

**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

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**SUMMARY OF EVIDENCE OF MICHAEL CAMPBELL COPELAND  
ON BEHALF OF FULTON HOGAN LIMITED**

**ECONOMICS**

**DATED: 12 NOVEMBER 2019**

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**Counsel Acting: David Caldwell**

Email: david.caldwell@bridgesidechambers.co.nz

Telephone: 64 21 221 4113

P O Box 3180

Christchurch 8013

## Introduction

1. My name is Michael Campbell Copeland. I have been asked by Fulton Hogan Limited (**Fulton Hogan**) to provide evidence on the economic effects of the proposed new Roydon Quarry (**the Proposal**). In this summary of my evidence I:
  - (a) Summarise my evidence in chief, dated 23 September 2019;
  - (b) Summarise my rebuttal evidence, dated 21 October 2019;
  - (c) Present the conclusions of my evidence.

## Summary of my Evidence in Chief

2. The Essential Features of the Proposal in respect of Economic Effects. The proposed quarry will produce a range of high-quality aggregates for use in roading, other infrastructure, drainage, and other building materials. Fulton Hogan estimates that around 30 million tonnes of aggregate is available to be produced from the quarry, with production averaging around 425,000-575,000 tonnes per annum over an estimated 40 plus year life for the quarry. Annual production is likely to vary from year to year in line with fluctuations in aggregate demand but is anticipated to generally increase over time.
3. The proposed Roydon Quarry will provide a source of supply of aggregate and a processing and storage base for Fulton Hogan to continue meeting demand, primarily from customers in the south-west of Christchurch City and in the Selwyn District.
4. The site of the proposed new quarry by road is approximately 8 kilometres to Rolleston, 11 kilometres to the airport, 7 kilometres to Hornby, 12 kilometres to Lincoln, 22 kilometres to Christchurch South (Woolston), 23 kilometres to Christchurch North (Belfast) and 19 kilometres to Christchurch Central (Cathedral Square). These areas are expected to be among the major points of demand over the next 20 years.
5. Economics and the RMA. Economic assessments are relevant under the Resource Management Act 1991 (**RMA**), particularly sections 5(2) and 7(b). An essential first step in carrying out an evaluation of the positive and negative economic effects of a development proposal is to define the appropriate viewpoint to be adopted. In my opinion, a Greater Christchurch viewpoint is appropriate, with the main focus being on the Selwyn District and

Christchurch City. The main focus of my evidence is on wider economic effects on people and communities, rather than Fulton Hogan.

6. The future demand for, and supply of, aggregate in Greater Christchurch. Mr Richard English prepared forecasts on the supply and demand for aggregate in Greater Christchurch for the Christchurch City Council in 2015. More recently (in 2019) Mr Mike Chilton has been engaged by Fulton Hogan to prepare evidence and provide updated forecasts. Mr Chilton has assumed slower growth in aggregate demand than Mr English and has taken into account sources of aggregate supply that have been consented since Mr English's forecasts were prepared. Despite the more conservative growth in aggregate demand adopted by Mr Chilton in his evidence, the conclusions of Mr English and Mr Chilton's concerning aggregate supply and demand forecasts are comparable. Both experts agree new sources of aggregate supply will be required within the next 20 to 25 years. However, in reality new quarries are required, and will be developed, before then.
7. If the development of new quarries is postponed until existing quarries are exhausted there is likely to be reduced competition within the greater Christchurch aggregate markets and higher transport costs as points of demand would need to be supplied from more distant quarries. Also establishing new quarries takes several years to arrange for land to be purchased and for consents to be sought and granted, potentially leaving greater Christchurch vulnerable to any future spikes in aggregate demand.
8. The economic importance of low-cost aggregate supplies. In a competitive market, increases in the costs of quarrying, producing and transporting aggregate will result in increased prices for aggregate used for the construction and maintenance of infrastructure and other building works. Higher prices for inputs reduce the overall competitiveness of a local economy reducing employment, incomes and economic growth. Fulton Hogan's proposed new Roydon Quarry will delay the need to source aggregate from quarries located further away from points of aggregate demand and therefore prolong the situation of a relatively cheaper resource. The business as usual (BAU) demand for aggregate is expected to increase in line with future population growth. This requires additional sources of aggregate supply to be developed, quite independently from the increased requirements as a result of the earthquakes. Cost competitive aggregate supply is also relevant to the issue of affordable housing, since it impacts on subdivision development and home building costs.

