

SECTION 32 REPORT

PROPOSED PLAN CHANGE 25 (Kiwi Point Quarry Extension, Ngauranga Gorge)

1. Introduction

Section 32 of the Resource Management Act stipulates a requirement that, in achieving the purpose of the Act, a decision maker must consider alternatives and assess the benefits and costs of adopting any objective, policy, rule, or method in the District Plan. Under section 32(3) the assessment must examine:

- (a) *the extent to which each objective is the most appropriate way to achieve the purpose of this Act: and*
- (b) *whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives.*

A report summarising a section 32 evaluation and giving reasons for the evaluation must be available for public inspection at the same time as public notification.

2. Process & Consultation

Proposed Plan Change 25 is the culmination of many years of careful consideration by the Council on the future of Kiwi Point Quarry, and the advantages and disadvantages of enabling it to continue to operate by extending into a further area of available rock resource.

The evaluation has taken into account environmental, social and economic impacts in terms of the city and region, and has been the subject of numerous independent investigations and reports, and consultative processes.

In December 2002 the Council decided to consult on the extension of Kiwi Point Quarry. In June 2003 it resolved to proceed with a plan change.

Attached to the proposed Plan Change is a statement of Explanatory and Background Information.

Background

The present Kiwi Point Quarry has operated in Ngauranga Gorge for many years. The location has experienced many decades of quarrying activity which has enabled not only the development of the City by providing rock resource, but has also assisted the development of efficient and effective transport links between the City and growing urban areas in Porirua and Kapiti. The Ngauranga Gorge is a highly modified landscape, but nevertheless has qualities and characteristics which mean that further quarry development must be carefully evaluated, and undertaken in a managed way that includes rehabilitation of the quarried area.

The area identified as suitable for expansion is currently partly Open Space B and partly Suburban Centre. Within both zones, quarrying, other than the present Kiwi

Point Quarry which operates under specific provisions as a permitted activity within Suburban Centres, is a non-complying activity. The quarry extension to be provided for requires a change and clarification of policy, a plan map change and new rules and methods.

The process to reach the stage of a proposed Plan Change has comprised some six years of investigations. The following documents and processes are referenced.

Key documents

- 1. Kiwi Point Quarry Extension – Project Description and Landscape and Visual Assessment.** Prepared by Boffa Miskell Ltd (October 2003).
- 2. Kiwi Point Quarry Extension – Groundwater Implications.** Prepared by MWH NZ Ltd. (October 2003).
- 3. Cultural Impact Assessment (Draft)** Prepared by Liz Mellish, Wellington Tenth's Trust (October 2003).
- 4. Kiwi Point Quarry Alternatives.** Prepared by MWH NZ Ltd (July 2003).
- 5. Report Back on Consultation: Kiwi Point Quarry and Future Quarry Materials Supply.** Prepared by Brian Bouzaid and Paul Kos, WCC. (May 2003).
- 6. Future Quarry Materials Supply.** Brochure for consultation. Prepared by Wellington City Council (March 2003).
- 7. Further Information - Kiwi Point Quarry and Future Quarry Material Supply.** Wellington City Council (March 2003).
- 8. Kiwi Point Quarry & Future Materials Supply.** (December 2002)
- 9. Kiwi Point Quarry – Ngauranga Gorge. Draft Open Space Assessment.** Prepared by Boffa Miskell Ltd (October 2002).
- 10. Alternative Quarry Options to Kiwi Point: Scoping Report on Environmental Issues.** Prepared by Boffa Miskell Ltd (October 2002).
- 11. Kiwi Point Quarry and Future Quarry Materials Supply.** Prepared by Brian Bouzaid, WCC (November 2002).
- 12. Open Space Assessment: Kiwi Point Quarry.** Prepared by Boffa Miskell Ltd (February 2001).
- 13. Kiwi Point Quarry. Study of the Ngauranga Gorge Landforms and Modifications.** Prepared by Montgomery Watson NZ Ltd (December 2000).
- 14. Kiwi Point Quarry – Preliminary Assessment of Terrestrial Ecological Values of “South Face”.** Prepared by Montgomery Watson NZ Ltd (August 2000).
- 15. Kiwi Point Quarry – Securing Future Rock Resource Discussion Document.** Prepared by Montgomery Watson NZ Ltd (July 2000).
- 16. Kiwi Point Quarry. Closure Implications for Wellington City.** Prepared by Porchester Quarry Consultants (July 2000).
- 17. Wind Assessment for Kiwi Point Quarry.** Prepared by Opus International Consultants (May 2000).

