

# WELLINGTON CITY COUNCIL

## **Proposed Plan Change 83**

Kiwi Point Quarry

### **s42A Report – Appendix 4**

Transportation effects

#### **Report Date**

19 November 2018

#### **Hearing Date**

10-12 December 2018

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## 1.0 REPORT INTRODUCTION & SUMMARY

### Report Author

- 1.1 My name is Robert Stephen Spence. I am the Wellington City Council's Chief Advisor-Transport and Infrastructure.
- 1.2 I am a Chartered Civil Engineer, a member of the Institution of Professional Engineers New Zealand (CMEngNZ), a Member of the Institution of Civil Engineers, United Kingdom (MICE) and hold a post graduate Diploma in Traffic Engineering. I am also a member of the IPENZ Transportation Group.
- 1.3 I have been engaged in the planning, design, construction and management of roads and traffic systems for over 35 years, both in the United Kingdom and in New Zealand.
- 1.4 I have been employed by Wellington City Council for over 30 years, holding various positions in the Town Planning, City Engineer's, and Policy and Infrastructure departments, including City Traffic Engineer, Manager Transportation and Traffic, Chief Transport Planner and currently as Chief Transport Advisor in the Transport and Infrastructure Unit.
- 1.5 I have been responsible for advising Council on its future policies for transport, including the development of the Council's Transport Strategy, and its Cycling, Parking and Walking Policies. I have also been responsible for the planning, design and implementation of numerous transport related projects. These include roading and traffic management improvements, pedestrian safety/amenity schemes, environmental street improvements, accident reduction projects, cycle ways, public transport improvement projects and parking improvements.
- 1.6 Examples of major projects which I have been involved with for the Wellington City Council are:
  - a. Wellington Inner City Bypass – feasibility studies and concept designs.
  - b. Courtenay Place environmental street improvements-planning and design.

- c. Cable Street extension and one way system - planning and design.
  - d. Wellington City co-ordinated traffic signal system - planning, design and implementation.
  - e. SaferRoads, a city-wide road safety project-planning and design.
  - f. Major street improvements in the CBD including Lambton Quay, and Willis/Manners Streets.
  - g. Expert transport advisor to Council on major resource consent proposals, including the Inner City Bypass, Airport Retail Park, West Wind windfarm, Wellington Hospital, Johnsonville Mall redevelopment, Kumutoto (North Queens Wharf), Taranaki Street Wharf, Waitangi Park, Supreme Court building, Wellington Waterfront Site 10, Wellington Airport Runway Extension, and numerous other major projects.
  - h. Expert transport advisor to Greater Wellington Regional Council in relation to the Hilton Hotel project on the Wellington waterfront, and the redevelopment of the Overseas Passenger Terminal.
- 1.7 I have been asked by the Council to prepare this addendum to the s42A report on Proposed Plan Change 83.
- 1.8 Along with contextual information and other matters of fact, this report includes my personal views and recommendations on the proposal. These views and recommendations are my own, except where I indicate otherwise.
- 1.9 Though not a requirement of Council plan change hearings, I have read and agree to abide by the Code of Conduct for Expert Witnesses, and have prepared this report in accordance with it. The report content is within my area of expertise except where stated otherwise. I have not omitted to consider the material facts known to me that might alter or detract from the opinion expressed in this report.
- 1.10 In preparing this report, I have read the report from transport consultant Tim Kelly entitled *Wellington City District Plan, Proposed Plan Change 83, Kiwipoint Quarry, Traffic Assessment*.

### **Report Scope and Structure**

- 1.11 This report addresses transportation issues relevant to the plan change.
- 1.12 More specifically, my report covers the following:
- a. **Section 2** briefly identifies the submissions that have raised transportation effects; and
  - b. **Section 3** includes my evaluation of the key issues raised by submitters, having regard to relevant strategic direction from the RMA and other higher order planning documents. I have also provided my assessment of the current and future transportation issues relating to the quarry operations and reviewed the specialist traffic report prepared by Tim Kelly Transportation Planning Ltd (TKTPL)

### **Summary of key findings and recommendations**

- 1.13 I conclude that, other than allowing for an extension to the life of the quarry, and therefore implicitly an extension to the transportation of quarry materials and product from the site, the proposed plan change will have no direct effect on the safety and operational efficiency of the access roads serving the quarry and the adjacent state highway itself. This is because the numbers, types and timing of vehicular activity to and from the quarry and the Kiwi Point complex will not be directly influenced by the proposed plan change.
- 1.14 In my view, the internal arrangements within the quarry sites will be facilitated by the proposed plan change if approved, and will be covered appropriately by the proposed quarry management plan.
- 1.15 Overall, I consider that the transportation effects from the proposed plan change will be less than minor.

