

STAFF REPORT

TO: Environment & Planning Subcommittee

FROM: Jack Andrew, Co-Ordinator Land Use Consents
Neil Tyson, Consent Planner (Water)
Graham Caradus, Co-Ordinary Regulatory Services
Leif Pigott, Co-Ordinator Natural Resources
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REFERENCE: RM090312 and RM090387 (replacing WD870124)

SUBJECT: **TGG MINING LTD - REPORT EP09/10/12** - Report prepared for meeting of 19 October 2009

1. INTRODUCTION - APPLICATION BRIEF

1.1 Proposal

The applicant is proposing to undertake alluvial gold mining on the true right bank of the Matakītaki River approximately 900 metres downstream of the Horse Terrace Bridge. The area to be mined is approximately 11.9 hectares of land.

The proposed operation is typical of other gold recovery plants working in the Matakītaki Valley. The method involves stripping of topsoil and silt by an excavator or bulldozer and stockpiling it while the underlying gravels are dug out by a digger and fed through a rotary screen. Within the screen the gravels are thoroughly washed to remove the fines and gold which subsequently passes over a riffle trap system to separate the gold. The gravels pass out the back of the screen forming a stockpile of tailings. These tailings are then spread and levelled by digger, the topsoil is respread and finally cultivated and revegetated.

The applicants intend to operate for up to five years.

The applications are:

Land Use Consent (Application RM090312)

Alluvial gold mining undertaken by excavator and rotary screened with the site being mined in trenches (50 metres wide by 200 metres long) and continually remediated with a maximum area of 2 hectares being disturbed at any one time. A five year term is sought.

Water Permit Consent (RM090387- formerly Water Permit WD870124)

The taking and use of water in the gold recovery operation is under an existing consent WD870124 expiring in January 2011. WD870124 authorises the taking and use of groundwater at rates up to 231 litres per second. A change of conditions is applied for, to authorise the use of river water, for reduced rates and at two upstream sites adjacent to the area to be mined. The report and recommendation in respect of the water permit application has been prepared by Neil Tyson Council's Consent Planner who processes water consents and is included separately in the Agenda. (Note, the discharge of water is expected to comply with permitted activity Rules 36.1.11 and 36.2.3 of the Tasman Resource Management Plan.)

1.2 Location and Legal Description

Matakitaki River, Murchison being Crown land and part Marginal Strip, co-ordinates being approximately 2456232E, 5911156N (upstream extent) 2455409E, 5911729N (downstream extent). The approximately 11 hectare site is on the true right-hand side of the Matakitaki River approximately 900 metres downstream of the Horse Terrace Bridge. See figure 1 below.



Figure 1: Horse Terrace Location Map

1.3 The Setting

The application site is 27 kilometres south of Murchison and about 900m north of the Horse Terrace bridge. The area proposed to be mined is approximately 11.9 hectares being low river terraces beside the Matakītaki River. These lower river terraces of the Matakītaki River in the Horse Terrace area have been mined intermittently since about the 1870s.

The application site is in pasture which has been fenced and has a stock water supply and is currently used for grazing dairy cows.

Access to the site is off the Matakītaki Road and has good visibility. Matakītaki Road although a "Collector Road" in the Council's road hierarchy is a lightly trafficked unsealed road in the vicinity of the subject site.

Most of the application site is on a low river terrace flanked by mainly by native bush and the Matakītaki River with the Matakītaki Road elevated above on the northern side. Approximately 0.9 hectares is stepped up on a higher River terrace and is level with the Matakītaki Road. This higher terrace contains a lone matai tree and is in pasture that runs back to a residence on the Thomas farm that is occupied by Mr Pawson.

The residence occupied by Mr Pawson is at 2540 Matakītaki Road (Sec18 Bk11 Matakītaki SD CT NL9C/1260). The mining operation is on the northwest side of the residence(see Figure 2). The nearest part of the mining application site to the residence is approximately 50 metres.

The application area is covered by Mining Permit 41666 Extension 3 Area labelled Area "S" and "U". Area "S" is land owned by Land Information New Zealand (LINZ) and Area "U" is owned by Department of Conservation. The applicants hold Mining Permit 41666 which expires on 30 June 2015.

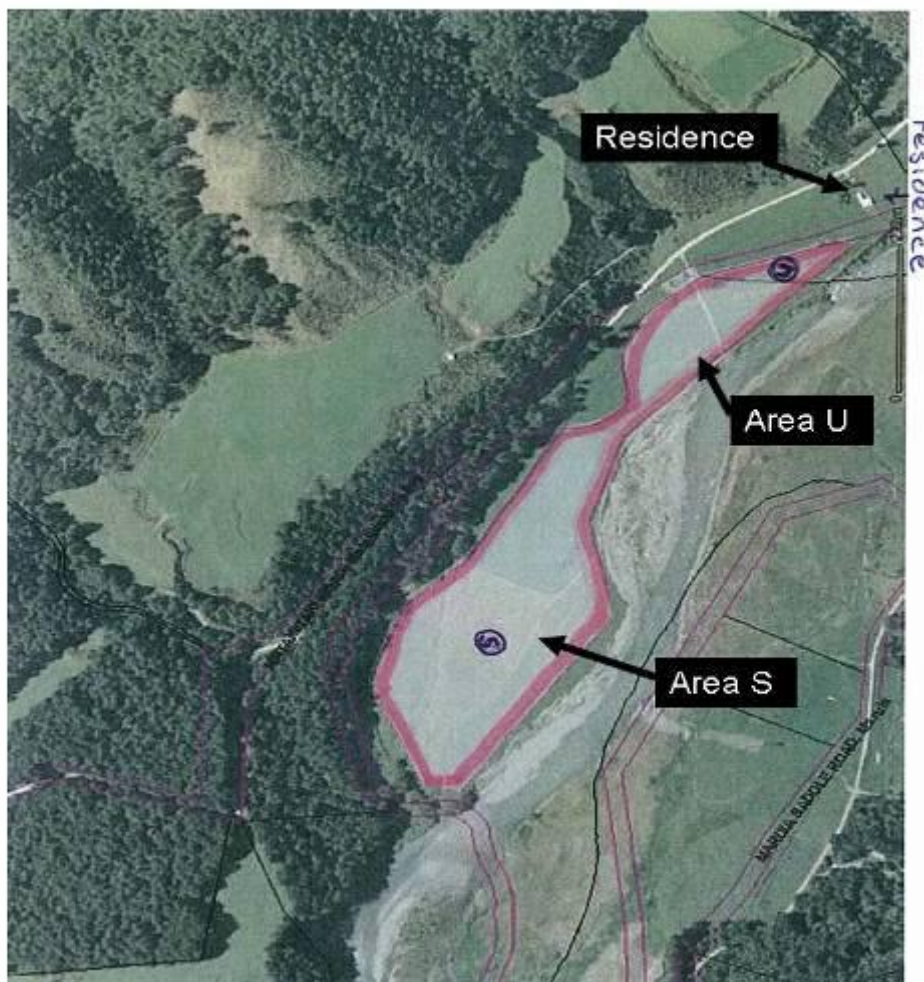


Figure 2: Mining licence areas.

2. STATUS UNDER THE PLAN

2.1 Tasman Resource Management Plan

As the land section of the Tasman Resource Management Plan (The Plan/TRMP) is now largely operative (on 1 November 2008), the TRMP is the dominant Plan for the application to be assessed under. No weight needs to be attributed to the Transitional District Plan.

2.2 Zoning and Consent Requirements for Gold Mining

Under the definitions of the TRMP mining is regarded as a form of “Quarrying”.

Quarrying- “means any land disturbance required for the extraction of any mineral...”
TRMP Chapter 2.

The subject site is located in the Rural 2 zone and is also within Land Disturbance Area 1. The Rural 2 zone and Land Disturbance Area 1 objectives, policies and rules affecting the subject site are operative.

The mining operation also involves the taking and discharge of water. The rules dealing with the discharge of water are currently proposed.

The application is considered to be a Discretionary Activity under the relevant rules of the Tasman Resource Management Plan as outlined in Table 1 below:

Table 1: TRMP Rules

Activity	Relevant rules	Proposal	Status
Volume of land disturbed in any 12 months more than 50 m ³	Rural 2 zone rule 17.6.2.1(b)(ii)	Not permitted Not permitted	Discretionary Activities Pursuant to 17.5.2.3
Noise from mining operation may breach	Rural 2 zone Rule 17.6.2.1(d) Council's Coordinator Regulatory Services has measured noise at the existing mining operation approximately 2km downstream and considers that with mitigation measures the Rural 2 zone noise standard could be meet	Probably complies but with mitigation measures	Discretionary Pursuant to 17.5.2.3
Dust	Rural 2 zone Rule 17.6.2.1(c) "no activity may emit offensive and pervasive dust or odours that are discernible in a residential zone." The nearest residential zone is in Murchison .	complies	Permitted
Cross reference to Quarry Area Rules	Rural 2 zone Rule 17.6.2.1 (f) & (g) – (f) relates to setbacks. The mining proposal complies with all setback requirements (g) relates to the Quarry Area's which are located in the east of the Tasman district and limited to areas of hard rock that is important to the roading and building construction industries. The subject site is not in the Quarry Area and the standards in these rules that relate to hazards such as misfires from blasting hard rock are not relevant to the application	Complies	Permitted

Activity	Relevant rules	Proposal	Status
Land Disturbance Area 1	18.5.2.1(a)-(w) The application complies with all but 3 of the 23 subsections. It trips up on : *(a) which is a cross reference to the Rural 2 rules; *(n) only 50 m ³ of quarrying is permitted in 12 months(another re[peat of Rural 2); *(p) restricts any excavation associated with recontouring land to no more than 1 hectare in any 12 month period	Designed to comply with requirements of 18.5.2.5(c) (i) topsoil and subsoil are stripped and stockpiled separately; (ii) traffic, vehicles or machinery do not travel over stockpiles; (iii) Topsoil and subsoil are replaced and spread separately onto the mined area in a manner that minimises compaction.	Restricted Discretionary Pursuant to 18.5.2.5(c) Council's discretion is restricted to 26 matters see Appendix 3
Access / Vehicle crossings	Road Area Rule 18.8.3.1(d) and (i)Transport Rule16.2..2.1 (q) Figure 16.2A - Access standards (but no sealing required).	18.8.3.3 and a new access is required.	Discretionary
Parking and loading	Figure 16.2C onsite Parking spaces required:	Ample room for staff and two visitor car parks on site	Permitted
Water take	Refer to attached report by Neil Tyson		
Wastewater discharge	Discharge of mining washwater 36.1.11 to land	This allows for ground soakage of washwater	Permitted
Wastewater discharge	Discharge of mining washwater 36.2.3	This allows the discharge of water from mining operations containing sediment to water subject to performance criteria	Permitted

Overall the application falls for consideration as a Discretionary Activity.

3. LIMITED NOTIFICATION

The application was limited notified on 9 July 2009 to:

- Regional Conservator, Department of Conservation, Nelson
- Land Information New Zealand, Christchurch
- EB Pawson, 2054 Matakītaki Road
- MD, PD and EL Thomas, Murchison

Submissions closed on Friday, 7 August 2009 with three submissions being received.

One submission lodged by LINZ was neutral and they did not want to be heard.

Two submissions were in opposition and wanted to be heard. They were from Mr EB Pawson and from MD, PD and E L Thomas.

The submissions in opposition have been summarised into the table below:

Submitter's address	Submitter	Reasons	Decision
2540 Matakītaki Road	E B Pawson	Adverse amenity effects on the dwelling including visual, dust, fumes and noise effects Visual impact from Matakītaki Road. Recreation effects	Decline Wishes to be heard.
	MD, PD and EL Thomas	Loss of land productivity and dairy platform. Adverse effects on the cottage and other dwellings Adverse effects on recreation and public risk Inaccuracies in application	Decline Wishes to be heard.

These summarised effects will be discussed later in this report under the assessment of effects.

4. STATUTORY CONSIDERATIONS

4.1 Resource Management Act

4.1.1 Part II Matters

In considering a resource consent application, Council must ensure that if granted:

* the proposal is consistent with the purpose and principles set out in Part II of the Act;

- the proposed activity must be deemed to represent the sustainable use and development of a physical resource;
- any adverse effects of the activity on the environment are avoided, remedied or mitigated.

These principles underpin all relevant Plans and Policy Statements, which provide more specific guidance for assessing this application.

4.1.2 Section 104

Subject to Part II matters, Council is required to have regard to those matters set out in Section 104. Of relevance to the assessment of this application, Council must have regard to:

- Any actual and potential effects of allowing the activity to proceed (Section 104 (1)(a)).
- Any relevant objectives and policies in the Tasman Regional Policy Statement and the Tasman Resource Management Plan (Section 104(1)(b)).
- Any other relevant and reasonably necessary matter(s) to determine the consent (Section (1)(c)).

