

Wellington City Council

Proposed District Plan Change 83: Kiwi Point Quarry Extension

Section 32 Report: Consideration of alternatives, benefits and costs

5 February 2018

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Executive Summary

This report provides an evaluation of a draft Plan Change to the Wellington City District Plan to rezone an area of land from Open Space B to Business 2 and associated activity and location specific policies, rules and standards in terms of s32 of the RMA.

The report describes the purpose of the draft plan change, the consultation process involved in its development and provides:

- The background to quarrying in the Ngauranga Gorge including the fact that there is insufficient land currently appropriately zoned to enable continuation of quarrying;
- A description of the site and surrounding area;
- Identification of what the key resource management issues are;
- Relevant considerations under the Resource Management Act 1991;
- Commentary on the relevant parts of higher order planning documents including National Policy Statements and the Regional Policy Statement's objective for well-located sources of minerals in the Wellington region;
- An outline of the current District Plan framework for the existing quarry operations for the northern face and for the existing Business 2 zoned part of the southern face;
- An outlines the key background reports and advice that have contributed to the plan change;
- A review of the alternatives process carried out;
- An assessment of the options against project objectives developed for the proposal;
- A consideration of site specific resource management issues;
- Consultation processes carried out to date and the feedback received;
- An evaluation of the above processes in respect of s32 of the RMA consideration of "Requirements for preparing and publishing evaluation reports".

It is concluded that the plan change, as proposed, is the most appropriate way to achieve the purpose of the RMA and to give effect to the Regional Policy Statement. This conclusion is based on the recognition that the changes proposed to the District Plan are consistent with the purpose of the RMA and seeks to overcome the lack of appropriately zoned land for future aggregate extraction in an area that has been used for quarrying for many years.

1. Introduction

This report has been prepared pursuant to Section 32 of the Resource Management Act 1991 (RMA) to support a change to the Wellington District Plan. Specifically it supports a proposal to rezone land within Council ownership adjoining the existing Kiwi Point Quarry, Ngauranga from Open Space B to Business 2. This would allow, subject to specific amenity controls, the expansion of and continuation of, quarrying in this part of Ngauranga Gorge.

Currently the Kiwi Point Quarry (the Quarry) operates as a permitted activity under the Business 2 Area provisions in the Wellington City District Plan. The resource in the area currently available for quarrying under the District Plan framework is reaching its limit due to site constraints with the existing Northern face of the Quarry estimated to have another 3 to 4 years of rock resource available.

In addition to the current northern face quarrying operations there is an area approved for quarrying activity on the southern face. However investigations have concluded that it is both impractical and not feasible to extract high quality rock resource from this area. Short of closing quarrying operations, the only practical alternative is to expand the Southern face which would improve economic viability and extend the life expectancy of the Quarry by approximately 15 to 20 years. To enable an expansion of quarry activity in order to prolong the life of the Quarry, existing land zoned Open Space B is required to be rezoned. Once quarrying operations have been completed and the necessary rehabilitation carried out, an area of flat land would be available for business use.

1.1 Background

Kiwi Point Quarry has been operating since the 1880s and has been owned by the City Council since the 1920s, providing rocks and aggregates for road and construction work in the City and wider Wellington region. The quarry is located in Ngauranga Gorge, approximately five kilometres north of Wellington's Central Business District. Ngauranga Gorge is a highly modified environment but retains landscape qualities and characteristics notable to a number of parts of the wider community. The area is highly visible from State Highway 1 and can be seen from a number of Wellington's residential suburbs including parts of Khandallah, Broadmeadows, southern Johnsonville and Newlands (Spennor Street).

Three previous changes to the Wellington City District Plan directly concern the Quarry - Plan Change 25 (Kiwi Point Quarry Extension, Ngauranga Gorge), Plan Change 26 (Taylor Preston Area, Ngauranga Gorge - Rationalisation of Zone Boundaries) and Plan Change 64 (Amendments to Kiwi Point Quarry Provisions). These Plan Changes required a change and clarification of policy, plan map changes, new rules and new methods.

In conjunction with the quarry operator, business and technical investigations and an analysis of alternatives have been completed. Importantly Council has undertaken consultation on the principle of extending the area that could be quarried.

1.2 Structure of Report

This report sets out the analysis to support a plan change and has been prepared to fulfil the requirements of Section 32 of the RMA “consideration of alternatives, benefits and costs”. A site specific plan change promoting a Kiwi Point rezoning is proposed, and the analysis in this report includes:

- A site description and identification of key resource management issues;
- Resource Management Act considerations including higher-order planning documents, the Regional Policy Statement and other strategies and policies;
- An outline of the current Kiwi Point quarrying provisions within the Wellington City District Plan;
- An outline of the key reports;
- An assessment of alternative options;
- Site specific resource management issues and environmental effects assessment;
- Consultation;
- Application of Section 32 of the RMA; and
- Conclusions.

2. Site Description and Key Resource Management Issues

2.1 The Site

The Quarry site is located on the south-western side of State Highway 1 (Centennial Highway) within the Ngauranga Gorge, approximately five kilometres north of central Wellington. The Quarry site is held in a number of land parcels under the ownership of Wellington City Council.

The site has been quarried extensively and presents generally as a highly modified environment. The current (northern) Quarry has been excavated from south to north into a ridge at the northern boundary of the site resulting in the formation of a batter slope rising steeply to the north. Associated infrastructure is located throughout the site including extraction systems, crushing plant, workshops, transformer huts, sediment retention ponds and storage structures.

Vehicle access to the site is via Centennial Highway with a left in entrance to and a left out exit from the site. An earth bund extends along the site frontage north of the access, limiting views of the lower quarry area from vehicles passing the immediate site area. A locked gate provides access to an unsealed internal accessway via Fraser Avenue however the current District Plan standards require that the State Highway access is the sole means of entry and exit for quarry vehicles.

The area of the proposed plan change is to the south of the existing northern site and adjoins the area known as the southern extension. This rises steeply from State Highway 1 westwards towards the top of the escarpment generally below the eastern end of Gurkha Crescent and the eastern properties of Shastri Terrace.

The Taylor Preston Abattoir is located between the northern and southern areas of the site. These features can be seen in the figure 1 below.

