring programmes or Management Plans that are part of the conditions of this consent;

- (d) to require the Consent Holder, if necessary and where appropriate, to adopt the best practicable option(s) to avoid, remedy or mitigate any adverse effects on the surrounding environment.

The Council will undertake the review in consultation with the consent holder and the consent holder shall pay the actual and reasonable costs of the review pursuant to section 36 of the Resource Management Act 1991.

Advisory Notes

1 Lapse Date

This Resource Consent for land use lapses five years after the commencement of the consent, unless:

- I the Consent is given effect to prior to that date.
or
- (b) an application is made to the consent authority to extend the period after which the consent lapses, and the consent authority decides to grant an extension after taking into account
 - (i) whether substantial progress or effort has been, and continues to be, made towards giving effect to the consent; and
 - (ii) whether the applicant has obtained approval from persons who may be adversely affected by the granting of an extension; and
 - (iii) the effect of the extension on the policies and objectives of any plan or proposed plan.

2 Other consents/permits may be required

To avoid doubt; except as otherwise allowed by this resource consent, all land uses must comply all remaining standards and terms of the relevant Waikato District Plan. The proposal must also comply with the Building Act 2004, Regional Infrastructure Technical Specifications and Waikato Regional Plans. All necessary consents and permits shall be obtained prior to development.

Cultural Monitoring

- 3 The Consent Holder is advised of the recommendations which are set out in the Cultural Values Assessment prepared by Ngati Te Ata and Ngati Tamaoho in the which are generally as follows:
- That where the ponds/wetlands are requested the second pond is to be a wetland with raupo to give a final polish (cleanse) and remove any fine sediments found in overburden and clean fill.
 - That a third pond/wetland is established for a final polish prior to discharge to the tributary of the Waiponga stream, and ultimately the Waikato River.
 - That at a minimum there is a two pond/wetland system for the proposed overburden site regarding Stages 2 and 3, especially above the flat land.
 - That the mitigation native ecological corridor is to be provided for as discussed at the onsite up the back behind the large farm wetland.
 - That the native ecological corridor is to be fenced which will exclude stock from gaining access and doing irretrievable damage.

- That Iwi (Ngati Tamaoho and Ngati Te Ata) are to receive a copy of the planting proposal and associated management plan once available.
- That where the ponds/wetlands are requested the second pond is to be a wetland with raupo to give a final polish (cleanse) and remove any fine sediments found in overburden and clean fill.
- That a third pond/wetland is established for a final polish prior to discharge to the tributary of the Waiponga stream, and ultimately the Waikato River.
- That at a minimum there is a two pond/wetland system for the proposed overburden site regarding Stages 2 and 3, especially above the flat land.
- That the mitigation native ecological corridor is to be provided for as discussed at the onsite up the back behind the large farm wetland.
- That the native ecological corridor is to be fenced which will exclude stock from gaining access and doing irretrievable damage.
- That Iwi (Ngati Tamaoho and Ngati Te Ata) are to receive a copy of the planting proposal and associated management plan once available.
- That Iwi are engaged directly with the applicant, their agents and the site manager regarding any further required consultation requirements, are informed of the results of all monitoring and consent related assessments relating to the proposed quarry development and expansion.

4 Enforcement Action

Failure to comply with the conditions of consent may result in Council taking legal action under the provisions of Part XII of the Resource Management Act (1991).

APPENDIX B

WAIKATO REGIONAL COUNCIL DRAFT CONDITIONS

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.

Rainfall

2. Within two months of the commencement of this consent, at a location onsite that will experience wind and rainfall patterns that are representative of the site environs, the consent holder shall install and maintain equipment that accurately monitors and records:
 - a) Wind speed and direction. The wind speed and direction sensors shall be automated 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.
 - a)b) Rainfall. The rainfall gauge shall be automated and shall record rainfall data on a daily basis. The consent holder shall keep accurate records of daily rainfall data.

Commented [BS1]: Combining wind and rainfall monitoring under a single schedule condition.

Commented [BS2]: This supports the Dust Management Plan referred to later in schedule.

Commented [BS3]: This supports the Sediment Management Plan and the assessment of stream and discharge flows.