18. Kiwi Point Quarry. Zone Change Scoping Study. Prepared by Boffa Miskell Ltd (January 1999).

Key discussions/briefings

- € **12 December 2002:** Planning & Performance Committee, considered paper: **Kiwi Point Quarry & Future Materials Supply.**
- € **18 December 2002:** Council considered above paper.
- € **12 June 2003:** Planning & Performance Committee, considered **Report Back on Consultation** and recommendation to prepare Plan Change.
- € **18 June 2003:** Council considered above paper.
- € **14 August 2003:** Tenth Trust Site Visit and Consultation.

Consultation, in accordance with the First Schedule of the RMA 1991

Details and the draft Plan Change documentation were sent out to the following.

- € Ministry for the Environment
- € Department of Conservation
- € Ministry of Economic Development
- € Greater Wellington Regional Council
- € Wellington Tenth Trust
- € Te Runanga O Toa Rangatira Inc
- € Porirua City Council
- € Hutt City Council
- € Transit NZ

By the date of this paper, responses had been received from all but the Ministry for the Environment, Transit NZ and the two territorial local authorities. Comments were generally neutral towards or supportive of the Plan Change, with some specific comments on the quarry management plan from the Department of Conservation and Greater Wellington.

3. Resource Management Act Context

The purpose of the Resource Management Act 1991 (the Act) is to promote the sustainable management of natural and physical resources. Sustainable management includes managing the use, development and protection of natural and physical resources to enable people and communities to provide for their social, economic and cultural well being and their health and safety. The proposed Plan Change will enable the ongoing operation of one of the City's few quarry activities into the next thirty to forty years.

Sections 5, 6 and 7 of the Resource Management Act all raise relevant considerations in providing for the extension of Kiwi Point Quarry.

Section 5 is intended to be enabling, so that people and communities can manage resources in a way or a rate that provides for (*inter alia*) economic well being, while keeping in mind the needs of future generations, safeguarding the life-supporting capacity of air, water, soil and ecosystems, and addressing adverse effects on the environment.

Section 5(2)

The investigations which have been undertaken over the past years on the future of Kiwi Point Quarry have identified the need to maintain access to the strategic resource and a strong business case to retain the quarry as an operational activity within the city – thus meeting the “economic well being” aspects of section 5. The business case is set out in a number of reports listed above (see Key Document items 6, 7, 8, 11 and 16) and key elements are updated and summarised in Appendix 1 of this section 32 analysis. This summary demonstrates both the need for the quarry and the beneficial economic effects for the City and region of retaining the Kiwi Point Quarry as a well-located and efficient producer of a range of aggregate needs.

Section 5(2)(a)

The needs of future generations are not a necessary consideration where mineral resources are involved – the Act recognises that minerals are a finite resource. However, the availability of the Kiwi Point Extension area’s rock resource will in part help meet the reasonably foreseeable needs of at least the next generation. By extending the life of other existing regional quarries through meeting part of the region’s aggregates demands, it also helps address the needs of future generations.

Alternative supplies of rock resource in the southern part of Wellington Region are not readily available, as is outlined in item 4, with limitations on alternative quarry development due to rock resource quality, and social and economic considerations related to the region’s level of urban development. Because of the limited availability of rock resources, extending the life of this existing quarry is beneficial to the city and region in terms of section 5 of the Act, provided that other aspects of sustainable management are met.