2.2 The Surrounding Area

Ngauranga Gorge forms a gateway to Wellington City with State Highway 1 serving as the main roading link to the north. State Highway 1 in this location is formed as a separated road corridor with three lanes both north and south bound. Due to a lack of feasible alternatives, pedestrian and cycling access is not prohibited along this stretch of State Highway 1 which is declared a Limited Access Road not a Motorway.

The topography of the gorge is generally steep, falling sharply as the road descends from the Newlands Interchange to the bottom of the gorge near Wellington Harbour. The State Highway running through the centre of the gorge is a dominant feature of the area with the landscape otherwise characterised by the relatively steep, and in some instances battered, rock walls and vegetated or semi-vegetated hillsides.

Within the wider Quarry site is the Taylor Preston Abattoir, located at 131 Centennial Highway. The abattoir features a number of buildings, generally obscured from passing vehicles by the road boundary earth bund. The abattoir is located on a relatively flat site platform created by previous quarrying activity. The site also contains an area for stock grazing should abattoir operations require it.

South of the Quarry site is the Ngauranga Business Park, centred on Tyers Road and featuring a range of commercial and light industrial activities. A hill physically separates the Quarry activity from the Business Park.

The south western ridgeline of the gorge features established residential development. The closest residential properties to the area proposed to be rezoned are located in Gurkha Crescent, Shastri Terrace and Imran Terrace located high above the Ngauranga Gorge towards the top of the hill on the gorge's southwestern flank.

The Quarry site is in part visible to some properties along the ridgeline although direct views are generally limited due to the topography of the area and the fact that subdivision development has generally occurred since the quarry activity has been in operation.

The Westmount School campus (a registered private school for Year 3-13 students) is located along Fraser Avenue directly opposite the northern extent of the site. The Malvina Major Retirement Village is located at 134 Burma Road, with views generally orientated toward the Wellington Harbour, over the wider quarry area. The Johnsonville Railway Line also runs in part along the western ridgeline.

The eastern side of the gorge is characterised by steep rock face and hillsides with vegetation density generally increasing south of the Quarry site. A residential subdivision (Pukehuia) is consented along the eastern ridgeline (Spenmoor Street). Direct views into the existing Quarry from most residential properties are generally limited due to the topography of the area.

2.3 Location Map



Figure 1: Location Map of the Quarry site and the proposed expansion.

2.4 Key Resource Management Issues

Against the background described above it has become clear that the zoning of the land needs to be properly considered to ensure future quarry development occurs within a planning framework that enables the relevant local resource management issues to be taken into account.

Key resource management issues of considering expanded quarrying operations include:

- The overall local and regional demand for aggregate including economic impacts/imperatives.
- The location of the existing quarry within the Ngauranga Gorge and the continuation of quarrying in an area that has a long history of being used for that purpose.
- Amenity effects to those that adjoin or are in close proximity to the Ngauranga Gorge.
- The short and long term visual effects of quarrying the southern face.
- Remediation and offset ecological mitigation.
- Long term use of the land once quarrying has been completed.

3. Resource management considerations

3.1 The purpose of the Resource Management Act 1991

The purpose of the RMA is in s5 and is to promote the sustainable management of natural and physical resources. Sustainable management means:

Managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while –

- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

It has been identified that the key resource management issue for Kiwi Point Quarry is that part of the site's regulatory planning framework (i.e. the current Open Space B zoning) does not align with making that specific land available for quarrying. In this regard, part of the current zoning of the site is not effectively catering for use and development that "enables people and communities to provide for their social, economic and cultural well-being" and therefore not meeting the sustainable management purpose of under the Act.

Providing for aggregate demand while minimising adverse effects is the key management issue for the site. However, there are other relevant management issues such as the importance of local landscape and visual character, that also need to be balanced against the rezoning. This Section 32 process confirms that these issues are fully understood and appropriately managed through the proposed plan change (thereby meeting the purposes of the Act). The relevant resource management issues for an expansion of the Kiwi Point Quarry site are fully identified and explored later in this report.

3.2 Council functions under the Resource Management Act 1991

Section 31 of the RMA specifies the resource management functions of territorial authorities. Section 31(1)(a) specifies the broad function as follows:

"Every territorial authority shall have the following functions for the purpose of giving effect to this Act in its district:

"the establishment, implementation, and review of objectives, policies and methods to achieve the integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district..."

Subsequent subsections outline more specific considerations, including the avoidance and mitigation of natural hazards and maintenance of indigenous biological diversity. District Plans are specifically addressed in Sections 72 – 77. Some key elements of these sections include:

- A requirement that there be at all times a District Plan for each district (ss73(1)).
- Specific matters to be considered in preparing a District Plan (or plan change) (Section 74).
- The required contents of a District Plan (Section 75).
- The ability for territorial authorities to include rules in District Plans (ss76(1)).

Council, in exercising these functions and responsibilities, must at all times act in accordance with the “purpose and principles” of the RMA as set out in Part 2 (Sections 5-8). The purpose of the RMA, defined in Section 5, is “sustainable management” and this must underpin all of Council’s activities, with further guidance provided in sections 6, 7 and 8 (“matters of national importance”, “other matters” and “Treaty of Waitangi”).

3.3 Section 32

Section 32(1) requires that, before the Council publicly notifies a proposed change to the District Plan, an evaluation report required must:

- (a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and*
- (b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—*
 - (i) identifying other reasonably practicable options for achieving the objectives; and*
 - (ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
 - (iii) summarising the reasons for deciding on the provisions; and*
- (c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*

When assessing efficiency and effectiveness of the provisions in achieving the objectives of the proposed plan change the report must under s32(2):

- (a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*
 - (i) economic growth that are anticipated to be provided or reduced; and*

- (ii) employment that are anticipated to be provided or reduced; and
- (b) if practicable, quantify the benefits and costs referred to in paragraph (a); and
- (c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

Benefits and costs are defined in s2 of the RMA as including benefits and costs of any kind, whether monetary or non-monetary.

3.4 National Policy Statements and National Environmental Standards

3.4.1 National Policy Statement on Urban Development Capacity 2016

The preamble to the NPS UDC¹ states that it

...provides direction to decision-makers under the Resource Management Act 1991 (RMA) on planning for urban environments. It recognises the national significance of well-functioning urban environments, with particular focus on ensuring that local authorities, through their planning, both:

- *enable urban environments to grow and change in response to the changing needs of the communities, and future generations; and*
- *provide enough space for their populations to happily live and work. This can be both through allowing development to go “up” by intensifying existing urban areas, and “out” by releasing land in greenfield areas.*

This is followed up by a range of Objectives:-

Objective Group A – Outcomes for planning decisions

OA1: Effective and efficient urban environments that enable people and communities and future generations to provide for their social, economic, cultural and environmental wellbeing.