Water Flow Monitoring

3. Within two months of the commencement of this consent the consent holder shall install and maintain an automated flow rate monitoring system on each of the Eastern and Western streams at points downstream from the areas where future stream depletion due to quarrying operations may actively occur but upstream from the quarry stormwater discharge points.
4. Within two months of the commencement of this consent an automated flow rate monitoring system shall be installed on each treated stormwater discharge line from the quarry, downstream from the final sediment retention device on each discharge line. When any new treated stormwater discharge line is established, an automated flow rate monitoring system shall be installed on the discharge line, downstream from the final sediment retention device, prior to the start of discharge through this line.
5. Each water flow monitoring system provided for under Conditions 3 and 4 is to measure and record flows at 15 minutes intervals. Each flow monitoring system must have a reliable calibration to water flow and must be maintained to an accuracy of better than +/- 5%. Within three months of the grant of this consent, evidence of calibration to an accuracy of better than +/- 5 percent must be provided in writing to WRC.
6. Additional calibration of the water flow measuring system required by Condition 2 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.

Commented [BS4]: Copied from water take consent conditions.

7. Two years after this consent is activated, the consent holder shall undertake an assessment of base flows in the Eastern and Western Stream tributaries of the Waipunga Stream, based on the stream flow data acquired since approval of this consent. This assessment shall include an updated assessment of potential stream depletion arising from the expansion of the quarry and the consequent effects on stream base flows. A report documenting this assessment and the outcomes shall be submitted to the Waikato Regional Council. At a minimum, this report shall document:
- a) Base flows in each stream prior to any effects from the proposed quarry expansion.
 - b) The effects of the quarry expansion on stream flows, with the effects linked to the proposed increasing depth of the quarry floor.
 - c) An indication of the quarry depth at which stream depletion from either the Western Stream or the Eastern Stream would constitute more than 10% of base flow in either stream.
 - d) Appropriate mitigation measures to ensure the base flows in either stream are not reduced by more than 10% as a result of the planned quarry development.

Commented [EL5]: This addresses the proposed baseflow monitoring required to confirm the estimated groundwater effects.

Water Quality and Sampling

8. The Consent Holder shall measure the suspended solids concentration and turbidity at the sampling locations:
- a) ~~Upstream at~~ At a point ~~in the Western Stream-unnamed~~ tributary of the Waipunga Stream ~~unaffected by quarrying upstream from any quarry water discharges.~~
 - b) At a point on the treated quarry water discharge line prior to entering the receiving stream but after passing through the site stormwater treatment system.
 - c) At a point on the Western Stream no less than ~~100~~30 metres downstream of the final discharge
9. Sampling required in condition ~~28~~, 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 ~~82~~. Results shall be forwarded to the Waikato Regional Council on a monthly basis.
10. 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.
11. The discharges to the receiving tributaries of Waipunga Stream shall be managed such that:
- ~~a) the discharge does not increase the suspended solids concentration in the receiving water; and/or,~~
 - ~~b) a) suspended solids concentrations after reasonable mixing do not exceed 100 grams per cubic metre, whichever is higher; and,~~

Commented [EL6]: 100m downstream of the final discharge sits outside of the applicant's property boundary. In light of that and after further discussions with Mr Rodriguez, it has been agreed that a minimum distance of 30m can be applied instead.

Commented [EL7]: Without data on underlying suspended solids concentration, we do not know whether the receiving waters already exceed 100 grams per cubic metre of suspended solids. As such, the applicant proposes that this become an 'or' condition, whereby the existing ambient levels (should they be more than 100) serve as a baseline. This has been discussed with Mr Rodriguez, who has agreed in principle.

⇒b) the discharge ~~does shall~~ not result in any conspicuous change in the clarity of the ~~unnamed~~ water in the receiving tributary of the Waipunga Stream from upstream to downstream of the quarry stormwater discharge.

12. 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.

13. 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.

14. 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

15. 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.

16. 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 as 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)~~a) 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)~~b) Where any sediment deposition effects are identified, methods for measuring and quantifying the depth and extent of these effects within;

~~d)~~c) Trigger levels for implementing further investigation and assessment of sediment deposition effects;

~~e)~~d) Where identified triggers are breached, methods for investigating and assessing the effects of sediment deposition;

~~f)~~e) Methods to mitigate or environmentally compensate or offset for adverse effects that cannot be avoided or remedied in accordance with Condition 11(b).

~~g)~~f) 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 (measured on a per hectare basis), the consent holder shall implement the following measures:

Commented [EL8]: REJECT

As no baseline surveys of sediment composition (ie. before installation and operation of the new SRPs) exists, the applicant proposes that this be removed, while accepting the Council's suggestion of requiring a management plan.

