

**Before Independent Hearings Commissioners Appointed by Canterbury
Regional Council and Selwyn District Council**

In the matter of The Resource Management Act 1991

And

In the matter of Applications by **Fulton Hogan Limited** for all
resource consents necessary to establish, operate,
maintain and close an aggregate quarry (**Roydon
Quarry**) between Curraghs, Dawsons, Maddisons
and Jones Roads, Templeton

**SUMMARY STATEMENT OF VICTOR MKURUTSI MTHAMO
ON BEHALF OF FULTON HOGAN LIMITED**

REHABILITATION

DATED: 13 NOVEMBER 2019

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Introduction

1. My full name is Victor Mkurutsi Mthamo.

Scope of Evidence

2. In my evidence I:
 - (a) Outline my involvement in the Roydon Quarry Proposal to date.
 - (b) Describe how progressive rehabilitation will work in practice for this Proposal.
 - (c) Rehabilitation considerations with regards to soils and plant management.
 - (d) Describe the final, rehabilitated outcome that can be expected from the rehabilitation programme proposed.
 - (e) Describe the range of uses that could be accommodated on rehabilitated land.
 - (f) Provide my opinion on whether the conditions of consent offered are sufficient to provide certainty of outcome in respect of rehabilitation.
 - (g) Provide an assessment of actual and potential effects on the soils as result of the reduced unsaturated soil zone.
 - (h) Identify and discuss rehabilitation issues raised by submitters or the s42A reports.

Executive Summary

3. Fulton Hogan's proposed approach will allow for progressive rehabilitation to occur alongside excavation activities, resulting in vegetation being established in different areas of the site as areas become available following completion of excavation.
4. I assessed whether or not the proposed rehabilitation depth of 300 mm can sustain plant growth and the actual and potential environmental effects arising from minimum rehabilitation requirements. The following is a summary of my review and assessment:
 - (a) The proposed rehabilitation is based not just on current best practices but intends to set the baseline for future best practices. The applicant

also intends to make this site an exemplar project which will demonstrate the basis for effective and sustainable rehabilitation post quarrying.

- (b) The proposed minimum 300 mm topsoil depth and a resulting depth to groundwater of at least 1.3 m will provide for sustainable plant grown enabling a variety of future land uses to be adopted on the site.
 - (c) The resulting landform and unsaturated zone above the highest groundwater level will ensure that contaminants from future land uses are attenuated or removed reducing the actual and potential impacts on groundwater. I also note that the Officer's s42A report comes to the same conclusions and the suggested conditions also support this.
 - (d) Based on the assessment of environmental effects, the proposed cleanfill methodology, and the management proposed (as in the Draft Rehabilitation Plan), the proposed limits to the depth of excavation, management of hazardous substances, stormwater management, restrictions of the planning frameworks on nutrient discharges and monitoring and mitigation proposed, it is considered that the any adverse effects on groundwater from removal of large areas of topsoil and of unsaturated zone above groundwater will be less than minor.
- 5. I listed the current and potential uses in Attachment 1 (attached at the end of my evidence).
 - 6. Attachment 1 demonstrates that the existing and potential land uses (i.e. pre-quarrying) right now are much the same as the potential land uses post-quarrying and after rehabilitation.
 - 7. Quarrying will not by and large limit the range of potential future land uses. This means that same type of activities that are possible before the quarrying will also be possible after quarrying.
 - 8. I also reviewed the Officer's s42A report and the proposed changes to the conditions pertaining to rehabilitation. Since this review, I have been involved in conferencing proceedings (with **Dr Lisa Scott**, **Mr Nick Eldred** and **Mr Eric van Nieuwkerk**) and prepared a Joint Witness Statement in which my views with regards to some of the proposed conditions are:
 - (a) The suggested new condition for covenants on titles is, in my view, superfluous as there are enough statutory planning tools to ensure the

way future land uses are conducted on the site is appropriate in light of any changes to substrate composition and depth. The existing instruments are precise and based on science to determine the nitrate or phosphorous loading rates and will inherently manage certain types of activities or the stock rates on the site based on nitrate or phosphorous limits.

