



# *Hastings District Council*

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## OPEN DOCUMENT 2

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# COMMISSIONER HEARING MEETING

Meeting Date: **Monday, 26 November 2018**

Time: **9.00am**

Venue: **Council Chamber  
Ground Floor  
Civic Administration Building  
Lyndon Road East  
Hastings**

ITEM	SUBJECT	PAGE
2.	<b>A RESOURCE CONSENT TO ESTABLISH A SITE FOR THE PROCESSING OF EXTRACTED RIVER GRAVELS (DEFINED AS 'MINING' IN THE PROPOSED HASTINGS DISTRICT PLAN) AND TO ERECT ASSOCIATED ANCILLARY STRUCTURES (RMA20180258) RUSSELL ROADS LIMITED</b>	
	<b><u>Document 2</u></b> Containing these attachments	
	<b>Attachment 6</b> Supporting Documents Traffic, Noise and Landscape Reports	<b>Pg 1</b>
	<b>Attachment 7</b> S92 Further Information Required Letter	<b>Pg 103</b>

<b>Attachment 8</b>	Further Info provided Re Lease Agreement and Speed Restrictions (1 of 2)	<b>Pg 105</b>
<b>Attachment 9</b>	Further Info provided (2 of 2)	<b>Pg 107</b>
<b>Attachment 10</b>	NZTA Written Approval	<b>Pg 111</b>
<b>Attachment 11</b>	s92 request	<b>Pg 113</b>
<b>Attachment 12</b>	Hegley Acoustic Peer Review	<b>Pg 117</b>
<b>Attachment 13</b>	Request for Further information following submissions	<b>Pg 121</b>
<b>Attachment 14</b>	Russell Roads HBRC Consent 2018/2019	<b>Pg 123</b>
<b>Attachment 15</b>	Further Information After submissions PDF (Dust Management Plan, Silica Dust, Access Roads)	<b>Pg 129</b>

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Mr R Gale  
Russell Roads Limited  
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**Hastings 4120**

TDG Ref: 15372  
31 May 2018

Issued via email: [robbie@russellroads.co.nz](mailto:robbie@russellroads.co.nz)

Dear Robbie

**Russell Roads Quarry - Traffic and Access Assessment**

Further to our recent correspondence, we are pleased to provide this assessment for the new Russell Roads Quarry access.

**1. Introduction**

TDG has been commissioned by Russell Roads Limited to undertake a traffic and access assessment for the proposed expansion of an existing gravel extraction and processing site, located at 3375 State Highway 50 (SH50), Maraekakaho. This report will form part of a resource consent application and includes:

- an outline of the proposed development plans;
- a description of the existing traffic environment;
- a review of the proposed access and operation; and
- an assessment of the associated traffic generation.

The report concludes with a summary of our assessment.

**2. Site Location and Proposal**

The development site is located along SH50, Maraekakaho, some 20 km west of Hastings. The existing quarry site is currently accessed from Kereru Road. However, a new accessway and haul route is proposed. **Figure 1** shows the site location, the existing access and haul route as well as the proposed new access and haul route to / from the site.

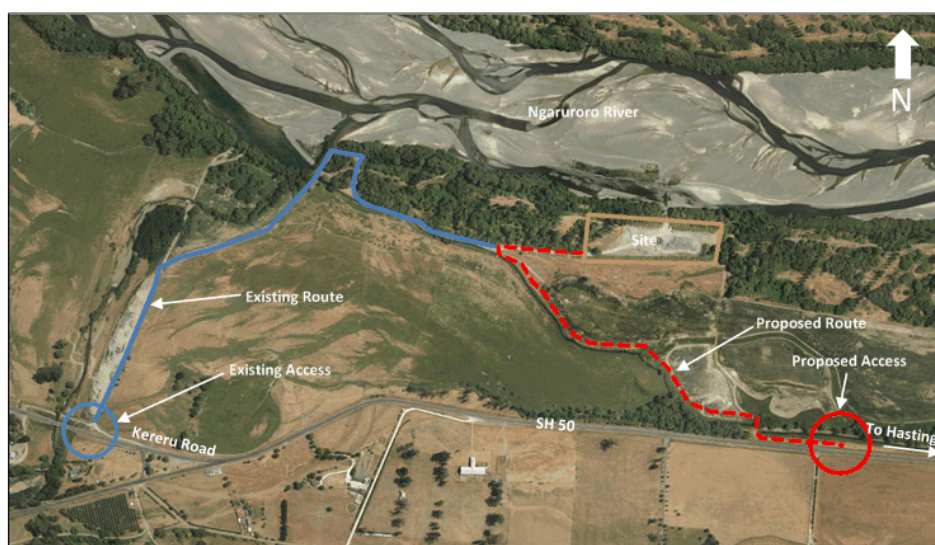


Figure 1: Site Location and Access Route (source: Emaps)

## 2.1 Existing Access and Route

The existing access along Kereru Road is located approximately 140m west of the Kereru Road / SH50 intersection. The intersection is currently priority-controlled. The current configuration is less than optimal as the access intersects with Kereru Road at an acute angle. A link road connecting SH50 with Kereru Road is also directly opposite the access creating additional conflict points.

Similarly, the Kereru Road / SH50 intersection also intersects at an acute angle and traffic travelling along Kereru road in an eastbound direction have poor visibility and are required to look over their shoulder to see approaching SH50 traffic.

The aggregate extracted from the quarry is transported to numerous locations throughout the region, with haul routes in both the eastern and western directions. As such, truck traffic often has to make use of the Kereru Road / SH 50 intersection.

The existing route (shown in blue above) to the quarry is along a public road, often used by members of the public and tourists to visit the Ngaruroro River, a popular recreational area for locals. Council has earmarked the access road for upgrades as part improving the safety of the road and enhancing accessibility for members of the public to access the natural and recreational commodities offered along the river.

## 2.2 Proposed Access Location and Route

Russell Roads, in consultation with Hastings District Council (HDC), New Zealand Transport Authority (NZTA), the community and affected landowners have identified an alternative accessway and route, also shown in Figure 1. The proposed new route relinquishes the need to utilise the existing access, which could then be used for the public.

The proposed new route will intersect the SH50 at a location shown in Figure 1. At this location an existing unsealed entrance exists and currently provides access to the



adjacent property. Russell Roads has negotiated with the landowner to secure a new route from the quarry to SH50.

The proposed route generally follows the existing stream and informal farm track. Comparatively, the proposed route is shorter than the existing route. The proposed new access has been developed in conjunction with NZTA's Safety Engineer, which resulted in a dedicated right turn bay and road widening. The design is discussed in more detail in **Section 4**.

### 3. Existing Traffic Conditions

#### 3.1 Road Environment

The portion of SH50 passing the proposed access has a posted speed limit of 100km/h. The road is a sealed single carriageway with two-way traffic, consisting of two trafficable lanes of around 3.7m and 1m shoulders on both sides. Geometrically, the access is located in a safe location along a straight alignment with reasonably flat grades. Sightlines in both directions are therefore excellent. The shoulders along SH50 widen to 2m both sides in the vicinity of the proposed access. This local widening is due to the local access directly opposite the proposed access.

A NZTA traffic counting station (site reference: 05000030) exists along SH50 approximately 2km east of the proposed site access and recorded an Annual Average Daily Traffic (AADT) of 3,035 vehicles per day for both directions for 2017. Thus, it is concluded that this portion of SH50 carries comparatively low traffic volumes.

A school bus service operates between Hastings and Maraekakaho along SH50, with one of the buses utilising the existing access located opposite as an informal bus stop.

#### 3.2 Crash History

The NZTA Crash Analysis System database was searched for crashes along SH50 300m east and west of the proposed quarry access, for the full 5-year period from 2013 – 2017. No crashes were reported for this section of road, suggesting that there are no inherent safety issues along this portion of road.

### 4. Proposed Access Design and Access Route

The access arrangement was designed in accordance with NZTA Transit Planning Policy Manual (TPPM) – Appendix 5B – Accessway standards and guidelines, as well as AustRoads Guide to Road Design Part 4A. The access arrangement is shown in drawing **15372N2C sheet 1 and 2** appended to this letter. The access includes the following features:

- the location of the proposed accessway is off-set from the existing accessway to remove conflicting turning movements between the quarry access and the private access opposite. This location also allows for a more gradual vertical alignment to be achieved along the access road;
- the accessway will be sealed from SH50 to a point beyond the gate proposed;
- the access road will be 6m wide to allow two trucks to pass one another;
- a gate is proposed setback some 20m from the access to allow larger vehicles to wait off-road if required;
- a dedicated right-hand turning lane of 20m is proposed together with a passing lane for through traffic travelling westbound on SH50;

- a flush median is proposed in front of the private access to allow vehicles to turn right without affecting through traffic;
- attention has been given to the location of the turning-bay and all road widening occurs on the northern edge, thereby keeping the southern edge of seal unchanged.

Flag lighting is not deemed necessary at the new access on account that the quarry generally only operates during the daytime.

The sightline distances for the new access has been assessed to determine whether they meet minimum design standards. Austroads Guide to Road Design part 4A requires a minimum sightline distance of 262m for a 100km/h speed limit in order for drivers to see approaching vehicles. **Photograph 1 and 2** together with drawing **15372N2C sheet 2** show the sight distance to the east and west of the entrance, both of which safely exceed the minimum requirement.



**Photograph 1: Sightlines east (towards Hastings) at the proposed access**



**Photograph 2: Sightlines west (towards Maraekakaho) at the proposed access**



**Photograph 3: Proposed Access**



**Photograph 4: Proposed Access and Access Route**

Some 10m back from the new access the road takes a 90-degree bend as shown in **Photograph 3**. The existing ground level is relatively flat where the access is proposed, however, **Photograph 4** shows that the route becomes steeper on the approach to the river crossing.

The existing access route is a 4m wide unsurfaced road with no drainage. As part of the proposal the road will be upgraded to 6m where possible and chip-sealed.

The route alignment is still at a conceptual stage and once the proposal has been approved, the alignment will be designed in accordance with relevant AustRoads Guidelines and HDC's Engineering Code of Practice.

## 5. Consultation with Affected Parties

HDC, NZTA, the local community and adjacent landowners were identified as affected parties and as such consultation has been undertaken with these parties regarding the proposed new access route.

Members of the community have previously requested that the speed limit be reduced between GodsOwn Brewery, west of Maraekakaho, to the historic Woolshed Building east of Maraekakaho, from 100kmh to 80kmh. This section of road falls outside the proposed access location and has therefore not influenced our proposed design.

As mentioned previously, the design has followed the requirements stipulated by NZTA.

The land owner of the property located opposite the proposed accessway of the quarry has raised the following concerns:

- trucks waiting to turn into the quarry access, might block vehicle manoeuvres from the affected party's access; and
- trucks might utilise the affected landowner's access to allow through traffic to pass while waiting to turn into the quarry.

### 5.1 Designer Response

The proposed access, its location and the design thereof has considered the concerns of all parties mentioned above while adhering to engineering design guides to mitigate safety risks as far as possible. The proposed design therefore addresses these concerns by:

- removing the existing truck traffic at the existing Kereru Road access to the river as well as the Kereru Road / SH50 intersection, thereby improving the overall safety at these locations;
- separating the right-turn traffic from through traffic on SH50, thereby allowing through traffic to pass unhindered;
- moving the access location slightly to the east from its original location to create a staggered arrangement rather than a cross road arrangement. This removes possible conflict with the landowner opposite as well as any possible interference with the school bus;
- the proposed access location also avoids an existing power pole
- the proposed access improves the overall safety of the existing private access through the introduction of a flush median. Motorists are now able to turn right into the accessway. Previously motorists would be required to pull off the road and traverse two trafficked lanes when safe to do so. The proposed layout therefore dramatically improves safety for vehicles arriving from the west.

## 6. Assessment of Traffic Generation

It is understood that the maximum peak daily truck movements will be approximately 90 trucks per day, with around 18 truck movements in a peak hour period. This would constitute around 3% of daily traffic on SH50. The peak hour demand of the site would equate to around 6% of peak hour traffic on SH50, if these two peak periods coincide.

In addition, the new access road, being 6m wide, ensures that all quarry vehicles are able to pass one another unhindered. Some sections, however, will be 4m wide and these will be managed through the inclusion of appropriate signage.

It is therefore assessed that this increase in traffic will have a less than minor effect on the current operation and function of the state highway.

## 7. Conclusions

TDG has been commissioned by Russell Road Ltd to provide a traffic assessment for the proposed quarry expansion at 3375 State Highway 50.

It has been assessed that the proposed new access arrangement location sufficiently addresses the risks and concerns raised by affected parties. The access has been designed in accordance with AustRoads and NZTA standards and fully meets these requirements. As such, the access arrangement does not pose any adverse risk to road users.

The traffic generated by the proposed development can be accommodated by the existing road network without adversely affecting the operation and function of state highway.

Yours sincerely  
**Traffic Design Group Ltd**



Kristin Louw  
**Transportation Engineer**

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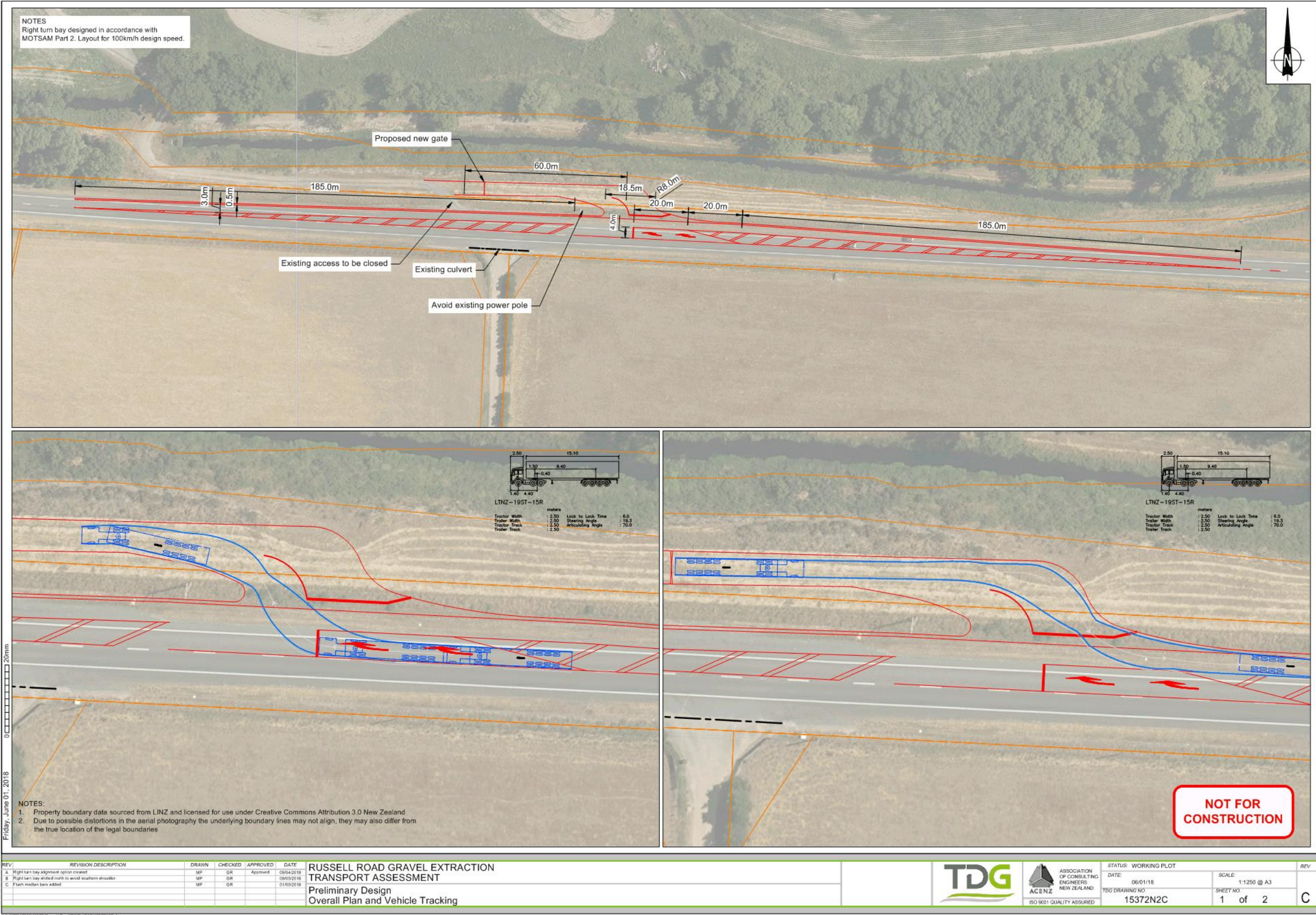


Glen Randall  
**Principal Transportation Engineer**

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enc: Drawing 15372N2C Sheet 1 – Layout Plan  
Drawing 15372N2C Sheet 2 – Sightline Distance Plan













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Prepared for: **Russell Roads**

Date: **22 April 2018**

Title: **Russell Roads Gravel Extraction  
Assessment of Noise Effects**

Revision Number: 1

Prepared by:

A blue ink signature of Jon Styles, written in a cursive style.

Jon Styles MASNZ  
Director & Principal

Reviewed by:

A blue ink signature of J. Exeter, written in a cursive style.

J. Exeter MASNZ  
Senior Consultant

Item 2

Attachment 6



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### Executive Summary

This assessment of noise effects has been prepared by Styles Group to accompany a resource consent application to Hastings District Council to regularise the current activity and to authorise a new access road off SH50 and increased production at the Russell Roads Quarry, Maraekakaho.

We have prepared noise rating level predictions for the quarry site based on site and plant specific noise measurements and observations of the existing operations and using sophisticated computer noise modelling software.

The results of the noise modelling undertaken demonstrate that the noise limits permitted by the Hastings District Plan will be readily complied with at all potentially affected sites and consent will not be required for any infringement of the District Plan rules with respect to noise emissions.

We consider that the noise management measures imposed by the recommended consent conditions will form part of the *best practicable option* to reduce noise emissions from the site. Using the noise limits permitted by the Hastings District Plan for Rural Zones (under which the existing quarry operates) as a measure for what constitutes a reasonable level of noise for this application, the noise emissions from the proposed operation can be considered to comply with section 16 of the Act.

## Introduction

Styles Group has been engaged by Russell Roads to prepare an assessment of noise effects and to determine compliance with the relevant District Plan noise limits for noise arising from the proposed Russell Roads gravel extraction operation.

We understand that the quarry site has been operating for many years and now requires resource consent to regularise the current and future operations, including a new access road off SH50. The activity on site will include the use of a rock crusher, screen, washing plant, a front end loader and truck movements. During peak demand the operating hours will be between 07:00 and 18:00, Monday to Friday, and 07:00 to 15:30 on Saturdays, although the hours will be less for much of the time. The site will not operate on Sundays or Public Holidays.

This report comprises an assessment of the proposal from an acoustics perspective, including:

- i. Noise level predictions at the surrounding sites prepared using Brüel & Kjær Predictor computer noise modelling software based on site and plant specific measurement data.
- ii. Recommended noise management measures and conditions of consent.
- iii. An assessment of the noise emissions from the site in accordance with the Hastings District Plan, section 16 of the Resource Management Act (the Act) and all relevant New Zealand noise standards.

To avoid any ambiguity or misunderstanding, this report must be read in conjunction with the application documentation, site plans and the Assessment of Environmental Effects. A glossary of acoustical terms used within this document is attached as Appendix A.

## The Proposal

The proposal involves the continuing operation of the current activities as well as providing for increased production and a new access from a sealed route off SH50. The proposed operating hours are Monday to Friday from 07:00 to 18:00 and 07:00 to 15:30 on Saturdays. The general operation of the quarry site will involve the simultaneous operation of a rock crusher, excavator, loader, screen and washing plant, as well as truck movements on site.

The noise emissions from the current activity have been measured on site and accurate data has been obtained to inform the computer noise model predictions.

For the purpose of this assessment, we have divided the operation into a 'busy day' and a 'typical day', as characterised by the truck movements on site, and the production rates to meet those demands, as follows:

	Typical Day		Busy Day		Max Annual
	Average Daily	Average Hourly	Peak Daily	Peak Hourly	
Truck Movements	29	3	85	18	8,500
Cubic metres	348	31	1,020	216	100,000

### Noise Performance Criteria

#### *Hastings District Plan*

The quarry site and all proximate surrounding sites are in the Rural zone according to the Hastings District Plan.

The noise limits permitted by the Hastings District Plan and the required noise standards under which the quarry presently operates are set out in Chapter 25.1 *Noise*, as follows:

#### **25.1.6D RURAL ZONES**

*The following noise conditions shall apply to all land uses within all Rural Zones, other than those exempted in Rule 25.1.6B and 25.1.7E (Wind Farm Noise):*

- (a) *The following noise limits shall not be exceeded at any point within the notional boundary of any noise sensitive activity on any other site within a Rural Zone, or at any point within the boundary of any site, in any Zone other than an Industrial Zone:*

<u>Control Hours</u>	<u>Noise Level</u>
0700 to 1900 hours	55 dB LAeq (15 min)
1900 to 2200 hours	50 dB LAeq (15 min)
2200 to 0700 hours the following day	45 dB LAeq (15 min)
2200 to 0700 hours the following day	75 dB LAFmax

As defined by the Hastings District Plan, the notional boundary means a line 20 metres from the façade of any dwelling, or any building being part of a residential activity, visitor accommodation, hospital, education facility, marae or church or the legal boundary whichever is closer to the dwelling or building.

**25.1.6I CONSTRUCTION NOISE**

- (a) Any noise arising from construction, maintenance and demolition work in any Zone shall comply with NZS6803:1999 Acoustics - Construction Noise.
- (b) Construction noise shall be measured and assessed in accordance with NZS6803:1999 Acoustics - Construction Noise.
- (c) To avoid doubt, Standards 25.1.6C to 25.1.6H above shall not apply to construction noise.

**NEW ZEALAND STANDARDS**

The following New Zealand Standards will be followed for assessing noise emission controlled by the District Plan:

NZS 6801:2008: Acoustics – Measurement of Environmental Sound

NZS 6802:2008: Acoustics – Environmental Noise

The noise limits permitted by the Hastings District Plan as they apply to the proposed operations, when measured and assessed in accordance with NZS 6801:2008 and NZS 6802:2008 at or within the notional boundary of any noise sensitive activity within the surrounding Rural zone is therefore 55 dB  $L_{Aeq}(15 \text{ min})$ .

The only construction activities associated with the proposal is the construction of the new access road which will be subject to compliance with NZS6803:1999 *Acoustics – Construction Noise*.

**New Zealand Standards – Special Audible Character**

Section 6.3 of NZS 6802:2008 states that where the sound being assessed has a distinctive character which may affect its subjective acceptability (for example it is noticeably impulsive or tonal), the representative sound level shall be adjusted to take this into account (in accordance with Appendix B4 of the Standard). It is our opinion that the noise from the quarry operations will not meet the criteria for any adjustment for special audible characteristics when assessed at the notional boundary of any potentially affected site.

The loader currently used on the site has a tonal reverse alarm which would qualify for the +5dB adjustment. However, we recommend that the tonal alarm be replaced with a broadband alarm which we understand will remain compliant with the relevant health and safety requirements, and would not qualify for the +5dB adjustment for special audible character. We have recommended a consent condition requiring prohibition of the use of tonal reverse alarms on all machinery and plant operating permanently on site. Because the operation is arranged such that trucks do not need to reverse, the reverse alarms on trucks are not relevant to the assessment.



*New Zealand Standards – Duration Adjustment*

Section 6.4 of NZS 6802:2008 states that if a sound is not present all of the time it is likely to create lesser annoyance than the same sound if it were continuously present. The Standard recommends that an adjustment of up to 5 dB shall be applied to the representative sound level to take this into account. The more the sound under investigation is present, the less the duration adjustment value is. If a sound is continuous then no duration adjustment is warranted. Because of the importance of protecting sleep, no adjustment is allowed during a prescribed time frame defined in a consent condition, rule or national environmental standard as night-time.