Section 5(2)(b)

The impact of the quarry extension which will be enabled by the plan change is limited to an area of approximately 7 hectares (of which rezoning affects about one third or just over 2 hectares). This is a very small part of the City’s total environment and provides a perspective on the small scale of change involved. The future quarry will also be required, through the Plan Change, to be managed in a way that safeguards the life-supporting capacity of air, water, soil and ecosystems in both the short and long term. Air and water quality will be managed on a daily basis through appropriate techniques – similar to those applied at the present quarry operation. The soil resource and ecosystem of the site is of limited quality as the area has previously largely been quarried to bedrock (refer to items 13 and 14) and site vegetation is in relatively early stages of regeneration. The requirement for rehabilitation as work proceeds will ensure that the life-supporting capacity of the site is restored over time. It should be noted, however, that the Plan Change identifies the need for the

community to consider and make decisions on the end use of the flat land which will be yielded by the quarry operation, some time in the future.

Section 5(2)(c)

The proposed Plan Change incorporates a range of mechanisms to avoid, remedy or mitigate any adverse effects associated with the quarry activity which it provides for. This includes the following:

- limiting the areal extent of the area to be quarried and providing a buffer area
- setting out the method of development and finished levels of the quarry, and a requirement for clean filling to restore part of the excavated area back to road level
- applying relevant conditions for aspects such as noise and dust which apply elsewhere in the same zone
- requiring the development of a management plan and a rehabilitation plan as part of the quarry operation
- applying additional specific standards to aspects such as access, blasting and buildings.

Together, the Plan Change provisions address all relevant effects, ranging from mitigation of visual impacts to dust and groundwater (see items 1, 2 and 17). There may be the need for a number of regional consents relating to excavation and water management from Greater Wellington Regional Council.

Section 6.

The proposed Plan Change does not affect any matter of national importance in this part of the Resource Management Act.

Section 7

Matters to which decision-makers must have particular regard include:

- (a) Kaitiakitanga. This has been addressed through consultation and the commissioning of a cultural impact report (see item 3).
- (b) Efficient use and development of natural and physical resources. The Plan Change allows for the use of an existing accessible natural mineral resource, and builds on a range of existing physical resources including existing quarry infrastructure. Through the proposed quarry extension location, it also makes efficient use of transport infrastructure. The proposal is considered to be the best of alternatives evaluated during the investigations that have led to the preparation of this Plan Change, in terms of economic and environmental efficiency.
- (c) The maintenance and enhancement of amenity values. While the Plan Change provides for a quarry activity, it also requires the activity to be designed and undertaken in a way that has minimal effect on amenity

values. While in the short to medium term there will be some adverse visual effect, in the long term, the amenity values of the immediate area will change little as a result of the Plan Change (see item 1).

- (d) Intrinsic value of ecosystems. Ecological effects have been evaluated (see item 14). Rehabilitation will result in improved ecological values in the long term as part of the overall open space strategy for the Ngauranga Gorge (see item 1).
- (f) Maintenance and enhancement of the quality of the environment. The proposed Plan Change includes a requirement for a quarry management plan, including a rehabilitation plan. This addresses maintenance and enhancement of environmental quality over time.
- (g) Any finite characteristics of natural and physical resources. The rock resource which will be made available for quarrying as a result of the proposed Plan Change is a finite resource in terms of its location and quality. The area defined for quarrying makes best use of the available resource, while balancing visual and other impacts, as it provides for excavation below road level and involves cut faces which are designed to have a relatively natural final appearance. Thus the rock resource can be made available for beneficial economic and social use with minimal adverse effects on the gorge landscape (see item 1).

Section 8

Treaty principles have been addressed through consultation processes and the preparation of a cultural impact report (see item 3).

4. Appropriateness in terms of Plan Objectives

Wellington City District Plan contains no city wide objectives of relevance to this proposed plan change. Instead, the rezoning has been evaluated for appropriateness in terms of the Resource Management Act above, and is found to be appropriate.