In undertaking the Section 104 assessment the **Permitted Baseline** concept can also be applied. Section 104(2) gives a consent authority the ability to disregard adverse effects on the environment of activities that the Plan permits, if it so wishes. This is the “permitted baseline” and can provide a yardstick for the effects that otherwise might arise.

Section 104B sets out the framework for granting or declining consent based on the status of an activity as set out in the relevant Plan and provides:

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

- (a) may grant or refuse the application. and
- (c) if it grants the application, may impose conditions under section 108.

The relevant principles for a discretionary application were summarised in AHN and LIM v Christchurch City Council, Decision C68/2007 where the Environment Court stated:

“... a discretionary application may be granted in respect of an activity which has effects which are more than minor. From time to time the Court grants a discretionary activity in circumstances where there are both significant effects and significant benefits of an activity.

Identifying an effect of a discretionary activity as being more than minor is not a jurisdictional bar, nor is identifying it as less than minor. Similarly, it is difficult to conceive a discretionary application that would be contrary to the objectives and policies of this plan, although it may be significantly inconsistent with one or more.

The degree of consistency or inconsistency with that plan would be a factor the Consent Authority or Court would take into account in assessing the proposal, but again is not a jurisdictional bar to its grant. Thus, even if a discretionary activity was contrary to the objectives, policies and other provisions of a plan, this would not necessarily preclude the grant of consent. However, we note that issues of inconsistent administration and integrity of the plan may well arise.”

Refer paragraphs 39 and 40.

5. ASSESSMENT OF EFFECTS

Pursuant to Section 104(1)(a) of the Resource Management Act, the following assessment of environmental effects is undertaken:

5.1 Noise

Noise effects have been identified as a concern by neighbouring submitters. Advice on this potential adverse effect has been sought from Council’s Coordinator Regulatory Services, Mr Caradus who is experienced in advising on noise and is familiar with mining operations. Mr Caradus’s report dated 31 August 2009 is appended to this report as Appendix 2. He has advised:

“The operation of the alluvial gold mining operation on the site has the potential to generate noise which may cause nuisance to the one neighbour within close proximity of the proposed site.” Refer para 2.1

He discusses this further in paragraph 2.5

“There is not expected to be any significant issue with noise being transmitted off site except or when the proposed activity is in close proximity to the rural dwelling on the proposed site. The nature of the topography in that vicinity sees a river terrace which creates a natural bund about 130 metres from that dwelling. Whilst mining activities are undertaken below (downstream of) that bund, the noise reducing effects of the bund as well as the distance to the rural dwelling are both factors that will assist in reduction of noise received at the dwelling. It is expected that the day time L₁₀ TRMP performance standard of 55dBA is likely to be met without any additional noise mitigation. However, the more restrictive night time standard of L₁₀ 40dBA and the L_{max} level of 70dBA may pose some challenges. However, as mentioned above, the construction of localised bunds close to the work site can be formed if that becomes an issue in practice.

If mining activities occur above the river terrace, there seems little doubt that some form of noise mitigation in the form of bunds will be required. As mentioned above, these can be constructed of sufficient size as is necessary to achieve the desired outcome.”

He also makes it clear that bunds maybe needed close to the mining activity to achieve noise attenuation. At this point I want to emphasis the noise bunds that Mr Caradus refers to should not be confused with the 2 metre high earth mound sown in grass that is recommended elsewhere in this report (for example see

5.3 Visual below) as that mound has a different purpose which is to help screen the mining activity from the residence and its outdoor living area.

Council has an ability to impose noise limits on the mining operation and Mr Caradus has recommended conditions in his report that have been carried over and included in the set of conditions should Council grant consent.

5.2 Land Productivity

Please refer to the report from Council's Resource Scientist (Land), Andrew Burton, in Appendix 1.

5.3 Visual

The mining operation will be visible to recreation fishermen, the public travelling on the Matakītaki Road and from the adjoining residence.

Mining operations will affect up to 2 hectares of land at any one time and even although it will be setback 20 metres from the top of the bank of the Matakītaki River it will create a temporary detraction from the visual amenities of the area for fishermen. Mining will not cut off access to the Matakītaki River as it will remain available along the legal paper road that connects the formed road to the river. For safety and security reasons consideration should also be given to fencing off the main public access from the Matakītaki Road to the river once mining is on the cottage (upper) terrace and approaching Council's unformed legal Road.

While the mining will be partly screened by existing native bush located between the subject site and the Matakītaki Road it will be visible from the end of the bush back along the road to past the cottage. The mining is temporary and in my opinion will not detract greatly from the driving experience and for "Sunday drivers" may add a point of interest to their outing.

The visual effect on the occupier of the residence will be considerable once the mining proceeds past the lower terrace and up onto the upper (residence) terrace. If the mining moves up onto the upper (residence) terrace then before any mining commences on that terrace a two metre high mound should be established along the edge of the DOC land (beside the unformed legal road) so that the mining is not visible from inside the residence or from its back yard (the back yard being from the building back eastwards along the existing fence to the unformed legal road boundary). The mound should be topped with topsoil and the area sown in grass to help mitigate the visual impact. At the completion of mining the mound should be levelled and sown in pasture grass.



View of Matakītaki Road and Lower and Upper (Residence) Terraces looking south east

5.4 Traffic Effects

Traffic impacts on the Matakītaki Road are mainly associated with workers vehicles. Heavy vehicles such as diggers and trucks will be based at the site and are not expected to have an adverse impact on the safe and efficient operation of the Matakītaki Road. While staff numbers vary they will not exceed the capacity of the Matakītaki Road or require additional road works to be undertaken. However the consent holder will need to develop a new access within the road reserve as the existing formed access is over the Thomas property. Creating what is effectively a property access along the unformed road reserve does not require development of a full width access road. Council's Engineering department has considered the access on the legal unformed road and in its present position. It has recommended that the access be developed as outlined in Plans A and B attached although Plan B would only apply to access if the unformed legal road is used as access. Plans A and B are attached at the end of this report.

5.5 Recreation Effects

Mining will not cut off public access to the Matakītaki River as access can be repositioned to run along the legal paper road that connects the formed road to the River. The mining consent holder should mark out and sign post the repositioned access so that the public are aware that access to the river is still available. The sign should be clearly visible from the Matakītaki Road and warn the public of the danger

of mining and the need to stay on the marked track. Overall public access to the river will not be lost through any approval of the application.

Water Quality

Alluvial gold mining of river flats invariably involves large amounts of water. This generally involves the taking and discharging of water. The discharge of this sediment laden water needs to be undertaken in a careful manner. The applicant currently has a permit to discharge water so that the suspended solids 200 metres downstream do not increase by more than 5 milligrams per litre. And the turbidity will not increase by more than 5 NTU.

The consent limits are a little less stringent than those in the current permitted activity Rule 36.2.3 that allow the visual clarity to decrease by up to 20% 50 metres downstream. The turbidity shall not increase by more than 1 NTU 50 metres downstream when the upstream water is less than 10 NTU and if the water is more than 10 NTU the increase shall not be more than 10 NTU.

The impacts on the water quality from this activity should not be significant if the applicant follows good practice. The applicant anticipates meeting the permitted activity discharge limits.

6. TASMAN REGIONAL POLICY STATEMENT

The Regional Policy Statement seeks to achieve the sustainable management of land and coastal environment resources. Objective 6.7 and policy 6.2 of the Regional Policy Statement clearly articulate the importance of ensuring that mineral resources can be accessed:

Objective 6.7

Avoidance, remedying or mitigation of the adverse effect of land uses on the accessibility of mineral resources.

Policy 6.2

The Council will ensure that subdivision and uses of land in the rural areas of the District avoid, remedy or mitigate adverse effects on:

(iv) accessibility of mineral resources

and that are not unnecessarily exposed to adverse effects from:

- (a) adjacent land uses across property boundaries; and
- (b) natural hazards.

Minerals including gold are important resources of the District which are locationally fixed and non renewable.

In relation to the subject application the gold is in a location that is easily and safely accessible from Council's roading network and in a river flat where the Crown landowners are accepting of the mining proceeding. Cross boundary effects including safeguarding water quality values and the use of earth mounds can help mitigate potential adverse amenity impacts on the adjoining residence. The mining is not exposed to earthquake hazard. The land restoration which is part of the mining process can incorporate improved drainage and a degree of enhanced flood protection where that is warranted.

In this situation the mining proposal is in accordance with the Tasman Regional Policy Statement.

7. TASMAN RESOURCE MANAGEMENT PLAN

Objectives in the TRMP which are relevant to this matter are numerous and cover areas such as site amenity, rural land, land disturbance, land transport and water take issues.

The following Objectives and Policies Chapters of the TRMP have been considered relevant for this proposal:

Chapter 5: Site Amenity Effects
Chapter 7: Rural Environment Effects
Chapter 8: Margins of Rivers
Chapter 11: Land Transport Effects
Chapter 12: Land Disturbance Effects
Chapter 33: Water

7.1 Chapter 5: Site Amenity Effects

The following extracts from the introduction, principal reasons and explanations for Chapter 5 are considered relevant:

"Land use frequently has effects which cross property boundaries. Those effects may add to or detract from the use and enjoyment of neighbouring properties. They may also affect natural resource values, such as air and water quality, or common goods such as views or local character.

Adverse cross-boundary effects are commonly noise, dust, vibration, odour, contamination, shading and electrical interference. Amenity values such as privacy, outlook, views, landscape, character and spaciousness may also be affected.

In rural areas, adverse effects are particularly apparent between residential activities with urban amenity expectations, and the range of possible rural land uses."

5.1.2 Objective

Avoidance, remedying or mitigation of adverse effects from the use of land on the use and enjoyment of other land and on the qualities of natural and physical resources.

Policies

5.1.3.1 To ensure that any adverse effects of subdivision and development on site amenity, natural and built heritage and landscape values, and contamination and natural hazard risks are avoided, remedied, or mitigated.

5.1.3.9 To avoid, remedy, or mitigate effects of:

- a) noise and vibration;
- b) dust and other particulate emissions;
- c) contaminant discharges;
- d) odour and fumes;
- e) glare;
- f) electrical interference;
- g) vehicles;
- h) buildings and structures;
- i) temporary activities;

beyond the boundaries of the site generating the effect.

5.1.3.14 To provide sufficient flexibility in standards, terms and methods for rural sites to allow for the wide range of effects on amenities which are typically associated with rural activities, and which may vary considerably in the short or long term.

5.2.2 Objective

Maintenance and enhancement of amenity values on site and within communities throughout the District.

Policies

5.2.3.1 To maintain privacy in residential properties, and for rural dwelling sites.

5.2.3.9 To avoid, remedy or mitigate the adverse effects of signs on amenity values.

5.2.3.10 To allow signs in residential, rural residential, recreation and rural areas that are necessary for information, direction or safety.

7.1.1 Comment

The above objectives and policies confirm the need to protect amenity values of sites as far as practical. In this regard the views, privacy, outlook and other aspects of site amenity that maybe very important for a rural residence can be expected to change as rural resource based activities evolve to meet economic, management and other changes. Perhaps the latest example of this type of change in site amenity has been associated with the "red shade cloth" debate in the Riwaka and Motueka valleys. In that instance part of the rural site amenity value for the rural resource based orchardists was their ability to change from open air apple production to producing higher value apples under red shade cloth. The red shade cloth had a reverse sensitivity effect on the visual amenity and outlook from nearby residential dwellings in the same area. At the end of the day the right of way in relation to site amenity went with the rural land use change (orchardists and red shade cloth).

In relation to the general locality of the Horse Terrace bridge area the proposed mining will have a temporary impact on the amenity of this locality but with ongoing restoration it should not be greatly intrusive on the amenity of the area.

However in relation to the site amenity of the residence the impact of the mining is potentially significant although the significance needs to be differentiated because of the presence of the two river terraces.

Mining with progressive restoration on the approximately 11 hectares of the lower river terrace area will have amenity effects on the residence's outlook, privacy, vibration, noise and dust. However those amenity effects will be much less intrusive than mining of the upper terrace.

Mining of the approximately 0.9 hectares of land situated on the same river terrace as the residence and located approximately 50 metres from the residence at its closest point would adversely affect the site amenity of the residence unless mitigation measures are provided. A temporary two metre high mound sown in grass would reduce the impact of the mining on the privacy, outlook and noise environment of the residence. The applicants consider that the mining of the upper (residence) terrace could be done within a three month period.