The operations involve rock crushing, screening and washing throughout the day interspersed with periods of truck movements and the use of the front end loader. With reference to Appendix A, Table A7 of NZS 6802:2008, section 6.4.6 *Duration* is the appropriate reference for the application of the duration correction, as follows:

*For situations where the level of the sound reduces significantly for large periods of time but the sound does not switch off completely, some adjustment to account for this relief to persons exposed to the sound is also appropriate. In these cases the energy average of the sound under investigation should be calculated over the entire prescribed time frame. The rating level shall be the greater of this average value or the representative level over the reference time interval - 5 dB.*

For this application, a duration adjustment has been made to the predicted noise levels by calculating the energy average over the prescribed timeframes of 07:00 to 19:00 and 19:00 to 22:00.

For the busy day scenario, the reduction for duration is minimal (less than 1 decibel) due to the extended use of the plant on site over the respective time frames. No duration adjustment has been applied to the period of 07:00 to 18:00.

For the typical day scenario, although the truck movements are approximately 1/3<sup>rd</sup> of a busy day, we have allowed a 3dB duration adjustment which equates to production rates at 50% of a busy day. This allows for the use of the loader and other plant to operate for up to 50% of the day for maintenance of stock piles and haul routes if required.

*Resource Management Act 1991*

The overarching requirement for noise arising from the proposed activity is compliance with Section 16 (1) of the Act, which states:

*Every occupier of land (including any premises and any coastal marine area), and every person carrying out an activity in, on, or under a water body or the coastal marine area, shall adopt the*

*best practicable option to ensure that the emission of noise from that land or water does not exceed a reasonable level.*

The *best practicable option* is defined by the Act as:

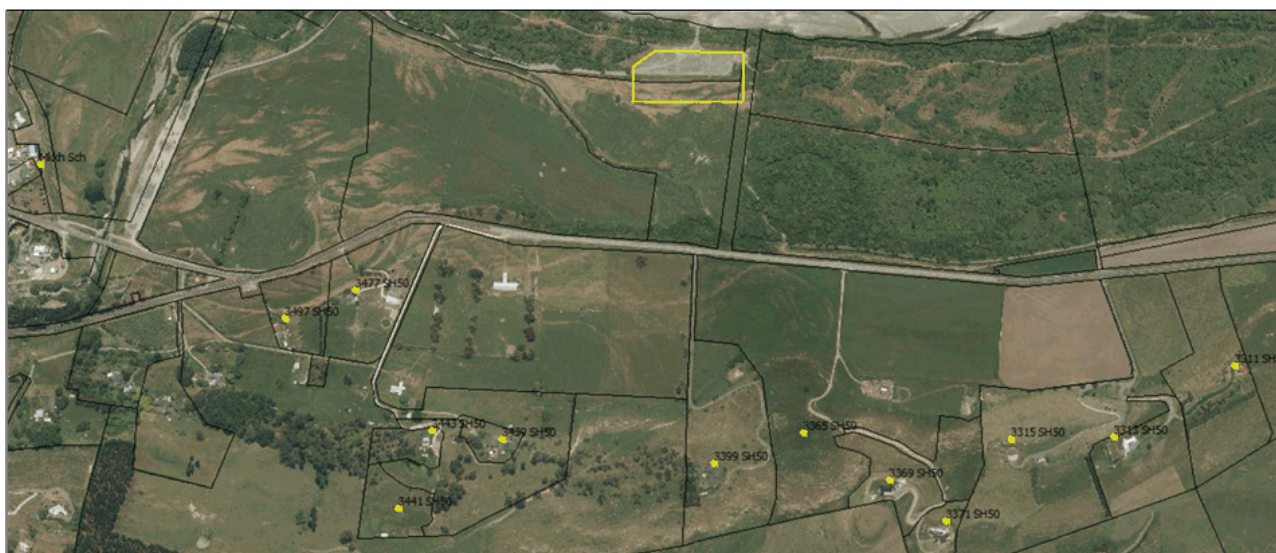
***best practicable option***, in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—

- a) *the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and*
- b) *the financial implications, and the effects on the environment, of that option when compared with other options; and*
- c) *the current state of technical knowledge and the likelihood that the option can be successfully applied.*

### Potentially Affected Sites

The separation distance between the activities on site and any adjacent receiver is approximately 700-800m from the processing area and 350m from the closest end of the access road. The nearest potentially affected sites include dwellings to the south across SH50 and to the west near Kereru Rd, including the Maraekakaho School.

Figure 2: Potentially Affected Receivers



The addresses of the receivers assessed in this report are

- |                        |               |
|------------------------|---------------|
| 1) 3311 SH50           | 2) 3313 SH50  |
| 3) 3315 SH50           | 4) 3365 SH50  |
| 5) 3369 SH50           | 6) 3371 SH50  |
| 7) 3399 SH50           | 8) 3439 SH50  |
| 9) 3441 SH50           | 10) 3443 SH50 |
| 11) 3477 SH50          | 12) 3497 SH50 |
| 13) Maraekakaho School |               |

### Site Specific Data

A site visit was undertaken by Styles Group on the 5<sup>th</sup> of April 2018 to investigate the site layout and undertake a series of noise measurements inform our noise modelling inputs. Noise

measurements were undertaken, in accordance with NZS 6801:2008 and using a Brüel & Kjær 2250 Type 1 sound level meter, to quantify the noise emissions of the crusher, the front end loader, screen and the trucks that will visit the site. A full set of noise measurements including octave band data was obtained of various activities for the purpose of calibrating our noise model. Further details of the measurements including meteorological conditions and serial numbers and calibration details for the sound level meter are available on request.

The sound power levels derived from the attended measurements (except for trucks on sealed roads and the wash plant as explained below) as used in the computer noise modelling are provided in Table 1. All sound power levels stated in this report are based on measurements using the  $L_{Aeq}$  metric.

**Table 1: Sound power levels for process plant and trucks**

Activity	dB $L_{AW}$	Octave band sound power levels (dB A-weighted)							
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4 kHz	8kHz
Crusher	117	88	98	104	105	110	111	108	100
Screen	115	83	94	98	105	111	110	107	99
Wash plant	103	93	93	95	93	97	95	93	94
Loader loading trucks	105	83	91	95	98	100	99	98	88
Empty truck on gravel haul route (8km/hr)	105	102	100	92	89	92	90	85	75
Truck on sealed access road (20km/hr)	101	86	81	88	93	96	95	90	82

The noise source levels for trucks on gravel in the processing area are higher than that for trucks on the sealed road due to body rattle. The source levels for trucks on the sealed access road are taken from our large database of measurements as none were able to be undertaken during our visit to the site, (as all access roads were unsealed). The source levels for the wash plant are taken from manufacturers specifications.

During our visit to the site, a number of the receiver's sites were also visited. Unfortunately the wind direction was perpendicular to the direction of propagation did not favour the worst-case propagation of noise levels. This means that noise measurements of processing activities from these locations would not have been representative or particularly useful for this assessment. However, during the short periods when wind speeds were low, the noise level from the crusher and screen was clearly audible in gaps between traffic on SH50, with measured noise levels of



approximately  $L_{Aeq}$  35-39dB. When traffic was flowing on SH50, the ambient noise levels were between approximately 45dB  $L_{Aeq}$  and 50dB  $L_{Aeq}$ .

### Construction Noise

The work required to construct the new access road to the processing site will take place between 07:00 and 18:00, Monday to Saturday and will be less than 20 weeks in duration. In accordance with the Hastings District Plan and NZS 6803:1999 *Acoustics – Construction noise* the permitted construction noise limits are 75 dB  $L_{Aeq}$  and 90 dB  $L_{Amax}$  at 1 m from the facade of any occupied residential-use building and 75 dB  $L_{Aeq}$  at 1 m from the facade of any occupied commercial-use building.

All construction works required (e.g. the use of bulldozers, trucks, graders, rollers and excavators) will generate less noise than the processing activities (during the operational phase) and will readily comply with the permitted construction noise limits by a considerable margin due to the separation distances involved. We do not consider that any further assessment of potential construction noise effects or construction specific conditions are required for this application.

### Noise Modelling

Styles Group has used Brüel & Kjær Predictor computer noise modelling software to prepare noise level predictions, based on the International Standard ISO 9613-1/2. The noise level predictions assume meteorological conditions that slightly enhance propagation in all directions in accordance with NZS 6802:2008. The Brüel & Kjær Predictor software is globally recognised and has been successfully implemented on a large number of projects throughout New Zealand.

Terrain contours, land parcels and building footprints for the model were acquired from online geospatial data services and the Hastings District Council GIS maps. All relevant information obtained from online services has been confirmed by site observations. The topographical contours encompass the entire site and the surrounding land. We have ensured the integrity of the noise model by several methods including careful scrutiny of the final three-dimensional model.

The calculation grid spacing for the final model is 10 m x 10 m. The software interprets the noise level contours between these points which can only be considered indicative when examining the model at a low resolution (but are appropriate for determining the nature and extent of the noise emissions). For the purpose of determining the noise level at any particular receiver location and for the purpose of calibrating the model we have used point receivers located at the notional boundary of each dwelling; these are independent of the contour grid and are

provide precise predictions. The noise model outputs have been examined and confirmed by manual calculations during our internal review process.

The input parameters of the noise model are displayed below in Table 2.

**Table 2: Brüel & Kjær Predictor Input Parameters**

Parameters / calculation settings	Details
Software	Brüel & Kjær Predictor
Calculation method	ISO 9613.1/2
Calculation grid height	1.5 m
Grid point spacing	10 m x 10 m
Meteorological parameters	C0 = 0.00 (wind blowing away from the site in all directions)
Ground attenuation	General method, ground factor 0.7 (grass and foliage with hard soil).
Air temperature	293.15 K
Atmospheric pressure	101.33 kPa
Air humidity	60 %
Air absorption (dB/km)	31 Hz: 0.03, 63 Hz: 0.10, 125 Hz: 0.38, 250 Hz: 1.22, 500 Hz: 2.78, 1 kHz: 4.80, 2 kHz: 9.28, 4 kHz: 25.64, 8 kHz: 88.94.
Source heights (relative)	3m
Receiver heights (relative)	1.5 m above local ground level at the receiving notional boundary
Calibration of noise sources	Site and plant specific noise measurements undertaken by Styles Group

We have constructed discrete noise models for the busy day and typical day scenarios and for with and without a 7m high bund on the south side of the processing site.

Noise attenuation may at times be able to be provided in the form of stockpiles of gravel that can serve as bunds to acoustically screen the surrounding area from the operation of noisy machinery. The use of bunds for this purpose is not likely to be possible for much of the time given the space that the bunds take up and the narrow east-west shape of the site. However, when it is practicable to use stock piles for attenuation, we suggest that they are.

Given that the use of stockpiles to attenuate noise will be available only some of the time, we have modelled the noise sources on the site without this screening so that the worst case scenario for noise emissions can be assessed, along with a stockpile on the south side of the site should it be available.



### Noise Rating Level Predictions

Table 3 displays the noise rating level predictions at 1.5 m above the local ground level at each receiving site for the four noise models. The noise level contours are attached as Appendix C. The noise modelling shows that the noise from the processing plant will be the dominant source, with trucks on the sealed access way travelling at 20km/hr generating relatively low levels of noise.

The results of the noise modelling displayed in Table 3 are the highest noise rating levels for each scenario expected at or within the notional boundary of the adjacent potentially affected sites. The predicted noise rating levels demonstrate that the permitted noise limit of 55dB  $L_{Aeq}$  in the District Plan will be complied with at all times and by a considerable margin. Based on our plant-specific measurements, the  $L_{Amax}$  noise levels during the period of 06:00 to 07:00 will be up to 10 decibels higher than the stated  $L_{Aeq}$  noise levels and will readily comply with the permitted noise limit of 75 dB  $L_{Amax}$  at the notional boundary of any receiving site.

**Table 3: Noise Rating Level Predictions**

Address	Typical day with no bund ( $L_{Aeq}$ )	Typical day with bund ( $L_{Aeq}$ )	Busy day with no bund ( $L_{Aeq}$ )	Busy day with bund ( $L_{Aeq}$ )
3311 State Highway 50	36 dB	34 dB	39 dB	37 dB
3313 State Highway 50	37 dB	33 dB	40 dB	36 dB
3315 State Highway 50	39 dB	35 dB	42 dB	38 dB
3365 State Highway 50	42 dB	37 dB	45 dB	40 dB
3369 State Highway 50	39 dB	35 dB	42 dB	38 dB
3371 State Highway 50	37 dB	33 dB	40 dB	36 dB
3399 State Highway 50	42 dB	37 dB	45 dB	40 dB
3439 State Highway 50	41 dB	36 dB	44 dB	39 dB
3441 State Highway 50	38 dB	34 dB	41 dB	37 dB
3443 State Highway 50	40 dB	36 dB	43 dB	39 dB
3477 State Highway 50	42 dB	37 dB	45 dB	40 dB
3497 State Highway 50	39 dB	35 dB	42 dB	38 dB
Maraekakaho School	35 dB	35 dB	38 dB	38 dB

### Assessment of Noise Effects

In accordance with the Hastings District Plan and with reference to the proposed operations, the permitted noise limit for the operating hours is 55 dB  $L_{Aeq}$  when measured at or within the notional boundary of the potentially affected receivers. The predicted noise rating levels demonstrate that these limits will be complied with at all times, and by at least 10dB. Subjectively, a margin of 10dB could be described as being half as loud as what is permitted by the District Plan.

The predicted noise levels are approximately 5-10dB louder than those measured at receiving properties during our site visit due primarily to the different meteorological conditions assumed in the noise model. When described in subjective terms, the predicted noise levels would be noticeably louder (5dB) or twice as loud (10dB) as those observed and measured during our site visit.

The noise for many of the receivers will be further mitigated at times (by approximately 1 to 5 decibels) by the screening on site provided by large piles of gravel. However, this will vary and may at times not be available so has not been relied on as a full time mitigation measure in the noise modelling. The quarry will not operate on Sundays or Public holidays, providing respite for surrounding noise receivers, notwithstanding that the District Plan permits the same level of noise to be generated on all days.

The noise levels will be audible at many of the receivers during the day, especially during gaps in the traffic on SH50 and when meteorological conditions enhance propagation in a southerly direction. The most common propagation-enhancing meteorological conditions would be calm conditions, a light northerly breeze, or a temperature inversion. During these times, the noise from the site will be audible at the receivers and will be constant throughout much of the day, and will 'fill in the gaps' between traffic movements on SH50, as well as being audible at times over the traffic noise. Cross winds will generally result in neutral propagation conditions such as those observed during our site visit, where the processing noise is only measureable between large gaps in traffic on SH50. During southerly winds, the noise from the site is likely to be considerably lower.

Using the noise limits permitted by the Hastings District Plan for Rural Zones (under which the existing quarry operates) as a measure for what constitutes a reasonable level of noise for this application, the noise emissions from the proposed operation can be considered to comply with section 16 of the Act.



### Recommendations

If consent is granted, we recommend that the following conditions should be imposed. We have not recommended a condition containing noise limits as the operation will be permitted by the Hastings District Plan and consent will not be required for any infringement of the District Plan rules with respect to noise emissions. The rules must therefore be complied with at all times as they would for any permitted activity.

- 1) Processing operations and truck movements on the site shall be prohibited outside the hours of 07:00 to 18:00, Monday to Friday, and 07:00 to 15:30 on Saturdays.
- 2) Tonal reverse alarms are prohibited on all vehicles that are permanently located on the site, including the loader, excavator and any other mobile plant.
- 3) Where stock piling exists and where it can practicably be used to screen machinery, the consent holder shall take all practicable steps to utilise stock piles to reduce noise levels to neighbouring properties.

**Appendix A: Glossary**

Acoustical Term	Definition
Noise	A sound that is undesired by, or distracting to, the recipient.
dB (decibel)	The basic measurement unit of sound. The logarithmic unit used to describe the ratio between the measured sound pressure level and a reference level of 20 micropascals (0 dB).
A-weighting	A frequency filter applied to the full audio range (20 Hz to 20 kHz) to approximate the response of the human ear at lower sound pressure levels.
Ambient noise	Ambient noise is the total of all noise within a given environment, comprising a composite of sounds from sources near and far.
$L_{Aeq(t)}$	The A-weighted equivalent sound pressure level with the same energy content as the measured varying acoustic signal over a sample period (t). The preferred metric for sound levels that vary over time because it takes into account the total sound energy over the time period of interest.
$L_{Amax}$	The maximum A-weighted sound pressure level recorded during the measurement period.
NZS 6801:2008	N.Z. Standard NZS 6801:2008 <i>Measurement of Environmental sound</i>
NZS 6802:2008	N.Z. Standard NZS 6802:2008 <i>Acoustics – Environmental Noise</i>
NZS 6803:1999	N.Z. Standard NZS 6803:1999 <i>Acoustics – Construction noise.</i>
ISO 9613-1/2	International Standard ISO 9613-1/2 <i>Attenuation of sound during propagation outdoors</i>
Notional boundary	As defined by the Hastings District Plan, the notional boundary means a line 20 metres from the façade of any dwellinghouse, or any building being part of a residential activity, visitor accommodation, hospital, education facility, marae or church or the legal boundary whichever is closer to the dwellinghouse or building.



**Appendix B: Photos on Site**

Front end loader loading truck



Excavator feeding crusher



*Resource Consent for Gravel Extraction &  
Processing Activity*

*for*

***RUSSELL ROADS LTD***

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Kereru Road, Maraekakaho, Hawkes Bay

*Assessment of Environmental Effects  
Landscape and Visual Effects Assessment*

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PREPARED BY **EASTERN EARTH LANDSCAPE ARCHITECTS**

5 June 2018





## LANDSCAPE AND VISUAL EFFECTS ASSESSMENT

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Prepared by Sue Dick  
Registered NZILA Landscape Architect  
*EASTERN EARTH LANDSCAPE ARCHITECTS*

A report prepared for *Russell Roads Ltd*  
5 June 2018

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## 1.0 Introduction & Background

This report has been prepared at the request of Russell Roads Limited, and forms part of a land use consent application for the operation of an existing gravel extraction and processing site within the riparian landscape of the Ngaruroro Rover, near the Maraekakaho village and accessed from State Highway 50 (SH 50). It forms part of the Assessment of Environmental Effects (AEE) for the application. The site is on riparian land owned and administered by the Hawkes Bay Regional Council (HBRC).

### 1.1 Background

- 1.01 *July 2017:* An initial Landscape and Visual (L & V) Assessment report for this application was commenced in July 2017, when a site visit was undertaken and two visits to affected neighbours were completed (July 31<sup>st</sup> 2017). Some photography in this report was therefore taken in winter conditions when there were no leaves on trees and frost covered the ground.
- 1.02 *April/May 2018:* A new L & V Assessment was initiated and two further site visits were completed on April 5<sup>th</sup> and May 15<sup>th</sup>. Five further affected neighbouring properties were visited in April. Additional photos in this report were taken during this visit and, comparatively, show trees with leaf cover.

## 2.0 Report Objectives within Statutory Framework

- 2.01 The objectives of this report are to assess the actual and potential landscape and visual effects of the proposal within Section 104(1)(a) and Fourth Schedule of the Resource Management Act (RMA) 1991 and the proposed and operative planning provisions of the Hastings District Council (HDC). For the purposes of this application, the provisions of the Proposed Hastings District Plan (PDP) are those to have regard to.
- 2.02 Under the PDP the site is zoned “Rural” and the activity of gravel extraction and processing falls within the definition of a “Mining” activity under the Plan:

*“Mining: means to take, win or extract, by whatever means, a mineral existing in its natural state in land, or a chemical substance from that mineral, for the purpose of obtaining the mineral or chemical substance; and includes gravel extraction, quarrying, and the processing of minerals, but does not include prospecting or exploration, or any of the foregoing where the material is for use on the same site (for example for the establishment or maintenance of tracks on a farm); and to 'mine' has a corresponding meaning.”*

- 2.03 Mining requires resource consent as a discretionary activity as a district-wide rule. The full range of consent matters are set out in the Assessment of Environmental Effects (AEE) report by Barker & Associates Ltd.
- 2.04 It is understood that as a discretionary activity a full range of effects can be considered by the consent authority. Having regard to the nature of this proposal and the assessment

criteria for discretionary activities, the following are considered to be relevant to this assessment and report:

- Visual impacts
- Landscape Character

2.05 This L & V assessment report provides an expert analysis of the landscape and visual impacts of the proposal in the context of the existing environment, the visual and landscape overlays that apply to the site and has regard to the relevant objectives and policies of the PDPw in relation to those considerations.

### 3.0 The Site and Proposal

3.01 The gravel extraction and processing site is located on Rural-zoned land under ownership of the Hawkes Bay Regional Council. This land is legally described as Lot 4 DP 463659 and comprises a total site area of 11.29 hectares. The Certificate of Title lists the purpose of this land as "Local Purpose (Soil Conservation and River Control Works) Reserve".

3.02 Within this land, the site will occupy approximately 2.2 hectares at the eastern end. The expanded site will allow for the dual operations of extraction and processing to co-exist. This site is located approximately 350 metres north of State Highway 50 and 1.3 kilometres east of the rural village of Maraekakaho (measured from Kereru Road near the school).

3.03 Up until quite recently, the processing and crushing machinery operated in the road reserve leading from Kereru Road to the Ngaruroro River riparian reserves, separate from the extraction and stock-piling area (See Figure 1). It is understood that the proposal involves application for resource consent to enable the following activities:

- The operation of loading, crushing and screening machinery;
- Stockpiles of river gravel and processed material;
- A small portacom and portaloo buildings and staff parking.
- A dedicated two-laned access road between the Site and SH 50 for use by quarry traffic only.

3.04 It is understood that the current access and stock-piling activity has been in operation for approximately 25 years, operating under a regularly-renewed Regional Council consent for river gravel extraction. The new combined site is approximately a kilometre further east of the earlier road reserve site, placing it at a considerable distance from Maraekakaho village.

3.05 The operational pattern of the enterprise generally involves stock-piling extracted gravel on one side, processing this material more or less in the middle portion of the site and then stock-piling the crushed aggregate on the other side. This lateral pattern is then reversed as the crushed aggregate is trucked off-site. As a result each side of the site is likely to be the location of the stock-piles with the middle section being more open.