In saying that, the applicant is proposing to carry out sedimentation monitoring for the same duration of time as the proposed baseflow monitoring (i.e. two consecutive summers). As such, baseline data will be available in 2-3 years time, at which point the data can be inserted into the SDMP.

- 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

~~7-8.~~ 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.

~~8-9.~~ 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.

~~9-10.~~ The instantaneous take rate must not exceed 20 litres per second.

~~10-11.~~ 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.

~~11-12.~~ 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.

~~12-13.~~ 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.

~~13-14.~~ 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.

~~14-15.~~ The consent holder must operate a reliable flow calibrated system for managing the exercise of this consent in accordance with condition 6.

~~15-16.~~ 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.

~~16.17.~~ Any intake must be screened with a mesh aperture size not exceeding 3 millimetres by 3 millimetres (or 3 millimetre diameter holes).

~~17.18.~~ 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.

~~18.19.~~ 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 updated Erosion and Sediment Control Plan (E&SCP) for Stage 1 to the Waikato Regional Council by 31 January 2019 within two months of commencement of consent 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;

Commented [EL9]: The proposed change in wording reflects the fact that the quarry is already operating under an approved ESCP (and has done since early 2019).

- 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.

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. If required in writing by the Waikato Regional Council, 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.

Commented [EL10]: REJECT

For the reasons outlined in the evidence of Ms Lonnberg-Shaw, the applicant proposes that this condition be removed.

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 to Waikato Regional Council for review and approval – acting in a technical certification capacity. 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.

Commented [EL11]: The proposed changed wording removes the confusion regarding when the OMP is due.

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 quarrying mining activities away from areas disturbed by quarrying 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 ~~Ecological Impact Assessment dated 15 October 2019~~ 16 August 2019 ~~'McPherson Quarry Vegetation Assessment, Expansion Stages 1 to 3', prepared by OPUS, dated 2 October 2018~~ (WRC doc # ~~15596721132112321~~) and Ecological Management Plan dated 16 October 2019 (WRC DOC#15595707) (including any modifications and/or later versions) both prepared by Ecology New Zealand.
 - 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 ~~April 2019~~ August 2018 (WRC doc # ~~14165834 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~~ 12 December 2019, received by the WRC ~~11 October 2018~~ on 16 December 2019 (WRC doc # 13211538).

Commented [EL12]: This version of the EIA includes the changes implemented as a result of the peer review process, meaning it is the latest and most relevant version.

Commented [EL13]: The AEE was updated as a result of numerous peer reviews, meaning this is the latest and most relevant version (with a number of changes having been made to the original proposal).

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~~
- h)j) Ecological Mitigation and Monitoring Plan

6. The consent holder shall exercise this consent in accordance with the approved Site Management Plan. The Site Management Plan shall be updated every 5 years for the time this consent is current or at least 2 months prior to the quarry is moving to Stage 2 or 3. 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

Commented [EL14]: REJECT

The applicant maintains that the timing of the SMP and all related management plans requires careful consideration and that allowing 6 months for this is more reasonable for any new management plans (noting that some of the plans exist in draft already).

Commented [EL15]: The applicant agrees with the recommendation of preparing one high level CSCP within 6 months of commencement, subject to removal of the need to update this every 5 years (as below). As such and given that this is not a 'live' document in the way the other management plans, I recommend removing it from the overall SMP and keep these plans as standalone documents.

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.

Commented [EL16]: REJECT

The applicant agrees with the recommendation of preparing one high level CSCP within 6 months of commencement, subject to removal of the need to update this every 5 years (as below)

Commented [EL17]: The applicant maintains that requiring an update of this plan every 5 years both highlights the speculative nature of the plan itself (making each rendition of limited value) as well as places an unduly onerous cost obligation on the applicant. Instead, it is appropriate to update the plan once and to do so within 6 months of closure of the quarry.

Commented [EL18]: REJECT

The applicant agrees with the recommendation of preparing one high level SRP within 6 months of commencement, subject to removal of the need to update this every 5 years (as below)

Commented [EL19]: The applicant maintains that requiring an update of this plan every 5 years both highlights the speculative nature of the plan itself (making each rendition of limited value) as well as places an unduly onerous cost obligation on the applicant. Instead, it is appropriate to update the plan once and to do so within 6 months of closure of the quarry.

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-quarrying 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 disturbed areas ~~bunds~~ to promote vegetation cover as soon as possible after working areas are completed (insofar as it is practicable)
- 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 ~~c~~Construction and maintenance of a sealed section of road between the site access road 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 the site access road ~~on and around the site offices and coal stockpiles~~

Commented [EL20]: This reflects the fact that faces are also 'disturbed' but are unable to be planted.