In view of this I consider it reasonable to impose a condition requiring the formation of a 2 metre high grass mound to screen the mining of the upper river terrace from the residence. That condition should be able to be put aside in the event of the parties reaching some alternative agreement.

7.2 Chapter 7: Rural Environment Effects

The following extracts from the introduction, principal reasons and explanations for Chapter 7 are considered relevant:

“People and communities value rural locations for purposes other than soil-based production, and where these purposes can be achieved without compromising productive values, rural character and amenity values, provision can be made for them. This objective, and associated policies, establishes a framework within which Plan provisions such as rules and zones are developed, and consent applications can be evaluated. The policy is supported by methods to encourage responsible management by resource users”.

“Rural areas are working and living environments. They also provide much of the amenity value and character of the District as a whole.

If rural character is to be protected, it is essential that productive rural activities are not overly constrained by standards and conditions based on amenity value that are set at a much higher level than biophysical necessity. Nevertheless, activities in rural areas should not involve effects that significantly adversely impact on rural character and amenity values. This set of objectives and policies aims to provide a balanced approach.

Inevitably some activities, by their scale, intensity or other effect, have the potential, individually or cumulatively, to adversely affect the environmental qualities and other aspects of the environment that this section protects. Such potential effects can be identified on the basis of activity types, and the effects of individual proposals can be evaluated through the application process”.

“The District’s diverse rural landscape, including the working rural landscape, requires careful consideration in terms of this objective whenever an activity or development is proposed that requires consent. Because of the variety of rural character and landscape types in the district’s rural areas, derived from natural features overlain by decades of cultural change, effects on rural character and amenity landscape values beyond those provided for by the Plans rules, need to be assessed on a case by case basis in a local or sometimes regional context.”

7.2.2 Objective

Provision of opportunities to use rural land for activities other than soil-based production, including papakainga, tourist services, rural residential and rural industrial activities in restricted locations, while avoiding the loss of land of high productive value.

Policies

7.2.3.1 To enable activities which are not dependant on soil productivity to be located on land which is not of high productive value.

7.4.2 Objective

Avoidance, remedying or mitigation of the adverse effects of a wide range of existing and potential future activities, including effects on rural character and amenity values.

Policies

7.4.3.1 To ensure that there is sufficient flexibility for a wide range of productive rural activities to take place, while avoiding, remedying or mitigating adverse effects.

7.4.3.2 To provide for rural activities which may involve levels and types of effects, including noise, dust, smoke and odour, that may be permanent, temporary or seasonal, and that may not meet standards typically expected in urban areas.

7.2.1 Comment

Council has acknowledged the pressures and diverse usages of rural land. The Council has to constantly maintain the balance between these uses and at the same time ensure that the fundamental purpose of the Act to promote the sustainable management of natural and physical resources.

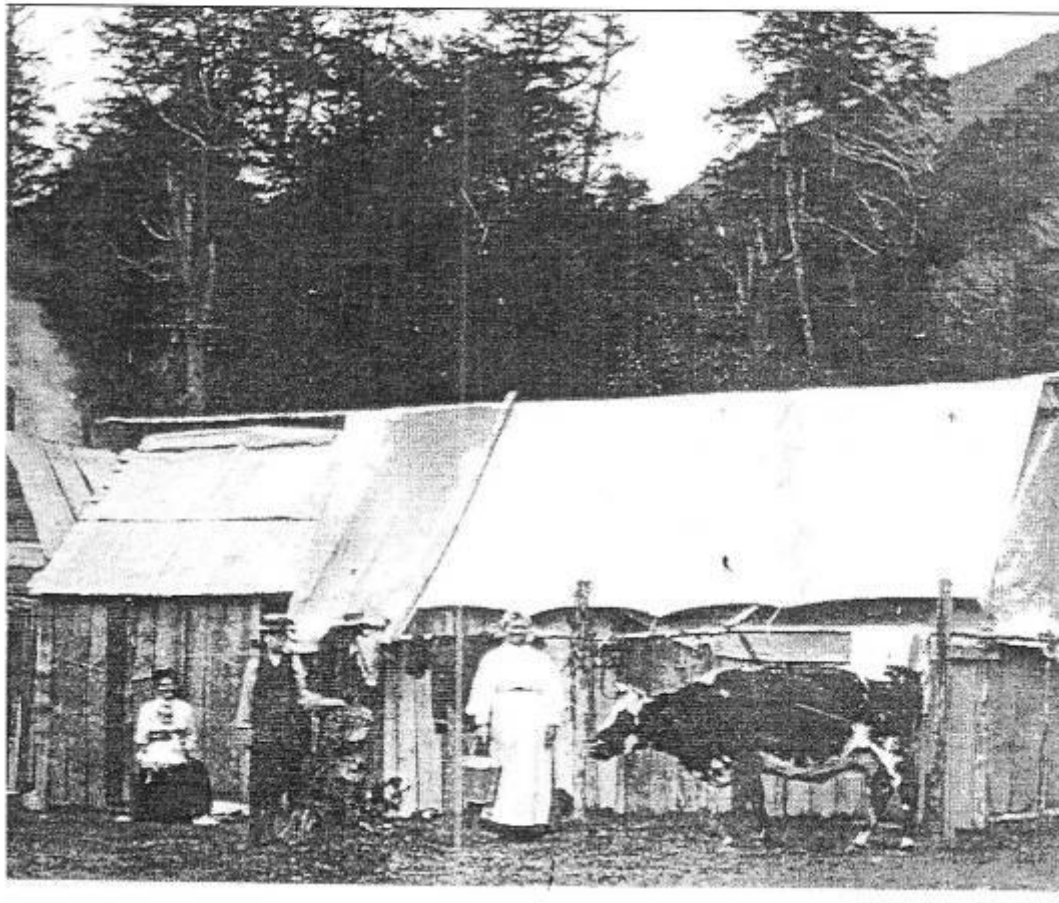
From Mr Burton’s report it is clear that mining will set back the productive capability of the land for a long time before it is likely to recover to its present value for dairy farming. However in terms of the TRMP while the land has good potential for pastoral farming it is not part of the very highly versatile land resource that the TRMP seeks to protect.

Mining is a traditional rural activity in the Tasman District that must locate where the gold resource is believed to exist. In this instance the mining is proposed on land that is not a highly productive versatile land resource that the TRMP seeks to protect. It is also in a relatively remote sparsely settled area with only one close by residence. Provided the land is restored so it is again able to be used for pastoral farming and so the potential adverse effects on the residence and the Matakītaki River can be

largely mitigated then it will not jeopardise the intent of the rural objectives and policies.

Nelson Examiner Newspaper 2-4-1873

taki residents are getting up a petition to the Government in reference to the valuable piece of land known as Horse Terrace, praying that it may not be granted or leased to anyone, but that it may be reserved for public uses only. It has always been used by packers and travellers, and also by the public for horses, and its loss would be seriously felt, and would greatly add to the difficulties (serious enough) experienced by persons travelling with horses. A new weather-boarded building (the Lambing-down Hotel) has been erected on this terrace. It was the erection of this building that stirred the miners into getting up the petition just referred to. It is a fact that about two years ago some terraces near the Horse Terrace were all alive with miners, thirty men being camped close together. For some time past there has been only one party of miners lately encouraged to set in and have since obtained a mineral lease. Another party has also been joining, and now houses instead of huts are being built, with shingled roofs, in prospect of a remunerative employment."



7.3 Chapter 8: Margins of Rivers

The following extracts from the introduction, principal reasons and explanations for Chapter 8 are considered relevant:

Different sections of lakes, rivers, wetlands and the coastline have different values and therefore need different management responses.

Provision and enhancement of public access to and along the margins of lakes, rivers, wetlands and the coast, for current and future needs of residents and visitors to the District.

Setbacks or consent requirements have been imposed on activities that may detract from the natural values of riparian and coastal margins. This is in order that those impacts may be addressed either through conditions to manage the adverse effects, or by refusing consent if it is not practicable for the effects to be managed.

8.1.2 Objective

The maintenance and enhancement of public access to and along the margins of lakes, rivers, wetlands and the coast, which are of recreational value to the public.

Policy

8.1.3.1 To maintain and enhance public access to and along the margins of water bodies and the coast while avoiding, remedying or mitigating adverse effects on other resources or values, including: indigenous vegetation and habitat; public health, safety, security and infrastructure; cultural values; and use of adjoining private land.

8.2.3 Objective

Maintenance and enhancement of the natural character of the margins of lakes, rivers, wetland and the coast, and the protection of that character from adverse effects of the subdivision, use, development or maintenance of land or other resources, including effects on landform, vegetation, habitats, ecosystems and natural processes.

Policy

8.2.3.4

[8.2.3

Proposed] To avoid, remedy or mitigate adverse effects of buildings or land disturbance on the natural character, landscape character and amenity values of the margins of lakes, rivers, wetlands or the coast.

Not yet operative C3 12/03

7.3.1 Comment

The mining application includes setbacks from watercourses and the Matakitaki River that are of the same scale as those applied to other riverside mining developments and to those that apply at the applicants existing mining site approximately 2 kilometres downstream. These setbacks are considered to be appropriate as the riverside character at the application site is a modified pastoral river margin.

Public access from the Matakitaki Road to the Matakitaki River will be retained with the existing unformed legal road being outside the application site. For safety and security reasons it is appropriate that the mining area be fenced off from the main public access from the Matakitaki Road to the Matakitaki River when mining gets to 50m from the existing legal unformed road.

The application does not jeopardise the objectives and policies of Chapter 8 of the TRMP.

7.4 Chapter 11: Land Transport Effects

The following extracts from the principal reasons and explanations for Chapter 11 are considered relevant:

Increases in traffic volumes from adjacent land use activities that generate vehicle trips may put pressure on particular routes.

Because access causes a reduction in the carrying capacity of roads and a potential conflict with passing vehicles, the location and detailed design of access is important. Accesses that are too wide or too narrow, at a position of impaired visibility or located too close to intersections can cause traffic conflict.

Adequate on-site parking is required for activities to prevent the spread of on-street parking, which can interfere with the safe operation of the transport network and property access to the network.

11.1.2 Objective

A safe and efficient transport system, where any adverse effects of the subdivision, use or development of land on the transport system are avoided, remedied or mitigated.

Policies

11.1.3.2 To ensure that land uses generating significant traffic volume:

- (a) are located so that the traffic has access to classes of roads that are able to receive the increase in traffic volume without reducing safety or efficiency;
- (b) are designed so that traffic access and egress points avoid or mitigate adverse effects on the safety and efficiency of the road network.

11.1.3.3 To avoid, remedy or mitigate adverse effects of high traffic-generating land uses on the community cost of the road network resource of the District.

7.4.1 Comment

The above objectives and policies identify the need to avoid conflicts with traffic having particular regard to issues of traffic safety and efficiency, including the effects on the existing rural roading network, providing a safe site access and making provision for adequate off road parking. The application will not result in an increase in traffic on most of the Matakita Road as the existing mining operation already generates the traffic. No special road improvements are expected to arise should the mining operation move to the application site. Provided consent is subject to the recommended conditions, the proposed activity will not have an adverse effect on the traffic safety environment. The mining site has the potential for a access to be developed and there will plenty of room to provide ample off road parking for staff,

Council's compliance inspectors, and visitors without detracting from the amenities of area.

Council's engineering staff have considered these matters. They consider that the access should be up graded and if the existing access is not available then the new access should be designed as outlined in Plans A and B attached dated 19/10/2009. In addition it is considered that off road parking for each worker and two visitor car parks should be provided. If these conditions are imposed for the access and car parking then they are satisfied that the proposed mining application will meet Council's transport objectives and policies.

7.5 Chapter 12: Land Disturbance Effects

The following extracts from the introduction, principal reasons and explanations for chapter 12 are considered relevant:

Different terrains in the District vary in their susceptibility to erosion and sediment generation upon disturbance. Generally, flat or low angle slopes are at least risk from these effects.

Visual effects of disturbances may be significant in certain locations or where certain disturbance practices are carried out. Clearance of indigenous vegetation may destroy significant plant and animal habitats. Sites of archaeological or cultural significance can be destroyed in land disturbance operations. Mineral extraction operations also have the potential to damage the soil resource when the soil is removed prior to the extraction of minerals.

Regulation of land disturbances is based on the degree of erosion and sedimentation risk and risk of damage to soil upon disturbance to soil and water resources and associated natural resources, whether on site or off site, and the nature of the disturbance operation in relation to these risks. Council seeks to manage risks following land disturbance by regulating in a manner consistent with those risks across the District. Areas of least risk of erosion and sedimentation include flat plains, terraces, valley floors and stable hill country. Most land disturbances are allowed in these areas subject to compliance with specified conditions.