3.06 The access and site layout elements of the proposal are shown on the site Layout Plan in the application and include the following:

- 1) An enlarged site of 2.2 hectares. The expanded site will allow for the dual operations of extraction and processing to be located together.
  - 2) A newly formed access road. The proposed site is currently accessed along road reserve off Kereru Road to a rough track along the riparian reserves area where gravel is stockpiled near the Ngaruroro River. This track is open to the public and is used for river recreation: fishing, boating, swimming and passive recreation. It is proposed to create a new, dedicated two-lane, sealed road into the proposed site. This is shown on Figure 1 of the Traffic and Access Assessment Report. The entry from SH50 has been moved east of the current farm gate entrance by approximately 60m.
  - 3) A fenced and gated boundary will be constructed around 3 sides of the site, creating a safe environment for operations. The fence will be a chain-link fence. To the south of the site adjoining farmland, the existing farm fence will remain as the site boundary.
  - 4) The built elements that will comprise the operational site are a Portacom building for the staff, and a staff portaloo north-east of the occupation area.
  - 5) It is proposed to plant a naturally-formed screen of willows, poplars or Tasmanian blackwood along the southern boundary of the site (see Figure 2).
- 3.07 In order to improve public access along the Ngaruroro River, the Hawkes Bay Regional Council is proposing to up-grade the parking and access provisions for the public use of the river will and provide car parking in 2 locations as well as some amenity planting. These access and amenity enhancement proposals are outside the scope of this application.
- 4.0 Site Description
- 4.01 The site is a flat, roughly rectangular piece of land which lies approximately 350 metres to the north of State Highway 50, where the Ngaruroro River and State Highway converge towards each other. It is shown on Figure 1. It is currently accessed via a farm gate at 3375 SH 50 in the vicinity of, and opposite Rapid Number 3365-3371. A rough farm track leads into the lower pastoral land, cutting down the river escarpment which lies along the northern margin of the State Highway. This is a drop of approximately five metres or more to a lower river terrace. At the bottom of the cutting there is a small bridge across a man-made water race and the road then meanders off across pastoral land which is generally planted in maize each year.
- 4.02 Over a long period, the site has been established as, and has gained the appearance of a large gravel yard largely devoid of trees, where stock-piles of gravel from the river are stored and (more recently) processed with machinery movements within the site, and truck movements to and from it. To the north there is a scrubby margin and then a band of willow trees approximately 50 metres wide adjoining the river. The proposed site boundary lies just south of the willow trees. Within this willow margin lies a public access track. To the

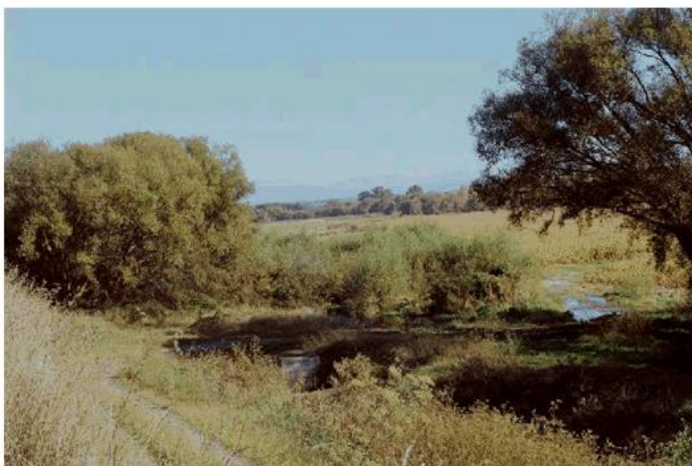




**Photo 1** The access road to the riparian reserve departs from Kereru Road east of Maraekakaho village (formerly the site of the Russell Roads gravel processing plant).



**Photo 2** Drain along which proposed road will lie (from the north looking south-east)



**Photo 3** Drain along which proposed road will lie (from the south looking north-west)

south there is a scrubby margin of lupin, gorse and rough grass which is approximately 15 metres wide. Tree removal within the site to assist with creating open space for the gravel extraction processes occurs from time to time and is undertaken by the Hawkes Bay Regional Council.

## 5.0 Landscape and Rural Context

### 5.1 Planning Context

- 5.11 The zoning, land overlays and utilities that apply to the site are shown on the planning map (Appendix 1). The site lies within a rural zone. Other planning considerations relevant to this assessment are:

#### Proposed Hastings District Plan

- Recommended Area for Protection (RAP 19)
- Rural Character Landscape Area – Ngaruroro Valley (RCL4).
- River Hazard Overlay
- Riparian Areas Land Management

#### Operative Hastings District Plan

- River
- Riparian Areas
- Significant Landscape Character Area - SLC4 (ceases to have effect)
- Recommended Area for Protection (RAP 19)

- 5.12 It has been verified that there are no appeals to the planning provisions and overlays that apply to the site under the Proposed Hastings District Plan and they now have full effect. On this understanding, the proposal has been assessed against the provisions of the PDP only.

### 5.2 Road Networks

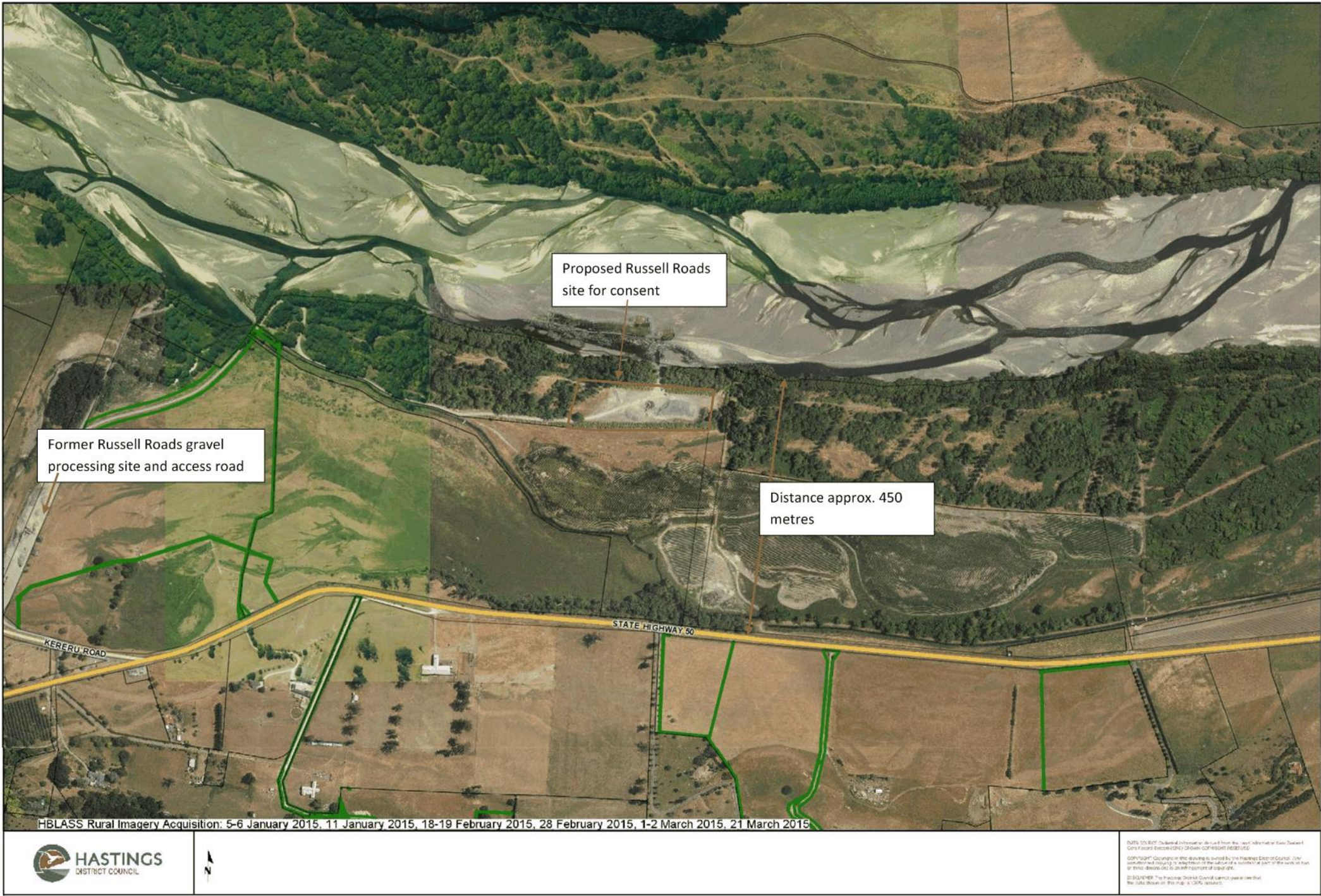
SH 50 is locally known as the 'back road' and is an alternative route for those travelling from southern Hawkes Bay to northern Hawkes Bay and its cities.

### 5.3 Road and Road Reserve Character

- 5.31 SH 50 is a rural road in character with wide berms in rough grass with deciduous willows, evergreen gums and other tree species planted in the road reserve. In the vicinity of the proposed site access gate, there is an existing vehicle crossing to State Highway 50. State Highway 50 is set on an upper river terrace with an approximate 5 metre drop down to the river's flood plain at the level of the site.
- 5.32 The northern road reserve margin of SH 50 is flanked for the large part in willows which generally obstructs the views from the road out to the site (contributing to closed views). In a few locations, there are open views through to the lower river terrace and stock-piled gravel in the distance.







**Figure 1** Contextual Aerial showing the Proposed Site [do not scale]









**Photo 4** The proposed access road cutting down the old river terrace with small drain at the bottom



**Photo 5** Looking towards the proposed site from the river: the gravel storage and processing yard and stockpiles of gravel.



**Photo 6** Looking westwards along the boundary between the proposed site and the neighbouring farmland and maize paddock. Maraekakaho village lies in the distance.



**Figure 2** Aerial of the Proposed Site  [Scale 1:1250@A4]





**Photo 7** Open road frontage showing views from State Highway 50 to distant gravel stockpiles



**Photo 8** Closed road frontage with no view from State Highway 50 to the site

- 5.33 The aerial in Figure 1 shows the convergence of SH 50 with the Ngaruroro River in this location, with a separation of some 450 metres. Further east and west the distances between the river and road are greater.
- 5.34 There is an unsealed road from Kereru Road and then an informal track down to the river riparian reserve used by the public use for river access, and currently for access to the site. Part of the unsealed road reserve was formerly the site for Russell Roads processing operation including gravel crushing machinery and some stockpiling of material. (Photo 1).

#### 5.4 Waterways

- 5.41 The Ngaruroro River is the most significant waterway in this location and lies approximately 50 metres north of the proposed site. It is a typical braided river with high natural character values. The Ngaruroro River accretes gravel in its riparian margins which leads to flooding risks lower down the catchment. This is the reason for the Regional Council granting permission for gravel extraction in this location. This is an activity common to river access locations and occurs at other places along the Ngaruroro River.



**Photo 9** The braided Ngaruroro River showing truck river access north of the proposed site

#### 5.5 Social & Cultural Context

There are at least five components of the social and cultural context of this application making up the primary viewing audiences relevant for this landscape and visual assessment:

- 1) The rural farming community who live and farm in the area;
- 2) The lifestyle property owners, some of whom live on the elevated hills to the south of State Highway 50 in the vicinity of the proposal.
- 3) People who live in Maraekakaho village approximately 1.3 kilometres west of the site (on Kereru Road).

- 4) People travelling 'the back road' – SH 50 - from southern Hawkes Bay to northern Hawkes Bay.
- 5) The recreational community who enjoy access for activities adjoining and in the Ngaruroro River.

## 5.6 Neighbouring properties

To the south of State Highway 50 there is a spur of lowland hills running in an east-west direction. Land-cover here comprises open grassed pasture, intermittent amenity trees and small sections of clumped pines. Along these hills a succession of 'lifestyle' subdivisions has occurred over the years, resulting in a dozen or more houses being built with views to the site, the Ngaruroro River, the hills to the north of the river and the mountains to the north-west. The location of these houses and a representative distance from the site is shown on Figure 3. The neighbouring farm lying to the south of the site is used for cropping.

## 5.7 Consultation

- 5.71 For the purpose of visual effects assessment a total of seven properties in the visual catchment identified were visited. I spoke to the owners concerning the proposal and site footprint as seen from their properties. Four of these properties have been selected as representative viewpoints for my effects evaluation. Two further viewpoints were selected adjoining SH 50.
- 5.72 The selected viewpoints were considered to be 'representative' according to the following criteria:
- To include both public and private viewpoints;
  - To represent a fair spread of site visibility: from not being visible at all, to being partially visible to being completely visible (where these pertain to the visual catchment);
  - To represent a variety of distances from the site.

In addition, broader consultation has taken place with affected parties identified in 2017, a summary of which has been read.

## 6.0 The Existing Environment

### 6.1 RMA Part II Matters

- 6.11 There are no outstanding natural landscapes or features (RMA Section 6b) within the site or its immediate environs. However the Ngaruroro River is a significant natural feature with high natural character values which extend into the riparian margins of the river, to both the north and the south.



6.12 Natural character may be defined as follows:

Natural character is a term used to describe the naturalness of all coastal environments as well as wetlands, lakes and rivers and their margins. The degree or level of natural character within an area depends on:

1. The extent to which natural elements, patterns and processes occur
  2. The nature and extent of modifications to the ecosystems and landscape/seascape
- The highest degree of natural character (greatest naturalness) occurs where there is least modification.

The effect of different types of modification upon the natural character of an area varies with the context, and may be perceived differently by different parts of the community.

6.13 In the vicinity of the gravel extraction and stock-piling site, natural character values are lowered as the site is significantly modified. The modifications over a long period include tree and undergrowth removal, bulldozed access-ways into the river and establishment of a large gravel working site. The aerial view of the river in Figure 1 shows a number of locations where there is an interruption to the natural patterns of planted trees along the riparian reserve.

## 6.2 Landscape Character

6.21 The landscape in this area of Hawkes Bay lies in transition between the viticultural landscapes further east and the larger, more traditional, pastoral holdings further west. The Ngaruroro River is the most significant natural feature within the area and visual links to the distant Ruahine mountains are part of the enclosing wider landscape.

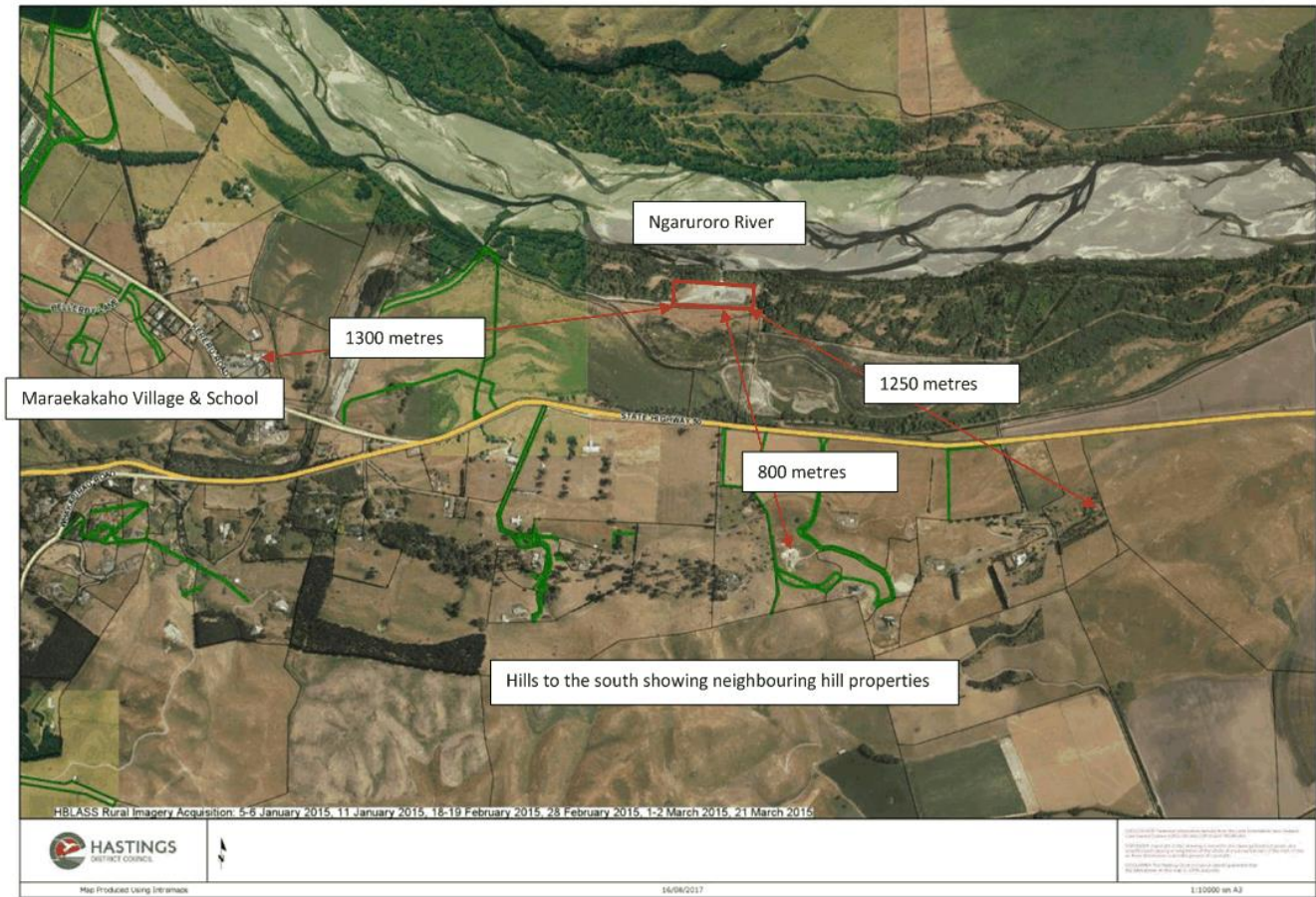
**6.22 River:** The serpentine braided Ngaruroro River flowing in a west-east direction dissects the fertile Heretaunga plains and links the broader landforms of the Ruahine mountain ranges to the west with the Pacific coastal rim to the east, where the twin cities of Hastings and Napier are situated, approximately 20 kilometres away. The narrow flood terrace to the south of the River is hemmed in to the south by the low hills there, giving an effect of a narrow corridor of land between the hills and the river.

The site lies within Recommended Area for Protection 19 (RAP19). This area includes the braided river bed of the Ngaruroro River and its riparian margins to the north and south. This area is shown on the planning map enclosed as Appendix 1.

**6.23 Hills:** The hills immediately to the south of the site are gently scaled, dissected by small valleys and studded with amenity and forestry trees amongst the prevailing open pasture. Limestone rock outcrops tell of the predominant geology of the area. The hills are the location of a number of lifestyle properties with low density housing development being the prevailing character. Houses are either single or two-storey. To the north further rolling downland hills enclose the Ngaruroro River. These are largely in pastoral uses and are not populated by houses in views from the site.

6.24 Within the proposed Hastings District Plan these hills to the north and south are recognised as RCL4 (Rural Character Landscape 4 – Ngaruroro Valley). This area is shown on the Planning map enclosed as Appendix 1.

- 6.25 Village:** Maraekakaho township is one of several small townships serving the rural communities in this location, providing school, church, gathering places and local shopping amenities. It sits on undulating ground and houses are nestled into a treed environment.
- 6.26 Heritage buildings:** Maraekakaho Station has an exemplary collection of heritage farm buildings, previously owned by Sir Donald McLean, Chief Land Purchase Commissioner for the colonial government from 1853. Many of these buildings are listed with Heritage New Zealand/Pouhere Taonga. The visually prominent woolshed, dating from 1883, lies on State Highway 50 within the visual catchment of the site (Photo 11).
- 6.3 Views and Visual Catchment**
- 6.31 There is generally a small visual catchment extending out from the site, extending no more than 1.2 kilometres in any direction. Along a one kilometre section of SH 50 (mostly travelling east to west), there are intermittent views towards the site, where gaps in the roadside trees permit glimpses to the north. The site is more visible in winter than in summer as leaf-drop makes the trees more transparent.
- 6.32 Properties in the hills of SH 50 to the south-east of the proposed site have the most open elevated views north including to the site. Views eastwards towards the site from the township of Maraekakaho, for example from the church or school, are not possible. Some sections of the access road off Kereru Road have partially open views into the site. Those undertaking recreation in the eastern riparian reserve may observe trucks entering and exiting the river; however views into the site are set back behind existing willows at a distance of approximately 15-20 metres from the track.
- 6.33 The viewing audience includes travellers along SH 50, locals using the riverside reserves for river-related recreation, private property owners on the hills to the south-east and the landowner adjoining the site.
- 6.4 Rural Amenity Values**
- 6.41 Rural amenity values in this location include qualities associated with countryside living, the enjoyment of open space, stock farming, horse-riding activities, seasonal activities associated with animal grazing, cropping and a wide variety of farm productivity. Farm buildings and associated machinery and stock-piled resources (fencing, stacked hay bales etc) are a common element in the landscape. Amenity trees and forestry trees complement areas of open pasture.
- 6.42 Closer to the township of Maraekakaho, iconic markers of rural community life include the cenotaph remembering those who perished in the World Wars and the local church situated with views to pastoral landscapes.
- 6.43 The presence of the large braided river meandering through the landscape and views of the distant mountains makes this a rural area with special landscape aesthetic qualities and valued panoramic views.



**Figure 3** Aerial showing Maraekakaho Village and Neighbouring Properties to the south

## 6.5 Community and Recreational Amenity Values

River recreation is a significant part of the local rural community's appreciation of amenity values. In 2016 the Maraekakaho community formed a local community group and partnered with the Hastings District Council and other community groups and developed a Maraekakaho Community Plan 2017-2022. The activity groups listed for the riparian reserves area include: cyclists, horse riders, walkers & runners, boaties, fishers, hunters, picnickers, swimmers. The River & Waterway Objectives on Page 6 are:

- Advocate for the Ngaruroro River and local feeder streams.
- Enhance and develop river recreation activities for a broad base of recreation groups.
- Encourage and actively participate in beautification enhancement, planting and sustainability initiatives with regards local waterways.

## 6.6 River Accretion, Flooding and Gravel Extraction

Gravel extraction is a long-established and important activity in this river environment. Over a long period, riverside character in this location has included working activity associated with gravel extraction and stock-piling. Gravel crushing processes and transportation of crushed gravel off-site have also occurred further west. This involves the presence of heavy working machinery, both stationary and moving, both in the river and along the river margin and along local roads. Supported by the Hawkes Bay Regional Council and permitted over a long period, this activity has a direct benefit to the community as a flood relief activity, whilst also providing an essential source of aggregate for the region.

## 6.7 Summary of the Existing Environment

- 6.7.1 In summary, the receiving environment for the application comprises a narrow corridor of landscape that encompasses finely scaled elements in the foreground - scattered homes, farm buildings, road and hillside tree plantings – but which extends to grand high country elements with its large braided river, rolling downland hills and the distant Ruahine mountains. SH 50 passes along this narrow corridor of landscape to the Maraekakaho village. The close proximity of the Ngaruroro River to SH 50 in this location makes it an ideally-placed site for efficient extraction of river gravel. Extraction, stockpiling and processing has taken place throughout the year at the proposed site and the former site nearer Maraekakaho for more than two decades.



**Photo 10**

Rural views with typical storage of farming resources

**Photo 11**

Heritage Farm buildings on Maraekakaho Station

**Photo 12**

Horse-riding amenity

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***Photos Illustrating Rural Amenity***

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## 7.0 Landscape & Visual Effects Assessment

### 7.1 Landscape Effects

#### 7.1.1 Community consultation 2017/2018

A summary of community consultation is included in Appendix 3 with the following being the landscape and visual concerns raised:

The activity is incompatible with the rural special character zone.
The site is a game bird habitat
The gravel processing activity, including stockpiling, is a significant blight on aesthetics
Machinery would be visible from neighbouring properties
Concerns about the appearance of the new road

These will be commented on in the sections below.

#### 7.1.2 RMA Section 6b Outstanding Natural Features and Landscapes (ONFL)

As noted in Section 6.1.1, there are no RMA 6b matters applying to the site. Heritage farm buildings - in particular the Maraekakaho woolshed - are at a distance of 550 metres or more from the proposal, separated by SH 50. Adverse effects on heritage features in this location are avoided.

#### 7.1.3 RMA Section 6a Natural Character

7.1.3.1 Natural Character is a concept that comprises natural elements, patterns and processes and pertains to rivers, streams and wetlands and their margins in a continuum from high to low. Vegetation and land-cover adjoining rivers contribute to natural character, and values are higher when the vegetation or ground cover is unmodified native vegetation. The riparian vegetation in this location is non-native.

7.1.3.2 As noted in Section 6.41 generally high natural character values pertain to the Ngaruroro River. However, within the river near to the site and within the gravel extraction and stockpiling site as a result of gravel extraction and stockpiling, these natural elements, patterns and processes have been gradually modified, including by earlier tree removal. This is likely to have occurred over the period of time during which the extraction operation has been present here. The existing environment within the site is largely devoid of trees, and large movable machines are current 'elements' on site.