## 2.0 SUBMISSIONS

- 2.1. Four submissions raised concerns about transportation issues, including the following:
- a. major arterial roads and local roads will be adversely affected by increased heavy vehicle traffic<sup>1</sup>;
  - b. that provision should be made in the matters of control and/or Quarry Management Plan for a traffic management plan:
    - i. to manage potential effects of quarry traffic on the safe movements of staff going to and from the Taylor Preston meat processing plant; and
    - ii. with input into, and approval of, the traffic management plan from the submitter being required;<sup>2</sup> and
  - c. further information and/or additional plan provisions are required to demonstrate that increased vehicle traffic will not have an adverse effect on State Highway 1.<sup>3</sup>
- 2.2. Each of these matters is addressed in the evaluation under section 3 below.

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<sup>1</sup> Submissions 18, 24

<sup>2</sup> Submission 30

<sup>3</sup> Submission 34

## 3.0 DISCUSSION & RECOMMENDATIONS

### Evaluation approach and outline

- 3.1. For this final section of my report, I provide my view in relation to the transportation effects of the plan change, including those points raised by submitters.
- 3.2. I have organised my discussion to address the following matters:
  - a. Relevant policy directions
  - b. The concerns raised relating to transportation matters in the four submissions.
  - c. My assessment of the current and future transportation issues relating to the quarry operations.
  - d. The report prepared by Tim Kelly Transportation Planning Ltd (TKTPL) which provides a traffic assessment of the current and future operation of the quarry.

### Relevant Policy direction

- 3.3. There are a range of regulatory and policy documents which are relevant to the quarrying operation at Kiwi Point. These include the Resource Management Act 1991, the Regional Policy Statement 2013 and the Wellington City Council's Operative District Plan 2011. These policy documents essentially provide for the land use activity envisaged by the proposed plan change, the matters which need to be considered in assessing the effects of the proposed plan change and detail the necessary procedural steps involved in working through to a consent including setting appropriate conditions.
- 3.4. The role and purpose of these individual policy documents is more fully explained in Mr Jones' report.

**The concerns raised relating to transportation matters in the four submissions**

- 3.5. There are four separate submissions which touch on three transportation issues related to the proposed plan change. I list these issues below and provide comment on each of the issues in turn.
- 3.6. The **first issue**, raised in submissions 18 and 24 by local Broadmeadows residents is that major arterial roads and local roads will be adversely affected by increased heavy vehicle traffic.
- 3.7. Discussion: My understanding is that the proposed plan change will not affect the level of traffic generated by the quarry operation. This is currently determined by commercial demand for the quarry's products at any given time, and by the capacity of the crushing plant. Neither of these factors have any link to the proposed plan change.
- 3.8. The **second issue**, raised in Submission 30 by Taylor Preston Ltd (TPL) is as follows:
- a. that provision should be made in the matters of control and/or Quarry Management Plan for a traffic management plan:
    - i. to manage potential effects of quarry traffic on the safe movements of staff going to and from the Taylor Preston meat processing plant; and
    - ii. with input into, and approval of, the traffic management plan from the submitter being required.
- 3.9. Discussion: The Council is considering options for the movement of quarry materials from the southern to the northern quarry area. A key issue in this regard will be to ensure that the movement of quarry materials can be achieved without adversely affecting the operation of the TPL site. Options potentially available to achieve the above objectives include the construction of a new haul road located at the western edge of the Kiwi Point site, or a mechanical conveyor system similarly located, which would transport quarry material without the need for trucks. I believe that the proposed quarry management plan provides the most appropriate mechanism for identifying and achieving a satisfactory solution. Mr Jones

has proposed an amendment to clarify that the management plan will take account of traffic effects in the vicinity of the TPL premises, which provides additional certainty in this respect.

3.10. Mr Jones also speaks to the request by the submitter to have the power of approving the traffic management in the management plan.

3.11. The **third issue**, raised in Submission 34 by the New Zealand Transport Agency (NZTA) is that further information and/or additional plan provisions are required to demonstrate that increased vehicle traffic will not have an adverse effect on State Highway 1.

Discussion: In response to the above submission the Council's consultant planners have commissioned a report from Tim Kelly Transportation Planning Ltd (TKTPL) to address the NZTA's request. As noted below, I have read Mr Kelly's report and agree with his conclusions. These can be summarised that the transportation effects of the proposed plan change will be minimal.

**My assessment of the current and future transportation issues relating to the quarry operations.**

3.12. My observations on the current design and operation of the existing road access which serves the Kiwi Point, business complex is as follows:

3.13. Physical Layout: There is an existing single point of road access linking directly with State Highway 1 part-way up Ngauranga Gorge. This has been in place for many years and provides road user access to and from the various commercial businesses located at Kiwi Point. These comprise four parties; TPL, Downer EDI, Allied Concrete and the Quarry.