Commented [EL21]: Relying on the evidence of Mr Curtis and Dr Brady, the applicant proposes to remove the reference to a truck or wheel wash.

Commented [EL22]: As above

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~~ two months of 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;

Commented [EL23]: The proposed amended wording ensures the timing of all management plans are aligned (subject to the applicant's comment around delaying the plan delivery date to 6 months from commencement).

- 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 PM₁₀~~ particulate monitoring locations, alert levels and trigger levels and actions;

g) Details of how the nett TSP concentrations will be calculated.

~~g)h)~~ Dust deposition gauge monitoring

~~h)i)~~ 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.

Commented [EL24]: Relying on the evidence of Mr Curtis and Dr Brady, the applicant proposes that the references to shelterbelts and/or windbreaks are removed as they have not been identified by either specialist as an effective mitigation method for this operation.

- 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 PM₁₀-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 ambient TSP monitoring shall be carried out for 5 minute averages (or less) and 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
- Any dust control equipment malfunctions and any remedial action(s) taken;
 - Any visible emission of dust and the source;
 - The frequency of watercart use and the volume of water applied;
 - The volume of water used for dust suppression other than watercart usage; and
 - 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-quarry in dry weather conditions when the wind is blowing from the south and the wind speeds exceed 10 metres per second, as verified by the site's weather monitoring station

Commented [EL25]: REJECT

The purchase and installation of the suggested monitoring equipment is likely to take more than 2 months and to avoid a non-compliance situation, the applicant proposes that this be extended to 6 months to allow for stock delivery and availability of experienced professionals for the install.

Commented [EL26]: REJECT

The purchase and installation of the suggested monitoring equipment is likely to take more than 2 months and to avoid a non-compliance situation, the applicant proposes that this be extended to 6 months to allow for stock delivery and availability of experienced professionals for the install.

Commented [EL27]: REJECT

The purchase and installation of the suggested monitoring equipment is likely to take more than 2 months and to avoid a non-compliance situation, the applicant proposes that this be extended to 6 months to allow for stock delivery and availability of experienced professionals for the install.

28. The consent holder must ensure that overburden placement ~~and~~, rehabilitation activities ~~and the spreading of topsoil is avoided,~~ within 400 metres of dwelling locations ~~west and southwest,~~ east and northeast of the ~~quarry OPA when the wind is blowing from the direction of the OPA~~ towards those properties and wind speeds exceed 10 metres per second ~~during dry conditions,~~ as verified by the site's weather monitoring station.

Commented [EL28]: Relying on the evidence of Mr Curtis, the applicant proposes that the condition be re-worded as proposed.

Commented [EL29]: As above.

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~~

Commented [EL30]: REJECT
Relying on the evidence of Ms Lonnberg-Shaw, the applicant proposes that this condition be removed in its entirety.

~~33-32.~~ 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.

~~34-33.~~ 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

~~35-34.~~ 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:

- 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.

~~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.

Commented [EL31]: REJECT

Relying on the evidence of Ms Lonnberg-Shaw, the applicant proposes that this condition be removed in its entirety.

37.35. 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, in addition to details of any fencing requirements, shall specifically include the following:

- a) Restoration and enhancement of a minimum (indigenous re-vegetation equivalent):
 - i. Planting of native species to form the 5.9254.56ha 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

Advice Note: Prior to riparian planting being undertaken, a joint site visit will be undertaken by the project ecologist and the WRC/WDC ecologist to agree on areas where stream reprofiling shall be undertaken. Reprofiling will be undertaken to ensure the long-term success of riparian planting.

Commented [EL32]: As agreed during caucusing

- b) The wetland enhancement plan which shall include details on how the existing and proposed new wetlands will be enhanced, particularly in relation to hydrological maintenance.
- c) Bat management, which shall include specifications on bioacoustics surveys for native bats prior to the commencement of tree felling at each stage of works. Details shall be provided on vegetation removal protocol should bats be detected during these surveys. 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.

Commented [EL33]: This reflects the wording agreed during caucusing.