There is a significant risk of damage to soils resulting from earthworks for mineral extraction operations, particularly to recent alluvial soils. Soils in the Waimea and Motueka Plains have high productive value, and the risk of damage arising from their disturbance for gravel extraction needs to be limited.

12.1.2 Objective

The avoidance, remedying, or mitigation of adverse effects of land disturbance, including:

- (a) damage to soil;
- (b) acceleration of the loss of soil;
- (c) sediment contamination of water and deposition of debris into rivers, streams, lakes, wetlands, karst systems, and the coast;
- (d) damage to river beds, karst features, land, fisheries or wildlife habitats, or structures through deposition, erosion or inundation;
- (e) adverse visual effects;

- (f) damage or destruction of indigenous animal, plant, and trout and salmon habitats, including cave habitats, or of sites or areas of cultural heritage significance;
- (g) adverse effects on indigenous biodiversity or other intrinsic values of ecosystems.

Policy

12.1.3.4 To avoid, remedy, or mitigate the adverse effects of earthworks for the purpose of mineral extraction, on the actual or potential productive values of soil, particularly on land of high productive value.

7.5.1 Comment

Mining of this type does have temporary effects on the environment. The application does include measures to avoid, remedy and mitigate the effects. The application includes the rehabilitation of the land following the mining, setbacks from watercourses and the Matakiki River and controlling sedimentation.

These measures are considered to be appropriate to minimise the adverse effects of the activity.

Chapter 33 Discharges to land and freshwater.

The applicant and a resource consent to discharge to the river and they have stated that they can meet the relevant permitted activity rule. From the information provided if the activity is undertaken well the discharge should meet the requirements in the permitted activity and be consistent with the objectives and policies of the TRMP.

7.6 Summary of Relevant Objectives and Policies

Chapter 5 outlines the objectives and policies with respect to site amenity. These aim to guide development in a manner which avoids, remedies or mitigates any adverse effects of an activity on the use and enjoyment of other land and on the qualities of natural and physical resources. The proposed mining activity will be temporary with most activity occurring on the lower terrace where the adverse cross boundary amenity effects will not be contrary to the objectives and policies in Chapter 5.

When mining occurs on the upper terrace, at the same level as the existing dwelling, there is a potential for adverse cross boundary amenity effects to arise that are more than would be expected from other traditional land use activities such as farming and forestry. However these visual and noise effects on the amenity of the dwelling and its curtilage area can be mitigated by an earth mound. It is understood that the mining of the upper terrace area would be expected to be undertaken within a relatively short period of three months (pers com David Thurlow).

In relation to rural environment effects in Chapter 7 the land has been developed for pastoral farming by the Thomas's and mining is essentially an interim use which following proper restoration will again be available for farming or forestry purposes. Regular monitoring of mining activities is undertaken now that the Council has a compliance monitoring division. As referred to earlier mining is a traditional rural activity in the Tasman District that must locate in those parts of the district where the

gold resource is believed to exist. In this instance the mining is proposed in a relatively remote sparsely settled area with only one residence close by. Provided the potential adverse effects on that dwelling and the Matakītaki River can be largely mitigated then it will not jeopardise the intent of the rural objectives and policies.

Chapter 8 outlines Council's objectives and policies for public access and the maintenance and enhancement of the natural character of the margins of rivers. The application is consistent with these objectives and policies. Public access will be maintained and the work will be away from the actual bank of the river and at completion of the work the area will be rehabilitated.

Chapter 11 outlines Council's objectives and policies for a safe and efficient transport system, where any adverse effects of the use or development of land on the transport system are avoided, remedied or mitigated. The application will not result in an increase in traffic on most of the Matakītaki Road as the existing mining operation already generates the traffic. No special road improvements are expected to arise should the mining operation move to the application site. Provided consent is subject to the recommended conditions, the proposed activity will not have an adverse effect on the traffic safety environment. The mining site has the potential for an access to be developed and there will be sufficient space to provide ample off road parking for staff, Council's compliance inspectors, and visitors without detracting from the amenities of the area.

Given the access condition proposed by Council's engineering staff and the provision of on site car parking for staff and two visitors it is considered that the proposal is consistent with the relevant objectives and policies in Chapter 11 of the Plan.

Chapter 12 outlines the objectives and the plan anticipates mining of this type. The application includes measures to avoid, remedy and mitigate the effects and the proposed condition of consent will formalise this. It is considered that the proposal is consistent with the relevant objectives and policies in Chapter 12 of the Plan

Chapters 33- Discharges to Land and Freshwater. The application states that they will be able to meet the permitted activity rule for discharge of mining wash water. Thus they are consistent with the objectives and policies in this chapter.

8. PART II MATTERS

In considering an application for resource consent, Council must ensure that if granted, the proposal is consistent with the purpose and principles set out in Part II of the Act. Part 11 of the Act covers sections 5 to 8 inclusive and I comment briefly on them as follows:

8.1 Section 5 sets out the purpose of the Act

The purpose of the Act is to promote the sustainable management of natural and physical resources. "Sustainable management" means:

"Managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while -

- sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations. and
- safeguarding the life-supporting capacity of air, water, soil, and ecosystems. and
- avoiding, remedying, or mitigating any adverse effects of activities on the environment.

8.1.1 Comment

Section 5 recognises that mineral extraction in itself is not necessarily a sustainable resource development activity.

Granting consent to gold mining with requirements to restore the land to pasture will help ensure that the future sustainable management of the natural and physical resources of the restored land for farming is not lost. Also on the basis of past experience conditions can be imposed which will avoid, remedy or mitigate the adverse effects on the environment.

8.2 Sections 6, 7 and 8 set out the principles of the Act

Section 6 of the Act refers to matters of national importance that the Council shall recognise and provide for in achieving the purpose of the Act. The matters considered relevant in this case are:

- (a) the preservation of the natural character of rivers and their margins and the protection of them from inappropriate use and development.
- (b) the maintenance and enhancement of public access to and along rivers.

8.2.1 Comment

Both of these matters have already been considered and are recognised through the recommended conditions should consent be granted.

8.3 Section 7 of the Act identifies other matters that the Council shall have particular regard to in achieving the purpose of the Act. Those matters relevant in this case include:

- (b) the efficient use and development of natural and physical resources.
- (c) the maintenance and enhancement of amenity values.
- (f) maintenance and enhancement of the quality of the environment.
- (g) any finite characteristics of natural and physical resources.

8.3.1 Comment

As discussed earlier the proposal involves extracting a mineral (gold) and this can only occur where it lies. In this instance it is believed that the gold can be accessed without prejudicing other nationally significant resources. The amenity of the Horse Terrace Bridge locality and the Matakītaki River will not be compromised by the gold mining. There will be potential adverse amenity effects on one residence but these will be temporary and can be mitigated to some degree by requiring progressive restoration of the land to pasture and a temporary screen for any mining on the upper terrace which is on the same level as the residence.

Overall in the general context of the area in which the mining is located none of the national matters are compromised by the proposed development.

8.4 Section 8 of the Act shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

8.4.1 Comment

There are no known archaeological sites registered on the land to which the application relates. No comment has been received by iwi in regard to this application.

9. SUMMARY

The application is a discretionary activity in the Rural 1 Zone. As a discretionary activity the Council must consider the application pursuant to Section 104(B) of the Resource Management Act 1991.

- **Objectives and Policies of the Tasman Resource Management Plan (TRMP)** - The general direction of the objectives and policies of the TRPS and TRMP support mining in the Rural 2 zone. The TRPS recognises that mineral resources are locationally fixed, non renewable and that their accessibility should not be unnecessarily adversely affected or inhibited by "...adjacent land uses across property boundaries."

The TRMP's Rural 2 zone is a general rural zone where pastoral farming, forestry, mining and recreational land uses are the main traditional land use activities. Expansion or contraction of the area within the Rural 2 zone used by these land uses varies as the districts rural economy responds to changing economic circumstances. The objectives and policies of the TRMP do not inhibit rural land use change but they do seek to mitigate as far as is practical the potential adverse cross boundary effects of such change on both the rural environment and on existing rural residences.

- **Adverse Environmental Effects** – The mining is proposed in the Horse Terrace Bridge locality beside the Matakītaki River. The Horse Terrace Bridge locality is characterised by a series of river terraces with a backdrop of high mountain ranges. There are large areas of bush and farmland. In this scale of landscape the 11.9 hectares to be mined on two lower river terraces will not dominate the landscape and in any event adverse visual impacts will be temporary as once the land has been mined it is to be restored into pasture.

The main potential adverse effects are reverse sensitivity effects on an existing residence. The residence is on a flat river terrace of which approximately 0.9 hectares is proposed to be mined. The visual, noise, dust and discharge effects of mining on both terraces can be mitigated although on the upper terrace it is recommended that a temporary earth mound two metres high sown in grass be established for the duration of mining of this terrace. That mining is expected to take approximately three months.

Potential adverse effects of the mining on the Matakītaki River and its side creeks can be mitigated through setbacks along the riparian margins and by management conditions that have proven to be successful at the applicant's current mining site approximately 2 kilometres downstream on the Matakītaki River.

Part II matters – Part 2 through Section 5(2)(a) recognises that mineral extraction in itself is not necessarily a sustainable resource development activity.

Granting consent to gold mining with requirements to restore the land to pasture will help ensure that the future sustainable management of the natural and physical resources of the restored land for pastoral farming is not lost. Also on the basis of past experience conditions can be imposed which will avoid, remedy or mitigate the adverse effects on the environment. Safe public access to the Matakītaki River can be retained. Overall in the general context of the area in which the mining is located none of the matters of national importance are compromised by the proposed development.

- **Other Matters**

Some sections of the Matakītaki River are included within the Buller River Conservation Order. The section of river is not part of the Water Conservation Order and is far enough upstream that there should be no impact on the water of the Buller River when the waters of the Matakītaki discharge into the Buller.

Section 104B of the Resource Management Act 1991 (as amended) provides:

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

- (a) may grant or refuse the application; and
- (b) if it grants the application, may impose conditions under section 108.

10. RECOMMENDATION

Subject to conditions of consent the proposal to establish and operate an alluvial gold mining operation on approximately 11.9 hectares being generally described as Matakītaki River, Murchison being Crown Land and part Marginal Strip, coordinates being approximately 2456232E, 5911156N (upstream extent) 2455409E, 5911729N (downstream extent) covered by mining permit 41666 extension 3 Area labelled Area "S" and "U" at Horse Terrace be **GRANTED**.

11. CONDITIONS

General

1. The alluvial gold mining operation shall be carried out in general accordance with the application for resource consent made on behalf of TGG Mining Limited by Resource Management Group Ltd (dated 22 May 2009 and further information provided dated 22 June 2009), and attached Plans A and B dated 19/10/09, unless inconsistent with the conditions of this consent, in which case the conditions shall prevail.

Supervision

2. The Consent Holder shall provide a copy of this resource consent and associated plans to all persons involved in the activities authorised by this consent.
3. The Council shall have the right of access to the land from time to time for the purpose of compliance monitoring. The Consent Holder shall appoint a Works Supervisor whose task it will be to supervise the entire extraction operation as detailed in the working methods set out above, and to whom the Council will refer any requirements or questions it may reasonably have to check compliance with these conditions. The consent holder shall provide Council's Compliance Coordinator with the name and contact details of the designated Works Supervisor prior to the commencement of mining.

Matakitaki River Access

4. Before mining commences the consent holder shall
 - a) erect and maintain (for the duration of the mining) a sign on the roadside access gate explaining the public access route and warning of the danger of mining; and
 - b) mark out the public access route to the Matakitaki River with white painted fence posts.

Noise

5. Noise generated by the activity, measured at the notional boundary of the Thomas/Pawson dwelling (Sec 18 Blk 11 Matakitaki SD certificate of title NL9C/1260), does not exceed:

	Day	Night
L ₁₀	55 dBA	40 dBA
L _{max}		70 dBA
Note	Day = 7.00 am to 9.00 pm Monday to Friday inclusive and 7.00 am to 6.00 pm Saturday (but excluding public holidays).	

Where compliance monitoring is undertaken in respect of this condition, noise shall be measured and assessed in accordance with the provisions of NZS 6801: 1991, Measurement of Sound and NZS 6802:1991, Assessment of Environmental Sound.

Notional Boundary means:

- a) a line 20 metres from the façade of any rural dwelling that is most exposed to the noise source; or
 - b) the legal boundary of the site of the dwelling, where this is closer to the dwelling than a).
6. The consent holder shall construct such bunds as required and of such size necessary to achieve the necessary noise mitigation. Such bunds should be as close to the mining activity or the receiving environment as is practically feasible to assist in meeting the performance standards above.