7.1.3.3 Stockpiles of gravel still comprise natural values being a natural material (as opposed to a built structure) but the random and changing stock-piles, anything up to 8 metres in height, are a man-made element rather than a naturally ordered element (such as a gravel braid within the river). There is no distinction visually between the stockpiles that are gravel or crushed aggregate. In terms of the appearance of natural character from the southern hills some 800 or more metres distant, the gravel footprint with gravel stockpiles creates a grey gravel yard along the southern edge of the green riparian corridor.

7.1.3.4 In summary, stockpiles of processed gravel, the crushing and screening machinery and the two small buildings are man-made elements. Overall, the new patterns of gravel stock-piles will be indistinguishable from the existing stock-pile patterns. The mobile portacom and portaloo are small-scale, relocatable built elements. Effects on natural character are assessed as being minor, both locally at the riverside and as it appears from the southern hills.

#### 7.1.4 Landscape Character

The proposal is at a sufficient distance from Maraekakaho village, local heritage buildings and neighbouring hills as to avoid effects on rural patterns of use. The rural patterns and character of the surrounding areas will not be adversely affected.

#### 7.1.5 Recommended Area for Protection 19 (RAP19)

7.1.5.1 This area is shown on the Planning Map in Appendix 1 and includes the site. The following is a summary of the information in the Operative Hastings District Plan:

The Ngaruroro riverbed within RAP 19 is named on the Schedule in Appendix 56 of the Operative and Proposed Hastings District Plans as “the best example braided river system in Hawkes Bay; black fronted and backed dotterel and South Island pied oyster catcher”. Shingle extraction and flood control work is named as a medium threat.

7.1.5.2 The Ngaruroro River system and its gravel braids provide seasonal habitat for nesting dotterels. The site, although marked as within RAP19, does not include gravel braids sought by dotterel for nesting.

#### 7.1.6 Rural Character Landscape 4 (RCL4)

7.1.6.1 The Planning map shows the location of RCL4 to the north and south of the site. The recommended management of these hills from the PDP are included in Appendix 2. Both areas comprise rolling downland hills enclosing the Ngaruroro River valley. The hills landform to the north of the Ngaruroro River is assessed as being outside the range of affected landscapes.

7.1.6.2 In the operative and proposed iterations of the District Plan, the intention is to recognise downland hill systems which enclose and flank the Heretaunga Plains as having localised rural character of special value. The interplay of landform and natural patterns with building patterns, local architecture and rural land use practices are noted features. Cultural or land use changes within the hills such as forestry, placement of built form and earthworks may either complement rural character or detract from rural character.

7.1.6.3 As the proposed activity lies on flat riparian land well clear of the rolling hill landforms, the proposal avoids adverse effects on RCL4.





**Photo 13** View towards the distant snow-clad Ruahine mountains



**Photo 14** View of the hills flanking the southern margin of SH 50



**Photo 15** Undulating land and treed context of Maraekakaho village

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*Photos illustrating contextual Landform*

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### 7.1.7 Site Modification

7.1.7.1 Between the State Highway 50 entrance and the site, there are no significant landforms or trees that will be affected by construction of the entrance from SH50, the access road across farm land, the boundary fence or operational yard elements.

7.1.7.2 Modest earthworks will be undertaken for the construction of the proposed access road across pasture. The new two-lane sealed road will generally follow the curved line of the waterway on site. This is a complementary pairing of form, and the location has the benefit of avoiding splitting the productive cropping land here. Landscape effects arising from construction are assessed as being minor.

7.1.7.3 Within the site, the areas for machinery operation, portable building location, stock-piles are already formed. Further site modification includes construction of a gated boundary fence. Effects in landscape terms are assessed as being minor.

## 7.2 Rural Amenity Effects

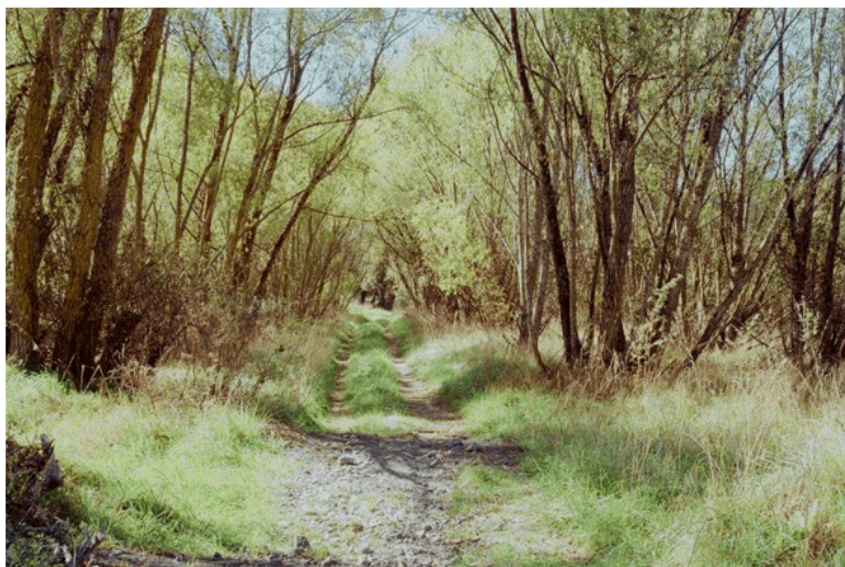
7.2.1 Section 6.4 of this report describes the qualities contributing to rural amenity values, including open space values, seasonal landscape changes, pastoral activities including animal husbandry and crop production, horse-riding amenity, amenity trees and the life of a rural village and its farming neighbours. The rural hills, historic farm buildings and mosaic patterns of the natural and built landscape are all elements contributing to the rural appeal of this area.

7.2.2 Some consultation comments have expressed concern about the unsuitability of this activity for this location in proximity to the town centre and school with potential impacts on the aesthetic character and appeal of the area. Given the site's distance from adjoining rural hills and the Maraekakaho village (over a kilometre), it is considered that the proposal will not interfere with these rural amenity values. Effects on rural amenity values are assessed as being minor.

## 7.3 Community Recreation Amenity Effects

7.3.1 The Ngaruroro River public riparian reserve is approximately 1 kilometre long, with the site lying at the eastern end of it, being approximately 250 metres long. The new access road will avoid proximity to the western half of the reserve and use of the existing track completely. The northern fenced site boundary will be set back from the river by approximately 50 metres with a reasonably dense buffer of planting between the site and the intended public access track.

7.3.2 Those undertaking recreation near the western and central reserve and river will have no views into the site and their recreation experience is unlikely to be adversely affected. Those travelling along the public access track to the eastern end of the riparian reserve will be at a distance of 20 metres north of the fenced site, with views buffered by willows. The track currently crosses the river access point for trucks in one location. This will be unchanged in future scenarios.



**Photo 16** The current public access track and willow setting

### 7.3.3 Community consultation 2017/2018

7.3.3.1 A summary of community consultation is included in Appendix 3 with the following being the river recreation issues raised:

The river is a family recreation area and should not be utilised for gravel processing activities
Paper road should remain usable for public.
The community has proposed beautifying the reserve and Ngaruroro River as a community-led project
The activity is inconsistent with the Maraekakaho Community Plan
Popular site for trout anglers and gamebird hunters. Fish and Game considered to be an affected party.

7.3.3.2 Consultation comments express a number of concerns about what effects the proposal may have on river recreation and access, recreational leisure, fishing and a broad range of activities and the desire of the local community to enhance and beautify the area. For some this proposal is viewed as a degradation of the natural environment. However, as noted in the description of the existing environment, Section 6.0, the changes to the site, including gravel extraction and stockpiling have been present for approximately 25 years.

7.3.3.3 In addition, many comments note the problem of a combined road entry to both the riverside recreational environment and the Russell Roads site. As a separate road is now mooted, concerns regarding public amenity and safety are being addressed and access enhanced.

#### 7.3.4 Community Plan 'Actions'

7.3.4.1 The Maraekakaho Community Plan 2017-2022 has no specific 'Actions' relating to the gravel extraction site and its management. Two 'Actions' for Rivers and Waterways on pages 13 and 14 relate to improving river access and enhancing river recreation. It is considered that the proposed enhancements to access configurations for the site separated from public recreation access will achieve these two action goals.

#### 7.3.5 Summary of Effects on Recreation Amenity Values

7.3.5.1 Riverside amenity has for approximately 25 years included the presence of extraction activity and gravel stock-piling in this location. This includes truck movements along the shared public road and riparian track and the movements of trucks and excavators across the riparian margin, and in and out of the Ngaruroro River. The establishment of a dedicated access road for the quarry site, separated from the public access road and reserve track will provide an enhancement to riverside recreation amenity values. It is considered that adverse effects on riverside amenity are minor.

### 7.4 Visual Impact Assessment and Visual Amenity Effects

7.4.1 Section 6.3 described the visual catchment of the proposal and the typical viewing audience of:

- travellers,
- those seeking river recreation, and,
- local residents, including those living along the southern hills.

7.4.2 A relatively small public viewing catchment exists that largely focuses on a one kilometre section of SH 50, selected views from the river access road and a cluster of affected home owners at a maximum distance of 1.25 kilometres. The site is visually separated from the areas where riverside recreation occurs.

7.4.3 The methodology used for the visual assessment relating to the application is included in Appendix 4. Six representative viewpoints have been selected to assess the visual impacts of the proposal. These viewpoints are illustrated on Figure 4. Two are from SH 50 and four are from private properties in the southern hills. These are included in Appendix 5. A summary of each viewpoint evaluation using the methodology is shown in the corner of each panorama.

#### 7.4.4 Viewpoints 1 and 2: Views along State Highway 50

7.4.4.1 Views across to the site are visible only in glimpses from a 1 kilometre stretch of the SH 50. Viewpoint 1 shows a typical view in winter where the grey stock-piles merge with the brownish hues of the willows in the distance. The site landscape is slightly more visible in winter than in summer due to the absence of leaves on the trees. Those driving will be largely unaware of the site to the north at a distance of 350 metres. Those moving more slowly such as walkers will also see the site. Views to the site are in the middle-distance and are intermittent being broken by the presence of trees along the road reserve.

7.4.4.2 It is considered that the site's location set down on a river terrace lower than the road by several metres and flanked by willows each side and behind, goes a long way to integrating the site into a setting where it does not dominate SH 50. Proposed screen planting will effectively screen views to the site once established. Visual sensitivity is low and effects are assessed as being minor.

7.4.4.3 Viewpoint 2 shows a SH 50 view towards the site, taken closer to Maraekakaho village. The site is completely screened from view, which is typical for much of the Highway when travelling east.

7.4.5 *Viewpoints 3 and 4: Views from Neighbouring Properties 19 and 30<sup>1</sup>*

7.4.5.1 These two properties lie to the south-west of the site and are set at slightly different elevations. They are at a distance of 900 and 1000 metres respectively from the site. The tall amenity trees in the paddocks of the middle-ground screen nearly all the site in Viewpoint 3, but leave open but distant views to the site as a small part of a much larger panorama in Viewpoint 4. Light conditions vary across seasons and time of the day; sometimes stockpiles seem to merge into the wintry willow shadows. However, given the expansive panoramas which are visually absorbing for their beauty and scope, the site constitutes a small part of the wider view.

7.4.5.2 This stockpiling site sitting within the broader visual landscape is not new and has been a part of the existing landscape for over 20 years. New elements the processed gravel stock-piles and vehicle movements associated with the processing activities - will not noticeably enlarge the site or be distinguishable at these distances from the present configuration and scale of activity. The currently placed portaloo is not visible; the visual presence of a proposed small portacom building may be apparent depending on the site layout at the time and the location of stockpiles.

7.4.5.3 In views such as these, the proposed screen planting will effectively screen views to the site once established. Visual effects are assessed as being minor.

7.4.6 *Viewpoints 5 and 6: Views from Neighbouring Properties 2 and 7*

7.4.6.1 These two properties lie to the south-east of the site and are set at slightly different elevations. They are at a distance of 800 and 1000 metres respectively. Viewpoint 6 was the highest of the properties visited for this assessment; Viewpoint 5 has more of an oblique view to the site. At these elevations in this location, there are no foreground trees to buffer views, meaning that visual sensitivity is higher. The existing site is apparent in the mid-ground of each view. However, given the expansive panoramas which are visually absorbing for their beauty and scope, the site remains a small proportion of the wider views.

7.4.6.2 Contrasts will be less in winter when the grey gravel stock-piles will merge more into the brown hues of the winter willow colour. But in the summer sun the grey contrasts with the green willow setting. Sun and lighting also affect the visibility of the site and a sunny haze can conceal details of the riparian reserve at this distance. These effects are not new and

<sup>1</sup> These numbers refer to the schedule of listed neighbours in Appendix 3.



have been a part of the existing landscape for over 20 years. The currently placed portaloos are not visible; the visual presence of a proposed small portacom building may be apparent depending on the site layout at the time and the location of stockpiles. Visual effects are assessed as being minor.

- 7.4.6.3 Viewpoint 5 represents a view where the proposed screen planting is likely to effectively screen views to the site once established. Viewpoint 6 represents a view from elevations where screen planting may be ineffective in screening views. In this case the planting will aid the integration of the proposal into the environment.

#### 7.4.7 Consultation and landscape/visual effects

- 7.4.7.1 A summary of community consultation is included in Appendix 3 with the following being the landscape and visual concerns raised:

The activity is incompatible with the rural special character zone.
The site is a game bird habitat
The gravel processing activity, including stockpiling, is a significant blight on aesthetics
Machinery would be visible from neighbouring properties
Concerns about the appearance of the new road

- 7.4.7.2 Some members of the public are concerned about the visual effects of the proposal and associated machinery; others see gravel as a natural element that derives from the river environment. Some may view this activity as a part of river management and flood relief in this location. The random arrangement of stock-piled gravel or crushed aggregate may, when up to eight metres high, screen views of the moving machinery, the crusher or the small buildings on site.

- 7.4.7.3 Although some view the site as a detraction from the natural aesthetics of the riverside environment, as previously referred to, this use is not a new part of the visual landscape. New elements also already referred to - will not be readily distinguishable from the present configuration of activity.

In summary, visual effects are assessed as being minor.

#### 7.4.8 The neighbouring farm: landscape and visual issues

- 7.4.8.1 The neighbouring farm will have views into the site as has been the case for many years. Additional activities will not result in additional visual effects. Views of truck movements along the new road will be apparent for those working in adjoining paddocks. The proposed road avoids dissecting the farmland and will provide enhanced access for the farmer to his paddocks in this location.

#### 7.4.9 The proposed road: visual issues

- 7.4.9.1 The proposed road crosses rural land around the margin of an existing farm drain before entering the riparian reserve land and the site. It will lie on the margin of Rural Character

Landscape 4 to the north-east, but avoids adverse effects relating to the rural hills environment to the north and south. It also avoids dissecting the farmland paddocks to the east of the drain.

- 7.4.9.2 The receiving landscape for the proposed road is set at a lower level than SH 50 and is partially screened by the willows flanking the northern margin of SH 50. In visual terms the road (with associated truck movements) will largely be out of view from SH 50. From neighbouring properties in the southern hills it will be largely out of view for properties to the west (Viewpoint 3). In Viewpoint 4 some of the road and its trucks will be visible at a distance of 800 metres. In Viewpoint 5, the start of the road will largely be screened by the existing willows along SH 50 with the more distant section in view. The most apparent views will be possible for the highest properties in the hills such as the view in Viewpoint 6. The first 40-50 metres of the road will be largely screened by the roadside willows. Beyond that the road and its trucks will be visible at a distance of approximately a kilometre.
- 7.4.9.3 At the distances noted, adverse effects of the proposed road on hill views to the south are assessed as being minor.

## 7.5 Planting Proposal as Partial Visual Screen and Landscape Enhancement

- 7.5.1 A natural-shaped border of trees (avoiding a straight line) is proposed along the southern margin of the site inside the existing farm fence. In visual terms the proposed trees will, once established, screen views to the site from SH 50 as shown in Viewpoint 1 and views to the site from the riparian access road departing from Kereru Road used for recreation.
- 7.5.2 In views to the site from properties to the south, the benefits of screening will depend on the elevation of the property. Those lower on the hills (eg Viewpoint 5) will benefit from an established tree belt which will screen views to the site. For those at a more elevated height (eg Viewpoint 6), the trees will be an enhancement rather than a complete visual screen.
- 7.5.3 Enhancement planting will green up and soften the southern margin, aiding integration of the site back into the treed riverside setting. This planting, if maintained and gains the expected height within a 5 year period, will provide enhancement of the riverside location as seen from around the rural neighbourhood, especially the hills.
- 7.5.4 Recommended species for the planting are:

Species	Height after 5 years
Willow/ <i>Salix matsudana</i> , or other non-invasive <i>Salix</i> spp.	6 metres
Poplar/ <i>Populus nigra x euramericana</i> 'Crows Nest'	8 metres
Tasmanian blackwood/ <i>Acacia melanoxylon</i>	7 metres

- 7.5.5 These exotic species have been chosen (rather than native) for the following reasons:

- To provide compatibility with the riparian trees in the receiving environment which are largely willow and poplar;
- To provide fast growing establishment compared to natives;
- To withstand the dry and bony conditions;
- These are not performing an amenity planting role where native species may be more appropriate.

## 8.0 Effects considered within Statutory Framework

- 8.01 The relevant policies of the operative Hastings District Plan are included in the application. The sections pertinent for this assessment are:

### Chapter 17.1: **Natural Features and Landscapes**

- 8.02 This chapter includes objectives and policies relating to natural features and landscapes. As there are no outstanding natural features or landscapes in the affected area, the policies relating to these are not reviewed. The report concludes that the application achieves the environmental outcomes noted in Objectives LSAO1 and LSAO2 and Policy LSP5.
- 8.03 In relation to the Rural Character Landscape policy, Objective LSO3 and Policy LSP12 specifically recognise 'cultural' patterns of land use and rural patterns alongside natural landscape values. It is considered that rural river management activities are 'rural' patterns, providing value to the local community.

### Chapter 19.1: **Riparian Land Management and Public Access**

- 8.04 In terms of Objective RMO1: and RMO2 and Policy RMP5 and RMP6 and as noted in Section 7.1.3 (of this report), the natural character of the riparian margins will not be adversely affected as these are already significantly modified within the site. Gravel extraction is assessed as being an appropriate use for this location as recommended in Policy EMP7. The habitat of the dotterel within the gravel river braids of RAP19 is actively managed by the HBRC and adverse effects are avoided.
- 8.05 Some enhancement of the appearance of natural character – that is its naturalness – will occur from the introduction of a row of trees along the southern margin of the site.
- 8.06 In terms of Objective RMO3 and Policy RMP8, the introduction of a dedicated road for vehicle movements to and from the site will improve access from Kereru Road to the riparian reserve for recreation users. Enhanced public access will result from excluding the heavy vehicles and machinery which previously used this road.

### Chapter 27.1: **Earthworks, Mineral, Aggregate and Hydrocarbon Extraction**

- 8.08 The proposal is considered to achieve the anticipated environmental outcomes noted in the objectives and policies in this chapter. In particular, Section 27.1.2: EMAO3, EMAO4, EMO5 are relevant. Also the objectives and Policies within Section 27.1.3 EMO1 and EMO4, EMP5, EMP7 are relevant.

*EMA03: The visual amenity and character of the District's landscape is not reduced or compromised by earthworks or mineral extraction activities.*

- 8.09 In terms of Objective EMA03, the above report has explored a wide range of visual issues and concludes that the new site activities will be largely indistinguishable visually from existing site activities. It has been assessed that the proposed road does not compromise these rural landscapes near Maraekakaho.

*Objective EMO5: To ensure that earthworks and mineral extraction do not compromise outstanding natural features, historic heritage and cultural heritage features (including archaeological sites).*

- 8.010 In terms of Objective EMO5, there are no outstanding natural features within the site or its environs and adverse effects are minor in relation to listed heritage buildings.

*Summary of Effects within the Statutory Framework*

- 8.011 In summary, the proposal is considered to achieve the environmental outcomes anticipated by the objectives and policy of the Hastings District plan.

## 9.0 Conclusions

- 9.01 This report sets out a description of the gravel extraction and crushing proposal and the site set within the existing environment associated with the Ngaruroro River. The receiving environment has special aesthetic characteristics associated with the presence of the river and the enclosing downland hills framing SH 50 which passes through this narrow corridor. It is a favoured location for hillside lifestyle property establishment set within a typical Hawkes Bay rural landscape surrounding the rural village of Maraekakaho.

- 9.02 Gravel extraction is an anticipated activity in this river environment. Managing the river gravel accretion within the riverbed of the Ngaruroro River has been an enduring and permitted part of the Maraekakaho community for more than two decades as it aids prevention of flooding into neighbouring farmland as well as supplying a much-needed aggregate resource to the region. It is supported by the Hawkes Bay Regional Council and the policies of the Hastings District plan. The processing activities recently relocated to the site form the substance of this application, together with the proposed road. Relocation of the aggregate crushing and stock-piling activities places them approximately one kilometre further away from the former site close to the Maraekakaho village.

- 9.03 The central concept put forward in this report is that the additional activities of crushing and stock-piling crushed aggregate with associated vehicle movements will not be distinguishable from the current activities of gravel extraction and stock-piling on the site. A new two-lane sealed road is a constructed element to be introduced into the landscape, leading from SH 50 to the site.

- 9.04 The report notes that the site has modified natural character and no significant natural features. It has the appearance of a large gravel yard with gravel stock-piles, largely devoid of trees. Adverse effects on natural character and landscape in terms of RMA Sections 6 (a)



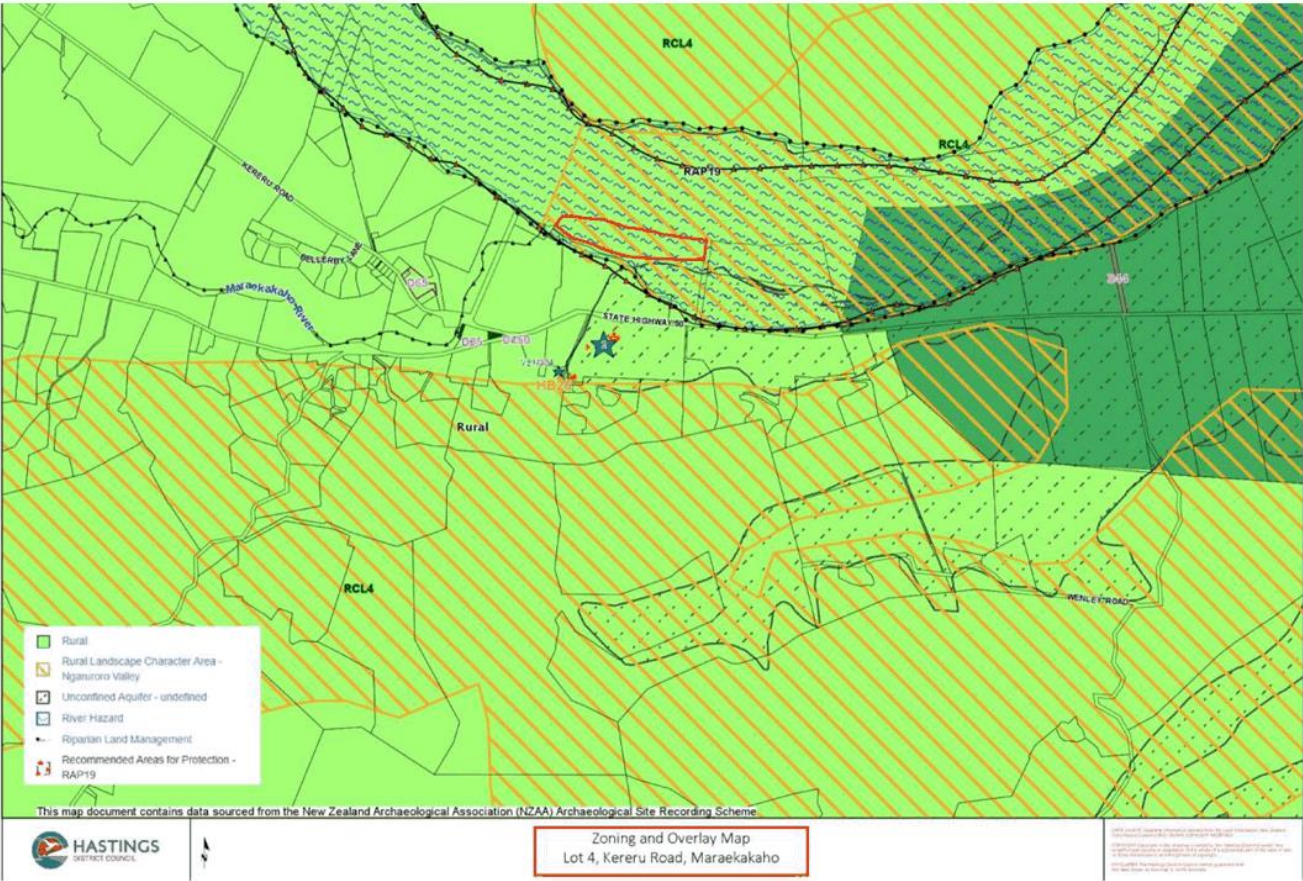
and (b) and District Plan policy are assessed as being minor. It is proposed to enhance the appearance of natural character by introducing a row of trees along the southern boundary. In terms of policy within the Hastings District Plan, the site will not have adverse effects on local hills as described in RCL4 and the dotterel nesting habitat of RAP 19 is located outside the site.