OA2: Urban environments that have sufficient opportunities for the development of housing and business land to meet demand, and which provide choices that will meet the needs of

¹ National Policy Statement on Urban Development Capacity 2016 p3

people and communities and future generations for a range of dwelling types and locations, working environments and places to locate businesses.

OA3: Urban environments that, over time, develop and change in response to the changing needs of people and communities and future generations.

Objective Group B – Evidence and monitoring to support planning decisions

OB1: A robustly developed, comprehensive and frequently updated evidence base to inform planning decisions in urban environments.

Objective Group C – Responsive planning

OC1: Planning decisions, practices and methods that enable urban development which provides for the social, economic, cultural and environmental wellbeing of people and communities and future generations in the short, medium and long-term.

OC2: Local authorities adapt and respond to evidence about urban development, market activity and the social, economic, cultural and environmental wellbeing of people and communities and future generations, in a timely way.

Objective Group D – Coordinated planning evidence and decision-making

OD1: Urban environments where land use, development, development infrastructure and other infrastructure are integrated with each other.

OD2: Coordinated and aligned planning decisions within and across local authority boundaries.

While not overly directive the NPS UDC supports growing urban environments and allowing future generations to provide for their social, economic, cultural and environmental wellbeing. A local and consistent supply of aggregate will support the housing supply and supporting infrastructure objectives of the NPS.

3.4.2 Other National Policy Statements

None of the following are considered applicable to the consideration of a rezoning of land for quarrying purposes:-

- National Policy Statement for Freshwater Management 2017 (although this would be a relevant consideration for any resource consents under the Regional Plans);
- National Policy Statement for Renewable Electricity Generation 2011;
- National Policy Statement on Electricity Transmission 2008; and
- New Zealand Coastal Policy Statement 2010.

3.5 Regional Policy Statement

The Regional Policy Statement for the Wellington Region (RPS) was made operative by Greater Wellington Regional Council in 2013. It is at the apex of Policies and Plans in the Wellington Region and is described as “an integral document in helping the Wellington Regional Council and the region’s city and district councils support the achievement of this region’s community outcomes”².

The RPS outlines Objectives and Policies which are designed to assist in achieving the Community Outcomes. In the introduction to Chapter 3.11 Soils and Minerals the following explains the importance of quarrying for the region.

In the Wellington region, sand, rock, gravel and limestone are extracted from rivers, seabed, beaches, coastal cliffs and inland quarries. Oil and gas exploration are also ongoing in parts of the seabed of Wairarapa and Kāpiti. As the region’s population continues to expand, the demand for mineral resources, particularly aggregate, will increase. A sustained supply of aggregate will be needed to provide for building, construction and roading projects associated with this growth but also to maintain and redevelop existing infrastructure. Resource availability or inefficiencies in obtaining such resources has the potential to impact on the timely and efficient provision of regionally significant infrastructure – in particular new roading projects.

Mineral resources are fixed in location, unevenly distributed and finite. Extraction processes, sites and transportation routes can create adverse environmental effects. If activities sensitive to the effects of extraction, processing and transportation are established nearby, the full and efficient future extraction of these resources can be compromised. Additionally, reverse sensitivity effects can arise where a new sensitive activity must either accept or protect itself from the effects associated with the working site. These effects are most likely to arise where working sites and their access routes are adjacent to residential and rural-residential subdivisions or adjacent to areas which can be subdivided. In such circumstances, the new activities would need to incorporate provisions that ensure adequate protection from potential effects such as noise, dust and visual impacts from the established activity.

*Similarly, the transportation of mineral resources around, through and out of the region can give rise to adverse environmental effects and can have economic implications. There are benefits to allowing extraction and processing by extractive industries as close as possible to the location of use of the final product to avoid distributing adverse effects across a greater area than necessary to meet the need for these resources.*³

Further in relation to Soils and Minerals the RPS outlines 5 issues of relevance of which the following is directly applicable.

5. Limited mineral resources

² RPS Section 2.3 p10

³ Regional Policy Statement for the Wellington Region 2013 pages 78 and 79.

There are limited mineral resources in the region and demand for these will increase. A sustained supply of mineral resources is essential to provide for the well being of the regional and local communities and the people of Wellington, and for the regional economy. There are also benefits from extracting mineral resources locally.⁴

This is followed up by Objective 31 and Policy 60 that state:-

Objective 31: *The demand for mineral resources is met from resources located in close proximity to the areas of demand; and*

Policy 60: *Utilising the region's mineral resources – consideration*

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district or regional plan, particular regard shall be given to:

- a) the social, economic, and environmental benefits from utilising mineral resources within the region; and*
- b) protecting significant mineral resources from incompatible or inappropriate land uses alongside.*

Explanation *Policy 60 directs that particular regard be given to the social, economic, and environmental benefits of utilising mineral resources within the region. It also requires that particular regard be given to protecting significant mineral resources from incompatible and inappropriate land use alongside. This protection extends to both the land required for the working site and associated access routes. Examples of methods to protect significant mineral resources include the use of buffer areas in which sensitive activities may be restricted, and the use of noise reduction measures and visual screening.*

Objective 31 and the first part of Policy 60 are strongly supportive of recognising the social, economic and environmental benefits from utilising mineral resources while Objective 31 also has recognition that resource recovery should be located in close proximity to the areas of demand. Kiwi Point Quarry's excellent location, with its direct access onto SH1 is an important factor supporting whether the Plan Change can meet the RPS objective. It should however be noted that clause (b) of Policy 60 also recognises the reverse sensitivity effect of having sensitive land uses, such as residential, in proximity to an area of mineral resource extraction.

3.6 Regional Plans

Regional Plans are prepared by regional councils to assist them in fulfilling their functions under the RMA (Section 30). The scope and requirements of regional plans is specified in Sections 63 – 70 of the RMA. There are some areas of overlap between regional and district plans, notably in natural hazard

⁴ Ibid p79.

planning, but generally district plans deal with land use and subdivision whereas regional plans deal with discharges, soil, water and the coast.