Commented [JR34]: It was agreed that this condition can be removed as it is inconsistent with the results of the baseline survey.

d) Lizard management, which will consist of additional survey effort to be undertaken (being no less than two (2) additional nights spotlighting and three (3) checks of artificial cover objects and manual searches) by a suitably qualified ecologist. If lizards are detected during the surveys, the consent holder shall prepare a Lizard Management Plan which will outline methodologies to search for and relocate lizards into retained habitat of equal or greater value on-site. Lizard Management Plan, including the installation of minimum 5 lizard log piles within the northern corridor.

e) Details of fencing to be undertaken at the two wetlands to be upgraded, in addition to details of any pest plant control which shall be undertaken in these two areas for no less than 5 years from commencement of consent.

Commented [EL35]: The proposed changes reflects the condition wording agreed through caucusing.

Commented [EL36]: The proposed changes reflects the condition wording agreed through caucusing.

e)f) 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

~~38-36.~~ 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.~~
- e)a) Matauranga Maori Monitoring

37. The Consent Holder shall provide specifications for monitoring requirements within an updated Ecological Mitigation and Management Plan (EMMP) to determine if physical habitat values that develop in new or restored channels, wetland and planting areas are greater in ecological value and diversity than baseline conditions (Year 0 – restored channels and wetlands) or of equivalence to the SNA impact site (ecological corridor and other terrestrial habitat planted areas). The updated plan shall detail:

a) Mitigation measures for the effects on the upper reach of Tributary 1.

b) Identification of suitable sampling sites and sampling regimes.

c) Methods for pre and post works monitoring of aquatic stream and wetland habitat for a minimum of 6 years, undertaken on Year 0 (Pre-riparian planting), 2, 4, and 6. These should provide enough detail to measure variation in habitat value from baseline conditions. For wetlands, this should include accurate reference to wetland extent (determined through vegetation, soil and hydrology indicators) and condition (including but not limited to: flow modification, water quality, erosion, sedimentation and biota).

d) Methods for pre and post works monitoring of ecological corridor terrestrial habitat continue until ecological equivalence is determined by a suitably qualified and experienced practitioner or for maximum of 15 years, undertaken every two years to demonstrate recruitment/utilisation of the corridor. Key ecological outcomes to determine corridor establishment be used as a proxy for corridor functionality will include, but not be limited to: canopy closure, flora and fauna abundances and diversity, evidence of natural regeneration/emergence of understory species.

e) Details on how the proposed wetland mitigation measures will be implemented, including specific reference to the maintenance and improvement of wetland form and function should be included within the EMMP.

379A. Within three (3) months of commencement of this consent the Consent Holder shall invite representatives of Ngāti Tamaoho and Ngāti Te Ata to develop a Matarauanga Māori Monitoring Framework (Framework) and protocols to ensure the Framework is maintained with respect to the habitat monitoring stipulated by condition 39. The Framework may include references to Cultural Health Indicators and methodologies for monitoring and/or sampling aquatic and/or terrestrial habitat and shall, upon completion, be provided to the Consent Holder for their records.

379B. Provided a Framework has been completed and shared with the Consent Holder pursuant to condition 39A, at least three (3) working days prior to any planned monitoring stipulated by condition 39 and/or the EMMP, the Consent Holder shall invite iwi representatives to attend the visit and provide a report on the results to the Consent Holder within one (1) of the same for inclusion in the annual report stipulated by condition 45.

40.38. 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: The Consent Holder shall include details of the monitoring stipulated by condition 379 and 379A (insofar as it exists) in the annual report stipulated by condition 435, outlining 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 matters to cover shall include, but will not be limited to:

Commented [EL37]: As noted in the Right of Reply, without the relevant data being available to assess aquatic habitat effects, it is proposed that this sub-clause be deleted until such data is available (being 2-3 years from now).

- 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~~ terrestrial, aquatic and wetland monitoring required by condition 379;
- c) Details and outcomes of any plant or animal pest control works including any follow up monitoring of pest
- ~~e)d)~~ Where key ecological outcomes (recruitment/utilisation/wetland, stream and terrestrial habitat value) required by condition 379 are not met (as identified through monitoring – Condition 3840a-3840c), the consent holder should outline the extent to which and the main reasons why these outcomes are not met. If it is determined that the intended ecological outcomes will not be achieved a revised EMMP shall be developed and submitted to Council for approval in a technical certification capacity. The EMMP should identify how the effects authorised by this consent will be mitigated, offset or compensated.

~~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.~~

~~41-39.~~ 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.