- 9.05 Further sections of the report describe rural amenity values associated with the local village of Maraekakaho and its rural environs and recreational amenity values associated with the riparian reserve adjoining the site. Access for recreation purposes will be enhanced as the dedicated road will divert trucks away from the riparian public reserve. This is anticipated to fulfil two objectives within the Maraekakaho Community Plan. Adverse effects on amenity values are assessed as minor.
- 9.06 The report notes a generally small visual catchment for the proposed site of approximately 1.25 kilometres to the south-west and south-east. Visual effects have been described from a representative range of viewpoints. Adverse visual effects on the Maraekakaho village are avoided and are assessed as being minor from SH 50. The site is located at a distance of 800 metres or more from adjoining hill properties to the south and, in some cases, views from the hill properties to the west are screened by buffering amenity trees. More open views to the site as part of an expansive panorama are possible from hill properties to the south and south-east of the site. It is considered that the anticipated activities will not be distinguishable from the current activities. The proposed road will pass through land at a lower level than SH 50. This and the presence of willows along the northern road margin will reduce the impact of the road visually and provide some screening of truck movements, reducing adverse visual effects to minor.
- 9.07 As the most efficient location to extract process and stockpile riverside gravel is influenced, perhaps even governed by proximity to main transport routes, the convergence of the Ngaruroro River with SH50 in this location makes it an ideally-positioned landscape for gravel extraction and shows regard for the efficient use of “natural and physical resources” (RMA S7b).
- 9.08 In summary, the proposal is considered to achieve the environmental outcomes anticipated by the objectives and policy of the Hastings District plan.

APPENDIX 1      Zones & Overlays Planning Map, Hastings District Council

Item 2

Attachment 6



**Figure 4** Lot 4 Zoning and Overlay map, Hastings District Council Plan

APPENDIX 2      Appendix 45, Operative Hastings District Council Plan  
Hills Surrounding Heretaunga Plains

Item 2

Attachment 6



Hills Surrounding Heretaunga Plains (Korokipo, Swamp Road Hills, Matapiro Hills, Ngaruroro Valley, North Eastern Raukawa Hills and Puketapu Hills)	<p>Maintenance of the rolling landforms that envelope the Heretaunga Plains as a distinctively rural landscape.</p> <p>Land use change, in particular forestry or other vegetation cover, can disrupt the legibility of the landforms. Management of new forestry or plantings is needed to ensure the natural landscape patterns are maintained.</p> <p>Integration of built form with landform to retain open rural landscape values.</p> <p>Placement of built form on the lower slopes, avoiding the mid to upper slopes.</p> <p>Avoidance of earthworks, particularly large scale or along steep faces that create scars or exposed soil that detracts from the natural landform.</p>
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Matters for consideration regarding Rural Character Landscape 4 (RCL4)

APPENDIX 3      Summary of Consultation

Item 2

Attachment 6

### Summary of consultation

The location and reference number of the sites visited are included on Figure 4, Appendix 5 of this report.

#### Site Visit – 31 July, 2017

The following sites were visited on Thursday 5<sup>th</sup> April with permission of the owners.

Figure 4 Ref #	Property address	Owner(s)
19	3477 State Highway 50	Melissa Grupp
30	3441 State Highway 50	Chris Quinn

In attendance was Sue Dick, Visual and Landscape specialist, Eastern Earth Landscape Architects.

#### Site visit – Thursday 5<sup>th</sup> April, 2018

The following sites were visited on Thursday 5<sup>th</sup> April with permission of the owners.

Figure 4 Ref #	Property address	Owner(s)
2	3365 State Highway 50	Michele Bryant and Jonathan Brough
29	3369 State Highway 50	Stephen Greer and James Molloy (Note: Michael Molloy was onsite during site visit on behalf of the owners)
7	3371 State Highway 50	Doug Grieve
22	3311 State Highway 50	Jenny and Michael Foote
4	3399 State Highway 50	Helen and Peter Liddle

In attendance were Catherine Reaburn, Planner, B&A; Jon Styles, Acoustic Engineer, Styles Group Ltd; and Sue Dick, Visual and Landscape specialist, Eastern Earth Landscape Architects.

Photographs of the site within the wider panorama were taken from selected properties that were assessed as being representative. These form the photographic viewpoints included in the visual assessment and appended in Appendix 5. Discussions with owners/residents identified a number of key concerns with the operation of the Russell Roads activity at Maraekakaho, and the potential new access road. The matters raised are summarised below.

#### Summary of matters raised

The below table provides a summary of the matters raised through consultation with the parties identified above relevant to this report, and the section in this report where the matter is addressed.

Matter raised	Comment
Visual landscape and natural character	
The activity is incompatible with the rural special character zone.	River gravel extraction and stockpiling up to 5m in height is a permitted activity under the Hastings District Plan (Operative in Part).
The site is a game bird habitat	

The gravel processing activity, including stockpiling, is a significant blight on aesthetics	River gravel extraction and stockpiling up to 5m in height is a permitted activity under the Hastings District Plan (Operative in Part).
Machinery would be visible from neighbouring properties	
A concern about the impact of the proposed road	
<b>Public access and use of reserve</b>	
The river is a family recreation area and should not be utilised for gravel processing activities	River gravel extraction is a permitted activity. The new access road for gravel trucks will enable the existing access to be retained for public only. Russell Roads is working with HBRC to enhance the remaining reserve area.
Paper road should remain usable for public. Hard with dangerous dust being generated.	The public access to the reserve will be retained for public use only. A new formed access road specifically for gravel truck movements is proposed.
The community has proposed beautifying the reserve and Ngaruroro River as a community-led project	This will not be precluded outside of the Russell Roads occupation area.
The activity is inconsistent with the Maraekakaho Community Plan	
Popular site for trout anglers and gamebird hunters. Fish and Game considered to be an affected party.	Fish and Game to be notified through the public notification process. Recreational use of the river will not be precluded by this activity as access will be enhanced to the remainder of the reserve.



APPENDIX 4      Methodology - Visual Impact Analysis

Item 2

Attachment 6

**Existing View**

- ☐ **Location:** geographical location, height above sea level, distance to proposal.
- ☐ **Viewing Audience:** type and size of audience, are they static or moving, residential or recreational.
- ☐ **View Type:** is the view panoramic (over 180°) expansive (90° to 180°), or enclosed (less than 90°).
- ☐ **Existing View Components:** description of the main elements within the view.
- ☐ **Overall Visual Sensitivity:** based on the above information, what is the overall level of visual sensitivity of the view from this location. This is based on a combination of the landscape's ability to absorb change (i.e. its degree of modification and topography) and its quality.

**Proposed View**

- ☐ **View Obstruction:** what elements of the proposal block what components of the existing view and what is the nature or significance of these components, e.g. are they landmarks or notable features.
- ☐ **Visual Contrast:** how does the proposal contrast with the existing visual setting.
- ☐ **Prominence within Photoframe:** within the specific photoframe how prominent will the proposal be.
- ☐ **Relationship to Overall View:** given the extent of the overall view (i.e. View Type) how does the proposal relate to this.

**Visual Impacts**

Based on an evaluation of the above, what is the visual impact of the proposal.

- ☐ **Specific Photoframe:** the 50 mm (45°) photo.
- ☐ **Total View:** within the total context of the view.
- ☐ **Potential for Mitigation:** to what extent can the proposal be mitigated.

APPENDIX 5      Visual Assessment Aerial and Viewpoint Photographs

Item 2

Attachment 6









**Location:** Elevated 5-10 metres above site. Distance: 500 metres  
**Audience:** Driving or walking along SH50 or from driveways  
**View Type:** Expansive (90° to 180°) more enclosed in summer with trees in leaf  
**Visual Sensitivity:** Low (terrain contours and trees provide some obstruction)  
**Visual contrast:** The gravel stock-piles seem to merge with the distant willows  
**Prominence:** The site is a small component within the whole view

**Viewpoint 1** View towards the site from opposite 3365 State Highway 50, showing the current entrance



**Location:** Elevated 5-10 metres above site. Distance: 500 metres  
**Audience:** Driving or walking along SH50 or from driveways  
**View Type:** Expansive (90° to 180°)  
**Visual Sensitivity:** Low (terrain contours and trees provide 100% obstruction of the site)  
**Prominence:** The subject site is completely out of view

**Viewpoint 2** View towards the site (hidden from view) along State Highway 50





**Viewpoint 3** View towards the site from the Grupp Property (Neighbour 19)



**Viewpoint 4** View towards the site from the future Quinn house site (Neighbour 30)





**Location:** Elevated hill view. Distance 800 metres  
**Audience:** Property owners and visitors  
**View Type:** Panoramic (over 180°)  
**Visual Sensitivity:** Moderately high, view to current site is unobstructed, but slightly oblique with willows in foreground  
**Visual contrast:** The greyness of the gravel yard and stock-piles contrast to a small degree with the green trees context  
**Prominence:** The subject site is an apparent mid-ground element but a relatively small component within the wider panorama

**Viewpoint 5** View towards the site from the Bryant/Brough property (Neighbour 2)



**Location:** Elevated hill view. Distance 1100 metres  
**Audience:** Property owners and visitors  
**View Type:** Panoramic (over 180°)  
**Visual Sensitivity:** Moderately high, view to existing site is unobstructed. Greater elevation provides views into the site  
**Visual contrast:** The greyness of the gravel yard and stock-piles contrast to a small degree with the green trees context  
**Prominence:** The subject site is an apparent mid-ground element but a relatively small component within the wider panorama

**Viewpoint 6** View towards the site from the Grieve property (Neighbour 7)

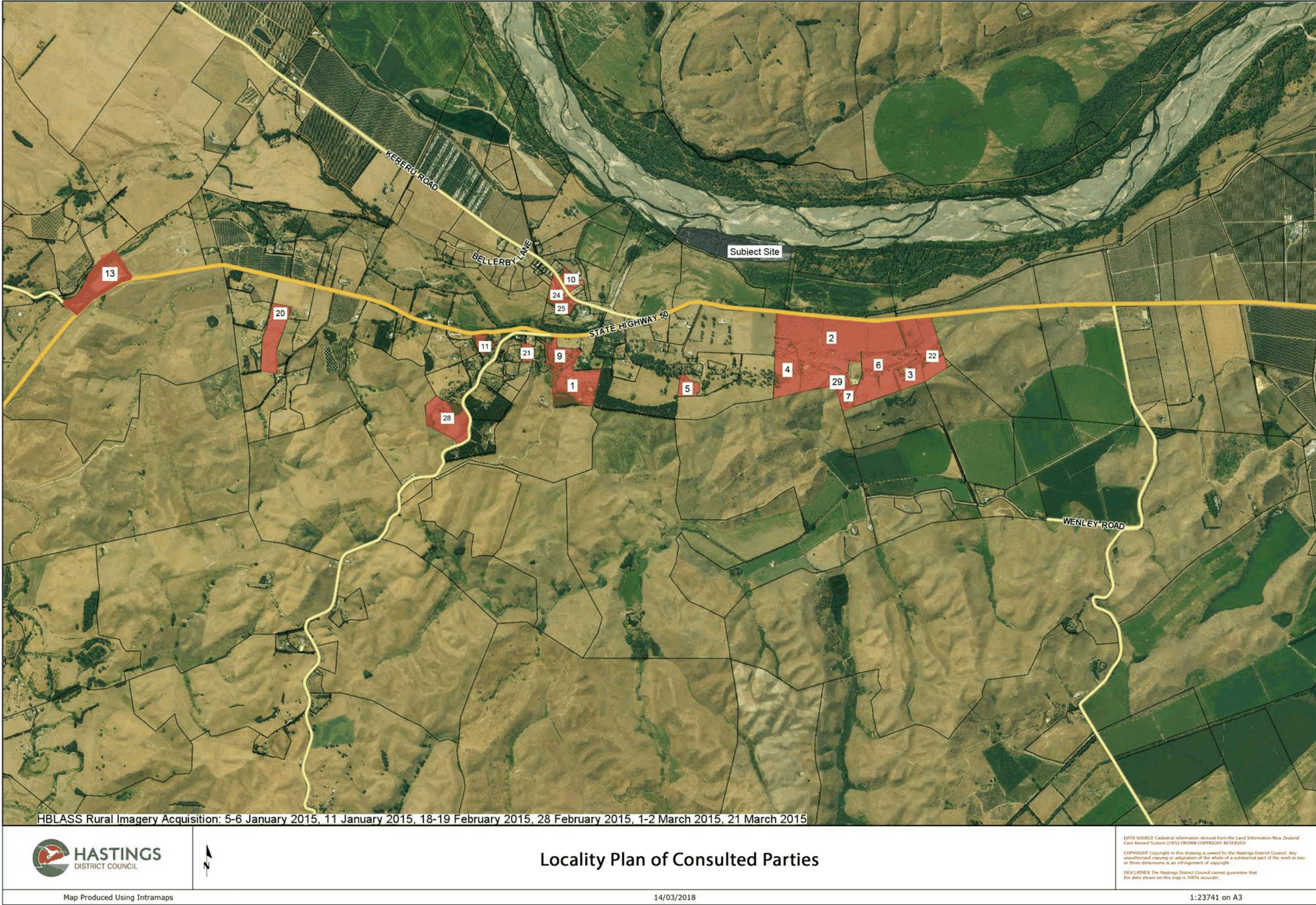


Map Key	Correspondent Name	Address	Key Issues
1	P. C. Steers [New Owner - Gwendoline Mary Bell]	5 Whakapirau Road Maraekakaho Hastings 4171	<ul style="list-style-type: none"> <li>Will access point have a slip road from quarry site onto SH50</li> <li>Will Council consider reducing speed limit up to new access point</li> <li>Will it stop public access to river</li> <li>Will Russell Roads keep access point clean - especially on road</li> <li>Safety concerns</li> </ul>
2*	Michele Bryant and Jonathan Brough [New Owners - David Victor Bryant & Ngaire Heather Bryant]	3365 State Highway 50 Maraekakaho	<ul style="list-style-type: none"> <li>Consent of correspondent not sought</li> <li>Noise will affect concentration at home</li> <li>Noise readings apparently taken from house - but no permission given to do so</li> <li>Loud gravel grading proposed</li> <li>View disrupted by gravel which consent does not yet exist for</li> <li>School bus pull over area</li> <li>Family recreation area by the river (swim, walk, paint)</li> <li>Cycling safety concerns</li> <li>Human excretion evidence along edge of river near Russell Road workers</li> <li>Properties along hill will decrease in value</li> <li>Paper road should remain usable for public</li> <li>Road is an Egress road and not to be used for commercial purposes</li> </ul>
3*	Murray and Megan Linnell	3313 State Highway 50 Maraekakaho	<ul style="list-style-type: none"> <li>Rural special character zone</li> <li>Exposure to constant daily plant and vehicle noise</li> <li>Dust creation</li> <li>Public safety</li> <li>Game bird habitat</li> <li>Disrupting access to recreational environment at this stretch of river</li> <li>Significant blight on aesthetics</li> <li>Consider consultation not being necessary "absolute madness"</li> <li>Considers "huge" storage piles of shingle as an immediate danger to families who regularly use recreational area. Challenges idea of 5m bund hiding piles</li> <li>Gravel processing area not safe to public with no barriers</li> </ul>
4*	Peter and Helen Liddle	3399 State Highway 50 Maraekakaho	<ul style="list-style-type: none"> <li>Home directly above would suffer noise and dust</li> <li>Special character zone used by swimmers and boats. Inappropriate place for a gravel processing plant from health and safety perspective</li> <li>Devalue property</li> <li>Seeing machinery from house</li> </ul>
5*	Bronwyn Marie Homburg & Nigel John Homburg [New owners]	3441 State Highway 50 Maraekakaho	<ul style="list-style-type: none"> <li>Devaluation of pristine rural/river vista area</li> <li>Operating hours show disregard to noise affecting neighbouring properties</li> <li>No noise profiling for metal road</li> <li>Establishment of industrial operation incompatible with area as a desirable rural place</li> </ul>
6*	Roger and Carol Edwards	3315 State Highway 50	<ul style="list-style-type: none"> <li>Recent community meeting proposed to beautify area and become a communal recreation area</li> <li>Legal issues surrounding Russell Roads operating a non-consented activity</li> <li>Does not fit with Health and Safety standards</li> <li>Dust and noise pollution</li> </ul>
7*	Martin McGrath [New Owner - Douglas Peter Walter Grieve and Redoubt Trustees Limited]	3371 State Highway 50	<ul style="list-style-type: none"> <li>Directly opposite property</li> <li>Noise effects impacting on quiet lifestyle</li> <li>Should be strong consultation</li> <li>Traffic disruption</li> </ul>
NA	\	NA/State Highway 50	<ul style="list-style-type: none"> <li>Wish to enhance Ngauroro River as a community project/recreational area</li> <li>Lack of consultation and recognition of affected parties - do not consider adverse effects to be less than minor under s95E</li> <li>Noise -</li> <li>Modelling fails to recognise continuous noise</li> <li>5m high bund an eye sore</li> <li>Truck and trailer units noise</li> <li>Plant noise noticeable above passing traffic as it is continuous</li> <li>Native vegetation at site cleared without resource consent. Concerned if "weeds" and "mature tree" are native.</li> <li>Application doesn't consider alternative locations</li> <li>Road Safety</li> <li>Slow moving trucks turning in 100k zone</li> <li>Local knowledge and behaviour of drivers on road add additional dangers</li> <li>Public health and safety</li> <li>Heavy machinery in public access area</li> <li>Unstable gravel and shingle in public access area</li> <li>Worker health and safety</li> <li>Toilet facility hygiene evidenced by discovery of human excretion</li> <li>High spec facilities would be needed close to river environment</li> <li>Hours of Operation</li> <li>Inconsistencies with documents presented</li> <li>Proposed will take away from rest and recreation time of the community</li> <li>Treaty of Waitangi</li> <li>Ngaunuroro River is taonga and its mauri not considered contrary to treaty.</li> <li>River is part of 8 tangata whenua groups involved as part of the TANK collaborative plan (Tutaekuri, Ahuriri, Ngaunuroro and Karamu)</li> <li>Community involvement</li> </ul>
8	Mark Venman	22 Burness Road Greenmeadows Taradale	<ul style="list-style-type: none"> <li>Popular site for trout anglers and gamebird hunters</li> <li>Believe Fish and Game to be an affected party</li> <li>F&amp;G has access point</li> <li>Proposed activity located in a flooding hazard area</li> </ul>
9	Gary & Dietske Grootelaar	3519 State Highway 50 Maraekakaho	<ul style="list-style-type: none"> <li>Property is where Quarry currently operates</li> <li>Bought property on the understand that Quarry was dormant</li> <li>Run a lodge and noise wakes guests</li> <li>Have heard residents object to new location - urge HDC to keep promise and move quarry</li> </ul>
10	Phil Jones (Maraekakaho School Principal)	68 Koreru Road Maraekakaho	<ul style="list-style-type: none"> <li>Concerned with increased heavy traffic volume in area</li> <li>Impatient drivers and increase in heavy vehicles exceeding speed limit and creates hazard with buses pulling over on side of road</li> </ul>
11	Darryl Andrew Judd, Susan Vaughan Judd and Grant Alastair O'Donnell	36 Whakapirau Road RD4 Hastings	<ul style="list-style-type: none"> <li>Degradation of natural environment</li> <li>Dust pollution</li> <li>Increased noise from plant and equipment and processing</li> <li>Greater heavy vehicle movement on SH50</li> <li>Compromised community development, landscape enrichment and human safety</li> </ul>
12	Charlie Bogard (Focus MKK community board Chairperson)	NA	<ul style="list-style-type: none"> <li>Lack of transparency relating to proposed resource consent. Questions raised as to why application is not publicly notified.</li> </ul>



[illegible]











When forwarding declarations please quote  
Land Use Consent number : **0809302**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 53	500	0

Consent commences on **28 August 1993** and expires on **30 September 1993.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.75 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature : \_\_\_\_\_  
Manager - ASSET MANAGEMENT

Date :





When forwarding declarations please quote  
Land Use Consent number : **0809604**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 53	1000	0

Consent commences on **28 November 1996** and expires on **28 February 1997.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.60 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature : \_\_\_\_\_  
Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0809801**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 53	6000	0

Consent commences on **14 July 1998** and expires on **30 June 1999.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.55 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0809901**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 53	9500	0

Consent commences on **01 July 1999** and expires on **30 June 2000.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.60 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature : \_\_\_\_\_  
Manager - ASSET MANAGEMENT

Date :





When forwarding declarations please quote  
Land Use Consent number : **0800001**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 53	8000	

Consent commences on **22 August 2000** and expires on **30 June 2001.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.50 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0800101**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	12000	

Consent commences on **01 July 2001** and expires on **30 June 2002.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.50 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0800203**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	15000	

Consent commences on **04 October 2002** and expires on **30 June 2003.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.60 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :





When forwarding declarations please quote  
Land Use Consent number : **0800301**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	12000	

Consent commences on **01 August 2003** and expires on **30 June 2004.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

**Fees :** **\$0.60 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :

Attachment 6



When forwarding declarations please quote  
Land Use Consent number : **0800401**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	12000	

Consent commences on **01 July 2004** and expires on **30 June 2005.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

**Fees :** **\$0.60 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :

Attachment 6



When forwarding declarations please quote  
Land Use Consent number : **0800501**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	12000	

Consent commences on **01 July 2005** and expires on **30 June 2006.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.60 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :





When forwarding declarations please quote  
Land Use Consent number : **0800601**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	12000	

Consent commences on **01 July 2006** and expires on **30 June 2007.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.65 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0800701**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	12000	

Consent commences on **02 July 2007** and expires on **30 June 2008.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.65 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0800802**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	7000	

Consent commences on **01 July 2008** and expires on **30 June 2009.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

**Fees :** **\$0.65 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :

Attachment 6



When forwarding declarations please quote  
Land Use Consent number : **0800901**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	8000	

Consent commences on **01 July 2009** and expires on **30 June 2010.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.65 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :





When forwarding declarations please quote  
Land Use Consent number : **0801001**