Chapter 6.2 of the District Plan sets the objectives and policies for the use and development of Wellington's Suburban Centre areas. As the Plan Change involves a map change to bring all of the quarry area within Suburban Centre, the objectives and policies in this Chapter apply. With regard to the proposed Plan Change the following objectives and policies are particularly relevant:

Objective 6.2.1 ***To promote the efficient use and development of natural and physical resources within Suburban Centre areas.***

Analysis

The plan map change which includes the part of the proposed quarry extension within Suburban Centres will help achieve this Objective. At present the quarry is partly within Suburban Centres and partly in Open Space. Bringing it within one "zone" will promote the efficient use and development of the natural rock resource and enable the ongoing use of the existing physical infrastructure in the vicinity, including the quarry plant and infrastructure and the roading system.

Policy 6.2.1.1 *Generally contain existing Suburban Centres within defined boundaries.*

Analysis

The boundaries of the Suburban Centre area in Plan Map 22 will be adjusted slightly to enable the development of the rock resource (which is currently approximately two thirds within the Suburban Centre area) as a single integrated process. The map change will also link two areas of Suburban Centre, currently separated by a “tongue” of Open Space.

Policy 6.2.1.2 *Encourage a wide range of activities by allowing most uses or activities within a Suburban Centre provided that the conditions specified in the Plan are satisfied.*

Analysis

Within the context of the permissive framework of this policy, the proposed Plan Change provides specifically for quarrying activity within the area specified in the plan rules. It therefore restricts the range of future activities that can be undertaken once quarrying is completed in several decades. The reason for this slight departure from the policy normally applying in the zone, is to allow future generations to determine the long-term use of the land (whether as open space, commercial, industrial or other range of uses). An explanation to this effect is to be included as part of the Plan Change. The Plan Change contains specific conditions for the quarry activity as a permitted activity and is in accordance with that part of the above policy.

Objective 6.2.2 *To maintain and enhance the amenity values of Suburban Centres and nearby Residential Areas.*

Analysis

This objective and the associated policies, is achieved through specifying conditions, standards and terms in the Plan and requiring consents when activities do not meet the standards. The proposed Plan Change includes specific provisions for quarrying in the Kiwi Point Extension area to ensure that amenity values are generally maintained, and will in the longer term be enhanced through site rehabilitation.

Summary

The proposed Plan Change does not involve any new objectives. It has been assessed above in terms of the objectives above and is found to be in general accordance with the framework for Suburban Centres established by the existing objectives. There are numerous other objectives and policies in the Suburban Centres Chapter of the District Plan which apply more obliquely in terms of the proposed Plan Change. The contents of the Plan Change have been considered in the context of all objectives and policies and are found to be in accordance with them.

One new policy is included in the proposed Plan Change to fill a policy gap with respect to the existing Kiwi Point Quarry and to provide specifically for the extension proposed. This is analysed in the following section.

5. Appropriateness of Policies, Rules and Other Methods

Analysis

The following table (Table 1) assesses the efficiency, effectiveness and appropriateness of the various elements of the proposed Plan Change, as follows:

- plan map change
- additional explanatory material
- new policy and explanation
- quarry management plan as a “method” to help achieve policy
- rules for quarry activities in the quarry extension area
- rules for activities other than quarry activities in the quarry extension area.

Summary

The analysis in Table 1 indicates that the bundle of provisions in proposed Plan Change 25 are efficient, effective and appropriate. They help fill an existing policy gap with respect to the special provisions for Kiwi Point Quarry in the Plan, and provide for the extension of the quarry activity into a new area. The combination of policy and rules in the Suburban Centre area (including a new Appendix 5A showing how the development is to take place over time) will enable ongoing supply of a needed natural resource to the city and region within a framework of rules and a management plan which will limit any adverse effects of the future quarry activity through appropriate mechanisms. The rules and management plan also require site rehabilitation which will over time assist with enhancing the natural environment and amenity values of the Ngauranga Gorge.

6. Recommended Proposed Plan Change

It is recommended that Council notify proposed District Plan Change No. 25.

