

## Hayley Thomas

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**From:** Hayley Thomas  
**Sent:** Tuesday, 15 September 2020 2:26 PM  
**To:** Hayley Thomas  
**Subject:** LU/0108/20 - Query and Agent Response  
**Attachments:** LU010820 - Agent Response to 11 Sept 2020 Query.pdf

Afternoon Notified Parties,

With regard to the resource consent application from Shaw's Property Holdings Limited seeking for the establishment and operation of a mineral extraction activity (sand quarry) at 928 Kaipaki Road, Leamington, Cambridge (Council reference LU/0108/20), a notified party had the following query for the applicant and their agents:

*"We would like to draw to your attention the following items that now need to be clarified by the applicant and their agents:*

- 1 With reference to your email of 9 September with Mitchell Daysh comments, bullet point 4 states 'This is all a bit speculative, but in that event, the activity could be done and dusted within 11 years (assuming the maximum extraction rate was reached every year).' This needs a clarification and correction as clearly only the sand extraction could be completed in this time frame. A minimum of a further 11 years will required to import the necessary clean fill in with HCVs in and out of the site (based on the applications maximum import allowance of 100,000m<sup>3</sup> per year). This gives a minimum total time scale of in excess of 22 years.*
- 2 Could you please clarify with the applicant's agent and possibly directly with the applicant's contributing experts particular Cogswell Services Limited, Grey Matter Limited and Marshall Day Acoustics that their reports are based on a sand take of 2,200,000m<sup>3</sup> at an annual rate of 200,000m<sup>3</sup> per year over a minimum 11 year period as is now stated by Mitchell Daysh (plus clean fill period of 11 years minimum giving a total minimum operating span of 22 years).*
- 3 Should the affected parties who have already given written consent to the application be notified of the changed sand take and project duration (3 number) as their acceptance was based on the now incorrect information presented to them."*

I have now received the agents response and attach this for your information.

Kind regards

Hayley

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## Hayley Thomas

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**From:** Mason Jackson  
**Sent:** Monday, 14 September 2020 5:36 PM  
**To:** Hayley Thomas  
**Subject:** External Sender: RE: LU/0108/20 - Query

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Kia ora Hayley

My response to these queries is set out below. Please note that, in the interests of timeliness, I haven't sought responses from the specific experts listed. Instead, I have based the response on individual effects assessment reports which confirm the effects envelope and assumptions used (and those not used) by each expert.

### Background

As we discussed previously, the AEE and individual effects assessments talk about the site having the potential to supply over 900,000 m<sup>3</sup> of sand over a 7-10 year period. These figures came from the geotechnical assessment undertaken in the very early stages to "prove" there was an economic level of resource on the site prior to embarking on a full consent application process. The results of that assessment showed there was good resource focussed within a 13.4 hectare area of the site while other areas were likely to contain less economical product. To this extent, the total estimate of 900,000 m<sup>3</sup> of sand was considered the minimum volume of sand expected from the site and was the basis for the applicant's investment decision.

To maximise potential yield from the site, the scope of the consent application extended beyond the 13.4 hectare "proven" area. Assuming some proportion of sand outside this area was also saleable, this would obviously yield more sand than 900,000 m<sup>3</sup> and result in a more efficient use of this natural resource. Crude calculations show that around 2,200,000 m<sup>3</sup> of material exists beneath the site (i.e. to a depth of 7m and assuming 0.5m of topsoil is retained). In reality, however, it is unlikely that all material present across the whole application area, and to the full depth, will be able to be excavated for sale. The key point here is that the total exact amount of sand to be excavated is unknown.

To help address these uncertainties, the effects assessments prepared by technical experts in support the consent application were based on a set of known maxims designed to represent the worst case "effects envelope" while the activity is occurring (e.g. maximum effects for any day, week or year that the site was operating etc). This included the following key parameters:

- Maximum rate of sand extraction = 200,000 m<sup>3</sup>/yr, and
- Maximum rate of cleanfill discharged to the site of approximately 100,000 m<sup>3</sup>/yr
- Maximum allowable operational noise
- Hours of operation

In terms of activity duration, I highlight the following;

- In terms of any District Council land use consent granted, the applicant specifically sought an unlimited consent duration; and
- In terms of any Regional Council consents granted (groundwater take and cleanfill discharge to land), the applicant sought a 20 year duration.

## Response to Question 1.

- The arithmetic set out in the notified parties' email regarding theoretical sand extraction duration is correct, namely that, if it is assumed (although considered unlikely) that the full potential sand yield of the site is saleable (roughly estimated at 2,200,000 m<sup>3</sup>), and it is extracted at the maximum allowable rate of 200,000 m<sup>3</sup>/yr, then it will take 11 years. Obviously, this timeframe changes if there is less sand that can be economically extracted, and/or if market drivers result in it being extracted at lower annual rates.
- In respect of clean filling, which is more likely to determine overall activity duration, a worst case scenario of only 50% of trucks arriving to site with cleanfill was adopted as part of the effects envelope. It was also assumed that 10% of trucks arriving on site were there solely to dispose cleanfill. Overall, cleanfill disposal of up to approximately 100,000 m<sup>3</sup>/yr was assumed as a worst case. Importantly, the figure of 100,000 m<sup>3</sup>/yr is not a maximum limit as implied. There are benefits in having higher annual rates of cleanfill disposal (e.g. rehabilitation occurs quicker). For this reason, an annual limit on cleanfill disposal was not proposed by the applicant. Nevertheless, using the same arithmetic to that used for sand extraction, if it is assumed (although considered unlikely) that the full potential sand yield of the site is saleable (roughly estimated at 2,200,000 m<sup>3</sup>), and it is replaced at a rate of 100,000 m<sup>3</sup>/yr, then it would take 22 years to complete the site rehabilitation. It is noted, however, that the applicant does not expect it to take this long, as evidenced by the requested 20 year duration on the cleanfill discharge consent.
- Further on this point, and as a result of discussions the applicant has had with local construction contractors, it is becoming clearer that it will be more likely that nearly every truck arriving to site to collect sand will have cleanfill to dispose. Having a sand : cleanfill ratio closer to 1:1 will reduce the time lag between exhausting sand supply from the site and final rehabilitation. But again, this is hard to predict with certainty.

## Response to Question 2

- As identified above, it was important to set a maximum proposed rate of sand extraction when framing up this application, mainly so that daily, weekly and annual traffic effects could be assessed. To this extent, a limit of 200,000 m<sup>3</sup>/yr of sand extraction was suggested as a condition within any consent granted, and this is what the applicant's technical experts used to determine the maximum effects of the activity while it was occurring.
- The applicant's experts did not consider or assess effects with any specified long-term timeframes in mind. This is because it is hard to predict exactly what these will be. Instead, their assessments are based on a worst case effects envelope, enabling these effects to be "capped" while the activity is occurring (i.e. for any given day or for any year etc).
- There has not been a change in the proposal as implied. Landuse consent from the Waipa District Council is still being sought with an unlimited duration, and resource consent from Waikato Regional Council for cleanfill disposal is still being sought for 20 years.

I hope this is helpful. Happy to discuss further.

Nga mihi

Mason