~~42-40.~~ 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

~~43-41.~~ 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

~~44-42.~~ 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

~~45-43.~~ The consent holder shall provide to the Resource Use Group of the Waikato Regional Council a report by ~~31 July~~ 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) Ecological Monitoring results as required by conditions 379A and 37A9B or any updates to the Ecological Mitigation and Management Plan (EMMP)

~~a)~~ b) overburden stripping undertaken during the preceding 12 months and overburden stripping proposed to be carried out during the following 12 months;

~~b)~~ c) any water quality data collected in relation to resource consent AUTH139828.05.01;

~~c)~~ d) all daily rainfall records;

~~d)~~ e) all daily and annual water take volumes;

~~e)~~ f) the cleanfill volumes and sampling results collected

~~f)~~ g) a compliance audit of all consent conditions;

~~g)~~ h) any reasons for non-compliance or difficulties in achieving compliance with all consent conditions;

~~h)~~ i) recommendations on alterations to monitoring required by consent conditions; and,

~~i)~~ j) any other issues considered important by the consent holder.

Bond

~~46-44.~~ 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.

~~47-45.~~ 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.

~~48-46.~~ 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.

~~49-47.~~ 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.

~~50-48.~~ 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.

~~51-49.~~ 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.

~~52-50.~~ 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.

~~53-51.~~ The bond may be varied, cancelled, or renewed at any time by agreement between the Consent Holder and the Consent Authority.

~~54-52.~~ 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

~~55-53.~~ 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

~~56-54.~~ 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 C

GROUNDWATER REPORT – RESPONSE TO PEER REVIEW, 2 FEBRUARY 2021



WALLBRIDGE GILBERT
AZTEC

Kinetic Environmental Consulting Limited
PO Box 9413
HAMILTON 3240

2/02/2021

Document No: WGA202334-HG-LT-0001

Attention: Eloise Lonnberg-Shaw

Dear Eloise

EFFECTS OF MCPHERSON QUARRY EXPANSION ON SURFACE WATER BODIES

INTRODUCTION

McPherson Resources Limited (McPherson) has applied for resource consents authorising the continuation of existing operations and future expansion of McPherson Quarry. At the request of Kinetic Environmental Consulting Limited (Kinetic), Wallbridge Gilbert Aztec (WGA) produced two reports summarising the likely effects of the proposed quarry on the surrounding groundwater system and local streams:

- WGA202334-HG-RP-0001 Effects of McPherson Quarry expansion on groundwater (WGA 2020a).
- WGA202334-HG-RP-0002 Effects of McPherson Quarry expansion on stream baseflows (WGA 2020b).

These reports were submitted to the Waikato Regional Council (WRC) commissioners in support of the resource consent applications. Additionally, these reports were reviewed by WRC staff.

WGA has since received two documents related to the application:

1. Review of WGA McPherson Quarry Stream Depletion Report (Dec 2020 report). An internal WRC memorandum from Sung Soo Koh to Jorge Rodriguez dated 14 Jan 2021.
2. A draft set of resource consent conditions.

WGA has been asked to provide responses to the review and, where appropriate, suggestions relating to conditions of consent.

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STREAM BASE FLOW AND DEPLETION ASSESSMENT AND MANAGEMENT

A conservative calculation of stream depletion of up to 30% of the base flow in the stream to the east of the quarry ("Eastern Stream") had been indicated as potentially arising on full development of the quarry to a final floor elevation of 0 mRL (WGA 2020b). Concerns have been raised by the reviewers with respect to the potential effects this depletion could have on base flows in Eastern Stream.

Sung Soo Koh, a technical reviewer for the WRC has indicated: *"I was most concerned with the streams on the west and east. Because of the hilly topography, it is likely that the streams are spring fed. So, field gauging and location of major springs for these streams will be of great value in strengthening the report. At the moment, the numbers in the report are all based on desktop thinking, thinking of similar quarry geology setups, no actual measurements done in the area."*

WGA considers the above concern to be reasonable and appropriate.

It is important to recognise that almost all of the calculated reduction in base flows arises from a stream depletion effect in which the deepening of the quarry over time leads to an increasing flow of groundwater from the adjacent streams towards the quarry. Conversely, the reduction in stream catchment area arising from the increasing footprint of the quarry was calculated to have a negligible effect on flows in the adjacent Western and Eastern Streams (WGA 2020b).

It is WGA's understanding that the scheduling of the deepening of the proposed quarry has not yet been finalised. Furthermore, we understand that the floor of the existing quarry is unlikely to be lowered significantly over the coming two to three years. Therefore, the effects of quarry expansion over this period on base flows in the Western and Eastern Streams are expected to be negligible.

