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Dear Mason

Resource Consent Application – Further information request

Application number: LU/0100/22
Applicant: Beacon Hill Contracting
Address: 599 Oreipunga Road RD 2 Cambridge 3494
Proposed activity(s): Establish and operate a mineral extraction activity (sand quarry)

In accordance with section 92 of the Resource Management Act 1991 (RMA), the following information is requested to enable me to make an accurate and informed assessment.

The following information is requested:

Transportation matters

1. Duration of consent

Section 6.1.2 of the ITA states:

“The site is estimated to have potential for 900,000m³ of sand from four separate stages. The rate at which sand will be extracted will vary and will be dependent on a number of factors including market demand. A maximum extraction limit of 95,000m³ per year is proposed, which equates to exhausting the resource in 9-10 years. Consent is to be sought for a longer period (no expiry) to give the Applicant the flexibility to respond to changing market demands.”

It is not clear what is meant by “to give the Applicant the flexibility to respond to changing market demands”. The Consent conditions are not expected to allow for an increase in activity in terms of daily heavy vehicle movements (HCV/day). This statement appears to imply the Applicant may reduce the intensity of activity to operate over a longer period.

Please confirm the meaning of the underlined phrase.

2. Trip Generation Estimates

We consider that the factors used may underestimate the number of truck movements for the average and maximum daily movement limits.

2.1 Peak Movements

There will be seasonal peaks in demand due to the nature of construction and demand for sand expected during the construction season. The ITA states that at its maximum weekly extraction, truck movements are expected to be 60 HCV/day. Section 6.2.3 of the ITA states that the peak hour traffic movements at the vehicle access were reviewed.

Please confirm the maximum weekly extraction and peak traffic movements, including peak hour in terms of HCV/hour and vph.

2.2 Load Size

We note that the trip generation calculation uses a sand density of 1,762.2 kg/m³ and an average truck load of 28 tonnes. These factors equate to an average load size of 15.89m³. A source reference for the factors used has not been provided.

Please provide a reference or supporting information (e.g existing quarry records) to verify the factors used, based on the expected truck types, and their respective load sizes.

Please confirm the maximum and average HCV/day following any revisions to the load factors used.

2.3 Baseline Traffic

What is the estimated baseline traffic at the existing vehicle crossings? We expect there is some existing farm and contracting traffic.

Please supply the trip generation and distribution for existing activities for both vehicle crossings (quarry access and residential access).

2.4 Backfilling Activities

What will happen to the excavated quarry area? We expect that there will be a requirement to limit the extent of exposed excavation and progressively backfill the site.

Please supply trip generation and distribution estimates for cleanfill importation and backfilling activities.

3. Trip Distribution

3.1 Route Options

The route north is along Maungatautari Road, over the bridge at the Horahora Domain to connect to SH1. We note that the route into Cambridge along Maungatautari Road past the Karapiro Domain into Leamington is slightly shorter than the route via SH1. The routes are similar in time and distance and drivers may prefer to use the route with less traffic (past Karapiro Domain). However, the ITA does not consider this route.

Please include an assessment of potential safety and pavement effects (crash risk, HVIF, etc) from the increase in traffic using the route along Maungatautari Road into Leamington or reasons for its exclusion.

3.2 Assumed Trip Distribution

Section 6.4.1 of ITA states:

“The Applicant anticipates that demand will come predominantly from Cambridge. There may also be some demand from Te Awamutu.”

This is reflected in the HVIF calculations which distributes heavy traffic 80% north to Cambridge and 20% south/west to Te Awamutu.

Please clarify the basis for choosing the 80% north/20% south distribution (e.g existing quarry activity, quarry records)?

3.3 Variation in Trip Distribution

It is expected that over the life of the quarry (duration of consent) the trip distribution will vary depending on the market demand for sand, such as residential development, roading projects, or large supply contracts. The assumed trip distribution does not appear to have been tested to assess the effects of variation in distribution and peak vehicle movements (daily maximum and seasonal peaks). For example, if the trip distribution changes to 80% of traffic heading west to SH3, does this result in adverse effects which require mitigation?

Please provide sensitivity testing and assessment of effects related to variations in trip distribution on each route.

4. Intersection and Crash Analysis

The ITA has considered the crash history on Oreipunga Road, north of Arapuni Road, to the intersection with SH1. We understand the Applicant estimates 20% of quarry traffic goes south/west. The crash history on this route has not been included in the ITA.

The ITA does not consider the intersections on Arapuni Road, west of Oreipunga Road, to the intersection with SH3 at Kihikihi.

Please provide the CAS reports and collision diagram for the crash history.

Please provide crash history on all routes (including the south/west route).

Please provide an assessment of the potential safety effects of the additional traffic and variations in trip distribution over the life of the quarry.

5. State Highway Intersections

The ITA indicates up to 60 HCV/day turning at the SH1/Maungatautari Road intersection (if 100% of traffic travels to/from the North). The ITA has not included approval from Waka Kotahi.

Please confirm if Waka Kotahi have reviewed the ITA and have no concerns with the proposed increase in traffic at the SH1 and SH3 intersections.

6. Financial contribution

6.1 HCV/day

Please ensure the HVIF calculation reflects the average annual daily HCV movements (HCV/day) after any adjustments made from any of our other requests.

6.2 Activity Duration

The HVIF calculation is based on 900,000m³ over 9 years. This equates to an extraction rate of 100,000m³ per year which exceeds the recommended maximum extraction of 95,000m³ per year.

Please clarify and revise the HVIF calculation in terms of duration and maximum annual extraction to ensure consistency with the application.