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Table 1: District Plan Changes relating to Kiwi Point Quarry and Kiwi Point Quarry Extension

Plan Map Change				
	OPTION 1: Do Nothing – retain current Plan Map boundaries.	OPTION 2: Incorporate whole of proposed Kiwi Point Extension area in Open Space B.	OPTION 3: Incorporate whole of proposed Kiwi Point Extension area in Suburban Centres.	OPTION 4: Develop a new type of Activity Area to apply to the proposed Extension Area.
Effectiveness and efficiency in achieving District Plan objectives.	It is unlikely that the part of the proposed quarry that is in the Open Space B could obtain consent under that zone.	It is unlikely that any quarrying activity would obtain consent within an Open Space area unless specific rules were designed to allow for the activity. This would undermine the objectives and integrity of the Open Space B zone.	This option allows for development of appropriate policy and rules to provide a framework for efficient quarry development within Plan objectives while avoiding, remedying and mitigating adverse short and long term effects of the quarry activity. It also provides consistency in the way the Plan provides for the current Kiwi Point quarry operation.	This option would be inconsistent with the Plan approach which is based on a small number of general activity areas rather than special purpose zones. This would add inappropriate complexity to the Plan.
Costs	The costs would be that consent for only part of the rock resource could be sought (i.e. that within Suburban Centre) with some certainty of success. The inappropriate zone boundary would result in a quarry area that was highly visible and less economic than if the whole of the area was available for quarrying.	The costs would be that the rock resource within the area would not be available for beneficial use. Demand would need to be met from elsewhere with consequent downstream economic and/or environmental effects.	There are no particular costs associated with this option.	There are no particular costs associated with this option.
Benefits	There are no benefits from this option.	The rock resource would remain in site and the physical effects of quarrying would not occur.	The benefits are as set out in Appendix 1. They include continuing availability of aggregate supply at reasonable cost with minimal adverse environmental effects.	The benefits of this approach would be clarity and simplicity.
Appropriateness	This option is inappropriate and not recommended.	This option is inappropriate and not recommended.	This option is recommended.	This option is inappropriate and not recommended.

Additional Explanation in 6.1 and 6.2.1.2

	OPTION 1: Do Nothing .	OPTION 2: Add new explanation	
Effectiveness and efficiency in achieving District Plan objectives.	Although the present Kiwi Point Quarry operates under special rules in Suburban Centres, there is no explanation or policy support for the provisions. This is not helpful to Plan users.	The proposed additions help to explain the intent and purpose of both the existing and new rules and thus help clarify the Plan.	
Costs	There are no particular costs with this option.	There are no particular costs with this option.	
Benefits	There are no benefits in the status quo.	The benefits are increased clarity in the Plan.	
Appropriateness	This option is inappropriate and is not recommended.	It is appropriate to have adequate explanatory material for people to understand the purpose and intent of specific provisions in the Plan. This option is recommended.	
New Policy and Explanation Applying to Kiwi Point Quarry and Kiwi Point Quarry Extension			
	OPTION 1: Do Nothing .	OPTION 2: Add New Policy and Explanation.	
Effectiveness and efficiency in achieving District Plan objectives.	There is a present policy gap in the Plan with respect to the specific rules for Kiwi Point Quarry, and no policy basis for the proposed Quarry Extension. This is not particularly efficient or effective in terms of how the Plan should work.	The proposed new policy underpins the existing rules for Kiwi Point Quarry, and provides a framework within which the proposed rules and any future consent applications for the Extension area can be evaluated. This is in accordance with the intention of the RMA as to plan provisions, and is helpful to the public and the quarry operator.	
Costs	There are no particular costs, but in the absence of a policy it is unclear how a future application would be assessed.	There are no particular costs with this option.	
Benefits	There are no particular benefits with this option.	The benefits of this option are that there will be a policy and	