To address WRC concerns regarding the lack of field data to support the stream depletion calculations, WGA suggests that this two to three year period (two consecutive monitored summers) be utilised to monitor and evaluate groundwater flows into the quarry and base flows in the adjacent streams. Stream base flows can be reassessed at the end of this period and the potential rates of stream depletion recalculated.

WGA considers that flow monitoring in the Western and Eastern streams is likely to be required by the WRC as a condition of consent. Monitoring of quarry discharge flows is expected to be required for operational purposes to support treatment of the discharge water and potentially also as a condition of consent. Consequently, the monitoring proposed above is in line with what would probably be required in any case.

WGA recommends the applicants and WRC meet after the proposed monitoring period has passed, stream base flows and depletion have been reassessed and the potential effects on stream ecology identified. At that time the applicant can present WRC with base flow and stream depletion calculations based on site-specific data and a proposed maximum percentage of stream depletion that would be acceptable, for Council review. This process and the stream depletion limits can be built into the consent conditions or an Environmental Management and Monitoring Plan (EMMP) that is subject to review by WRC. This approach enables the applicant to:

1. Obtain consents authorising the proposed operations.
2. Develop a clear understanding of how the expanding quarry is likely to affect stream base flows, supported by appropriate field measurements.
3. Develop more accurate projections for potential stream depletion over the life of the quarry and mitigation or management measures that would enable the quarry to continue operating over its full projected life while complying with the base flow protection criteria in the consent.

4. If ongoing flow monitoring at the expanding quarry does indicate the effects on stream base flows will become unacceptable once the quarry reaches a certain size or shape, the applicants can take this into account in the operational and financial planning for the quarry and its closure programme. This process, which would presumably be regularly updated, should provide the applicant with a level of certainty for financial planning purposes.

In the quarry review report, Sung Soo Koh wrote:

“The report of the analysis is indicating potential significant impact (up to 30% loss of estimated baseflow). I recommend we place a field investigation specific to the quarry to confirm the estimated numbers really do represent the situation there.”

“This could be done within the time-frame of the hearing or may be included as consent review requirement after certain years of operation. Say we give out phase 1 of the quarry operation and they collect information during that phase to support their prediction given today. If the additional field-specific information shows non-significance of the impact based on in-situ data, then we allow Phase 2 and 3 to commence based on updated information.”

In an e-mail to the applicant (dated 20 January 2021), Jorge Rodriguez wrote:

“In light of the information provided by the applicant and subsequent peer review by WRC in relation to effects on groundwater and springs flows, I am of the opinion that consents can be granted subject to monitoring conditions being included in the consents requiring the consent holder to undertake monitoring of stream and spring flows around the quarry and the eastern and western tributaries and springs. Should any changes or effects on those flows are demonstrated as a result of the quarry operation, mitigation of those effects to be addressed through an adaptive management plan.”

These recommendations from Sung Soo and Jorge and are similar to those provided by WGA and represent a reasonable way forward. However, the WGA recommendations provide the applicant with more flexibility to manage the design and staging of the quarry while still ensuring the associated effects on stream base flows remain within a range acceptable to WRC.

Note that WGA does not necessarily agree with all statements that the reviewer (Sung Soo Koh) has made with respect to groundwater recharge rates and the range of hydraulic conductivity applied to the stream depletion calculations. However, we consider that these differences in professional opinion are better addressed through site specific field measurements and site management measures than through referencing more studies from other areas.

EXTENT OF EFFECTS

In the WRC memorandum, Sung Soo Koh provided a Figure 1, which is copied below (Figure 1), indicating the extent of potential flow loss from the nearby streams. He noted *“The reach coloured in purple are the reach impacted by the stream depletion. The ecological consideration of these reaches must be analysed. This is because the depleted water will end up in the pit and the pit pumping will dump water into the stream emerging from the quarry pit. When the stream from the quarry pit merges with the East and the West streams, the water balance will become neutral.”*

Bearing in mind that this is a quarry development with a long operational life expectancy, the discharge points for treated quarry water can be designed to minimise the areas potentially affected by stream depletion.