Item 2

## RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	8000	

Consent commences on **01 July 2010** and expires on **30 June 2011.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.65 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0801101**

Item 2

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	8000	

Consent commences on **01 July 2011** and expires on **30 June 2012.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.80 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0801201**

Item 2

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Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

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River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	8000	

Consent commences on **01 July 2012** and expires on **30 June 2013.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

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Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0801301**

Item 2

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Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	8000	

Consent commences on **01 July 2013** and expires on **30 June 2014.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

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Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :





When forwarding declarations please quote  
Land Use Consent number : **0801401**

Item 2

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	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	8000	

Consent commences on **01 July 2014** and expires on **30 June 2015.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

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Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0801501**

Item 2

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STORTFORD LODGE  
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## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	8000	

Consent commences on **01 July 2015** and expires on **30 June 2016.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

**Fees :** **\$0.80 per cubic metre plus GST**

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0801601**

Item 2

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Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

## DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	40000	

Consent commences on **01 July 2016** and expires on **30 June 2017.**

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
(where applicable)

Attachment 6

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Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :



When forwarding declarations please quote  
Land Use Consent number : **0801701**

Item 2

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In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
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MARAEKAKAHO 54	40000	

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(where applicable)

Rate of removal of gravel : cubic metres per day/week/month  
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Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Date :

Attachment 6



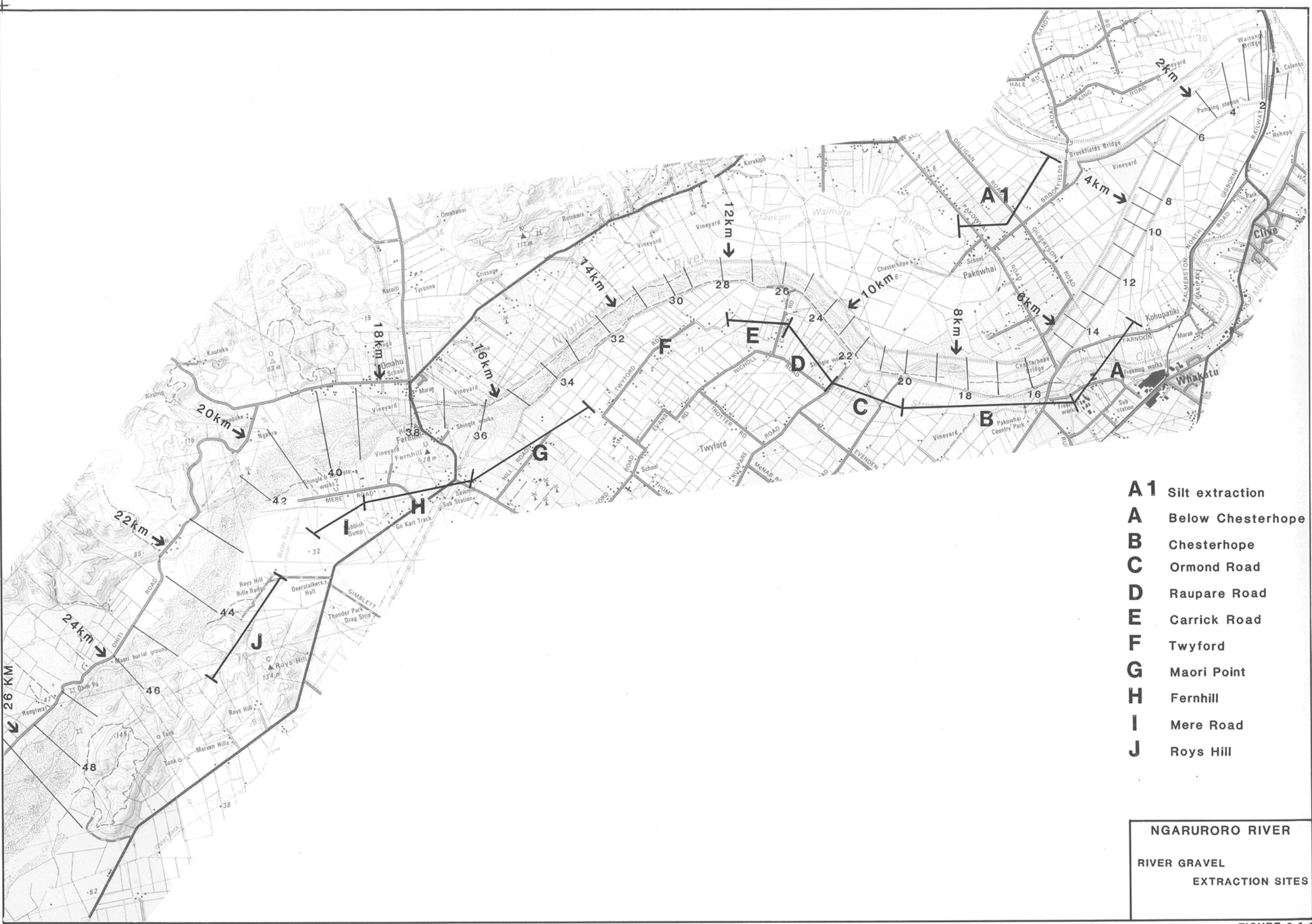
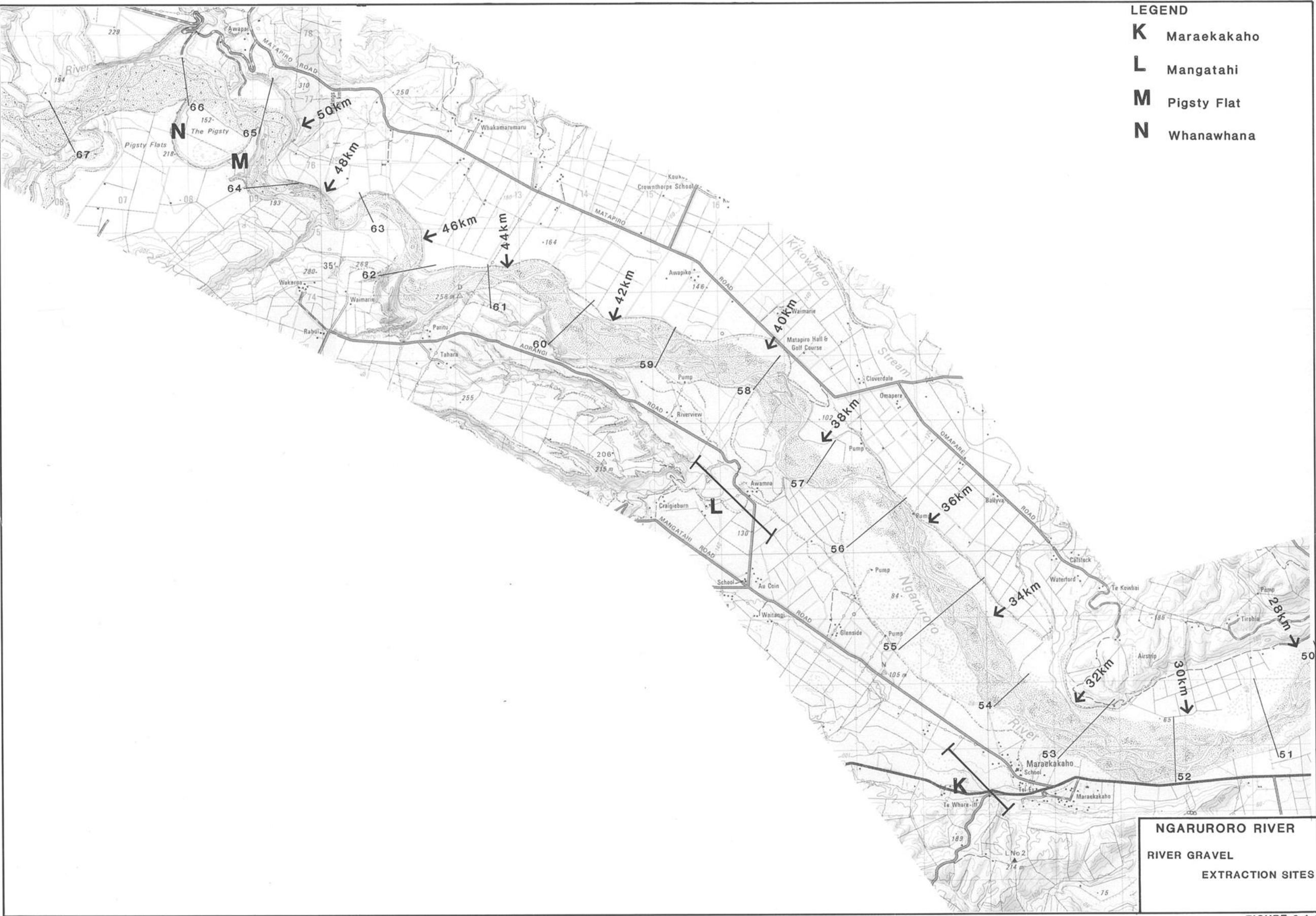


FIGURE 3.1.1  
sht., 3A





Item 2

Attachment 6



Hawke's Bay Regional Council +

280 Guppy Road  
P O Box 7295, Taradale  
Napier 4141, New ZealandTel 06 845 9210 +  
Fax 06 845 9212  
Freephone 0800 108 838[www.hbrc.govt.nz](http://www.hbrc.govt.nz) +

21 June 2018

Russel Roads  
PO Box 2191  
Stortford Lodge  
HASTINGS 4153

Attn Robbie Gale

Dear Robbie

**ACCESS ROAD ACROSS GLAZEBROOKS TO SH 50**

Mike Glazebrook has agreed to provide HBRC with an easement for access across his land at Maraekakaho from your quarry site to approximately 3365 SH 50.

This easement will provide HBRC with exclusive access from the highway to our river berm for river control and flood protection works in this area. As part of that activity all gravel extracted from the Ngaruroro at Maraekakaho will be transported across this easement.

Removing all truck movements and associated gravel extraction and quarry vehicles from the existing public access road will greatly enhance the public amenity value in this area and help mitigate some of the health and safety concerns raised by some locals.

In terms of access this letter serves as authority for your Company to use this easement. If you have any further questions please feel free to contact me.

Yours sincerely

A handwritten signature in black ink, appearing to read "Vince Byrne".

**Vince Byrne**  
**Engineering Officer**  
OPERATIONS GROUPPhone: (06) 845 9230  
Mobile: 0274 415 282  
Email: [vincent@hbrc.govt.nz](mailto:vincent@hbrc.govt.nz)*Specialists in river works and drainage*

SAFEGUARDING YOUR ENVIRONMENT + KAITIAKI TUKU IHO

Item 2

Attachment 6





If calling ask for David Bishop  
TRIM/File Ref 103419#0010

3 July 2018

Barker & Associates  
PO Box 1986  
Shortland Street  
Auckland 1140

Dear Karl Cook / Mary Wong

**Application for Resource Consent: Russell Roads, Maraekakaho Hawke's Bay, RMA20180258**

An initial assessment of your application for resource consent has been completed.

Under Section 92 of the Resource Management Act (RMA) 1991, the Hastings District Council requires further information to fully assess your proposed activity, its effect on the environment and the ways in which any adverse effects on the environment might be mitigated.

1. A copy of the signed lease agreement for the area of occupation from the Hawke's Bay Regional Council does not appear to have been included in Appendix 7. Please provide a copy of this agreement.
2. Please provide a plan of the proposed layout of the site that may be used to provide certainty of the work areas. Will the processing/screening plant be limited to one area of the site?
3. Please confirm whether there is a limit on the amount of stockpiled material to be stored onsite per annum/month or otherwise and the likely location(s) and maximum height of the stockpile(s).
4. Can recommendation (3) of the Styles Group Noise Report in relation to screening by stockpiling be made more measurable?
5. Please confirm whether a speed restriction could be implemented for vehicles travelling to and from the site within the easement from the State Highway to further reduce any potential noise generation.
6. Please provide comment from the Landscape Architect on whether any screening / landscaping of the access road could be implemented to further reduce any visual effects, particularly when viewed from those dwellings located on the elevated areas overlooking the site.
7. Please confirm whether the construction and formation of the access road will trigger any of the thresholds in the Earthworks Section (27.1) of the Proposed Hastings District Plan and provide the relevant assessment if resource consent is required.
8. While not a request for further information on this consent, please confirm whether RMA20160251 (the previous Russell Roads Ltd resource consent application on CFR 663412) can be withdrawn or otherwise.

Item 2

Attachment 7

In accordance with section 92A of the Act you must within 15 working days of the date of this request, take one of the following options:

1. Provide the information; or
2. Inform the Council in a written notice that you agree to provide the information; or specify a reasonable timeframe for providing the information for agreement of Council, or;
3. Inform the Council in a written notice that you refuse to provide the information.

**Please note** that Section 95C(2) of the Resource Management Act 1991 requires Council to publicly notify your application if:

- i) the information is not received within either 15 days, or;
- ii) the information is not received within any agreed timeframe, or;
- iii) if you decline to provide the information.

Council's deposit fee for public notification is **\$15,000.00**.

A decision on your application has been placed on hold awaiting your response to this request, in accordance with Section 88B of the Act. Where possible however, the application will continue to be processed as allowed by the information already supplied.

Request to Publically Notify

It is noted that you have requested that the application be publically notified. Council's deposit fee for public notification is **\$15,000.00**. Given the **\$1200** deposit already made please arrange for the remaining **\$13,800** deposit to be paid at the time of responding to this further information request. Payments can be made direct to Council's bank account with the reference RMA20180258.

Please contact me if you have any questions regarding the above information request or the further processing of the application.

Yours sincerely



David Bishop  
**Senior Environmental Planner (Consents)**  
davidb@hdc.govt.nz



12 July 2018

The Consents Manager  
Hastings District Council  
Private Bag 9002  
Hastings

**Attention:** David Bishop – Senior Environmental Planner (Consents)

Dear David,


**Application for resource consents: Russell Roads – RMA 2018 0258 –s 92 request – letter dated 4 July 2018**

1. I have already responded on the request in paragraph 8 of your letter.
2. Barker and Associates (Mary Wong) will provide information in response to items 2, 3, 4, 6, and 7.
3. In relation to the request for a copy of the signed lease agreement for the area of occupation, (paragraph 1), while I acknowledge this was referred to in the AEE, for good reason there is no signed lease agreement with the Hawkes Bay Regional Council at this time. There is agreement between the applicant and the Regional Council in respect of a lease, but completion of a signed lease agreement is conditional (sensibly) on consent being granted to the application. The Applicant will address this in evidence at the hearing.
4. In relation to paragraph 5 of your letter, the access road in question is a private access road which will only be used by traffic accessing the site the subject of the application. Your letter refers to the request for further information being in order to assess the proposed activity and its potential effect on the environment and the way in which any adverse effects on the environment might be mitigated. The relevant potential effects of use of the access way by (in particular) trucks that a speed restriction might address are dust and noise effects. As the AEE states, this access way is to be fully sealed so that no dust effects will arise from its use. The Styles Group report covers off the potential for adverse noise effects from trucks using the access road. Instructions from the Applicant are that consistent with the steps they have already in place in respect of use of the current access to the site, where speed limit signs are in place, the same signage will be in place on the access road.
5. Your letter refers to the application being lodged together with a request for public notification. Barker and Associates are currently arranging for the required deposit fee for that to be paid to your Council. I would ask that once the deposit payment is received the Council proceed immediately with public notification as there is no

2

reason to delay this pending receipt of the further information requested by way of your letter dated 4 July 2018 – although I expect you will have all the information by way of response to the request by the time the further payment is received.

Yours sincerely

A handwritten signature in blue ink, consisting of a series of loops and a wavy line extending to the right.

**Richard Brabant**

CC.

**Item 2****Attachment 8**



B&A	Level 4
Urban & Environmental	Old South British Building
•	3-13 Shortland Street
Whangarei	•
Warkworth	PO BOX 1986
<b>Auckland</b>	Shortland Street
Napier	Auckland 1140
Christchurch	
admin@barker.co.nz	T +64 9 375 0900
barker.co.nz	

12 July 2018

Hastings District Council

Attn: David Bishop – Senior Environmental Planner

Dear David

**Application for Resource Consent: Russell Road, Maraekakaho Hawkes Bay RMA20180258**  
**Request for Further Information - Section 92 Response**

In response to your section 92 letter dated 4 July 2018 we provide the following comments:

1. As stated in the AEE the HBRC has provided an offer of lease to the Applicant for the occupation area, and this agreement will be signed on the grant of resource consent. The applicant's legal counsel has provided a response on this matter.
2. A site layout plan of the proposal has been provided as Appendix 2 of the application material. Due to the nature of the mining activity proposed it is not realistic to provide a layout plan of the occupation area with set areas for different activities or storage of materials. The applicant has advised us that generally the stockpiling of extracted river gravel ready for processing will be on one side of the occupation area, and stockpiles of processed material (aggregate) on the other side of the occupation area, with processed aggregate that is to be transported off site soon after processing is complete stockpiled in the centre. The processing and screening plant are mobile not fixed units and therefore will not be in one static location within the occupation area. However, they will generally be located in the centre of the occupation area although shifted as required to suit processing activities at the time.
3. The amount of stockpiled material stored on site fluctuates seasonally but overall the annual quantity is limited by the approved maximum volume of river gravel extraction in the regional consents issued by the HBRC on an annual basis. The annual volume of extraction also varies as evidenced in Appendix 7 of the application material.

The applicant has advised us that during periods when extraction can take place the rate of extraction and processing will vary from week to week and month to month depending on demand. Also, prior to the river levels rising to the extent that extraction can no longer take place the remaining allocated volume for the year is extracted and stockpiled. This stockpiled gravel then provides a source for processing over the remainder of the year, with the rate of processing on a weekly or monthly basis varying in response to demand. As referred to in 2 above the likely locations of the larger stockpiles of gravel and aggregate will be at either end of the site..

**B&A**

Urban & Environmental

In relation to the request concerning the maximum height of stockpiles, the processed aggregate material could reach a maximum height of 4 to 6 metres; while gravel awaiting processing (having a larger particle size) can be stockpiled up to 10 metres high.

4. The analysis in the acoustic report concludes that it is not necessary to have stockpiles screening machinery to achieve compliance with the relevant noise standards and therefore recommendation (3) of the Styles Group acoustic report does not need to be made more measurable.

However, we are advised by the applicant that in addition to implementing the landscape buffer along the southern border of the occupation area as recommended in the landscape and visual report the intention is to establish an earth bund immediately north of this landscape buffer. It is expected that this earth bund will provide additional acoustic attenuation as referred to in the Styles Group acoustic report, but noting that this is not required to achieve compliance with relevant noise standards of the PHDP. The applicant also advises that this bund will be formed over one or more construction seasons using clean fill material and, pending completion of this bund, the applicant will implement recommendation (3) of the acoustic report in relation to placement of stockpiled material.

5. This information request has also been addressed by the applicant's legal counsel in his letter dated 12 July.
6. The visual effects of the new access road have already been assessed in the landscape and visual assessment report provided as part of the application material and this report concludes that the effects will be minor. On this basis no further screening and landscaping is proposed beyond that recommended in the report.
7. The applicant informs us that earthworks for construction and formation of the new access road will be within the permitted thresholds of the Earthworks section (27.1) of the PHDP. This matter has also been addressed on page 12 of the AEE.
8. The applicant's legal counsel has already responded on this matter in his letter dated 10 July 2018.

Please note that written approval from NZTA for the new access road has now been received and a copy of this is enclosed for your reference.

We trust that this provides a sufficient response to your queries and public notification of the application can now proceed upon receipt of the remaining deposit payment which Russell Roads Limited will pay direct to Council's bank account.

**B&A**

Urban & Environmental

Should you require any further information or clarification please contact me.

Yours faithfully  
**Barker & Associates Ltd**



**Mary Wong**  
Senior Planner

DDI: 09 375 0916  
Mob: 021 0310291  
Email: maryw@barker.co.nz







## Form 8A

### Affected person's written approval to an activity that is the subject of a resource consent application

*Section 95E(3), Resource Management Act 1991*

To: *Russell Roads  
C/- Barker and Associates Ltd  
PO Box 1986  
Shortland Street  
Auckland 1140*

Name of person giving written approval: *the NZ Transport Agency*

This is written approval to the following activity that is the subject of a resource consent application:

- *Mining activity involving the processing of gravel on an existing extraction site adjacent to the Ngaruroro River including the erection of two accessory buildings and the construction of a new vehicle access at 3375 State Highway 50, Maraekakaho.*

The Transport Agency has read the full application for resource consent, the Assessment of Environmental Effects, and any site plans as follows:

- *Email from B&A dated 21 June, 2018 with attached Resource Consent Application and Assessment of Environmental Effects (B&A Ref: 16457), dated June 2018.*
- *Email from B&A dated 6 June, 2018 with attached revised Traffic Assessment by Stantec (TDG Ref: 15372), dated 31 May 2018.*

In signing this written approval, the Transport Agency understands that the consent authority must decide that it is no longer an affected person, and the consent authority must not have regard to any adverse effects on the Transport Agency.

The Transport Agency understands that it may withdraw its written approval by giving written notice to the consent authority before the hearing, if there is one, or, if there is not, before the application is determined.

Date: 26/06/2018

Signature:



Hannah Thompson – Senior Planner – System, Design and Delivery, on behalf of the  
NZ Transport Agency.

Address for service of person giving written approval: NZ Transport Agency, Level 5, 43  
Ashley Street, PO Box 1947, Palmerston North Central, Palmerston North 4440

Telephone: (06) 953 6790

Email: hannah.thompson@nzta.govt.nz

Contact person: Hannah Thompson – Senior Planner

---

Item 2

Attachment 10

**From:** [Richard Brabant](#)  
**To:** [David Bishop](#)  
**Cc:** ["Mary Wong"](#); [Robbie I Russell Roads](#)  
**Subject:** Re: Application RMA 2018 0258 – Russell roads – Maraekakaho – s92 request  
**Date:** Thursday, 12 July 2018 5:21:29 PM  
**Attachments:** [image004.png](#)

---

Dear David,

Referring to your email about the establishment of an earth bund on the southern boundary of the subject site, I am replying because I discussed this with Robbie Gale before Mary and I completed our responses on your s 92 request.

A condition of consent is not offered, because the acoustic report of Styles Group makes it clear that one is not needed in order to comply with the PDP noise controls.

However, a permanent bund (rather than the benefit from some stockpiling on the site which would provide a noise attenuation function) is something that Robbie Gale advises me he plans to establish as suitable material is available after consent is granted and the site facilities are established, with construction taking place during 1 or perhaps 2 construction seasons. It will also provide some screening benefit.

As with the Applicant's intention to establish vehicle speed restrictions on the private access way, my intention is that the evidence in support of the application at the hearing would provide detail to the Hearing Commissioners. The Applicant's proposed conditions of consent are included in the documentation supplied with the AEE.

Kind regards,

**Richard Brabant | Barrister**  
**Mobile 021 975 548**  
**PO Box 1502 | Shortland Street | Auckland 1140**  
**Email [richard@brabant.co.nz](mailto:richard@brabant.co.nz)**  
**[www.brabant.co.nz](http://www.brabant.co.nz)**

---

**From:** David Bishop <davidb@hdc.govt.nz>  
**Sent:** Thursday, 12 July 2018 2:12 PM  
**To:** 'Mary Wong'  
**Cc:** Richard Brabant  
**Subject:** RE: Application RMA 2018 0258 – Russell roads – Maraekakaho – s92 request

Hi Mary

Thanks for this information.

To clarify are you offering the establishment of the earth bund as referred to in item 4 as a condition of consent and if so do you have a likely height of this bund?