Vehicle Access

7. The site access shall be:

either

- a) the existing access upgraded to comply with TRMP Schedule 16.2C Diagram 1: Vehicle crossing for up to 6 dwellings;
- or
- b) shall be from the Matakītaki Road turning into and within the legal unformed road reserve in accordance with Plans A and B attached.

8. The site access 5(b) above shall have a stock proof gate that is not locked.

Screening Mound

9. Before any mining commences on the upper terrace the consent holder shall construct a 2 metre high mound sown in grass. The mound shall be located within the mining area adjoining the legal unformed road to screen the mining from the view of persons inside the residence on Sec 18 Blk11 Matakītaki SD (NL9C/1260) or its backyard (the backyard being from the residence back 17 metres along the fence line toward the river). At the completion of mining the mound shall be levelled and sown in pasture.

Fuel Storage

10. All fuel vessels shall be bunded such that should a leakage occur, the fuel will be contained within that bunded area, and not leak onto land where it may enter water or leak indirectly into water.

All waste oil and fuel containers shall be removed from the site promptly after their use. Refuelling, lubrication and any mechanical repairs of any equipment used under this consent shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances onto the land surface or into water

occur. If a fuel spillage in excess of 20 litres occurs, the Consent Holder shall inform the Council's Co-ordinator Compliance Monitoring within 24 hours.

Advice Note:

As the fuel vessels will be moved around as the mining activity progresses over the land, the bund may be constructed out of material such as heavy-duty plastic that can easily be relocated.

Rubbish

11. The mining site shall be left in a neat and tidy state. Rubbish shall not be dumped on site, and gravel filtering screens shall be removed from the site and not buried.

Advice Note:

There have been instances where gravel filtering screens buried in the past have reappeared in the river (when the river course has changed over time) and become a hazard to recreational river users.

Dust Nuisance

12. All practical measures shall be taken to limit the generation of dust so that it does not become a nuisance to the public or adjacent land occupiers. Dust control measures that may be adopted include limiting vehicle speeds along access roads, spraying water to dampen down vehicle routes and the excavation site, or other measures as may be approved or required by the Council's Co-ordinator Compliance Monitoring.

Stormwater

13. The Consent Holder shall take all practicable measures to limit the discharge of sediment contained within stormwater run-off from the excavation area where it may enter water. In particular, the extraction shall be carried out during fine weather periods when the likelihood of erosion and sedimentation is least.

Land Restoration

14. Topsoil and subsoil shall be stripped and stockpiled separately. This shall only take place when soil moisture conditions are below the plastic limit.

Notation: The topsoil and subsoil of the Hokitika soils (stony phase) can be stripped together unless topsoil is found at a depth that it is practical to remove separately.

The Hokitika soils should have the top 20 cm stripped separately from the remaining subsoil.

The Ikamatua soils should have the topsoil (15 cm) stripped separately from the subsoil.

15. The stripping and stockpiling of topsoil and subsoil shall be carried out in a manner that minimises compaction. There shall be no traffic movements over stockpiles.

16. The tailings shall be re-spread, contoured and ripped so that surface and subsurface drainage of the restored area is no worse than its pre-mining state and the final restored land contour is relatively uniform.
17. Fines are to be mixed with coarse tailings before or during the contouring.
18. All subsoil and topsoil shall be replaced and spread separately and evenly onto the contoured tailings and only when the soil moisture content is below the plastic limit.

Notation: The Ikamatua soils shall be carted into place if the distance of movement between the stockpile and its restored position exceeds 15 metres.

19. Any compaction problems encountered with the subsoil and topsoil shall be corrected to the satisfaction of the Council's Co-ordinator Compliance Monitoring.
20. Restored areas shall be revegetated using a seed mix (predominately ryegrass and white clover) and fertiliser dressings approved by the Council's Coordinator, Compliance Monitoring and as soon as weather conditions and soil conditions allow. Fertiliser dressings shall include an initial dressing at sowing and a follow-up dressing six months after sowing. The total amount of any restored area awaiting revegetation shall be no more than 1 hectare at any time.

Notation: an area is revegetated when a complete and healthy coverage of pasture has established.

21. The maximum surface area disturbed by mining and associated works and not restored to a state where it is able to be sown down shall not exceed 2.0 hectares at any one time.
22. If for any reason no mining occurs for more than six months, all disturbed areas shall be restored and revegetated within three months from the date the operations ceased. If necessary, Council may use the bond required under Condition XXX below to carry out these works.
23. The Consent Holder shall ensure that the site is left in a neat and tidy condition following the completion of the works.

Compliance Monitoring

24. The Consent Holder shall:
 - a) notify the Council's Coordinator of Compliance monitoring at least five working days before any mining, including any initial exploratory work, commences anywhere on site
 - b) keep such records as may be reasonably required by the Council, and shall, if so requested, supply this information to the Council.

Bond

25. In order to remedy any adverse environmental effects caused by the acts or omission of the Consent Holder in carrying out activities pursuant to this consent, the Consent Holder shall, prior to exercising this consent:
- a) deposit the “guarantee sum”, which shall be held in a bank account by the Tasman District Council; or
 - b) enter into a bond in favour of the Tasman District Council and executed by a surety acceptable to the Tasman District Council for the “guarantee sum”.

The “guarantee sum” is \$20,000 plus whatever increase there has been on the sum of \$20,000 during the period between the date the consents are authorised by the Tasman District Council and the date the deposit is paid, or the date the executed bond is handed to the Tasman District Council.

Advice Note:

The above figure of \$20,000 is based on the current costs of reinstating bermland after gravel extraction, which is \$4-5 per cubic metre. Due to the fact that the subject land would not have to be reinstated to such a high standard, this figure is considered to be adequate to cover the cost of the work in this case.

Purpose of Bond

26. The purpose of the bond shall be to avoid, remedy or mitigate any adverse effects on the environment in the event of abandonment or bankruptcy by the Consent Holder.

Advice Note:

The Council shall first make reasonable attempts to contact the Consent Holder and then given the opportunity to remedy the matter prior to Council taking any action.

27. The bond shall have a term sufficient to ensure that the funds are available for the purpose described above, until the land is fully reinstated, at which time any funds remaining shall be reimbursed to the Consent Holder.

Transfer

28. The transfer of this consent is subject to the transferee providing a bond on the same terms as the existing bond to the satisfaction of the Council’s Environment & Planning Manager.
29. If the consent is transferred to another person, the bond or deposit lodged by the transferor shall be retained until any outstanding work at the date of transfer is completed to ensure compliance with the conditions of the consent secured by the bond unless the Council’s Environment & Planning Manager is satisfied adequate provisions have been made to transfer the liability to the new Consent Holder.

30. In the event of any such transfer of the consent, the Consent Holder shall ensure that the transferee forthwith provides a fresh bond to the Council on the terms required by this condition.

Review of consent conditions

31. Council may at any time during for the duration of this consent review the conditions of the consent pursuant to Section 128 of the Resource Management Act 1991 to:
- a) to deal with any adverse effect on the environment which may arise from the exercise of the consent that was not foreseen at the time of granting of this consent, and which is therefore appropriate to deal with at a later stage; and/or
 - b) to require the Consent Holder to adopt the best practicable option to remove or reduce any adverse effects on the environment result from the discharge; and/or
 - c) to review the contaminant limits if it is appropriate to do so; and/or
 - d) to review the frequency of sampling and/or number of determinants analysed if the results indicate that this is required and/or appropriate.
 - e) to require consistency with any relevant Regional Plan, District Plan, National Environmental Standard or Act of Parliament

Expiry

32. This resource consent is granted for a duration of five years (as applied for in paragraph 28 of the application) from the date where this consent is effective.

Advice Note:

The consent is effective once all the appeals have been resolved and the consent can be given effect to.

ADVICE NOTES

1. The applicant shall meet the requirements of Council with respect to all Building Bylaws, Regulations and Acts.
2. This resource consent only authorises the activities described above. Any matters or activities not referred to in this consent or covered by the conditions must either: 1) comply with all the criteria of a relevant permitted activity rule in the Proposed Tasman Resource Management Plan (PTRMP); 2) be allowed by the Resource Management Act; or 3) be authorised by a separate consent.

The applicant will be required to apply for new discharge and water take consents (if necessary) when WD870124 and WD870125 expire in three years' time.

3. Access by the Council's officers or its agents to the property is reserved pursuant to Section 332 of the Resource Management Act 1991.

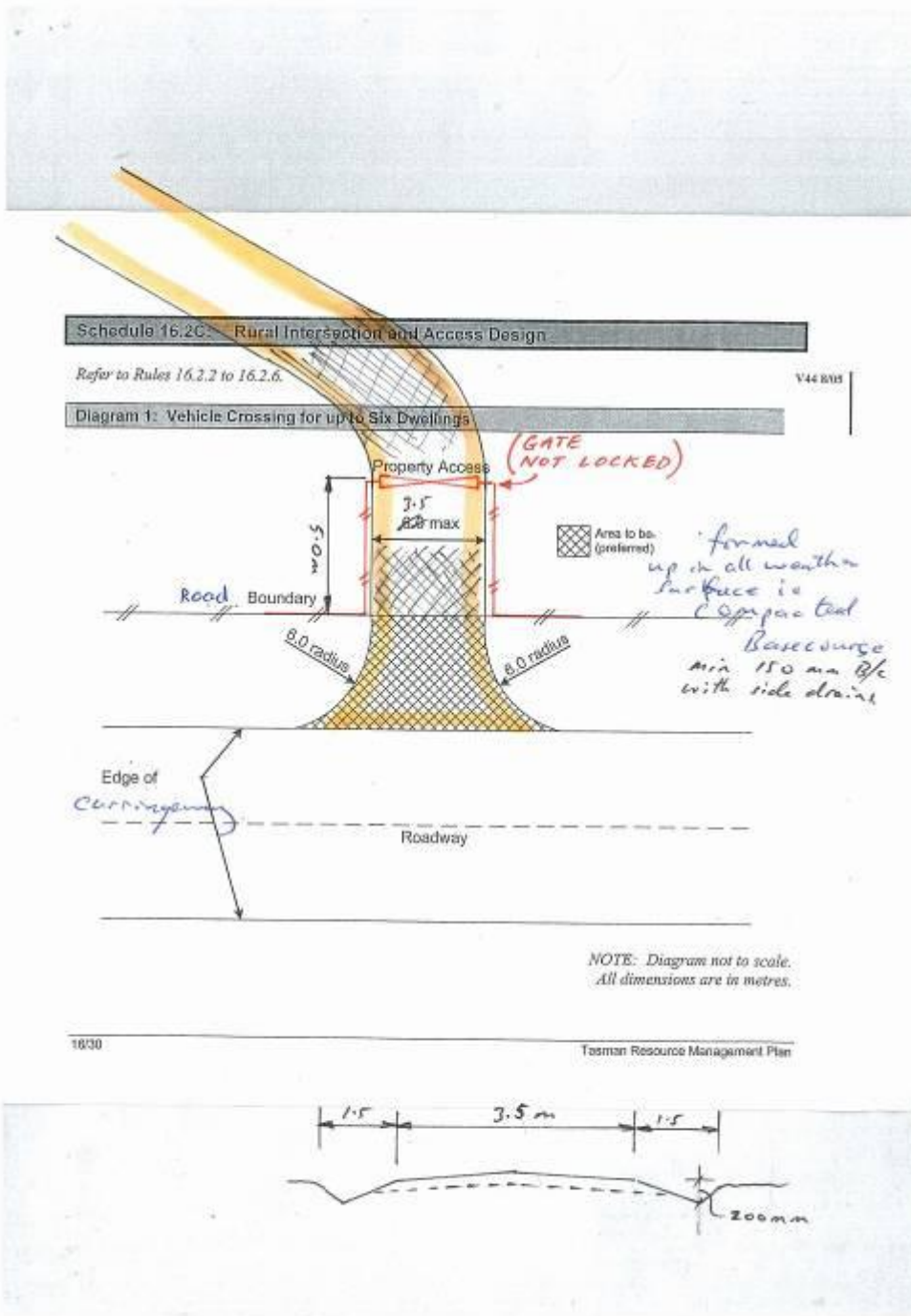
4. Monitoring of this resource consent is required under Section 35 and 36 of the Resource Management Act 1991, and a deposit fee is payable at this time. Should monitoring costs exceed this initial fee, the Council will recover the additional amount from the Consent Holder. Monitoring costs are able to be minimised by consistently complying with the resource consent conditions.
5. Pursuant to Section 127 of the Resource Management Act 1991, the Consent Holder may apply to the Consent Authority for the change or cancellation of any condition of this consent.
6. Council draws your attention to the provisions of the Historic Places Act 1993. The discovery of any pre-1900 archaeological site (Maori or non-Maori) which is subject to the provisions of the Historic Places Act needs cease the works immediately until, or unless, authority is obtained from the New Zealand Historic Places Trust under Section 14 of the Historic Places Act 1993.