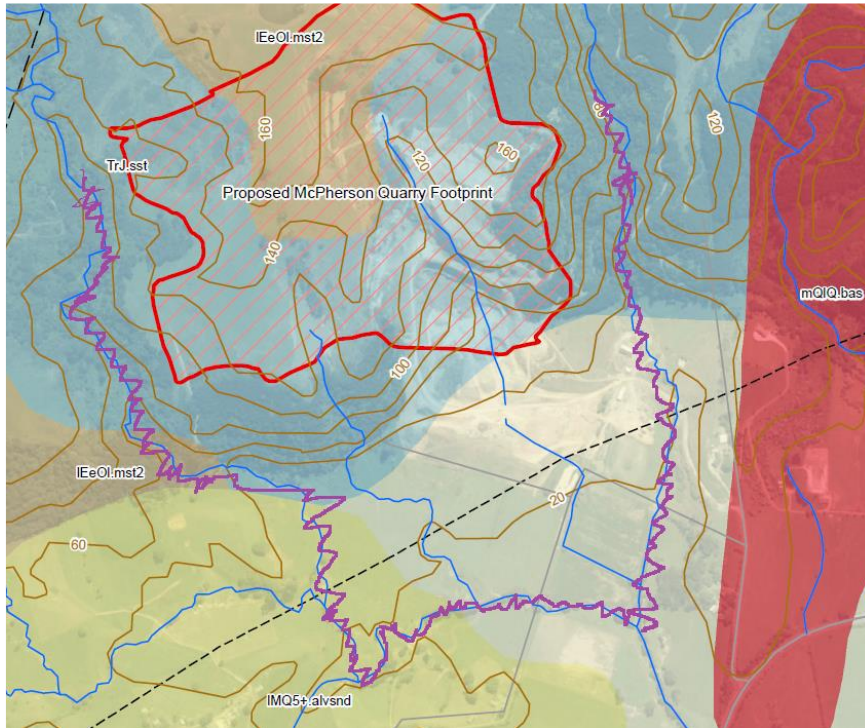


Figure 1. Copy of Figure 1 from WRC Review Memorandum.

The final design of the quarry water management system can potentially be adjusted to shift the treated water discharge points as far upstream as possible. The currently proposed discharge point for the proposed water treatment pond is shown in Figure 2 below.

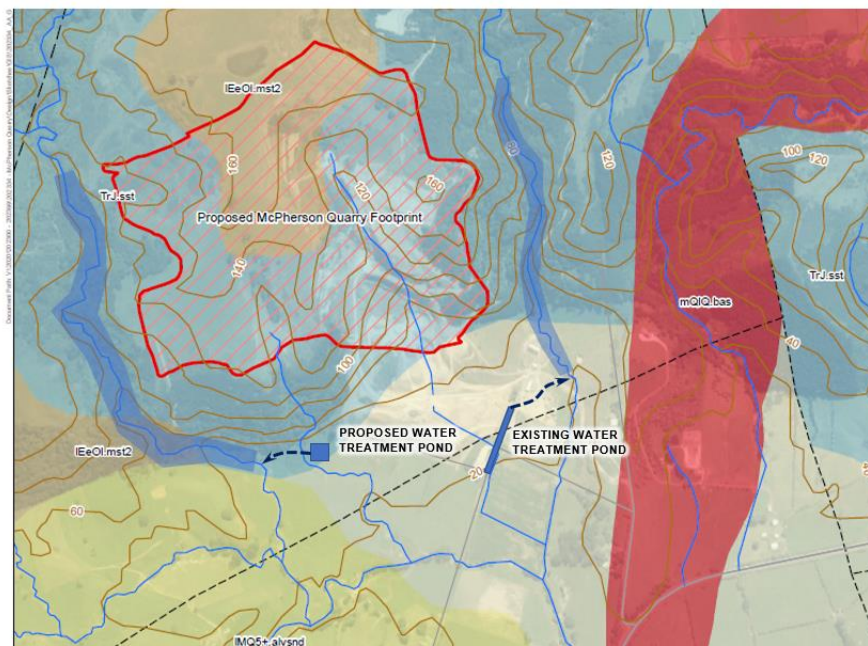


Figure 2. Potential Treated Water Discharge Points.

The treated water discharge point for the existing water treatment ponds could potentially be re-located to discharge to the Eastern Stream as shown. Furthermore, discharges from these treatment ponds could be used to support flows through any planned or existing wetlands between the Eastern and Western Streams. The objective would be to minimise the impacts of the quarry on stream and wetland ecologies and certainly reduce the stream depletion impact from the extents indicated in Figure 1.

Modifications to the water treatment system can be incorporated in the EMMP, which would presumably be regularly updated and reviewed by WRC.

Should you have any questions regarding the material contained in this letter, please contact the undersigned.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Brett Sinclair'.

Brett Sinclair
for
WALLBRIDGE GILBERT AZTEC

BAS : CHO : hge