Greater Wellington Regional Council has five regional operative regional plans, these are:

- Regional Coastal Plan (2000)
- Regional Freshwater Plan (1999)
- Regional Soil Plan (2000)
- Regional Air Quality Management Plan (2003)
- Regional Plan for Discharges to Land (1999)

Importantly GWRC also notified the Proposed Natural Resources Plan (PNRP) in 2015. The purpose of the PNRP is to replace the five operative regional plans. At the time of writing hearings are approximately half way through with decisions due late 2018. These documents have been reviewed as it is considered that the proposed provisions are consistent with them. However it is noted that to implement quarrying, a number of new or varied resource consents would be required to implement quarrying on the southern face.

3.7 Other Relevant Statutory and Non-Statutory Strategies and Policies

There are a number of other plans, non-statutory strategies and policies that are relevant that have been referred to in preparing this proposed plan change. None of them are overly directive as to the acceptability or otherwise of an expansion of quarrying activity in the Ngauranga Gorge. These are:

- The high level Wellington Regional Strategy⁵
- The WCC Long Term Plan 2015-2025
- The Wellington Urban Growth Plan 2015
- The Suburban Reserves Management Plan 2015

3.7.1 Wellington Regional Strategy 2012

In 2012 a revised Regional Strategy was released by the Region's local authorities. The aim of the Strategy is:

*'to build a resilient, diverse economy – one that retains and creates jobs (especially high value jobs), supports the growth of high value companies and improves the region's position in relation to the national GDP and national employment.'*⁶

⁵ <http://www.gw.govt.nz/assets/About-GW-the-region/Wellington-Regional-Strategy-2012.pdf>

⁶ Wellington Regional Strategy p6

The revised WRS provides six focus areas, of which focus area 3 – ‘Building world class infrastructure’ is the most directly relevant to the Project. This focus area recognises that:

Regional economic prosperity is heavily dependent on the region’s level of connectedness and resilience at local, national and international levels. This is in turn dependent on the quality of our foundation infrastructure and transport systems.⁷

In broad terms the continuation of supply of aggregate from quarrying operations supports this focus area as 43% of the aggregate is used for roading products and 17% for asphaltic aggregate. The other 40% of rock use is for concrete aggregate (23%) and other purpose aggregates (17%).

3.7.2 Wellington City Long Term Plan 2015-2025

This is the key long term planning document that sets out Council intentions for the next decade. The Council website⁸ states:

We review our long-term plan every 3 years to make sure it is still relevant and accurate. We check to make sure we are moving in the right direction and addressing community outcomes. The plan states the current situation along with future expectations and intentions.

Our 10 year plan sets out how and why we propose to ‘invest for growth’. We will support new initiatives that unlock the city’s growth potential. This will happen in exchange for a small and manageable increase in debt and rates.

We’ll continue with ‘business as usual’ while we put our growth agenda in place. This will happen without making any trade-offs or proposing service cuts. Our plan focuses on essential services with extra funds to sustain growth.

Our strong financial position means we can afford to invest in growth projects. To support our growth, there will be modest increases in debt and rates. These will be limited to 3.9% per year on average over the next 10 years.

Of broad relevance to the District Plan are the long term outcomes for urban development, transport, and the environment. It is considered that the proposed District Plan provisions are consistent with these outcomes.

Specifically however in respect of Kiwi Point there is limited mention of the quarry other than it is listed as a strategic asset for the City⁹ along with facilities such as the infrastructure network, community

⁷ Ibid p7.

⁸ <https://wellington.govt.nz/your-council/plans-policies-and-bylaws/plans-and-reports/long-term-plan/long-term-plan-2015-25>

⁹ WCC Long Term Plan 2015 to 2025 Volume 2 p141.

facilities, the Zoo and strategic landholdings like the Waterfront. However if a quarry at Kiwi Point could not provide a source of aggregate this may have longer term planning and financial implications for the City as in terms of its own aggregate needs these would need to be sourced from alternative sites.

3.7.3 Wellington Urban Growth Plan (WUGP) 2015

The Wellington Urban Growth Plan provides a framework to manage the city's future growth. This plan is a significant piece of strategic planning which is in line with regional level strategic policy directions for guiding and providing for growth in Wellington.

Specific consideration of environmental and heritage issues while building on the many geographical, social, economic, and cultural advantages that the city has. The Executive Summary to the WUGP¹⁰ states:

This is an action-focussed plan, which builds on, updates and replaces our existing urban development and transport strategies. It seeks to:

- *maintain the city's liveability – the features that support our high quality of life and the city's character*
- *keep the city compact, walkable and supported by an efficient transport network*
- *protect the city's natural setting – nested between our green hills and coastline, contributing to our distinctive character*
- *make the city more resilient to natural hazards such as earthquakes and the effects of climate change.*

The plan is the Council's guide for directing investment and supporting development in growth areas – a blueprint for prioritising and managing future growth. This includes actions to support:

- **Transformational growth areas:** *We will support quality urban development in locations suitable for growth including the regeneration of existing urban areas and development in new greenfield areas*
- **Liveable and vibrant centres:** *We will continue improving the central city and suburban centres*
- **Real transport choices:** *We will continue improving conditions for walking, cycling and public transport, improving our road network, and managing parking more efficiently*
- **Housing choice and supply:** *We will support an increase in housing supply, encourage a greater variety of housing types and more affordable options, and facilitate the development of medium-density housing*

¹⁰ <https://wellington.govt.nz/~media/your-council/plans-policies-and-bylaws/plans-and-policies/a-to-z/wgtn-urban-growth/wgtn-urban-growth-plan2015.pdf>

- **Our natural environment:** *We will continue to enhance our natural assets, and reduce the environmental impact of urban development and transport*
- **City resilience:** *We will ensure the city's buildings, infrastructure and coastline can cope with or adapt to the risks posed by natural hazards and climate change.*

The plan will support Council decisions on planning and investment and provide certainty for the city's stakeholders – developers, central government, iwi, ratepayers and residents. The priority projects identified in the plan will inform our Long-term Plan. To make sure the plan is effective, it will be reviewed and updated every three years, alongside the Long-term Plan, to reflect changing local priorities and development pressures. This will include assessing the progress made in putting the plan into action and reporting back to Councillors and the wider organisation.