J R Andrew
Co-ordinator Land Use Consents

L Pigott
Co-ordinator Natural Resources

Plan A dated 19/10/09 – Site Access





ExploreTasmanMap

25/8/2009 DISCLAIMER:

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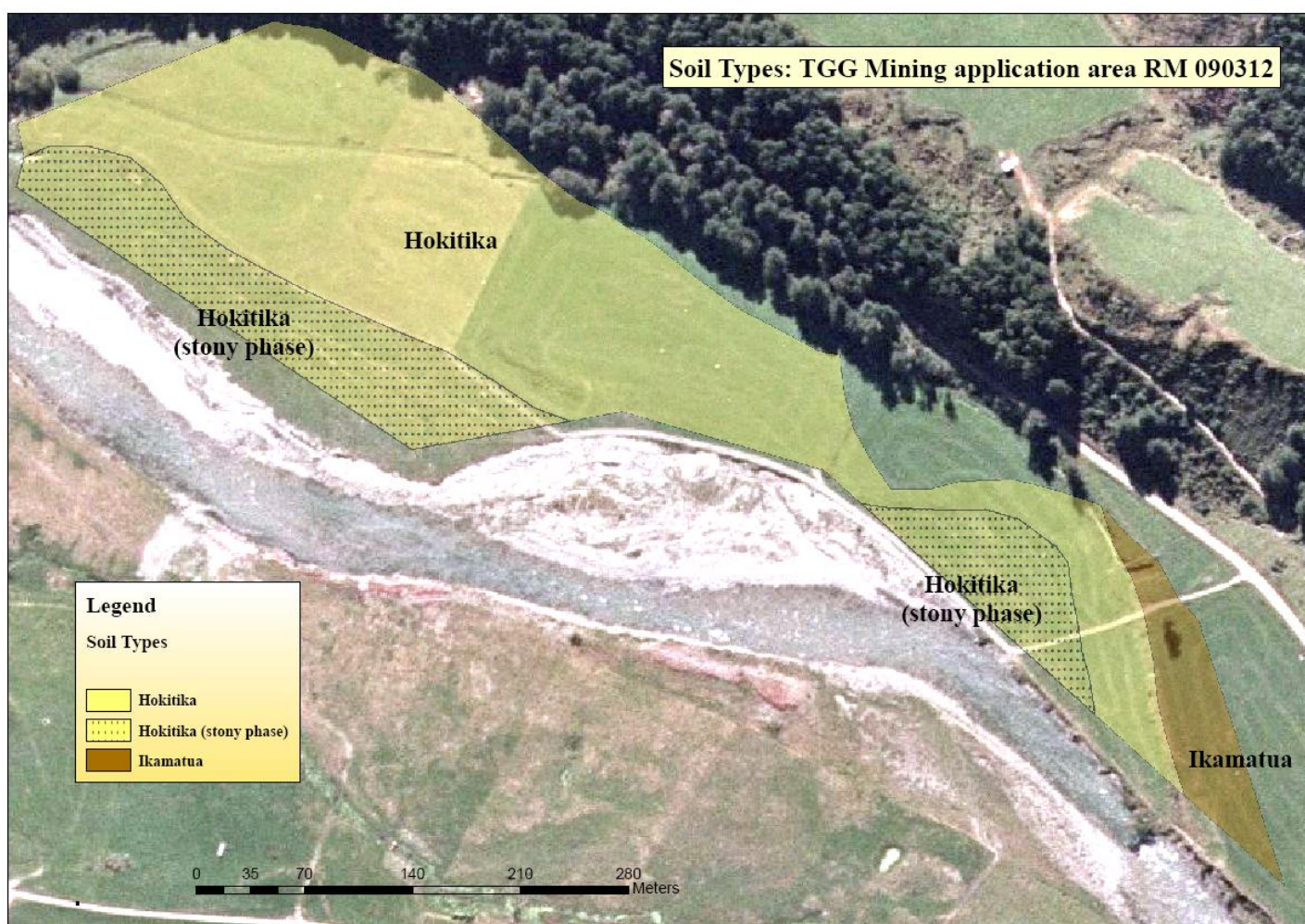
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Soil and Land Productivity Report

RM090312, TGG Mining Ltd.

The application area is situated on an alluvial flood plain adjacent to the Matakītiki River 1.3 kilometres downstream of Horse Terrace Bridge. An onsite assessment of the soil resource has been carried out and an assessment of the effects the proposed mining operation will have on this resource and its land based productive potential.

The application site can be generally separated up into three distinct soil and landscape areas. These are outlined on the map below.



The following descriptions are based on a number of profile pits and auger holes dug over the area.

The lowest terrace of 2.6 hectares is situated immediately adjacent to the river bed and has been mapped as **Hokitika (stony phase) soils**. These soils are very recent and it appears from the profile disturbance that some of the area has been mined in the past.

The soils are generally shallow sands and silts on gravels. A profile description for these soils is:

Horizon	Depth (cm)	Description
A	0 - 5	dark brown loamy sand, weakly developed. Gravels and stones appear in several areas, the probable consequence of alluvial mining
B	5 - 15	Olive grey loamy sand with patches of dark greyish brown loams sand. Many distinct mottles, single grain, massive (no structure).
C	15 - 45	Olive grey loamy sand. Many distinct mottles, single grain, massive (no structure).
		On gravels and sands, sharp boundary



The soils have limited productive potential due to their shallow nature and the rough contour of the land surface. The A horizon has developed in recent years and there is little distinction in development and depth between those areas mined and those areas that are probably unaffected by mining activities.

Another terrace area, approximately 1 metre above this low terrace, covers much of the application area.

The soils on this area of 7.3 hectares are also **Hokitika soils**. They are recent shallow sands and silts on gravels but lack the gravel and stone content in the topsoil that was evident on the previously described soil. A profile description for these soils is:

Horizon	Depth (cm)	Description
A	0 - 7	dark brown loamy sand, weakly developed.
B	7 - 20	Dark greyish brown loamy sand. Some distinct mottles, single grain, weakly developed.
C	20 - 45	Olive grey loamy sand. Many distinct mottles, single grain, massive (no structure).
		On gravels and sands,



These soils have limited productive potential due to their shallow nature but are suitable for intensive pastoral use. The mottling in the subsoil indicates that a high water table may also restrict potential rooting depth for some crops. The area is generally flat with some swales present. There are no limitations for pastoral use or vehicle movement for standard farming practises such as fertilizing and silage and hay making.

The Hokitika soils in general will have moderate inherent soil fertility. They can be subject to river erosion and flooding although flood records for this area indicate that this area does not receive frequent flooding.

At the upstream end of the application area is another terrace which is approximately 4.5 metres above the lower terraces just described. The soils on this terrace are not recent soils and are mapped as **Ikamatua soils**, they cover 0.8 hectares. The texture varies from silt loam to fine sandy loam. A profile description for these soils is:



Horizon	Depth (cm)	Description
A	0 - 12	dark brown silt loam, moderately developed nut structure.
B	12 - 45	brown silt loam. Moderately developed. Some gravels in places
		On gravels and sands,

These soils also have moderate inherent soil fertility. There is no indication of mottling in the profile hence soil drainage should not be a limitation to rooting depth, although the soil depth is still relatively shallow which will limit versatility. These soils are suitable for intensive pastoral use or exotic forestry.

The proposed mining operation required the removal of overburden to access the gold bearing gravels. This process can have a significantly detrimental effect on land productivity. The Hokitika and Ikamatua soil's structural and biological properties will always deteriorate after mining due to the massive mechanical forces involved in moving and respreading the soils. The probability of diluting the more nutrient and organic rich topsoil with the poorer subsoil is also significant. The method of stripping, stockpiling and respreading the topsoil, subsoil and tailings is important to minimize these detrimental effects. The methods adopted will have to also reflect the soil type being worked. The Hokitika soils, because they inherently have little structural development, will not degrade significantly due to the stripping and respreading process although care will always have to be taken to reduce compaction. Because only a shallow topsoil has developed on this soil type its precise separation and removal from the subsoil may be impractical. Removing the A and B horizon together will cause a dilution of the more nutrient rich A horizon but will at least ensure that it is all available for restoration. Improving nutrient and organic content can be carried out as part of the post restoration management. As demonstrated on those parts of the application area that have already been mined, A horizon development can occur rapidly with prudent management.

The Ikamatua soils are more prone to deterioration and need to be treated with greater precision and greater care. The permeability of these soils is only moderate and is dependant on their structure which has developed over time (as opposed to the Hokitika soils which have rapid permeability and influenced primarily by their texture rather than their structure). To maintain this permeability the A and B horizon needs to be stripped separately and replaced separately. The method of stripping and replacing will required an operation design that relies primarily on the placement of the subsoil and topsoil before

spreading rather than the current method of spreading with a dozer directly out from the existing large soil heaps. This can be achieved by either using narrower work strips or by trucking material around. This soil type covers a small narrow strip of the application area and by its very size and shape may pose significant problems with mining and rehabilitation. In particular the stability of the terrace scarp will have to be maintained and the final contour of the area will have to be such that it achieves unity with the adjacent area in order to maintain the productivity and use of the mined area. It may be more practical not to mine this small area but that is a decision for the applicants to make.

Some mining operations in the Matakita Valley have provided the opportunity to improve the contour of the land and improve the surface to produce a more usable area. Much of the application area is well developed into high producing dairy pasture and there will be no such advantage to be gained in this instance. The overall impact of the proposed mining operation on the application area will be a degradation of the soil resource. This will reduce the land based productivity of the area in the short to medium term. Productivity will improve over time with careful management under a pastoral system. Seed and fertilizer inputs and grazing management will be required to ensure that the soils do improve. It may take ten or more years but provided that the mining and restoration are carried out appropriately the productivity of the land should come back to near its current production level.

The following conditions are suggested as required to obtain the desired level of restoration of the land.

1. Topsoil and subsoil shall be stripped and stockpiled separately. This shall only take place when soil moisture conditions are below the plastic limit.

Notation: The topsoil and subsoil of the Hokitika soils (stony phase) can be stripped together unless topsoil is found at a depth that it is practical to remove separately.

The Hokitika soils should have the top 20cm stripped separately from the remaining subsoil.

The Ikamatua soils should have the topsoil (15cm) stripped separately from the subsoil.

2. The stripping and stockpiling of topsoil and subsoil shall be carried out in a manner that minimises compaction. There shall be no traffic movements over stockpiles.
3. The tailings shall be re-spread, contoured and ripped so that surface and subsurface drainage of the restored area is no worse than its pre-mining state and the final restored land contour is relatively uniform.
4. Fines are to be mixed with coarse tailings before or during the contouring.
5. All subsoil and topsoil shall be replaced and spread separately and evenly onto the contoured tailings and only when the soil moisture content is below the plastic limit.

Notation:

The Ikamatua soils shall be carted into place if the distance of movement between the stockpile and its restored position exceeds 15 metres.

6. Any compaction problems encountered with the subsoil and topsoil shall be corrected to the satisfaction of the Council's Co-ordinator Compliance Monitoring.
7. Restored areas shall be revegetated using a seed mix (predominately ryegrass and white clover) and fertiliser dressings approved by the Council's Co-ordinator, Compliance Monitoring and as soon as weather conditions and soil conditions allow. Fertilizer dressings shall include an initial dressing at sowing and a follow-up dressing six months after sowing. The total amount of any restored area awaiting revegetation shall be no more than 1 hectare at any time.

Notation:

An area is revegetated when a complete and healthy coverage of pasture has established.

8. The maximum surface area disturbed by mining and associated works and not restored to a state where it is able to be sown down shall not exceed 2.0 hectares at any one time.
9. If for any reason no mining occurs for more than six months, all disturbed areas shall be restored and revegetated within three months from the date the operations ceased. If necessary, Council may use the bond required under Condition XXX below to carry out these works.

Report prepared by:

Andrew Burton
Resource Scientist (land)
22/09/09

MEMORANDUM

Environment & Planning Department

TO: Jack Andrew
FROM: Graham Caradus
DATE: 31 August 2009
FILE NO: RM090312
RE: **PROPOSED ALUVIAL GOLD MINING ACTIVITY MATAKITAKI RIVER: TGG MINING LIMITED**

1. VISIT TO LOCATION OF THE PROPOSED ACTIVITY

A site visit was undertaken on Thursday 13 August 2009. A director of the applicant company (David Thurlow) met council staff on site and the areas in which it is proposed that activities be undertaken were examined and options discussed. Observations and measurements of sound levels were made of the current operation which Mr Thurlow advised would be the same as was anticipated on the proposed site approximately one kilometre upstream.