9. The economic benefits of maintaining Greater Christchurch's aggregate supply cost advantage. Greater Christchurch is effectively self-sufficient in aggregates as there is no need to import aggregates into the area. This self-sufficiency is of significant economic advantage to Greater Christchurch, because the cost of transporting aggregates is such a significant proportion of their delivered cost.
10. The economic benefits of the new Roydon Quarry. If consents are not granted for the Proposal, Fulton Hogan has indicated that alternative sources of supply will be more distant from major points of demand. There would be additional aggregate transport costs and potentially additional handling costs, if unprocessed aggregate had to be transported to existing processing sites. There would also be the additional emission, road safety and congestion costs associated with additional aggregate trucking distances. There are also comparative efficiency benefits in developing the site, producing aggregate from it and the site's rehabilitation.
11. Over time, if consents for the Proposal are not granted I would expect aggregate prices to be higher sooner for consumers in Christchurch City and the Selwyn District. Higher prices for aggregate raise the costs for infrastructure projects and other building construction and maintenance. Also, to the extent that central and local government budgets for the provision and operation of infrastructure are fixed, higher costs imply delays in the provision of improved infrastructure services, impacting on community economic and social wellbeing.
12. Potential economic costs of the proposed Roydon Quarry. In my evidence in chief I conclude that there are no economic externality costs in relation to alternative land uses of the proposed new Roydon Quarry and the supply of public infrastructure services to the site.
13. Submitter Issues Regarding Economic Effects. In my evidence in chief I note a number of submissions in support of the Proposal referring to its economic benefits. I also respond to a number of economic issues raised by submitters opposing the Proposal. My analysis of submissions does not dissuade me of my overall view that the Proposal will have net economic benefits for greater Christchurch residents and businesses.
14. Economic Issues arising from the s42a Reports. In my evidence in chief I refer to both the Canterbury Regional Council and Selwyn District Council

s42A reports, which also conclude that the economic effects of the Proposal will be positive.

### **Summary of my Rebuttal Evidence**

15. In my rebuttal evidence I address the evidence of Robert Officer, Wayne Scott and Martin Flanagan.
16. Evidence of Robert Officer. Mr Officer records that the Proposal will not supply aggregate for the manufacture of concrete but will prolong the life of quarries which do, and therefore prevent the costs of supply and CO<sub>2</sub> emissions increasing for concrete aggregate production. I agree with his analysis.
17. Evidence of Wayne Scott. Mr Scott in his evidence lists a number of general economic benefits from the production and use of aggregates, notes that aggregate demand is driven by population growth and infrastructure development and maintenance and that Greater Christchurch's self-sufficiency in aggregate supply is an economic advantage to the sub-region. These comments are consistent with my evidence in chief. Mr Scott also lists a number of reasons as to why throughout New Zealand there has been a diminishing availability of consented aggregate supply relative to demand. I agree with the reasons Mr Scott provides.
18. Evidence of Martin Flanagan. Mr Flanagan in his evidence says that the employment benefits of the proposal have been overstated. My evidence in chief states only that the Proposal will lead to the retention of some quarrying employment in a part of Greater Christchurch so I do not consider that the employment benefits of the Proposal have been overstated.
19. Mr Flanagan argues that since the majority of the earthquake related work is completed and the northern and southern motorways are nearing completion, there is likely to be an ongoing net reduction in quarry related work. However, the aggregate demand modelling work that has been undertaken indicates growing demand for aggregate in the future in line with population growth.
20. Mr Flanagan argues that the aggregate transport cost savings are small when averaged across all residents within Greater Christchurch. In response, my rebuttal evidence notes that in practice increased aggregate costs will not be averaged across all residents. Also there are road transport externality costs which need to be taken into account.

## **Conclusions of My Evidence in Chief and Rebuttal Evidence**

21. Community economic wellbeing and the efficient use and development of resources are relevant concepts under the RMA.
22. Aggregate is a low value, high volume product and its delivered cost is particularly sensitive to its transport costs. Greater Christchurch is effectively self-sufficient in aggregates as there is no need to import aggregates into the area. This self-sufficiency is of significant economic advantage to Greater Christchurch, because the cost of transporting aggregates is such a significant proportion of their delivered cost.
23. Consented aggregate supply is forecast to be exhausted for Greater Christchurch within the next 25 years and new quarries will need to be developed before then to maintain competition in the market and to minimise transport costs.
24. The new quarry is consistent with community economic wellbeing and the efficient use and development of resources. The Proposal provides a new aggregate source to retain competition in the market for the supply of aggregate to Christchurch City and the Selwyn District customers. Without the Proposal, this is also likely to occur since new sources of supply will be sought before existing quarries are closed. However, other new sources of supply will be more expensive if they are more remote from the areas of greatest demand.

**Michael Copeland**

12 November 2019