While not explicitly mentioned a reliable source of aggregate will assist in providing for 5 out of 6 outcomes with the 6th being the environmental effects of sourcing aggregate. As stated the current zoning for extending quarrying activities is considered impractical and therefore is not geared towards providing for growth in this way or for providing opportunities for more diverse and efficient use of the land. It is considered that this plan change allows for a range of post quarrying land use options which will have a greater benefit to the City than currently provided for under the existing regulatory planning framework. In this regard, it is considered that the plan change is suitably aligned with the strategic aims of the WUGP.

3.7.4 Suburban Reserves Management Plan 2015¹¹

The purpose of the Suburban Reserves Management Plan (SRMP) is:

... to provide Wellington City Council with a clear framework for day-to-day management and decision-making for Council administered reserves and open spaces in the suburban areas between Khandallah/Broadmeadows and Miramar (including Makara) for the next 10 years. The suburban reserves north of Khandallah/Broadmeadows are currently included in the Northern Reserves Management Plan. Objectives and policies give guidance for the development, management, protection, operation, and public use of these reserves.

The closest existing Reserves to the Quarry are the Imran Terrace/Maldives Street Reserve and the Tyers Stream Reserve. Reserves on the north and eastern sides of the Ngauranga Gorge are administered within the Northern Reserves Management Plan.

The SRMP is important as it outlines in detail what is sought from Reserves Management and puts in place a programme of management and enhancement where necessary.

¹¹ <https://wellington.govt.nz/your-council/plans-policies-and-bylaws/policies/suburban-reserves-management-plan>

It is understood that WCC's residual Open Space landholdings outside of what would be operational Quarry would be classified formally as a reserve and consequently be subject to management under a future or amended Management Plan. These areas are in figure 1 above would presumably be managed as part of the adjoining Tyers Stream Reserve and also are the areas for mitigation ecological enhancements. The existing reserves configuration in this part of Wellington is shown below¹².

¹² At page 38

4. Wellington City District Plan

4.1 Current Zoning

As discussed quarry activity has been occurring in the Ngauranga Gorge area over a number of years, operating under various different legislation and rule frameworks. An analysis of past frameworks has provided a level of insight into the emergence and expansion of quarry activity in the area. However, other than to recognise the long association of quarry activity in the area, it is considered that there is little direct benefit in analysing previous rule frameworks. Consequently this analysis focuses on the current RMA framework under which the proposed expansion would be assessed.

As stated previously the existing northern face and the southern extension is currently enabled through the District Plan. The current planning framework was as a result of specific Plan Changes with the last being made operative in 2009.

The Quarry therefore operates as a Permitted Activity under the Business 2 Area provisions in the District Plan (the Plan), provided that it complies with standards specified in sections 34.6.1 (activities), 34.6.2 (buildings and structures) and 34.6.5 (Kiwi Point Quarry standards). Quarry activities are restricted to the area within the Business 2 zone north of the Taylor Preston Abattoir and south of the access road, excluding a buffer area separating the Quarry site from residential development.

The Plan seeks to provide for the development and rehabilitation of the Quarry in a way that avoids, mitigates or remedies adverse effects associated with quarrying activity. A description of the Quarry is provided as follows in Chapter 33 Business Area Objectives and Policies:

Kiwi Point Quarry is an established quarry located in the Ngauranga Gorge, involving ongoing extraction, processing, cleanfilling and rehabilitation. As the continuing availability of aggregate and other quarry materials is economically important for the City and wider region, the Plan makes specific provision for the ongoing use and development of the quarry. For both the older and newer areas of the quarry, specific rules and a development plan are incorporated. These provisions provide for the avoidance or mitigation of adverse effects from the quarry activity and the long-term mitigation of effects on landscape and landform following quarrying.

The progressive rehabilitation of the area is an important aspect of quarry management, and accordingly the Quarry Management Plan includes rehabilitation provisions. As quarrying and cleanfilling activities are completed on the site, an implementation plan shall be prepared annually by the consent holder in accordance with the Quarry Management Plan.

Overall, the environmental result will be the availability of quarry materials for the City and wider region in the short and medium term, and long-term achievement of well-vegetated quarry faces with the appearance of natural landforms which will be integrated with Council development of Open Space areas in this vicinity.

Figure 1 below shows the current zoning for the Quarry site (Business 2) and surrounding area.