Regards



**DAVE BISHOP**  
SENIOR ENVIRONMENTAL PLANNER (CONSENTS)

**Phone** (06) 871 5000 Extn 5369  
**Email** [davidb@hdc.govt.nz](mailto:davidb@hdc.govt.nz) **Web** [hastingsdc.govt.nz](http://hastingsdc.govt.nz)  
Hastings District Council, Private Bag 9002, Hastings 4156, New Zealand

---

**From:** Mary Wong [<mailto:Maryw@barker.co.nz>]  
**Sent:** Thursday, 12 July 2018 11:36 a.m.  
**To:** David Bishop <[davidb@hdc.govt.nz](mailto:davidb@hdc.govt.nz)>  
**Cc:** Richard Brabant <[Richard@brabant.co.nz](mailto:Richard@brabant.co.nz)>  
**Subject:** RE: Application RMA 2018 0258 – Russell roads – Maraekakaho – s92 request

Hi David

Further to the below please see attached letter which will now complete our section 92 response for this application.

Written approval from NZTA for the new access road has also been received and a copy of this is enclosed for your reference.

Arrangements for payment of the remaining public notification deposit is also underway by Russell Roads Limited and I will let you know once this has been paid.

Kind regards,

**Mary Wong**  
Senior Planner

**B&A**

**B&A**  
**Urban & Environmental**  
DD + 649 375 0916 M +6421 0310291 T + 649 375 0900

---

**From:** Richard Brabant [<mailto:Richard@brabant.co.nz>]  
**Sent:** Thursday, 12 July 2018 9:57 AM  
**To:** [davidb@hdc.govt.nz](mailto:davidb@hdc.govt.nz)  
**Cc:** Mary Wong  
**Subject:** Application RMA 2018 0258 – Russell roads – Maraekakaho – s92 request

Dear David,  
Please see attached letter responding to 2 of the items in your letter dated 4 July 2018.  
Kind regards,

Item 2

Attachment 11



Richard Brabant | Barrister  
Mobile 021 975 548  
PO Box 1502 | Shortland Street | Auckland 1140  
Email [richard@brabant.co.nz](mailto:richard@brabant.co.nz)  
[www.brabant.co.nz](http://www.brabant.co.nz)

**Attention:**

The information contained in this message and or attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any system and destroy any copies.

**Please consider the environment before printing this e-mail**

**Item 2****Attachment 11**





1/355 Manukau Road  
Epsom, Auckland 1023  
PO Box 26283  
Epsom, Auckland 1344

T: 09 638 8414  
E: hegley@acoustics.co.nz

27 August 2018

David Bishop  
Senior Environmental Planner (Consents)  
Hastings District Council  
Private Bag 9002  
HASTINGS 4156,

Dear David

#### MARAEKAKAHO GRAVEL PLANT

As requested I have reviewed the noise report entitled Russell Roads Gravel Extraction Assessment of Noise Effects dated 22 April 2018 by Styles Group that was prepared for the proposed expansion of an existing gravel extraction and processing site located off Kereru Road, Maraekakaho.

The site and neighbours are located in a Rural Zone in the Proposed District Plan Decisions Version.

Rule 25.1.6D sets the following noise limits for an activity in a rural zone at:

The following noise conditions shall apply to all land uses within all Rural Zones, other than those exempted in Rule 25.1.6B and 25.1.7E (Wind Farm Noise):

- (a) The following noise limits shall not be exceeded at any point within the notional boundary of any noise sensitive activity on any other site within a Rural Zone, or at any point within the boundary of any site, in any Zone other than an Industrial Zone:

Control Hours	Noise Level
0700 to 1900 hours	55dB $L_{Aeq}$ (15 min)
1900 to 2200 hours	50dB $L_{Aeq}$ (15 min)
2200 to 0700 hours the following day	45dB $L_{Aeq}$ (15 min)
2200 to 0700 hours the following day	75dB $L_{AFmax}$

As set out in Rule 25.1.4 the noise is to be measured in accordance with the requirements of NZS 6801:2008: Acoustics - Measurement of Environmental Sound and assessed in accordance with the requirements of NZS 6802:2008: Acoustics - Environmental Noise.

The report recommends the prohibition of tonal reverse alarms on all machinery and plant operating permanently on site. This is supported. Tonal sounds attract a 5dB penalty as they cause more annoyance than sounds without a tone. However, it is not understood why this restriction is limited to permanent plant and machinery on site. The assessment has been based on no tone (ie special audible characteristic) from the plant so to maintain the credibility of the noise assessment no plant that is on site, permanent or otherwise, should have a special audible characteristic.

The noise from trucks on a gravel road has been reported at 4dB ( $L_{Aeq}$ ) higher than for trucks on a sealed road even with the trucks operating at 8km/hr on the gravel road compared to 20km/hr on a sealed road. Of greater relevance is the fact that trucks on a gravel road are reported as being 16dB noisier at 63Hz than for a truck on a sealed road. Based on this, if the trucks on the gravel road were travelling at 20km/hr, which is a more realistic speed on the access road) the difference would increase further due to noise such as body rattle on an uneven road surface.

The traffic engineer's report states in section 4 *"the existing access route is a 4m wide unsurfaced road with no drainage. As part of the proposal the road will be upgraded to 6m where possible and chip-sealed"*. This is agreed with and will satisfy the requirements of section 16 of the Resource Management Act to minimise the effects of noise.

The noise contours have been predicted for the site and as they were not included in the original report the contours showing the results for a busy day are shown on Figure 1. The plant locations are not shown on this figure so the plant operating positions cannot be confirmed from the figure. It is noted the applicant elected not to respond to the request to provide this information.

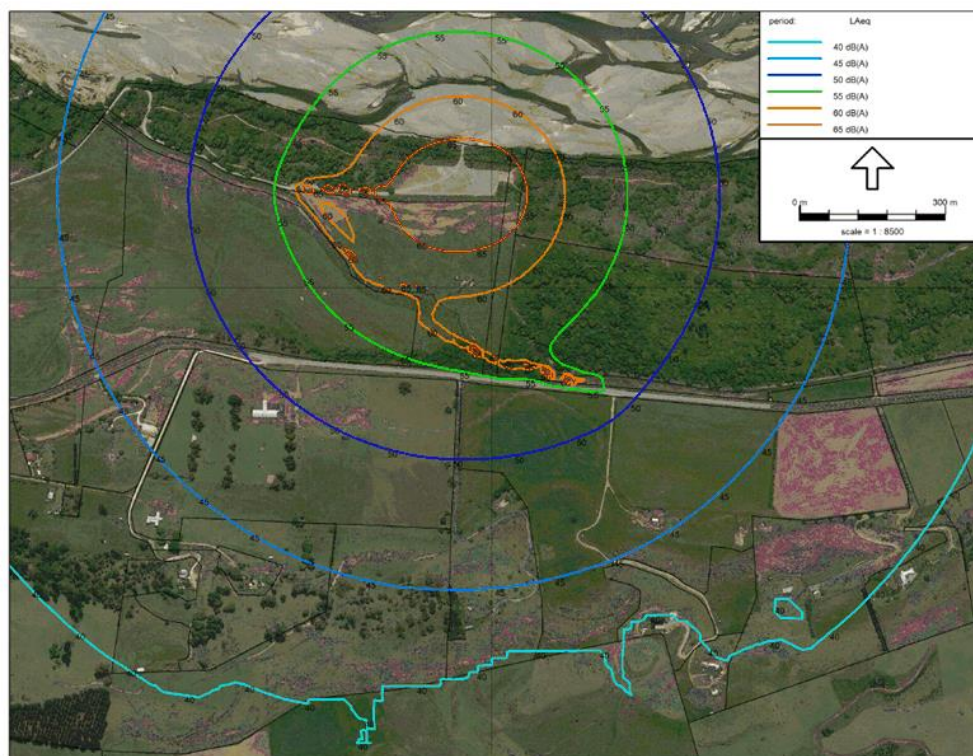


Figure 1. Noise contours for a busy day prepared by Styles Group

The assessment of the noise effects in the report is based on comparing the noise to the levels in the Proposed District Plan and the  $L_{Aeq}$  has been adopted for both the existing noise environment and the noise being generated. Clause 6.5.2 of NZS6802:2008 *Acoustics – Environmental Noise* states "when considering noise effects, the intrusiveness of a specific sound is dependent on several factors. One of these factors is the level of the specific sound compared to the background sound level". That is, the noise effects have not been assessed in accordance with the requirements of NZS6802.



There is no specific noise control in the District Plan for additional trucks on the state highway. However, to assess the overall effect of noise on the residents the effects of traffic noise would normally be undertaken. As set out in the traffic engineer's report, *it is concluded that this portion of SH50 carries comparatively low traffic volumes (3,035 vehicles per day for both directions for 2017).* The proposed development is predicted there would be *a maximum peak daily truck movements will be approximately 90 trucks per day.* This increase is expected to be noticed by the residents although no assessment has been provided on this effect of the proposal.

No background levels ( $L_{A90}$ ) have been given in the report and no assessment of the noise effects has been made in terms of NZS6802. Without the background sound being given, but knowing the general area, it is reasonable to assume the daytime background sound will be 30 – 32dB  $L_{A90}$  when clear of the highway, which is the case here. At the predicted levels of up to 45dB  $L_{Aeq}$  this is an increase of 13 - 15dB. As a guide, an increase of 10dB is generally considered as a doubling of the apparent loudness so the noise from the quarrying will be significant and clearly audible for the neighbours.

The gravel processing activity is not a permitted activity so it does not follow the application may automatically operate to the Proposed District Plan noise limits. In this case, the applicant has stated the gravel processing activity will not exceed 45dB  $L_{Aeq}$  during the daytime. Should the gravel processing activity operate to the 55dB  $L_{Aeq}$  limit of the Proposed District Plan as sought in the application the level would be more than 20dB above the existing noise environment. An increase of 20dB sounds four times as loud as the original sound, which is significant.

Taking the above into account it is recommended that if the application is approved the daytime noise limit is set at 50dB  $L_{Aeq}$ . This provides greater protection for the residents and a factor of safety to what is being proposed by the applicant.

To ensure the noise limits are being achieved it is recommended a noise monitoring condition should be included with any consent. This will provide certainty for the residents that they will not receive unreasonable levels of noise from the activity.

When considering the above there is no reason, based on noise, why the application should not be approved. This assumes the appropriate conditions, such as recommended below, are included in any consent.

#### Recommended Conditions

- i) The following noise limits shall not be exceeded at any point within the notional boundary of any noise sensitive activity on any other site within the Rural Zone:

Control Hours	Noise Level
0700 to 1900 hours	50dB $L_{Aeq}$ (15 min)
1900 to 2200 hours	45dB $L_{Aeq}$ (15 min)
2200 to 0700 hours the following day	40dB $L_{Aeq}$ (15 min)
2200 to 0700 hours the following day	70dB $L_{AFmax}$

- ii) The noise is to be measured in accordance with the requirements of NZS 6801:2008: Acoustics - Measurement of Environmental Sound and assessed in accordance with the requirements of NZS 6802:2008: Acoustics - Environmental Noise;
- iii) Construction activities shall comply with the requirements of NZS 6803:1999 Acoustics – Construction Noise;

Note: Construction noise is limited to the development of access roads and the construction of any permanent noise control bunds;

- iv) Processing operations and truck movements on the site shall be prohibited outside the hours of 07:00 to 18:00, Monday to Friday, and 07:00 to 15:30 on Saturdays.
- v) Tonal reverse alarms are prohibited on all vehicles that are permanently located on the site, including the loader, excavator and any other mobile plant;
- vi) No plant or machinery shall be operated on site that has a special audible characteristic.
- vii) The access route shall have a chip seal, or similar, road surface and be maintained to ensure an uneven road surface does not develop. All other internal roads shall be maintained to a high standard so that pot holes and an uneven road surface do not cause unnecessary body rattle on vehicles;
- viii) Where stock piling exists and where it can practicably be used to screen machinery, the consent holder shall take all practicable steps to utilise stock piles to reduce noise levels to neighbouring properties.
- ix) A speed limit of 20km/hr shall be implemented on site.
- x) Within 3 months of commissioning of the site, the applicant shall have the noise measured from the activity and provide a copy of the results to Consent Manager, Hastings District Council within two weeks of the monitoring being undertaken;
- xi) In the event of non-compliance with Condition (i) the applicant shall implement any appropriate noise control treatment within one week and measure the noise again once this treatment is in place. A copy of these measurements shall be provided to Consent Manager, Hastings District Council within one week of the monitoring being undertaken;

Should you have any questions regarding the above please do not hesitate to contact me.

Yours faithfully  
Hegley Acoustic Consultants



Nevil Hegley

If calling ask for David Bishop  
TRIM/File Ref: 103419#0010

30 August 2018

Barker & Associates  
PO Box 1986  
Shortland Street  
Auckland 1140

Dear Mary Wong

**Application for Resource Consent: Russell Roads Ltd, Maraekakaho Hawke's Bay, RMA20180258**

Following the receipt of submissions the Council requests further information pursuant to Section 92 of the Resource Management Act 1991 in order to fully assess the proposed activity, its effect on the environment and the ways in which any adverse effects on the environment might be mitigated.

1. A number of submissions raise dust as a potential effect on the environment, including the effects of silica dust. In order to address this effect please provide a dust management plan that would cover the operations of the proposed activity and the methods that will be used to avoid adverse dust effects on adjacent properties and the surrounding environment. Please also provide comment on whether any effects of silica dust are in fact present or will result from the proposal.
2. Please provide a timeframe for the construction of the proposed access road to State Highway 50 and the works to State Highway 50 itself to create the dedicated right turning lane i.e. how long will it take to construct these roading projects, should consent be granted?
3. A number of submissions raise the issue of public access to the river. Although the access to the river is controlled by the Hawke's Bay Regional Council, could you provide comment on whether an agreement or other mechanism could be put in place to ensure that the proposed access and parking areas as indicated in the application (albeit acknowledging these are not a formal part of the Russell Roads proposal) are created within a certain timeframe, should consent be granted, so that the community has certainty that public access to the Ngaruroro River will be maintained and enhanced?

Please contact me if you have any questions regarding the above information request or the further processing of the application.

Yours sincerely



David Bishop  
**Senior Environmental Planner (Consents)**  
davidb@hdc.govt.nz







When forwarding declarations please quote  
Land Use Consent number : 0801801

### RESOURCE CONSENT TO EXTRACT GRAVEL

In accordance with the provisions of the Resource Management Act 1991 and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) for the reasons attached grants to :

Name : Russell Roads  
Address : P.O.BOX 2191  
STORTFORD LODGE  
HASTINGS 4153  
Attention : Chris Russel

a Resource Consent for the purpose of extracting gravel.

### DETAILS OF RESOURCE CONSENT

River : Ngaruroro River

Site of Extraction	Proposed Volume of extraction	
	Shingle (cubic metres)	Silt (cubic metres)
MARAEKAKAHO 54	40000	

Consent commences on 05 July 2018 and expires on 30 June 2019.

Location of stockpile area(s):  
(where applicable)

Rate of removal of gravel :  
(where applicable) cubic metres per day/week/month

Fees : \$0.80 per cubic metre plus GST

Note : All quantities to be based on loose measure and rounded to the nearest cubic metre.  
Declarations are requested by the 20th of the month following extraction. If no gravel is removed, a nil return must be forwarded for the period commenced.

Signature :

Manager - ASSET MANAGEMENT

Item 2

Attachment 14

### REASONS FOR DECISION

1. The consent conditions promote the sustainable management of the extraction operation by avoiding, remedying or mitigating any adverse effects of the activity on the environment.
2. The activity is not contrary to the objectives, policies or Rule 7.1 of the Regional River Bed Gravel Extraction Plan.

### STANDARD CONSENT CONDITIONS

1. Unless otherwise indicated by the Council the period to which the consent relates is from 1 July to 30 June the following year.
2. An officer of the Council shall have the right, during business hours, of access to the site of extraction and to the books and documents relating to the extraction of gravel authorised by this consent and kept by the holder in order to check the accuracy of the returns made to the Council.
3. The consent holder shall notify the Council forty-eight (48) hours prior to any new extraction operation commencing within the area specified by the resource consent.
4. The consent does not of itself confer any right of access over private and/or public property. Arrangements for access must be made between the consent holder and the property owner (including land under the control of the HBRC).
5. Where the consent holder requires access across river berm areas held by Council under the Reserves Act (or any other relevant Act) and leased to a third party, the consent holder shall negotiate access across that land with the lessee.
6. The consent holder shall ensure that any person exercising the consent shall produce the consent to the Council when requested to do so by a duly authorized officer of the Council.
7. Any authorisation to extract gravel conferred by a consent does not guarantee that the quantity of quality required will be available.
8. Consent holders shall maintain an accurate and accessible daily record of the volume of gravel taken, the site of extraction and the date it was taken. All quantities are to be based on loose measure and rounded to the nearest cubic metre. Such records are to be provided monthly to the HB Regional Council on the Statutory Declaration forms provided.
9. The consent holder shall immediately repair any damage that they have caused to any banks, access roads, fences, gates, protection or other works relating to the control of the river. The cost of such repair shall be met by the consent holder.

S:\Consent Conditions.doc



10. The consent holder shall ensure that the site is restored on completion of the gravel extraction operation as follows:
  - a) Gravel heaped up during the process of removal shall be spread out by the consent holder on completion of the gravel extraction operation.
  - b) Consent holder shall remove all, plant, machinery, equipment, signs and other structures associated with the operation from the riverbed immediately on completion of operations.
  - c) No reject, surplus or unused gravel from a gravel processing plant is to be deposited into or onto the riverbed.
11. A consent does not confer any exclusive right of occupation over the area allotted to the holder.
12. A consent holder shall erect a warning sign (generally in the form shown in Appendix A) adjacent to the site of extraction where as a result of the extraction the stretch of river has or is likely to become dangerous to the public. These signs will be required wherever holes are made in the riverbed, which could become a danger to fishers and others who may use the riverbed. The signs shall be removed on completion of the operation or when the area is no longer a danger to the public.
13. No refuelling or fuel storage shall occur on the riverbed.
14. Should any archaeological site be discovered within the area affected by the operation the consent holder shall as soon as possible notify the Historic Places Trust and the Council.
15. No machinery shall be driven across the active river channel without prior authorisation from the Council in consultation with the Department of Conservation and the Hawke's Bay Fish and Game Council or the Eastern Region Fish and Game Council to the north or and including the Waiau River and its tributaries. When driving a vehicle across the river flow, consent holders shall take all practicable steps to prevent an increase in the level of turbidity of the river. The consent holder shall give particular attention to avoiding turbidity within waterways during the fish-spawning period of May-October.
16.
  - a) When extracting gravel from outside the river flow and above the water level, extraction will commence from the water's edge on an even face or as otherwise directed by an officer of the Council. Gravel may be removed only from specified areas, which must be leveled off before leaving the site.
  - b) When extracting gravel from outside the river flow and below standing water level, consent holders shall maintain a one metre wide barrier between the river and excavation site so that any turbidity increase in the river is kept to a minimum. The barrier is to be removed at the end of the operation.
  - c) When extracting gravel from the river flow, consent holders shall take all practicable steps to prevent increase in the level of turbidity of the river. Should the gravel extraction operation result in increased turbidity the consent holder shall take all practicable steps, including any actions directed by an officer of the Council, to remedy the turbidity. The consent holder shall give particular attention to avoiding turbidity within waterways during the fish-spawning period of May-October.

### ADDITIONAL SPECIFIC CONSENT CONDITIONS (if required)

1. Access tracks to be watered regularly to keep dust down.
2. No heavy vehicle access to Maori Point at the Omaha public access before 7.00 am or after 6.00 pm, Monday to Friday. No work permitted on the weekends or public holiday.
3. No heavy vehicle access to Maraekakaho at the Monument before 7.00 am or after 6.00 pm, Monday to Friday. Access weekends or public holidays from 7.30 am to 3.00 pm only.
4. No heavy vehicle access at Waipawa on the south side, down stream from Waipawa river bridge before 6.00 am or after 10.00 pm, Monday to Friday. Access weekends or public holidays from 7.30 am to 5.00 pm only.
5. During the period 1<sup>st</sup> of August to 27<sup>th</sup> of February inclusive, gravel extraction shall be carried out in accordance with the relevant riverbed ecological management zones. Rules relating to riverbed ecological management zones are available upon request or by visiting HBRC internet home page.

### ADVICE NOTES

1. That pursuant to Section 36 of the Resource Management Act 1991, the applicant is responsible for paying costs relating to receiving and processing of this resource consent. This amount is shown on the application form.
2. Notwithstanding any conditions outlined above, additional specific conditions may be imposed on gravel extraction activities in the region on any occasion, to take account of the site conditions at the time, to protect property, to protect human health, to ensure river or flood control is not prejudiced, or to avoid, remedy or mitigate any adverse effects on the environment.
3. This consent does not constitute authority to erect, reconstruct, place, alter, extend, remove or demolish any structure or to divert water or construct a causeway or discharge gravel wash into a river. These activities are controlled and you must seek a resource consent to carry them out.
4. The consent holder may apply to change the terms and conditions of the consent (except for the duration) if circumstances change (Section 127 of the Resource Management Act 1991).
5. The consent is transferable to any other person unless the consent states otherwise. The transfer has no effect until written notice of the transfer is given to the Council. The same conditions will apply to the new consent holder.

S:Consent Conditions.doc



**gravel** appendix a  
warning signs  
Hawke's Bay Regional Council

Warning signs erected in accordance with Rule 7.1.5 shall give the advise indicated below:



Regional River Bed

Gravel Extraction Plan

Item 2

Attachment 14



B&A	Level 4
Urban & Environmental	Old South British Building
•	3-13 Shortland Street
Whangarei	•
Warkworth	PO BOX 1986
<b>Auckland</b>	Shortland Street
Napier	Auckland 1140
Christchurch	
admin@barker.co.nz	T +64 9 375 0900
barker.co.nz	

15 October 2018

Hastings District Council  
Attn: David Bishop – Senior Environmental Planner

Dear David

**Application for Resource Consent: Russell Road, Maraekakaho Hawkes Bay RMA20180258**  
**Response to Further Information Request**

In reference to your letter dated 30 August 2018 requesting for further information following the close of submissions for this application, we provide the following responses for your consideration:

1. The applicant has engaged Beca Ltd to provide expert advice on potential dust effects generated from the gravel extraction and processing activities on site. Beca have prepared a draft Dust Management Plan (DMP) and this is enclosed for your reference. This DMP is intended to be a live document that is expanded and updated as gravel extraction and processing activities occur on site and conditions of consent (if consent is granted) become available. Submissions have been received in respect of silica dust from and potential health effects of this from the gravel processing activities proposed. Beca provides a response on this matter in the enclosed letter dated 10 October 2018.
2. The timeframe for construction of the proposed access road to State Highway 50 and the roadworks to State Highway 50 itself to create the dedicated right-turning lane has not been determined at this stage. However, the construction of the proposed access road and road changes to State Highway 50 can be a condition of consent that these shall be implemented prior to the commencement of this consent.
3. The issue of public access to the river is beyond the scope of this consent application. The maintenance and enhancement of public access to the Ngaruroro River is the role and responsibility of the Hawkes Bay Regional Council. The indicative public access road and public carparks as shown on the site plan layout (Appendix 2 of application material) are for information purposes and do not form part of this application. The timing of the delivery of these public assets and facilities is in the control of the regional council.

We trust that this provides an acceptable response to your queries. Should you require any further information or clarification please contact the author below.