Appropriateness	This option is not recommended .	explanation for both the existing and proposed quarry area. This helps to clarify the Plan.		
	This option adds clarity to the Plan, and is recommended .			
Method and Rule to help achieve Policy : Quarry Management Plan for Extension Area				
	OPTION 1: No requirement for a Quarry Management Plan .	OPTION 2: Policy Requirement to have a Quarry Management Plan.	OPTION 3: Quarry Management Plan required in policy and as a rule.	
Effectiveness and efficiency in achieving District Plan objectives.	A quarry is a major activity which takes place progressively. Most quarries operate under some sort of informal or formal management plan. Kiwi Point quarry is located in an area of public interest and is Council-owned. The proposed Plan provisions provide for the activity on a “permitted activity” basis. It would not be efficient or effective for the quarry not to have a management plan.	This option is considered efficient and effective given the detail required in a quarry management plan and the need for regular review. The proposed Plan provisions set out clearly the intention and general contents of such a plan. The management plan would complement the framework of rules for the Extension area. Internal and external consultation on the draft provisions has indicated that there is a preference for a more definite requirement, and that agencies such as DoC and Greater Wellington wish to see some type of rule requiring preparation and application of a quarry management plan.	Quarry management plans are more detailed than most plan rules, but require regular review and updating. It is possible to have a broad rule requiring a plan to be prepared, regularly updated and complied with. Care is needed in the drafting of the rule to ensure that it is enforceable and not void due to uncertainty. A rule requiring a management plan can sit alongside other more detailed rules. Key aspects in managing effects have been incorporated in specific rules in the Plan (including Appendix 5A and a range of conditions) and regional council consents will also be needed. The quarry management plan would provide more operational detail in how conditions and standards are being met.	
Costs	There are no particular costs with this option.	The costs of this option (including undertaking and reporting on rehabilitation) lie with the quarry operator.	There would be similar costs as Option 2 to the operator, and some possible additional cost to the Council in terms of monitoring compliance with a quarry management plan rule.	
Benefits	There are no particular benefits with this option.	The benefits of this option are a level of flexibility for the quarry	The benefits of this option are the ability for the Council to enforce the	

Appropriateness	This option is inappropriate and is not recommended.	operator (within the framework of the rules in the Plan). The requirement for a management plan also focuses management on the need for environmental performance and rehabilitation. Given the nature and duration of quarry operations, there are benefits in having a quarry management plan for the operator and for the wider public. However, a level of uncertainty as to performance would remain. This option is not recommended.	requirement for a quarry management plan.	
			This option, if worded as proposed allows appropriately for both flexibility and certainty, and is recommended.	
Rule for Quarry Activities in Quarry Extension Area (Permitted, or default to mix of restricted discretionary or non-complying)				
Effectiveness and efficiency in achieving District Plan objectives.	OPTION 1: Require a consent for all quarry activities	OPTION 2: Provide for quarry activities as a permitted activity subject to specified conditions consents (as restricted or non-complying activities) if conditions are not met.		
	This approach would require the quarry to describe its operation in detail and obtain a consent which would be subject to conditions. It would have to either seek to change conditions or obtain new consents if there was any change from the consented activity. As quarries operate over long periods during which technology and demand can change, a specific consent is not necessarily the most efficient and effective way to manage a quarry activity (note that Belmont quarry operates as a	This approach is consistent with that for the existing Kiwi Point Quarry operation, and is considered to be efficient and effective in that standards to be achieved are set. The various studies that have been undertaken demonstrate that the quarry can be developed and operated as shown in Appendix 5A with manageable, minor, effects on the environment (see Appendix 2). As effects are known, they can be codified into rules as proposed. Any departure from the rules will		

	permitted activity under a specific zone in the Lower Hutt City District Plan).	require a consent		
Costs	There is an initial cost to the operator and the community due to the consent process, and this is repeated any time there is a change.	There are limited costs with this option.		
Benefits	There could be a benefit in the level of detail in the conditions that can be imposed through a consent.	There is a benefit from having conditions and general development plan (Appendix 5A) available for public scrutiny in the District Plan. There is also a benefit in reduced cost through not having to go through a consent process and slightly more flexibility for the quarry operator.		
Appropriateness	This option could be appropriate. However, given the location of the quarry, the high level of information on effects available at the time of the plan change, and the ability to manage the activity within a detailed policy and rule framework in the plan, this option is not recommended .	This option is appropriate, given all the circumstances, and is recommended .		
A Rule for Activities other than Quarry Activities in Quarry Extension Area				
	OPTION 1: Apply normal Suburban Centre provisions.	OPTION 2: Provide for other activities as discretionary activities	OPTION 3: Limit other activities through non-complying status	
Effectiveness and efficiency in achieving District Plan objectives.	If it was possible to establish the range of other activities as permitted activities on this area, this option could be in conflict with the Council's policy on open spaces (Capital Spaces) in the Ngauranga Gorge. The quarry	This options would require careful scrutiny of future uses, but would send a weak signal as to the need to determine the future of the area in the light of all policy at the time that the land comes up for future use. It is not	This option provides a good "holding pattern" within which the long-term future of the area can be determined. It is considered both an efficient and an effective means of restraining alternative development until the long-term future of the area has been	