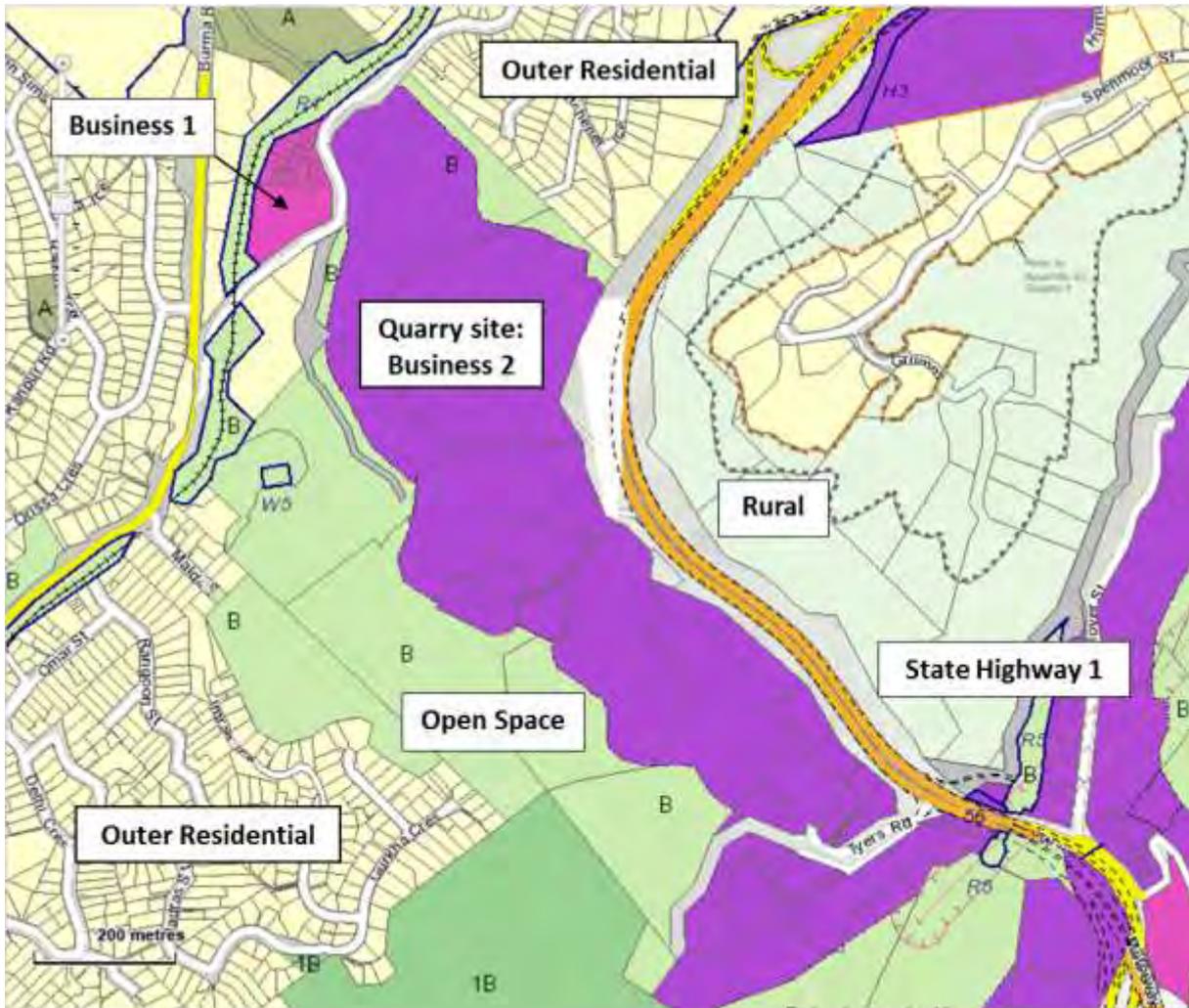


Figure 2: Current District Plan zoning for the Quarry site and surrounding area.

Appendix 2 of the Business Area Appendices also shows the extent of the Quarry, including buffer areas, as shown in Figure 3.

4.1.1 Objectives

As stated specific provision for current quarrying activities is provided for in Chapter 33 Business Areas. In particular the Introduction (33.1) states:-

...

The Kiwi Point Quarry is also included as a Business Area. The quarry is subject to specific rules recognising its economic importance to the City and wider region as well as to other relevant rules applying elsewhere in Business Areas to mitigate adverse effects.

There is no specific Objective for the quarry rather there is a policy provided for under Objective 32.2.2.

33.2.2 To enable an appropriate range of activities to occur in Business Areas, provided they do not undermine the City's Centres, and that adverse effects are avoided, remedied or mitigated.

Also considered applicable objectives are:-

33.2.1 To provide Business Areas that can accommodate a wide range of business and industrial activities to meet the social and economic needs of the City.

33.2.3 To recognise where unique development opportunity areas exist within Business Areas and encourage redevelopment of these in a manner that is compatible with, and enhances amenity values and contribute to the City's distinctive physical character, sense of place and contained urban form.

33.2.4 To ensure that activities and developments at least maintain the amenity values and public safety within Business Areas and those of any nearby Residential Areas.

Other Business Area Objectives are not considered directly applicable.

4.1.2 Business Areas Policies

The specific Business Area Policy that applies to Kiwi Point Quarry is:

33.2.2.7 Provide for the development and site rehabilitation of the Kiwi Point Quarry to the extent specified in the Plan in a way that avoids, mitigates or remedies adverse effects.

METHODS

- *Rules (including Appendix 2 showing the extent of quarry areas)*
- *A quarry management plan*

The explanation to this policy states:-

Kiwi Point Quarry is an established quarry located in the Ngauranga Gorge, involving ongoing extraction, processing, cleanfilling and rehabilitation. As the continuing availability of aggregate and other quarry materials is economically important for the City and wider region, the Plan makes specific provision for the ongoing use and development of the quarry. For both the older and newer areas of the quarry, specific rules and a development plan are incorporated. These provisions provide for the avoidance or mitigation of adverse effects from the quarry activity and the long-term mitigation of effects on landscape and landform following quarrying. It is the Council's intention that cut faces should be designed to yield a relatively natural landform in the long term and that rehabilitation of cut faces should begin as early as practicable. The staging of quarry development, and the day to day management of quarry activities are further detailed and controlled through the application of a quarry management plan.

A quarry management plan shall be prepared and regularly updated by Council, which sets out:

- *intended staging of the excavation and cleanfilling activities*
- *the means of management of surface and groundwater*
- *management of on-site traffic*
- *provision for any onsite processing and temporary storage of quarry material*
- *any specific provisions relating to onsite management of noise, dust, vibration, visual impact, water quality*
- *a procedure for addressing any complaints*
- *objectives and principles for the rehabilitation of the site, including:*
 - *a timetable for the rehabilitation of prominent quarry faces*
 - *measures to create soil conditions which will support plant growth*
 - *measures to create a variety of site conditions to support a range of species*
 - *means of controlling runoff to avoid erosion*
 - *means of control of plant and animal pests*
 - *measures to avoid fire risks*
 - *means to assist native vegetation to regenerate on grazing land*
 - *rehabilitation which is compatible with Open Space strategy for adjacent areas of land*
- *management of buffer areas*
- *practices and methods that will be adopted to ensure that all permitted activity conditions applying to the activities will be met.*

The quarry management plan will complement the other rules applying to the quarry activity and will provide additional management details. It will be reviewed by Council at least every five years and any necessary adjustments will be made.

The progressive rehabilitation of the area is an important aspect of quarry management, and accordingly the Quarry Management Plan includes rehabilitation provisions. As quarrying and cleanfilling activities are completed on the site, an implementation plan shall be prepared annually by the consent holder in accordance with the Quarry Management Plan.

The requirement that regular monitoring is undertaken and regular progress reports are completed and submitted to the Council is a key element. This requirement is included because successful rehabilitation of any disturbed area requires constant monitoring as site conditions vary considerably and evolve over time. Regular observation and recording of results is an essential part of managing the process.

A vegetated buffer area is included within the area as part of the development of the southern part of the quarry. At the northern end, the necessary buffer area is within the Open Space B Area. It is important also that rehabilitation of the quarry area should recognise and in the longer term be able to be integrated as appropriate with the Open Space strategy

developed by the Council for the adjacent areas of land. Current Council policy is for the creation of further Green Belt areas on the steep hill sides of the Ngauranga Gorge and, for instance, it may be possible to allow continuation or linking of proposed walkways.