(b) For consents CRC192408 & CRC192409:

(i) **Condition 29** – the Officer proposes adding "*The total rehabilitation of the site shall be completed prior to the expiry of this consent*". My concern with this proposed change is that this could mean that the applicant could not quarry all the way to the expiry date of the consent. In my view, the wording should allow the applicant to quarry until the expiry date of the consent, but that rehabilitation must still be completed within a certain timeframe after that.

(ii) **Condition 16**, the Officer recommends that a condition is included that ensures cleanfill shall meet background concentrations at the applicant's site and not the site of origin. I note that Fulton Hogan adopted the regional background levels for the Canterbury region to be used as background levels of the site, as stated in the Cleanfill Management Plan. Thus, the proposed amendment from Ms Goslin reflects what is already in the Cleanfill Management Plan (CMP). I, however, recommend that the condition be worded to include both the regional background levels, or establishing the site's background levels based on sampling soils on site and testing these should the applicant opt to establish site specific background levels.

(c) During the conferencing, I suggested the following changes to the proposed conditions for CRC192411 & CRC192412:

(i) **For Condition 2** – the inclusion of other treatment systems instead of just basins. The condition would read: "*Stormwater runoff from roofs and hardstand areas shall be conveyed to stormwater treatment systems (e.g. basins, propriety systems, etc.) designed and installed in accordance with best practices*". The parties to the conferencing agreed with the suggested change.

- (ii) **For Condition 3(i)** - to remove the requirement to specify the minimum basin size. This is because the standard practice is to size the basins based on the depth of the first flush treatment requirements (usually 15-25 mm) and the size of the catchments. The parties to the conferencing agreed with the change.

9. I have read relevant briefs of evidence from submitters. In my rebuttal evidence I address evidence of the following witnesses:
 - (a) CIAL – Rhys Boswell.
 - (b) Martin Flanagan.
 - (c) CCC – Abigail Smith.
 - (d) Yaldhurst Rural Residents Association – Sara Harnett Kikstra.
 - (e) Davina Penny.
10. CIAL was primarily concerned with possible impact on airport operations arising from bird strike. I outlined a number of proposals that would mitigate the possible impacts on the airport operations.
11. Mr Flanagan suggested use of the post quarrying site as a wildlife and native bush sanctuary. This suggested land use is one of the land uses that I outlined in Attachment 1 in my brief of evidence.
12. Ms Smith recommended a condition that the shelterbelts should be maintained post quarrying. I have no specific issues with such a condition and no view on whether it is necessary.
13. In response to the Yaldhurst Rural Residents Association I commented that after decommissioning the permanent processing equipment and machinery, a portable processing plant will be used to extract material from the area beneath where the buildings and the processing plants were. Final rehabilitation will then be undertaken.
14. Ms Penny raised a number of issues most of which I had covered in detail in my brief of evidence (dated 23 September 2019) or my rebuttal evidence (dated 21 October 2019). I wrote supplementary rebuttal evidence dated 30 October 2019 in which I provided clarity on the concerns and misunderstandings raised regarding the areas of my expertise.

15. In conclusion:
- (a) Statutory planning provisions already impact significantly on what land uses could establish on the site – both pre and post quarrying.
 - (b) Quarrying will not impact on the potential land uses that may establish except to a minor degree (in terms of - potentially - stocking rates or fertiliser application).
 - (c) There are minimal opportunity costs with regards to land uses as a result of the decision to develop the quarry and the consequent rehabilitation.
 - (d) While the landuses pre and post quarrying might be similar, I do note that the productive potential of some of the agricultural activities may be reduced. Which means that while the same activities can be undertaken the intensity might be lower post quarrying potentially due to fertiliser application.
 - (e) The most likely land uses post quarrying will be rural residential with some light pastoral farming. However, any of the options in Attachment 1 are possible in the medium to long term provided the constraints (e.g. existing and future planning provisions for example) to the activities are addressed.
 - (f) I am also confident that the:
 - (i) Specific concerns raised by CIAL can be addressed to ensure that the quarry does not impact the airport operations.
 - (ii) Issues raised by other submitters addressed by way of an assessment of effects and they have been demonstrated to be less than minor.
 - (g) It is my conclusion that the proposed rehabilitation will be effective and will allow for sustainable use of the land post quarrying to suit a variety of land uses.

Victor Mthamo

13 November 2019