	activity effectively retains the area as open space until completed some decades into the future. While it is unlikely that other activities could establish within the life of the current Plan, Option 1 would send a clear message that the long-term future of the land is to be industrial/commercial.	considered a particularly effective way of identifying the need for policy reconciliation in the future.	decided.	
Costs	There are no specific costs associated with this option. However, there may be an indirect cost due to unresolved policy conflict and thus public concern.	There are no specific costs associated with this option. However, there may be an indirect cost due to unresolved policy conflict and thus public concern.	There are no specific costs associated with this option. However, there may be an indirect cost due to unresolved policy conflict and thus public concern.	
Benefits	The benefits of this option would be the certainty of availability to use land for commercial and industrial purposes in the future (but note costs above).	There are no specific benefits of this option.	The benefits of this option is that it preserves options for future decision-makers	
Appropriateness	Given the level of uncertainty about the best way to provide for the “greening” of Ngauranga Gorge, this option is not considered appropriate and is not recommended .	This option involves uncertainty and is not recommended .	This option is recommended .	

Appendix 1: Kiwi Point Quarry role and alternative sources

Context

Quarrying is an essential industry with an estimated 25 million tonnes (mT) of non-renewable rock produced in New Zealand annually. Aggregates are a non-renewable resource that supports the building and construction industry.

The annual demand in the Wellington region is estimated between 1.9mT and 2.3 mT¹. Demand may increase with future development of the city's significant roading projects, increased housing needs based on ongoing population growth, and major infrastructure projects.

Kiwi Point Quarry currently supplies about 300,000 tonnes of aggregate per annum to Wellington, with the other major regional suppliers being Horokiwi Quarry and Belmont Quarry. Only Kiwi Point and Belmont supply the high quality sealing-chip for roading.

If KPQ closes on its current site in 2006, then this will put increased demand on the two remaining quarries in the region. They also have limited working lives and work within resource and planning constraints.

If KPQ was to continue in operation based on the proposed Plan Change, then this would extend the life of not only KPQ for 20 to 40 years, but also continue to meet its proportion of the Wellington market demand, and so lengthen the working lives of the other regional quarries by 10 to 20 years.

Impacts if KPQ does not continue to operate

Without Kiwi Point Quarry continuing to supply beyond 2006, there would be the following impacts.

Truck movements

Closure of KPQ would increase the heavy truck movements along State Highway 2 by an estimated 57,000 trips annually². SH2 is already under consideration for widening so this may be a significant increase in traffic loadings.

¹ Source "Industrial Mineral Production by Region". Ministry of Economic Development 2000.

² Based on KPQ production of 300,000 tonnes being sourced from Belmont/Horokiwi, and an average truck loading of 10.5 tonnes.

Higher cost to Council directly/reduced community outcomes

KPQ currently produces a surplus of around \$350,000 per annum (budgeted \$371,000 in the 2003/04 financial year). The loss of this net contribution (included under Council's Business Outcomes within the Long Term Financial Strategy) will need to be offset by a rates increase or a direct reduction in community outcomes funded by rates. Rates increases impact in higher costs for all residents.

Higher costs to customers

Transport costs for quarry material is a significant factor of cost. The increased average distance to source product from the other quarries would increase prices for customers – possibly by as much as \$3 - \$5 per tonne.

There are also risks from reduction in suppliers in the region, particular for some products (such as sealing chip) where there are more limited suppliers. Wellington City Council has listed Kiwi Point Quarry as a strategic asset in its Draft Significance Policy. This is recognising the importance of KPQ as a competitive supplier in this small market and the importance of maintaining access to rock resources.