Overall, the environmental result will be the availability of quarry materials for the City and wider region in the short and medium term, and long-term achievement of well-vegetated quarry faces with the appearance of natural landforms which will be integrated with Council development of Open Space areas in this vicinity.

4.2 Rules and Standards

4.2.1 Rules

A location specific rule permitted activity applies to the current Kiwi Point Quarry.

34.1.5 Quarrying and clean filling on part Lot 1, and part Lot 2 DP 72995, part Lot 4, part Lot 5 and part Lot 6 DP 72996, part Lot 1 DP 34015, part Lot 1 DP 65030 and part Lot 2 DP 91179 Ngauranga Gorge (known as Kiwi Point Quarry) is a Permitted Activity provided that it complies with the standards specified in sections 34.6.1 (activities), 34.6.2 (buildings and structures) and 34.6.5 (Kiwi Point Quarry standards), (except that standard 34.6.1.9.2 does not apply to the temporary stockpiling or storage of quarried rock material).

Therefore subject to compliance with specific standards and a Quarry Management Plan, quarrying activity is permitted. Rules 34.3.3 and condition 34.3.3.1 provide a discretionary activity rule applying to Kiwi Point if standards cannot be met.

34.3.3 Quarrying and cleanfilling activities in Ngauranga Gorge (Kiwi Point Quarry) which would be Permitted Activities but that do not meet one or more of the standards specified in sections 34.6.1 (activities), 34.6.2 (buildings and structures) and 34.6.5 (Kiwi Point Quarry standards) are Discretionary Activities (Restricted), (except that standard 34.6.1.9.2 does not apply to the temporary stockpiling or storage of quarried rock material).

Discretion is restricted to the effects generated by the standard(s) not met, subject to compliance with the following condition:

34.3.3.1 the duration of any consent granted for processing plant or buildings in the southern part of the Quarry provided for under this Rule shall not exceed 10 years.

Non-notification/ service

In respect of Rule 34.3.3 applications will not be publicly notified (unless special circumstances exist) or limited notified.

4.2.2 Standards

The standards link directly to the rules and cover the operational aspects of the quarry.

34.6.5 KIWI POINT QUARRY STANDARDS

These standards apply to all quarrying and clean filling activities in the Kiwi Point Quarry.

34.6.5.1 General

34.6.5.1.1 Any relevant provisions of standards 34.6.1 and 34.6.2 except that Rule 34.6.1.9.2 does not apply to the temporary stockpiling or storage of quarried rock material.

34.6.5.2 Dust

34.6.5.2.1 Dust control measures shall be undertaken to avoid creating a dust nuisance beyond the Quarry Boundary.

34.6.5.3 Quarry activities

34.6.5.3.1 Quarry activities shall be restricted to the area within the Business Area north of the abattoir and south of the access road, excluding the area shown as a buffer area, as identified on the plan included as Appendix 2.

34.6.5.3.2 Some blasting may be carried out as part of the normal quarrying operations. Blasting of faces for crushed rock production must take place between 10.00am and 2.00pm Monday to Friday only.

34.6.5.3.3 In all cases, residents of Tarawera Road, Plumer Street, 113, 130, 166, 170 and 175 Fraser Avenue, and 146 Burma Road must be notified by mail no less than one week in advance of blasting. Blasting must be immediately preceded by a siren or hooter with a sound which distinguishes it from normal Police, Ambulance or Fire Service sirens.

34.6.5.3.4 The finished slope of quarry faces shall not exceed 55 degrees from the horizontal.

34.6.5.3.5 The maximum height of finished batters shall not exceed 15 metres.

34.6.5.3.6 A buffer area with a minimum width of 25 metres shall be maintained on the uphill boundary of the site as shown on Appendix 2. This area will be allowed to revegetate naturally except where there is a need for additional planting.

Note: At the north end of the quarry near Plumer Street and Tarawera Road, the buffer area is within the Open Space B Area as shown in Appendix 4 and is governed by the Open Space provisions.

34.6.5.3.7 A fence must be maintained adjacent to any properties in the Residential Area along the quarry boundary to a height of 1.2m.

34.6.5.3.8 Prior to commencement of operations in any area, a security fence must be installed and maintained along the outer edge of the buffer area.

34.6.5.3.9 No quarry activities shall be undertaken within the buffer area unless agreed by Council.

34.6.5.4 Cleanfill activities

34.6.5.4.1 Cleanfill activities shall be restricted to the area shown on the plan included as Appendix 2.

34.6.5.4.2 The cleanfill shall comply with the definition of cleanfill in Section 3 (Definitions) of this District Plan.

34.6.5.5 Location of quarry plant

34.6.5.5.1 The primary crusher may be moved as the quarry face recedes and new faces are worked. Any processing plant or buildings within the southern part of the quarry shall be relocatable.

34.6.5.6 Traffic movement

34.6.5.6.1 There shall be one entry point to the quarry, via Crossing Place 22 from State Highway One (also the main access to the adjacent Abattoir). This must be the sole means of entry and exit for quarry vehicles. This access must be maintained to the standard of local streets.

34.6.5.7 Rehabilitation and treatment of stripped areas

34.6.5.7.1 All land encompassed within the quarry boundary shall be progressively rehabilitated (except where used for other permitted or consented activities). Any planting will take place as soon as practicable following the completion of the quarry or cleanfill activity. Planting will be undertaken using indigenous species from local sources, except where exotic species are required to provide erosion control and/or temporary nurse cover for revegetation with indigenous species.

34.6.5.7.2 Excluding the Abattoir area, areas shown on Appendix 2 which are not shown as areas for quarrying and/or cleanfilling shall be allowed to revegetate.

34.6.5.7.3 All exposed surfaces of fill shall be hydro-seeded, or any other approved method, immediately following completion of works as a dust and erosion control measure.