This report deals with those matters appropriately examined by Council's Environmental Health Officers.

2. COMMENT ON LIKELY NOISE NUISANCE FROM THE PROPOSED ACTIVITY

The operation of the alluvial gold mining operation on the site has the potential to generate noise which may cause nuisance to the one neighbour within close proximity of the proposed site. The general nature of the operation is the digging up of river gravels with a digger and passing the gravels through a screening process which separates out the gold bearing portion. Remediation of the site occurs in part as the operation progresses, and that will also involve operation of heavy machinery. However there are mitigating circumstances related generally to the isolated nature of the area, and these are dealt with later in this report.

The proposed operation would be obliged generally to meet two standards in relation to noise as follows:

- a) The first obligation would be to meet the specific standard prescribed in the TRMP for Noise, Zone Rural 1. This establishes a "Day" and "Night" L_{10} and L_{max} level at the notional boundary to any dwelling. The hours of operation of the activity are identified in the application as those hours which are defined both as "Day" and "Night" in the TRMP Rural 1 noise standard by virtue of the intended operation on Sundays and some public holidays and potentially

overnight. The special audible characteristics (identifiable tonal components etc) may not be applicable provided the banging caused by rocks being dropped into the screening plant are not readily audible. If those noises are audible, it is expected that the 5dBA penalty would apply and the L₁₀ levels detailed below would be effectively reduced by a further 5 dBA. The (uncorrected) noise levels imposed by the TRMP are:

	DAY	NIGHT
L ₁₀	55 dBA	40 dBA
L _{max}		70 dBA

A question remains about whether the activity may be considered an intermittent or temporary rural activity, in which case the activity would be exempt from TRMP imposed noise controls.

b) The second obligation in relation to noise is to comply with s16 of the RMA. This places a duty on occupiers of land to “adopt the best practicable option to ensure that the emission of noise....does not exceed a reasonable level.” This requirement places additional obligations over and above any need to comply with the TRMP noise standards. If the proposed operation is undertaken in close proximity to the dwelling on the adjacent Thomas property then best practicable options may include:

- construction of bund walls between the activity and the dwelling;
- undertaking noise generating activities during day time as defined in the TRMP;
- Establishing an arrangement with the tenant of the dwelling to ensure that noise generating activities do not cause nuisance when he is in residence;
- Combinations of those noise mitigation methods.

2.1 Assessment of The Proposed Site In Relation to Potential Noise Nuisance

Sound level Measurements were undertaken as follows:

2.1.1 Sound Level Assessment

Location of Measurement:	Adjacent to the current mining operation and at the proposed site. See aerial photos
Weather Conditions:	Occasional misty rain, 8/8 low cloud. Near calm.
Time of Measurements:	1.08 pm through to 2.17 pm on Thursday, 13 August 2009
Equipment Used:	Meter used: Rion NL-18 Precision Integrating Sound Level Meter (SLM), serial number 00360034.
Calibration Due Date:	8 April 2011 (last completed by ECS Ltd)

Acoustic Calibrator: Bruel & Kjaer type 4230, serial number 1206832.

Calibration Due Date: 9 April 2010 (last completed by ECS Ltd).

Anemometer: Lutron AM-4203.

SLM Operator: Graham Caradus

A microphone wind screen was used for the duration of the survey for each environmental measurement. For each result recorded, the SLM was mounted on a tripod at about 1.5 metres above ground. The SLM was initially calibrated, and not shut down until re-calibrated at the end of the sequence of measurements. Calibration level limits were within 0.5 of 93.8 dBC and therefore within the required tolerance.

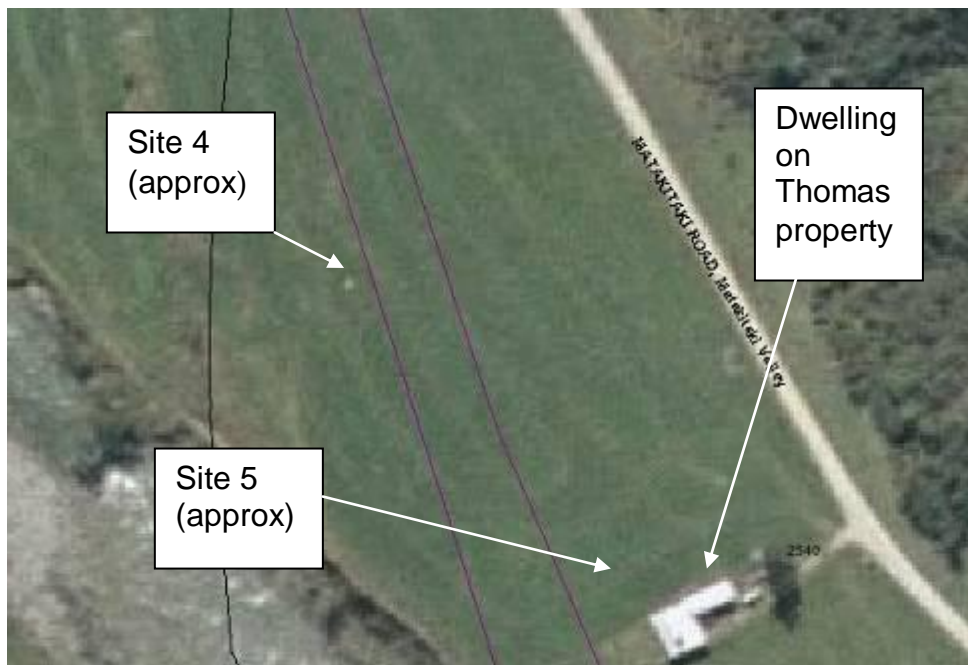
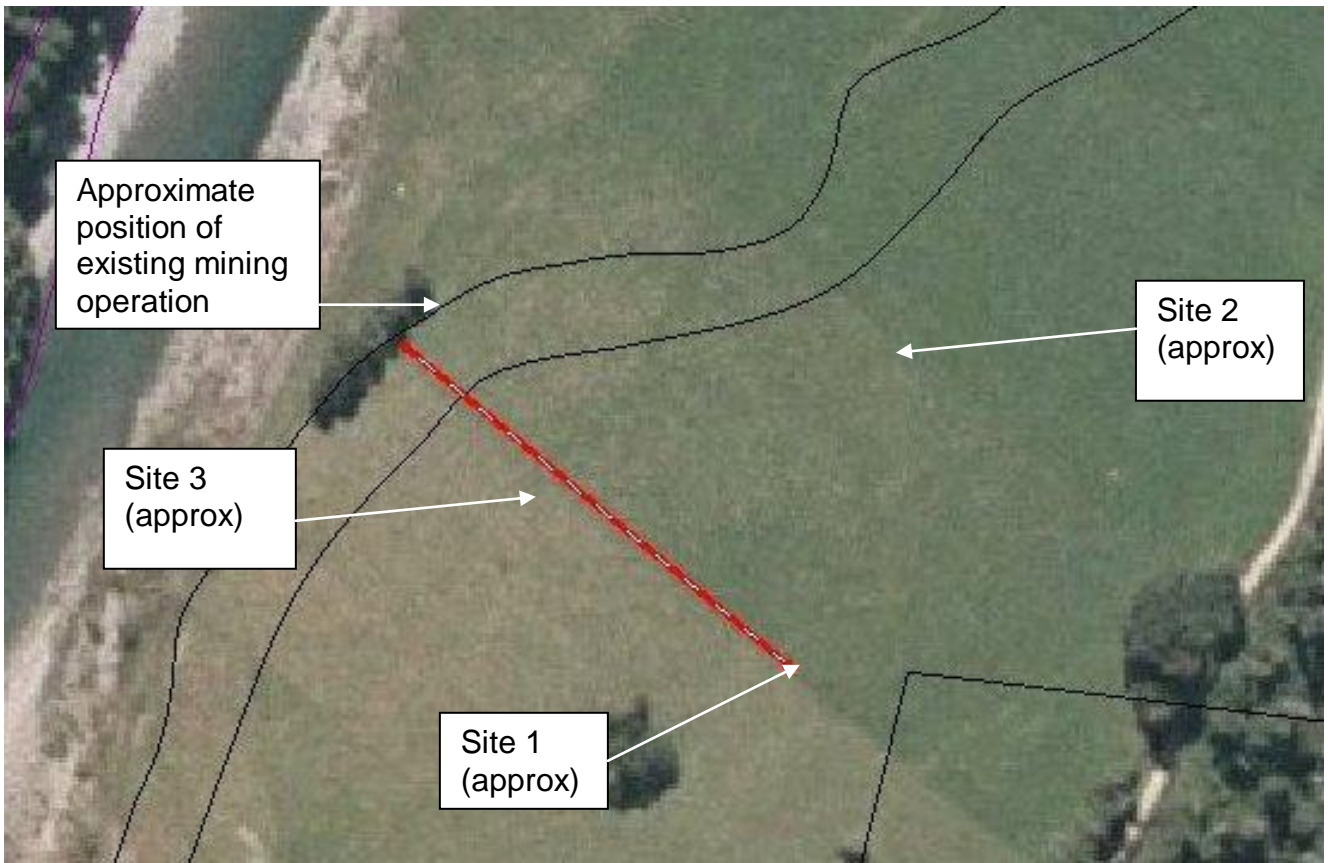
2.1.2 Sound Level Measurement Sites

A number of sound level measurements were undertaken but two sites demonstrated the likely worst case scenario. All sites are marked on the aerial photographs below.

2.1.3 Sound Level Measurement Results

	Site 1: Two diggers and screening plant from 130 metres and behind bund	Site 2: Two diggers and screening plant from 130 metres and no bund	Site 3: Two diggers and screening plant from 50 metres and behind bund	Site 4: Proposed site 117 metres from dwelling River noise	Site 5 Proposed site 20 metres from dwelling River and birdsong
Measurement time	10 minutes	10 minutes	10 minutes	10 minutes	10 minutes
L _{eq}	50	52	58	45	40
L _{max}	61	68	73	54	46
L _{min}	47	47	52	44	38
L ₁₀	51	54	59	46	41
L ₉₅	48	49	54	44	39

The results that have been **bolded** are those that are of relevance to TRMP compliance, but the remaining data is also included as it contributes useful information.



2.1.4 Comment on results of Sound Level Measurements

2.1.4.1

Site 1 was established 130 metres from the current mining activity and with the bund near the mining operation directly between the operating machinery and that sound level measuring position. It was also as far away from the noise made by the river as possible, but did receive a high level of birdsong, which was considered to have impacted the L_{min} and L_{95} and may have impacted to some degree on the L_{10} . However, the majority of L_{10} and the L_{max} are both considered to be a reasonable

reflection on the noise made by the mining machinery. See the photograph in paragraph 2.1.4.3 which shows the location of the bund. The applicant originally advised that it represented the approximately closest distance that the proposed mining operation would approach the dwelling on the Thomas property, and therefore representative of the noise levels that may be experienced at the site of the proposed mine.

However, discussions with Mr Thurlow after these initial sound level measurements were completed, eventually revealed that there is a possibility that he may approach the dwelling as closely as possible without actually entering the Thomas property. Given that scenario, sound level measurements at 50 metres were considered more relevant.

2.1.4.2

Site 2 was established 130 metres away from the current mining operation, and in most respects was similar to site 1. The main difference being that the small bund (see photo in 2.1.4.3) that did exist adjacent to the mining activity was no longer between the machinery and the sound level measurement position. It is noteworthy (albeit based on only one 10 minute measurement at each site) that a small difference appeared to exist between this site and site 2. The exhaust stack ends of both diggers could be seen, and the loading hopper for the screening plant was in a direct line of site to the sound level meter at both sites, but a small reduction in all measured noise levels was noted with the exception of the L_{min} .

2.1.4.3

Site 3 was established at a distance of approximately 50 metres from the closest machinery working at the mining site, and was considered representative of the likely closest approach of the mining activity to a rural dwelling at the proposed site. Both the L_{10} and the L_{max} levels exceed the noise performance standard specified in the TRMP L_{10} of 55dBA and L_{max} of 70dBA. If a 5dB penalty is applied (to L_{10} only) for special tonal component, then the L_{10} is exceeded by 9dB, and that is a significant margin.