**B&A**  
Urban & Environmental

Item 2

Attachment 15

Yours faithfully  
**Barker & Associates Ltd**



**Mary Wong**  
Senior Planner

DDI: 09 375 0916  
Mob: 021 0310291

*Appendices enclosed:*

- *Russell Roads – Dust Management Plan dated 11 October 2018 prepared by Beca Ltd.*
- *Russell Roads – Response to request for further information regarding silica dust dated 10 October 2018 prepared by Beca Ltd.*

**B&A**

Urban & Environmental





Item 2

Report

## Russell Roads - Draft Dust Management Plan

Prepared for Russell Roads Limited

Prepared by Beca Limited

11 October 2018




Attachment 15

Russell Roads - Draft Dust Management Plan

### Revision History

Revision N°	Prepared By	Description	Date
1	<b>Prue Harwood</b>	Draft for client review	24 September 2018
2	Prue Harwood	2 <sup>nd</sup> draft for client review	25 September 2018
3	Prue Harwood	3 <sup>rd</sup> draft for client review	2 October
4	Prue Harwood	Final	11 October 2018

### Document Acceptance

Action	Name	Signed	Date
Prepared by	<b>Prue Harwood</b>		11 October 2018
Reviewed by	<b>Michele Dyer</b>		11 October 2018
Approved by	<b>Graeme Jenner</b>		11 October 2018
on behalf of	Beca Limited		

© Beca 2018 (unless Beca has expressly agreed otherwise with the Client in writing).

This report has been prepared by Beca on the specific instructions of our Client. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. Any use or reliance by any person contrary to the above, to which Beca has not given its prior written consent, is at that person's own risk.

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## Appendices

### Appendix A

Resource Consent

### Appendix B

Beaufort Wind Scale

### Appendix C

Site Personnel Contact Phone Numbers

### Appendix D

Complaint Form

## 1 Purpose

The purpose of this draft Dust Management Plan (DMP) is:

*To facilitate the avoidance, remediation and mitigation of any adverse effects of dust discharges generated from the gravel extraction and processing activities at the Russell Roads Limited (Russell Roads) occupation area, and to recommend proactive solutions to the control of dust discharges from the site.*

The DMP identifies the following:

- The various sources of dust that may be generated at the site;
- Dust mitigation and avoidance measures;
- Monitoring methods;
- Mechanisms for remediation of adverse effects (should this be required);
- Methods for managing complaints regarding dust and keeping records related to compliance ; and
- Key personnel responsible for implementing the DMP.

The DMP is intended to be a working document and as such information included is expected to be regularly reviewed and revised as gravel extraction activities continue. Although gravel extraction activities are permitted under the Hastings District Plan and resource consent is required only for the processing aspect of the activities on the site, this DMP addresses all dust-generating activities on the site.

### 1.1 Objectives

The objectives of this DMP are:

- To operate in full compliance with the resource consent requirements and demonstrate this through reporting procedures;
- To provide a mechanism for liaison with the local community as required, regarding dust management; and
- To recommend the best practicable methods that can be employed to avoid, remedy or mitigate adverse dust effects on the environment resulting from gravel processing activities.

### 1.2 Resource Consent Conditions

The gravel processing activities on site are subject to the conditions included in Consent xxx, granted by Hastings District Council on yyy. The extraction of gravel from the river is authorised separately under a consent granted by Hawkes Bay Regional Council.

A copy of Consent xx is attached as **Appendix A**. The conditions which pertain to the discharges are dust are as follows:

To be added



## 2 Background

### 2.1 Description of Activity

The site is used by Russell Roads to process gravel extracted from the Ngaruroro River, within a defined occupation area, to produce roading materials primarily for use in the Hawkes Bay area. The site is located to the north of State Highway 50 approximately 1km east of Maraekakaho.

The processes carried out on site are:

- Extraction of gravel from the river using an excavator (separately consented with the Hawkes Bay Regional Council);
- Transportation of the gravel to the raw material stockpile area by truck;
- Transfer of gravel to the crushing and screening plant by front end loader;
- Crushing and screening;
- Transfer of the processed gravel to the finished product stockpile by front end loader;
- Load out of processed gravel onto trucks by front end loader.

Each year the Hawkes Bay Regional Council authorises Russell Roads to extract as allocated quantity of gravel from the river for processing. This allocation varies depending on the state of the river. The crushing and screening plant has a maximum processing capacity of 400 tonnes per hour.

Russell Roads transports approximately 2,500 m<sup>3</sup>/year of silt onto site each year. The silt is mixed with gravel to produce some products. The silt is stockpiled on site until it is used.

The plant works between the hours of 7:00 a.m. to 6:00 p.m. Monday to Friday and 7:00 a.m. to 3:30 p.m. on Saturdays. No processing activities take place on Sundays or public holidays.

Figure 1 is an aerial photograph of the site and surrounding area.



Figure 1 Aerial photograph of site and surrounding area (imagery sourced from Google Earth)

### 3 Responsibilities

The Site Supervisor will have day-to-day responsibility for the implementation of the DMP and will have the following attributes and experience:

- Be experienced in the management of gravel extraction and processing sites;
- Be experienced in the control of dust from gravel extraction and processing sites;
- Have a thorough knowledge and understanding of the requirements to manage the site in a manner that minimises any adverse effects on the environment and the nearby residents;
- Have an understanding of the relevant resource consent conditions pertaining to dust management and the obligations to comply with those conditions and the implications of non-compliance; and
- Be experienced in the training of personnel in the methods used to control dust from a gravel extraction and processing site.

The Site Supervisor will have the following associated responsibilities:

- To ensure that all contractors and staff are properly trained and understand the requirements of the DMP;
- To ensure that the dust control and mitigation measures and procedures outlined in the DMP are implemented effectively;
- To ensure that the conditions of the resource consent are complied with at all times;
- To ensure that the dust monitoring programme is carried out as required;
- To ensure that any complaints received are investigated as outlined in the DMP;
- To ensure that dust emissions are avoided and mitigated as far as is practicable;
- To ensure there are adequate personnel and equipment on site at all times to enable the dust control and mitigation measures outlined in the DMP to be implemented effectively;
- To ensure that in the Site Supervisor's absence an appropriately qualified deputy is available; and
- To ensure the DMP is current and reviewed at least annually.

All contractors and staff working on site will be required to ensure that their activities comply with the requirements of the DMP.

## 4 Training and Induction

It is the responsibility of the Site Supervisor to implement an on-going training and induction programme for all contractors and staff. The purpose of this programme is to make all personnel working on site aware of and understand the purpose and requirements of the DMP, the consent conditions and the ramifications of a failure to comply with these requirements.

The training programme for all contractors and staff will include at least the following aspects:

- The responsibilities of all staff and contractors for carrying out the work on site in a manner which does not result in adverse effects on the environment and local residents and in accordance with resource consent conditions;
- The potential legal ramifications of adverse environmental effects occurring as a result of the project and non-compliance with resource consent conditions;
- The minimum requirements for dust control for all activities on site;
- The requirements for staff to monitor weather and visually inspect the site for dust discharges, assess the adequacy of dust control methods and implement additional dust control methods when required;
- The actions to be taken in an extreme dust and weather event; and
- The actions to be taken if a complaint is received from the public or consent authority.

## 5 Dust Sources and Generation

### 5.1 Potential Dust Sources

The activities that have the potential to generate dust at the Russell Roads site include.

- Roads and yard areas (dust generated by vehicle traffic);
- Loading and unloading;
- Operation of the screening and crushing plant; and
- Surfaces of stockpiles.

### 5.2 Factors Influencing Dust Generation

The five major factors which influence the potential for dust to be generated from the site are:

- Wind speed across the surface;
- The percentage of fine particles in the material on the surface;
- Moisture content of the material;
- Loading and unloading of materials; and
- Vehicle movements on unconsolidated surfaces.

Dust emissions from exposed surfaces generally increase with increasing wind speed. However, dust pick-up by wind is only significant at wind speeds above 5 m/s. The smaller the particle size of the material on an exposed surface, the more easily the particles are able to be picked up and entrained in the wind. Moisture binds particles together preventing them from being disturbed by winds or vehicle movements.

Vehicles travelling over exposed surfaces tend to pulverise any surface particles. Particles are lifted and dropped from rolling wheels and the surface. Dust is also sucked into the turbulent wake created behind moving vehicles.

Systems for controlling dust emissions include methods that either modify the condition of the materials, so that it has less tendency to lift with the wind or minimise disturbances such as vehicle movements and methods that reduce the velocity of the wind at the surface.

The dust prevention methods detailed in Section 6 are effective and are recommended to be used alone, or in combination, depending on the circumstances. This list is not exhaustive and other methods may also be used.



## 6 Dust Mitigation Measures and Procedures

The following measures and procedures will be implemented as necessary:

### Road and yard areas

- Keeping access ways and yard surfaces damp with a water cart and/or fixed sprinklers when required;
- Regularly maintaining access ways and yard surfaces by grading and laying of fresh gravel;
- Sealing of the proposed access road between State Highway 50 and the site; and
- Keeping the sealed access road free of excessive mud and dirt by cleaning when required.

### Loading and unloading

- Minimising drop heights when loading and unloading vehicles; and
- Pre-watering materials to be transferred if required.

### Screening and crushing plant operation

- Operating the dust control misting system at all times when the screening and crushing plant is operating.

### Stockpile surfaces

- Keeping stockpile surfaces damp with water carts and/or fixed sprinklers if required.

### Maintenance

- Ensuring the water cart is properly maintained and is operational whenever activities are taking place on the site; and
- Ensuring the crushing and screening plant dust control misting system is properly maintained.

### Contingency Procedures

In the event that dust cannot be adequately controlled within the site using the methods described above, and additional measures are required in order for Russell Roads to comply with the provisions of the resource consent conditions, contingency procedures will be implemented. These procedures may include, but are not limited to, the following:

- The use of additional water carts and irrigation systems to dampen dusty surfaces; and
- Temporarily stopping all work on areas of the site that are sources of excessive dust, other than dust control activities.

## 7 Monitoring

To ensure that mitigation measures are implemented, and are effective in minimising dust emissions, a dust monitoring plan will be implemented.

Table 1 outlines the dust monitoring methodology that will be implemented at the site. The frequency of monitoring is defined, but in the instance of strong winds, observations of dust moving off-site or a complaint being received, the monitoring programme will be required to be undertaken more regularly.

Table 1- Dust Monitoring Programme

Monitoring Activities	Frequency
Observe weather conditions, wind via observations (Beaufort Scale) <sup>1</sup> .	Daily and as conditions change.
Inspect dust generating activities to ensure dust emissions are effectively controlled.	Daily and as new activities are commenced and hourly in winds over 5 m/s (18km/h) (Beaufort Scale 4 or greater).

<sup>1</sup> A description of the Beaufort Scale is included in **Appendix B**

## 8 Complaints Response

### 8.1 Overview

Complaints may be referred by one or more of Hastings District Council, Hawkes Bay Regional Council, a member of the public or a member of the site team. It is the responsibility of the Site Supervisor to respond to and follow up all complaints regarding dust. The Site Supervisor is responsible for ensuring suitably qualified personnel are available to respond to complaints at all times.

A Complaints Register will be maintained and made available to the Hastings District Council on request.

### 8.2 Actions to be taken as soon as possible after a complaint

Immediately following receipt of a complaint, the Site Supervisor will:

- Fill out a complaint form;
- Note the following;
  - time, date, identity and contact details of complainant (if provided);
  - wind direction and strength and weather conditions;
  - if complaint has been referred from either Hastings District Council or Hawkes Bay Regional Council;
- Ask the complainant to describe the dust emission; whether it is constant or intermittent, how long it has been going on for, is it worse at any time of day, does it come from an identifiable source;
- As soon as possible, after receipt of a complaint, undertake a site inspection. Note all dust producing activities taking place, who is responsible for the site and the dust mitigation methods that are being used.
- Order any remedial action necessary. If a complaint was related to an event in the recent past, note any dust-producing activities that were underway at that time, if possible. As soon as practical (preferably within two hours), visit the area from where the complaint originated to ascertain if dust is still a problem;
- If it becomes apparent that there may be a source of dust other than activities at the site causing the dust nuisance, it is important to verify this. Photograph and document the source and emissions;
- As soon as possible after the initial investigations have been completed, contact the complainant to explain any problems found and remedial actions taken;
- If necessary update any relevant procedures in the DMP to prevent any recurrence of problems; and
- Complete complaint form and file on Complaints Register.

#### Follow up actions

- Advise Hastings District Council as soon as practicable that a complaint has been received and what the findings of the investigation were and any remedial actions taken; and
- Advise staff and contractors that a complaint has been received and what the findings of the investigation were and the remedial actions taken.

## 9 Consultation

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### 9.1 Community

The contact phone numbers and email addresses for registering a complaint are included in **Appendix C**.

### 9.2 Hastings District Council

Russell Roads will provide Hastings District Council with contact numbers to be used to advise Russell Roads of a dust complaint from a third party. The contact phone numbers and email addresses for notifying Russell Roads of a complaint are included in **Appendix C**.

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## 10 Reporting

### **Russell Roads to contractors/staff**

Russell Roads will report the following to contractors and/or staff involved in site operations:

- Notice of any complaints received during the previous period regarding dust, and the remedial actions taken.

### **Russell Roads to Hastings District Council**

Russell Roads will:

- Advise HDC of any complaints received regarding dust as soon as practicable after receipt of the complaint;
- Provide HDC with a copy of the DMP within one month of the commencement of consent and if any significant revisions of the DMP are made during the year.

### **Hastings District Council to Russell Roads**

Russell Roads has requested that Hastings District Council advise Russell Roads of any complaints they receive regarding dust from the site as soon as practicable after a complaint has been lodged.

## 11 DMP Review Procedure

The DMP shall be reviewed at least annually, or where there are changes to the nature of gravel processing operations on site and will be provided to Hastings District Council within 1 month of the completion of the review process.

Appendix A

Resource Consent

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Appendix B

Beaufort Wind Scale

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## The Beaufort Wind Scale (Land)

The Beaufort scale was long in use as a system for estimating wind speeds. It was introduced in 1806 by Admiral Sir Francis Beaufort (1774-1857) of the British navy to describe wind effects on a fully rigged man-o-war sailing vessel, and it was later extended to include descriptions of effects on land features as well. Today the accepted international practice is to report wind speed in knots (1 knot equals about 1.85 km, or 1.15 mi, per hour).

The Beaufort scale is divided into a series of values, from 0 for calm winds to 12 and above for hurricanes. Each value represents a specific range and classification of wind speeds with accompanying descriptions of the effects on surface features, as follows:

Beaufort	Avg miles per hour	Avg km per hour	Knots	Surroundings
0 (calm)	0	0	0 – 1	Smoke rises vertically.
1 (light air)	1 – 3	2 – 5	1 – 3	Smoke drift indicates wind direction.
2 (light breeze)	4 – 7	6 – 12	4 – 6	Wind felt on face; leaves rustle.
3 (gentle breeze)	8 – 12	13 – 20	7 – 10	Leaves, small twigs in constant motion.
4 (moderate breeze)	13 – 18	21 – 30	11 – 16	Dust and leaves raised up, branches move.
5 (fresh breeze)	19 – 25	31 – 40	17 – 21	Small trees begin to sway.
6 (strong breeze)	26 – 31	41 – 50	22 – 27	Large branches of trees in motion/
7 (moderate gale)	32 – 38	51 – 61	28 – 33	Whole trees in motion; resistance felt walking against wind.
8 (fresh gale)	39 – 46	62 – 74	34 – 40	Twigs and small branches break from trees.
9 (strong gale)	47 – 55	75 – 89	41 – 47	Larger branches break from trees.
10 (whole gale)	56 – 64	90 – 103	48 – 55	Trees broken and uprooted.
11 (storm)	65 – 74	104 – 119	56 – 63	Widespread damage.
12 (hurricane)	75+	120+	64+	Violence and destruction.

2004, Jeffers Petroglyphs Historic Site

from <http://www.kites.org/jo/beaufort.html>  
and <http://www.mountwashington.org/discovery/arcade/wind/beaufort.html>

Appendix C

Site Personnel Contact Phone  
Numbers

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To be added

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Attachment 15



Appendix D

Complaint Form

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**COMPLAINT FORM**

Date

Time

Complainant Name

Complainant Phone

Complainant Address

Complaint details

Location of event

Time event occurred

Length of event

Is it ongoing

Weather at time of complaint

Wind speed (refer Beaufort Scale overleaf) at  
time of complaint

Wind direction

Other information

Follow up response to complainant (time, date,  
type of response)

### ONSITE INVESTIGATION

Activities occurring onsite at time of complaint

Wind speed (refer Beaufort Scale overleaf)

Wind direction

Rainfall in past 24 hours

Visible windblown dust (Y/N)

Fill out location map showing dust sources and activities

### OFFSITE INVESTIGATION

#### ***Upwind of site***

Location

Time

Wind speed (refer Beaufort Scale overleaf)

Wind direction

Visible dust in air?

Visible dust on grass/surfaces?

Other source of dust identified? (take photos)

#### ***Downwind of site***

Location

Time

Wind speed (refer Beaufort Scale overleaf)

Wind direction

Visible dust in air?

Visible dust on grass/surfaces?

Other source of dust identified? (take photos)

Fill out location map showing upwind and downwind investigation locations and other dust sources

**Beaufort Wind Scale**

The Beaufort scale is divided into a series of values, from 0 for calm winds to 12 and above for hurricanes. Each value represents a specific range and classification of wind speeds with accompanying descriptions of the effects on surface features, as follows:

Beaufort	Avg miles per hour	Avg km per hour	Knots	Surroundings
0 (calm)	0	0	0 – 1	Smoke rises vertically.
1 (light air)	1 – 3	2 – 5	1 – 3	Smoke drift indicates wind direction.
2 (light breeze)	4 – 7	6 – 12	4 – 6	Wind felt on face; leaves rustle.
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4 (moderate breeze)	13 – 18	21 – 30	11 – 16	Dust and leaves raised up, branches move.
5 (fresh breeze)	19 – 25	31 – 40	17 – 21	Small trees begin to sway.
6 (strong breeze)	26 – 31	41 – 50	22 – 27	Large branches of trees in motion/
7 (moderate gale)	32 – 38	51 – 61	28 – 33	Whole trees in motion; resistance felt walking against wind.
8 (fresh gale)	39 – 46	62 – 74	34 – 40	Twigs and small branches break from trees.
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10 (whole gale)	56 – 64	90 – 103	48 – 55	Trees broken and uprooted.
11 (storm)	65 – 74	104 – 119	56 – 63	Widespread damage.
12 (hurricane)	75+	120+	64+	Violence and destruction.





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Mary Wong  
Barker & Associates  
PO Box 1986  
Shortland Street  
Auckland 1140

10 October 2018

**Attention: Mary Wong**

Dear Mary

**Russell Roads - Response to Request for Further Information Regarding Silica Dust**

## Introduction

Hastings District Council (HDC) has requested some additional information under Section 92 of the Resource Management Act regarding the land use application made by Russell Roads for a gravel processing operation at Maraekakaho. Barker & Associates (B&A) has commissioned Beca Limited to provide a response to the following question:

*A number of submissions raise dust as a potential effect on the environment, including the effects of silica dust. In order to address this effect please provide a dust management plan that would cover the operations of the proposed activity and the methods that will be used to avoid adverse dust effects on adjacent properties and the surrounding environment. Please also provide comment on whether any effects of silica dust are in fact present or will result from the proposal.*

Beca has previously provided a draft dust management plan to B&A that includes the methods that will be used to avoid adverse effects on adjacent properties and the surrounding environment. This letter provides a response to the question regarding the presence and potential for adverse effects to occur due to silica dust.

## Potential Sources and Effects of Silica Dust

The gravel extracted from the river will contain a proportion of crystalline silica. Materials that contain crystalline silica are not hazardous unless they contain very small particles (less than 2.5µm in diameter). This material is referred to as respirable crystalline silica (RCS). Long term exposure to RCS may cause adverse effects on human health in concentrations above guideline levels.

The dust that will be generated on the site will be made up of a wide range of size fractions. The larger deposited dust is material generally greater than 50µm in diameter. The finer material is defined as suspended particulate and is commonly referred to as Total Suspended Particulate (TSP). It is generally less than 20µm in diameter. The particulate generated from the gravel processing activities will be predominantly larger size fractions (greater than 10µm) but a small proportion will be in the PM<sub>10</sub> and PM<sub>2.5</sub> range.

The sources of fine particulates at the proposed gravel processing plant will be vehicle exhausts, the abrasion of surface materials on roads by vehicle movements within the Site and the crushing of the gravel. The only source of RCS will be from vehicle movements on yard areas and the crushing of gravel.

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To minimise the risk of dust being generated from the yard areas where vehicles will operate, Russell Roads will keep the surface of the yards damp and will also regularly replenish the surface of the yard with coarse material. The crushing and screening machinery will be fitted with water misting units. Beca personnel observed this machinery operating in September and noted that there was no visible dust being generated from the plant and the only visible emission was a mist of fine water droplets in close proximity to the machinery.

The dust control methods proposed by Russell Roads are used successfully at quarries throughout New Zealand and internationally and are consistent with industry guidelines such as those published by the MinEx Health and Safety Council (MinEx)<sup>1</sup> and Worksafe New Zealand<sup>2</sup>. Both documents set out the minimum standards for controlling dust in all quarry operations. These standards include the use of water sprays on roads and crushing and screening equipment, and also include reference to the control of silica dust.

Environment Canterbury commissioned Mote Limited (Mote) to carry out a study over the 2017/2018 summer to investigate the ambient concentrations of PM<sub>10</sub>, PM<sub>2.5</sub> and RCS in the vicinity of a number of large quarries in Yaldhurst near Christchurch. Mote measured the concentrations of PM<sub>10</sub>, PM<sub>2.5</sub> and RCS at 8 sites between 50 m and 650 m from the quarries, as well as at two background sites, for a period of 4 months. Mote presented the results of their study in a report entitled "Yaldhurst Air Quality Monitoring, Summary Report: 22 December – 21 April 2018" (Mote report)<sup>3</sup>.

The concentrations of RCS measured by Mote were compared with the California Office of Environmental Health Hazard Assessment Guideline for RCS of 3 µg/m<sup>3</sup> (annual average) (OEHHA guideline). The Ministry for the Environment's "Good Practice Guide for Assessing Discharges to Air from Industry"<sup>4</sup>, recommends the use of OEHHA guidelines for assessing the effects of long term impacts, such as those that can result from exposure to RCS. The OEHHA guideline levels are levels of airborne contaminants that pose no significant health risk to individuals indefinitely exposed to that level.

The results of the Mote study of concentrations of RCS in the vicinity of the quarries are summarised as follows:

- Only two results out of a total of 20 samples recorded measurements above the level of detection. Both of these measurements were recorded at Site 3, which is located 50m from a quarry. At all other sites, no RCS was detected; and
- The average concentration of RCS measured at Site 3 was 0.4 µg/m<sup>3</sup>, which is 13% of the OEHHA guideline level.

<sup>1</sup> MinEx Health and Safety Council "Guidelines for the Control of Dust and Associated Hazards in Surface Mines and Quarries" updated March 2008

<sup>2</sup> Worksafe New Zealand "Good Practice Guidelines Health and Safety at Opencast Mines, Alluvial Mines and Quarries", November 2015.

<sup>3</sup> Mote "Yaldhurst Air Quality Monitoring, Summary Report: 22 December – 21 April 2018", prepared by Environment Canterbury, June 2018

<sup>4</sup> Ministry for the Environment "Good Practice Guide for Assessing Discharges to Air from Industry", November 2016

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## Conclusions

The results of the Mote study demonstrate that concentrations of RCS measured within 50m of a quarry that crushes and screens gravel, were well below the ambient air quality guideline levels and at greater distances, RCS was not able to be detected at all. The Mote study was carried out in the vicinity of several quarries, all of which carry out similar operations to those proposed by Russell Roads, but on a much larger scale.

The closest sensitive receptors to the proposed Russell Roads operation, such as residences and schools, are at least 700m from the site. At this distance, the risk of people being adversely affected by RCS generated on the Russell Roads site is negligible and no adverse effects on human health are expected to result.

Yours sincerely



**Prue Harwood**

Senior Associate - Environmental Engineering

on behalf of

**Beca Limited**

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Attachment 15

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