3.14. The existing arrangement of a long exit slip road from SH 1 into the Kiwi Point complex together with a long entry slip road from the complex on to SH1 is designed to a standard which provides appropriately for the current types and volumes of traffic required to negotiate the access. This consists of a small number of private cars and light vehicles, in particular serving TPL's premises which has a car park area adjacent to its processing plant. The vehicular activity however, which is specific to the Kiwi Point complex,

is the heavy commercial vehicle activity generated by the businesses. These heavy vehicles benefit from the current good standard of roading design which allows them to both exit the state highway into Kiwi Point and also exit onto the state highway safely and conveniently with little adverse impact on traffic on the state highway.

- 3.15. Traffic Operation: Traffic data provided by the quarry operator<sup>4</sup> shows that there is an average of 2000 truck movements per month or around 100 truck movements a day. This compares with a typical daily traffic volume on SH1 at Ngauranga Gorge of around 48,000 vehicles a day, based on NZTA data (*State Highway Traffic Volumes Monthly Reports 2008-17*). This SH1 volume included heavy commercial vehicle numbers of around 1500 a day. It can be seen therefore that the truck volumes generated by the quarrying activities are small in comparison with the total volumes on SH1 and also when compared with the numbers of heavy trucks using SH1 in the vicinity of the quarry.
- 3.16. With regard to the functioning of the vehicle access serving the quarry and the Kiwi Point complex, as referred to above, vehicle numbers generated from the site are small, and site observations confirm that vehicles entering or leaving the site do so with little if any difficulty. In particular it was noted that loaded trucks exiting the site to travel on the state highway, were able to merge easily into the high volumes of traffic on the state highway.
- 3.17. This included the left-hand uphill traffic lane leading to the Newlands flyover, used by trucks heading south down the Ngauranga Gorge. Also those trucks needing to merge into the left hand (slow) lane on SH1 and heading north towards Johnsonville, were observed to merge easily into the traffic stream which travels at speeds allowing safe merging and contains large volumes of trucks, thus facilitating merging. In this regard the quarry operator reported<sup>5</sup> no knowledge of complaints over truck operations.
- 3.18. In summary: I consider the existing design of the quarry access is to a good standard which provides appropriately for the current types and

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<sup>4</sup> Email from Jason Glentworth to Tim Kelly/Logen Logeswaran 6 August 2018

<sup>5</sup> Email from Jason Glentworth to Tim Kelly/Logen Logeswaran 6 August 2018

volumes of traffic required to negotiate the access. Also I consider that the traffic generated by the quarry and other operations at the Kiwi Point complex is able to enter and exit the site safely and conveniently with minimal impact on the safe and efficient functioning of the state highway. Other than allowing for an extension to the life of the quarry, and therefore implicitly an extension to the transportation of quarry materials and product from the site, the proposed plan change will have no direct effect on the safety and operational efficiency of the access roads serving the quarry and the adjacent state highway itself. This is because the numbers, types and timing of vehicular activity to and from the quarry and the Kiwi Point complex will not be directly influenced by the proposed plan change.

**Review of the report prepared by Tim Kelly Transportation Planning Ltd (TKTPL)**

- 3.19. The TKTPL report dated August 2018 is thorough and covers all relevant transportation matters relating to the proposed plan change. It provides useful data on matters such as crash history, traffic volumes, and current and future site operations and their impact on the operation of the state highway.
- 3.20. In my view the following matters covered in the TKTPL report reinforce my view that the overall transportation effects will be minimal.
- 3.21. Truck Movements: Quarry-related truck movements between Kiwi Point and the Newlands intersection account for under 4% of the total heavy vehicle movements. This is a very low figure for a section of state highway which routinely carries a significant number of heavy vehicles.
- 3.22. Vehicle access: Current vehicle access to and from Kiwi Point is designed to a good standard and provides a safe and efficient connection with the state highway.
- 3.23. Crash history: Crash records do not indicate any incidents associated with quarry-related truck movements.

- 3.24. Slow moving trucks: These can be accommodated with minimal disruption to traffic flow and trucks are able to join the traffic stream with little difficulty.
- 3.25. Effect of the proposed plan change on truck activity: Although the proposed plan change will usefully extend the life of the quarry, it will not affect the level of truck activity as this is dependent on the capacity of the rock crushing plant and inability to stockpile quarry material within the site.
- 3.26. Effect of the proposed plan change being declined: Rock materials would need to be sourced from other sites which would be expected to result in an overall increase in truck haulage distances when Kiwi Point would have been the most conveniently located quarry.
- 3.27. Overall, I concur with the conclusions reached in the TKTPL report.



**Steve Spence**

19 November 2018