The observation is made that a bund manufactured from the materials readily available on site and produced as a consequence of the usual mining activity, is expected to have a significant effect on reducing noise transmitted off the site, with the degree of reduction being influenced by the height of the bund and the proximity to the work site. It should be a simple matter to increase the size of the bund until the desired noise attenuation is achieved to the extent that the night time L_{10} TRMP performance standard of 40dBA may be achievable.

2.1.4.4

Site 4 represents the noise climate at the proposed site, at a distance similar to sites 1 and 2, with minor variation made to establish site 4 immediately adjacent to the stock water trough as it forms a useful landmark. Of note at this site, is the observation that the night time L_{10} TRMP performance standard of 40dBA is exceeded by a margin of 6dBA despite the fact that the only noise was of a natural nature from the sound of the nearby river and birdsong.

2.1.4.5

Site 5 represents the closest approach that the mining activity may make to the rural residence at the proposed site. This is a reasonably quiet site with the entire noise climate sitting between the L_{min} of 38dBA and the L_{max} level of 46dBA. The measured sound level was entirely due to noise from the nearby river and birdsong. Again the observation is made that the L_{10} level fails to meet the L_{10} TRMP performance standard of 40dBA.

2.2 Control Measures for Mitigation of Noise Transmission Off Site

There is not expected to be any significant issue with noise being transmitted off site except or when the proposed activity is in close proximity to the rural dwelling on the proposed site. The nature of the topography in that vicinity sees a river terrace which creates a natural bund about 130 metres from that dwelling. Whilst mining activities are undertaken below (downstream of) that bund, the noise reducing effects of the bund as well as the distance to the rural dwelling are both factors that will assist in reduction of noise received at the dwelling. It is expected that the day time L_{10} TRMP performance standard of 55dBA is likely to be met without any additional noise mitigation. However, the more restrictive night time standard of L_{10} 40dBA and the L_{max} level of 70dBA may pose some challenges. However, as mentioned above, the construction of localised bunds close to the work site can be formed if that becomes an issue in practice.

If mining activities occur above the river terrace, there seems little doubt that some form of noise mitigation in the form of bunds will be required. As mentioned above, these can be constructed of sufficient size as is necessary to achieve the desired outcome.

2.3 Recommended conditions for any consent granted for the proposed activity

2.3.1

The TRMP imposed noise performance standard levels should be set as performance standards in the consent, that is:

	Day	Night
L_{10}	55 dBA	40 dBA
L_{max}		70 dBA

Those measurement locations shall be at the notional boundary of the rural dwelling of interest. Those standards should be measured and assessed in accordance with NZS 6801 1991 and NZS 6802 1991. This will have the effect of including correction factors such as those for special tonal components.

2.3.2

The applicant should be required to construct such bunds required and of such size necessary to achieve the necessary noise mitigation. Such bunds should be as close to the mining activity or the receiving environment as is practically feasible to assist in meeting the performance standards above.

3. DUST DISCHARGES

Some dust may be generated on site from the proposed activity, but as the mining and screening process is based on the washing of materials with water and does not typically involve vehicles transporting material any significant distance, dust discharges are not predicted to be a significant problem compared to the farming activity that may take place on the site. The observation is made that an important process that is essential to this alluvial mining process is the pumping of water. Should dust blowing off site become an issue, the applicant has the necessary equipment on site to routinely wet down work areas to reduce generation of dust.

Graham Caradus
Regulatory Services Coordinator

APPENDIX 3 Relevant Land Disturbance Rules

The subject site is within Land Disturbance Area 1. To be a **permitted land disturbance activity** any land disturbance needs to comply with rule 18.5.2.1(a) – (w).

Rule 18.5.3.2(a)-(w) is as follows:

- (a) The activity does not contravene any other applicable rule in chapters 16, 17 or 18 of this Plan.

All Land Disturbance

- (b) All disturbed vegetation, soil, or debris is deposited or contained in such a manner that any movement of that disturbed vegetation, soil or debris into any water body or coastal water does not result in:
 - (i) the diversion or damming of any river or stream;
 - (ii) the erosion of the bed of any river or stream.
- (c) All disturbed vegetation, soil, or debris is deposited or contained or prevented from movement into water bodies so that any subsequent discharge of disturbed vegetation, soil or debris into any water body or coastal water is in such a way that it complies with rules 36.2.4 or 36.2.5.

Means of Compliance

Measures to contain or prevent the movement of disturbed soil or vegetation into water may include, but are not restricted to:

- (i) run-off controls around the area of disturbance, such as cut-offs, culverts, and water tables to prevent scour, gullyng or other erosion;
 - (ii) providing undisturbed buffers between the land disturbance and any water body — this is also subject to compliance with other setback requirements of this rule;
 - (iii) sediment traps of size adequate to contain and treat sediment-laden run-off water;
 - (iv) any other measures appropriate to the nature and scale of the land disturbance.
- (d) All areas of bare ground created by the disturbance are protected from soil erosion by revegetation or any other method of protection, as soon as practicable, and in no case later than 12 months from the date of disturbance.
 - (e) The destruction or removal of vegetation or soil disturbance by rootraking takes place only on land with a predominant slope less than 25 degrees from horizontal.
 - (f) The destruction or removal of vegetation or soil disturbance by blading takes place only on land with a predominant slope less than 25 degrees from horizontal or is for the sole purpose of maintaining a track or firebreak.

- (g) The activity does not destroy or remove vegetation or earthworks that were established for the purpose of soil conservation by or with subsidy from the Council or any former authority.

Destruction or Removal of Indigenous Vegetation

- (h) No destruction or removal of indigenous vegetation is undertaken within:
- (i) 15 metres of the bed of any river or stream greater than 3 metres average bed width except where it is:
 - 4 up to 20 metres along the margin of the river or stream in connection with earthworks permitted under condition (i); or
 - 5 incidental to the removal of any exotic tree or other exotic plant; or
 - 6 in association with the maintenance of any overhead utility service line;
 - (ii) 15 metres of the bed of any lake;
 - (iii) 20 metres of the coastal marine area adjacent to the Whanganui Inlet.

Earthworks

- (i) No earthworks involving the placement or removal of soil or debris are undertaken within:
- (i) 50 metres of the coastal marine area adjacent to the Whanganui Inlet;
 - (ii) 10 metres of the bed of any lake.
- (j) No earthworks involving the placement or removal of soil or debris is undertaken:
- (i) on land with a predominant slope of less than 20 degrees from horizontal that is within 10 metres of any bed of a river or stream greater than 3 metres average bed width; or
 - (ii) on land with a predominant slope of 20 degrees or more from horizontal that is within 20 metres of any bed of a river or stream greater than 3 metres average bed width;
- except where it is for:
- (iii) the formation, construction, reconstruction, or removal of any road, track, firebreak, fence line, survey line, or utility service line for the sole purpose of crossing the river or stream; or
 - (iv) the maintenance of any existing linear facility specified in (iii) above.
- (k) [(ia)
Proposed] No earthworks are undertaken within 200 metres of the coastal marine area, that is:

- (i) more than 1000 square metres in area, within any 12-month period; and
 - (ii) in a location that is visible from the coastal marine area or from any publicly accessible viewing point; or
 - (iii) in a location adjoining any area with nationally or internationally important natural ecosystem values listed in Schedule 25.1F.
- (l) [(ib) Proposed] No earthworks are undertaken within 200 metres of the coastal marine area that changes by excavation or deposition the height of any ridgeline or cliffline identified on the planning maps.
- (m) Earthworks, where the amount of material excavated is greater than 50 cubic metres, and extending below the water table, are not undertaken:
- (i) within 20 metres of the bank of any river or stream; and
 - (ii) within 20 metres of the toe of any stopbank; and
 - (iii) within any flood plain.

Quarrying

- (n) The activity is quarrying and the volume of land disturbed is less than 50 cubic metres in any 12-month period.

Cultivation

- (o) Any cultivation is carried out predominantly on the contour.

Recontouring

- (p) Any cut batter, excavation, or infilling associated with recontouring of land is no more than 1 metre in height or depth and is no more than 1 hectare, within any 12-month period.

Road, Track, Firebreak, Landing, Fence Line, Survey Line, or Utility Service Line

- (q) Where the activity is for the formation, construction or reconstruction of any road, track or firebreak on any area of land that is to be served by the road, track or firebreak, linear disturbance is less than 100 metres per hectare and the predominant slope of the land is less than 35 degrees from horizontal.
- (r) Where the activity is associated with the formation, construction, reconstruction, or maintenance of any road, track, firebreak, landing, fence line, survey line or utility service line:
- (i) formation surfaces with an inwards cross-fall are drained by a watertable;
 - (ii) cut-offs or culverts are constructed or installed so as to prevent scour, gullyng or other erosion of the formed or constructed surface;
 - (iii) cut batters are excavated to a height and a cut slope that avoids batter failure;

- (iv) fill is not placed over woody vegetation on land with a predominant slope greater than 10 degrees from horizontal;
 - (v) areas of fill intended to carry loads are compacted;
 - (vi) trenches excavated for the purpose of installing utility service lines are backfilled and compacted, and is open for no more than 24 hours;
 - (vii) fill batters are constructed and vegetated to a standard that is adequate to avoid batter erosion or failure;
 - (viii) spoil is disposed of by endhauling rather than sidecasting where the formation of any track or road crosses any unstable site or crush zone.
- (s) Any earthworks for the installation or maintenance of a utility service line are no more than 0.6 metres in width.
 - (t) Maintenance of any road, track or firebreak retains substantially the same grade and width.

Flood Hazard

- (u) The activity does not raise the level of any land to a point where it results or may result in the damming or diversion of floodwaters (except for the maintenance of any stopbank).
- (v) The activity does not lower the level of any land to a point where it results in the land becoming subject to flooding.

Archaeological Sites

- (w) Where any soil disturbance or earthworks disturbs any archaeological site, disturbance is to cease unless or until any authority is obtained from the New Zealand Historic Places Trust under Section 14 of the Historic Places Act 1993.

While the proposal complies with most of the 23 subsections (a) – (w) it trips up on three of the subsections. Subsection (a) includes whether the activity contravenes any other applicable rule in chapter 17 (Rural 2 zone permitted activity rules). Subsection (n) repeats the 50 m³ in 12 months period contained in the Rural 2 Zone rule. Subsection (p) restricts any excavation associated with recontouring land to no more than 1 hectare in any 12 month period.

As three out of the 23 subsections are breached the application becomes a restricted discretionary activity under Rule 18.5.2.5 (c) if it complies with the following standards and terms:

“ Quarrying

(c) In the case of quarrying:

- (i) topsoil and subsoil are stripped and stockpiled separately;
- (ii) traffic, vehicles or machinery do not travel over stockpiles;
- (iii) Topsoil and subsoil are replaced and spread separately onto the mined area in a manner that minimises compaction.”

The proposal falls within the ambit of these term and conditions and Council has reserved its discretion to 26 matters:

All Activities

1. The extent, timing, and duration of bare ground.
2. The location, timing of construction, design and density of earthworks including roads, tracks or landings.
3. The re-establishment of vegetation cover.
4. The disposal and stabilisation of waste material or fill.
5. Loss of or damage to soil.
6. Damage to riparian vegetation or soil.
7. Damage to animal or plant communities or habitats in water bodies or coastal water.

Effects of the activity on river or stream flows.

9. Sedimentation effects on subsurface streams or caves in karst.
10. The potential for slope instability.
11. The visual effects of the activity, including the effects and screening of the locality from excavations, heaps, dumps, spoil, materials, buildings and machinery.
12. Potential damage to any cultural heritage site or area, including any archaeological site or site of significance to Māori.
13. Damage to any natural habitat or feature.
14. The duration of the consent (Section 123 of the Act) and the timing of reviews of conditions and purpose of reviews (Section 128).
15. Financial contributions, bonds and covenants in respect of the performance of conditions, and administrative charges (Section 108).

Additional Matters for Land Disturbance Associated with Quarrying

16. The depth and area of excavation and effects on groundwater.
17. Restoration of the site, including ground levels and planting.
18. The machinery to be used and manner of excavation.
19. The method of storage and replacement of subsoil and of topsoil, including management of stockpiles and minimisation of compaction.
20. Types and quantities of introduced fill.

21. Measures to ensure both surface and subsurface drainage is at least as good as that prior to mining or recontouring.
22. Measures to avoid, remedy or mitigate compaction or damage to the soil resource.
23. Establishment and management of appropriate vegetation and fertiliser application and grazing management to ensure optimal rehabilitation.
24. Likely difficulty in avoiding adverse impact on the land's actual and potential productivity and versatility.
25. The potential for increased hazard at the site or on adjacent land.
26. Measures to avoid or mitigate adverse effects on adjacent land uses, including limiting hours of operation and measures to control noise and dust.