Any increase in cost to customers also affects Council through its own roading and infrastructure programmes that will need to be offset by rates rises or reduction in Community Outcomes. Homeowners and business may be affected from higher costs for building, roading and landscaping materials. Other public infrastructure (such as hospital development, airport extension etc) costs may also be higher.

Loss of strategic options

By running out of rock resources at a faster rate within Wellington, there will be reduced ability to carry-out longer term planning for aggregate needs – with increased medium term pressure on facilities.

Alternative sites

There are limited sites with ready access to quarry materials that can be economically developed. Report item 4 summarises rock availability and quality in the region. There is also the potential for significant adverse effects from development of new sites and in their operation. Other possible alternatives that have been considered are:

- § Northern side of Ngauranga Gorge: The Ngauranga Gorge area has other areas where potentially rock resources could be accessed. However access, ecological, landscape, and visual effects would be more significant than the Kiwi Point site, as well as the higher costs involved.
- § Owhiro Bay: As a recent quarry with existing resource this could be considered. However, with recent rehabilitation following previous poor site management, this would have considerable adverse environmental effects.

- Š Makara: this area has some rock resources (although the quality of these is uncertain). The environmental impact of transport would be considerable and specific sites may also create issues.
- Š Importation could also be considered but as quarry products are high bulk-low value commodities, delivery charges can quickly become a significant percentage of product cost. This would be an expensive and difficult option. Barge facilities would have impacts in the coastal marine area, and storage areas would also need to be developed if road/rail haulage methods were used.

Appendix 2: Management of Effects

Type of Effect	Description of Effect	Means of Avoidance, remedy or Mitigation through Plan Change
Dust	Minor effects during quarry activity	<ul style="list-style-type: none"> € Must meet permitted activity standard. € Must meet special rule for treatment of stripped areas. € Will be addressed in required management plan.
Water Quality	Minor effects during quarry activity	<ul style="list-style-type: none"> € Will require regional consents € Will be addressed in required management plan € NB: intention is to collect and pump all site stormwater through existing quarry treatment system
Water Quantity	Potential effects in changes in surface and groundwater during quarry excavation.	<ul style="list-style-type: none"> € Will require regional consents € Will be addressed in required management plan
Wind	Minor localised effects due to changed topography.	<ul style="list-style-type: none"> € Mitigation not required
Noise	Minor effects from quarry activity	<ul style="list-style-type: none"> € Must meet permitted activity standard € Must meet special rules for blasting
Vibration	<i>De minimus</i> effect from quarry activity.	<ul style="list-style-type: none"> € Must meet special rules for blasting
Ecology	Minor effects due to excavation. Long term positive effects through rehabilitation of site.	<ul style="list-style-type: none"> € Quarrying restricted to area shown in Appendix 5A through permitted activity standard € Retention of Karaka groves required through Appendix 5A € Must be rehabilitated as in special rule for treatment of stripped areas € Will be addressed through required management plan (including a rehabilitation plan)
Visual Impact	Short to medium term effects due to excavation and cut face prior to rehabilitation.	<ul style="list-style-type: none"> € Quarrying restricted to area and finished form shown in Appendix 5A through permitted activity standard. € Direction of quarrying from south to north controlled through Appendix 5A. € Retention of Karaka groves and screen planting required through Appendix 5A. € Buffer area required through special rule and Appendix 5A € Must be rehabilitated as in special rule for treatment of stripped areas. € Must meet special rules relating to length of time any building may be on the site.

Traffic	<i>De minimus</i> effect of traffic accessing extension area (replaces current quarry traffic)	<ul style="list-style-type: none"> € Access to SH1 controlled through special rule € On-site traffic route controlled through Appendix 5A.
Safety	Minor effect associated with quarry activity.	<ul style="list-style-type: none"> € Must meet permitted activity standard for safety fencing and buffer zone € Direction of quarrying from south to north controlled through Appendix 5A, to minimise distraction to traffic. € Location/design of access road to minimise risks.
Cultural (tangata whenua)	<i>De minimus</i> effect	<ul style="list-style-type: none"> € Mitigation through consultation on plan change.