6.3 Axle Loadings

The calculation of Design Equivalent Standard Axles (DESA) in the HVIF calculation uses 0.5 Equivalent Standard Axles per Heavy Vehicle Axle Group (ESA/HVAG). We expect the ESA/HVAG to be about 1.0 due to the HVIF being used to determine the highest loading on a

single traffic lane for each length of road used. The HVIF calculation assumes each HCV leaving the quarry is loaded with sand. An ESA/HVAG of 0.5 is representative of a mixed heavy vehicle traffic stream (all HCV types (e.g. truck and trailers, HPMVs, single truck units) various load types and weights) such as recorded by the Waka Kotahi Weight in Motion data (Guide to Pavement Technology Part 2: Pavement Structural Design, 2017). Using 1.0 ESA/HVAG and 3.1 HVAG/vehicle would result in an ESA/vehicle of 3.1 and approximately double the DESA.

Please revise the HVIF calculations using an ESA/HVAG of 1.0.

6.4 Trip Duration and Options

The calculation of financial contributions for pavement impacts may be influenced by any revisions to the ITA in regard to the items above. For example, the route north along Maungatautari Road past Karapiro Domain uses a greater length of local roads and may increase the financial contribution required.

Include sensitivity testing of the HVIF calculation using different trip distributions to ensure an appropriate financial contribution is applied.

7. Proposed Access

7.1 Access Upgrade

The ITA proposes that the access be upgraded to the RITS standard for a Heavy Commercial Vehicle access (RITS, Figure 3-16). The RITS standard consists of a 4.5m wide sealed entrance, with chipseal surface for 15m from the edge of carriageway and a gate setback 22m from the edge of the carriageway. The ITA indicates that the proposed access will have chipseal for 50m from the edge of carriageway. However, the existing access appears to be formed wider than 4.5m to allow for two-way movement.

Please confirm that the proposed access will provide for two-way vehicle movement and have 50m of chipseal surfacing in addition to the other requirements in RITS.

This should include provision of vehicle tracking for movements at the vehicle crossing and to confirm two-way truck movements can be accommodated.

7.2 On-Site Manoeuvring

Section 7.1.3 of the ITA states:

“The access is proposed to be sealed to a width of 4.5m for 50m into the site. It will then be generally 3m wide with passing bays (a minimum of 6m wide and 18m long, excluding tapers) provided at 100m intervals along its length.”

However, the site plan included in Figure 7 of the ITA shows only one passing bay located over 200m from the site entrance.

No information has been provided to indicate on-site circulation and provision of turnaround areas for trucks.

Please confirm the spacing of passing bays on the internal access road.

Please provide an on-site circulation layout plan showing turnaround areas for trucks.

7.3 Existing Vehicle Crossing Opposite

Section 8.1.2 of the ITA states that the existing vehicle access is directly opposite to another rural property access. A review of Google Street View shows two letterboxes and a wide unsealed vehicle crossing. The cross section of Oreipunga Road includes two traffic lanes and centreline marking, a total seal width of 6m. Given the lack of sealed shoulders, we are concerned that the wide unsealed vehicle crossing will be used by through vehicles to pass to the left of a slowing right turning truck at the vehicle crossing.

Please provide an assessment of the potential safety effects from the increase in heavy vehicle traffic at the vehicle crossing.

Planning matters

1. Please supply a record of all persons/parties consulted with and any response to the views of any persons/parties consulted.
2. Given that the site is located within the River and Lake Environs overlay, and also contains a Cultural Landscape Area Alert and Hydro Operating Easement additional consideration of any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations needs to be undertaken.
3. It is noted that there is no assessment of the relevant objectives and policies in relation to Section 18 Financial Contributions, Section 20 Health and General Amenity, Section 25 Landscapes and Viewshafts and Section 26 Lakes and Water Bodies of the Waipa District Plan. Please provide a comprehensive assessment, particularly in light of the avoidance direction of some of these policies.

4. Please provide a comprehensive Landscape and Visual Assessment in relation to the proposal, prepared by a suitably qualified and experienced Landscape Architect or Landscape Planner. This should include but not be limited to, an assessment of the potential adverse amenity effects that may occur during the later parts of each of the stages, when the view of exposed excavation faces may be visible to the public generally following removal of excavation bunds. This particularly relates to those parties utilising the Waikato River and on the terraced land across the Waikato River opposite to the site, including view shafts from Horahora Road, Little Waipa reserve and similar. This will assist with determining who may be potentially affected by the proposed activity.
5. It is my understanding that additional information is being requested by the Waikato Regional Council (WRC) as part of their processing of the application. Please ensure all additional information sent to WRC, is also supplied to Waipa District Council.

Next Steps

Within 15 working days from the date of this request you must either:

1. Provide the information requested, or
2. Advise Council in writing of the alternative date that you will provide the information by, or
3. Advise council in writing that you refuse to provide the information requested.

A response is due from you no later than: 30 June 2022.

Please be advised that the statutory timeframes for processing your application have been put on hold until the further information requested has been received.

When all of the information requested has been provided I will review it to make sure it adequately addresses all of the points of this request. Please note that if council has to seek clarification on matters in the further information you provide, then this will be considered as information required under this letter. As such the application will remain on hold.

If you do not provide, or refuse to provide the information, council is required to notify your application under section 95(C) RMA. If this happens, you will be required to pay the notification fee of \$11,575.00 in full before we proceed with the notification of your application.

Once all the information requested is received and assessed a determination will be made on whether the application will be processed on a notified or non-notified basis.

Date Created

Please note that if you are dealing directly with other departments / units / teams in Council in regard to the further information, the further information must still be sent to me.

If you are not sure how to respond, please call me on 022 487 3947 and we can discuss your options.

Yours Sincerely



Louise Cowan
Consultant Planner