4.2.3 Business Areas Appendix 2.

Kiwi Point Quarry (Part Lot 1 and Part Lot 2 DP 72995, Part Lot 2 DP 91179, Part Lot 4, Part Lot 5 and Part Lot 6 DP 72996, Part Lot 1 DP 34015 and Part Lot 1 DP 65030, Ngauranga Gorge)

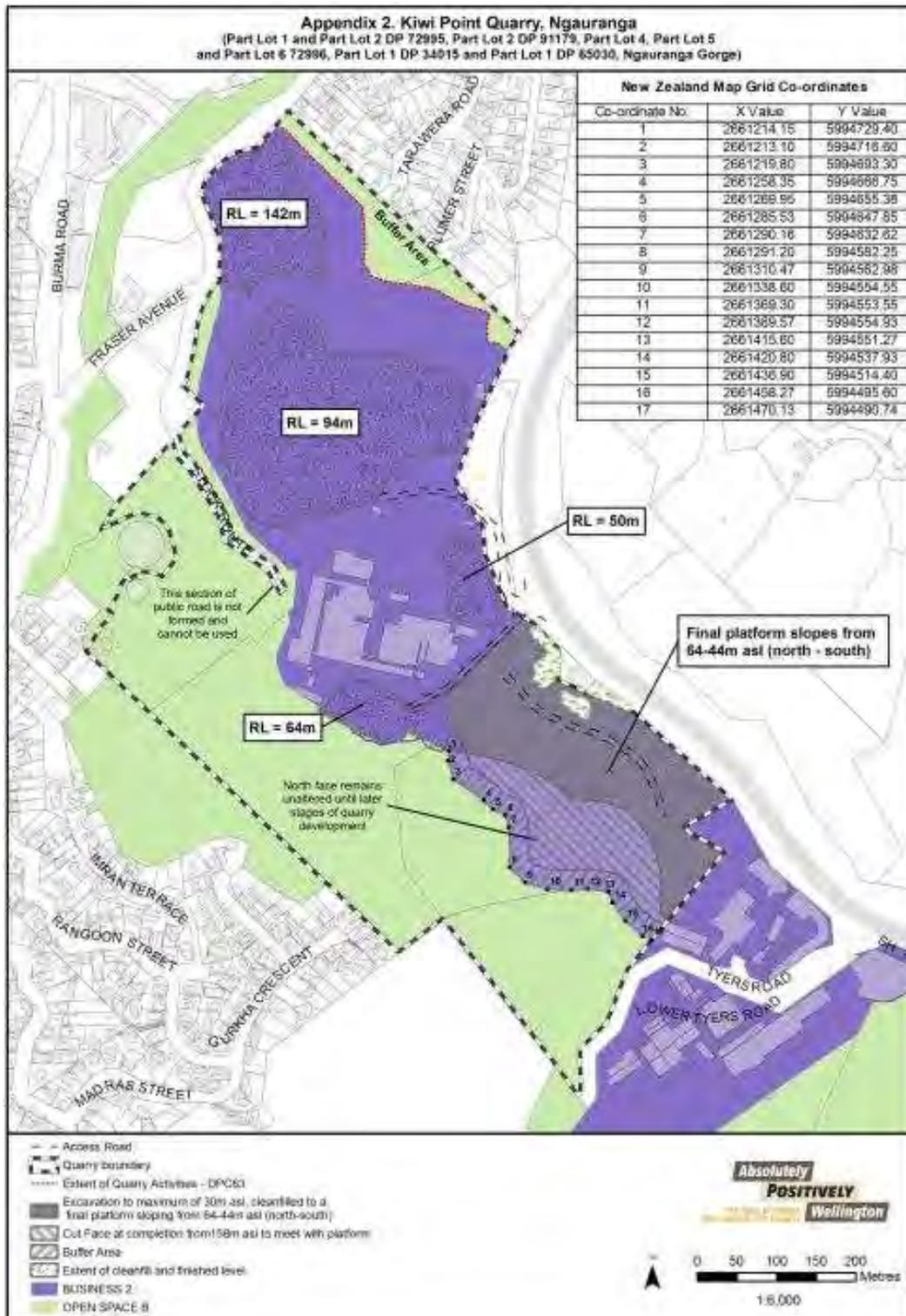


Figure 3: Appendix 2, Kiwi Point Quarry as included in Chapter 34 Business Areas Appendices in the District Plan

5. Technical Reports

A number of reports have informed the preparation of the plan change and the evaluation under s32 of the Act.

5.1 Regional Demand Forecasts for Aggregates in Wellington

An aggregate demand report prepared by Spire Consulting Limited¹³ provides a general overview of rock resource availability at a regional level.

The report identifies increasing aggregate demand in the region due to a mix of an underlying demand (general building, roading and infrastructure), population growth and development forecasts and specific projects and infrastructure works (including Roads of National Significance, link road projects and Wellington Airport projects). Total quarry aggregate production for the Wellington Region (for the Kiwi Point, Horokiwi and Belmont quarries combined) is estimated to increase from approximately 1,200,000 tonnes per annum in 2016 out to 1,640,000 tonnes per annum in 2050.

A prior assessment of economic effects of Belmont Quarry extension states that aggregate forecast to increase gradually from about 1.8 million in 2013 to approximately around 2.5 million tonnes by 2031.¹⁴

The Spire report concludes there is limited downside risk to future demand but identifies a supply risk due to higher demand levels from construction/infrastructure activity or from re-building from one-off events such as an earthquake.

The report extends to include consideration of the following locations as alternative sites in the region for aggregate extraction:

- the Makara area (centred around Quartz Hill);
- Owhiro Bay Quarry; and
- the Northern Ngauranga Gorge.

The report comments that there would be considerable difficulties in accessing these resources and notes that in the wider region there are limited other possibilities.

From an RMA process perspective, the report provides background business case information to support the expansion of Kiwi Point Quarry from a regional perspective. The report provides an overview of available alternative site options in the wider region (or lack thereof) which in turn provides further understanding of the necessity of the proposed expansion works. The report demonstrates future

¹³ Regional Demand Forecasts for Aggregates in Wellington Spire Consulting undated but July 2016

¹⁴ Assessment of Economic Effects – Belmont Quarry Extension. NZIER for Winstone Aggregates June 2013

aggregate demand and underlines previous conclusions drawn from business case investigations - that there is limited supply available from existing quarries in the region with likely future demand.

The report also includes a revised spreadsheet attached as Appendix C. In this it has been concluded that by extending the life of the quarry, the net estimated financial benefit to the city and community is \$65.3 million, not including the broader direct benefits to the local private construction industry as a direct result of reduced costs associated with maintaining a local supply¹⁵.

5.2 Indicative Value Impact Report

The Indicative Value Impact Report¹⁶ provides an indicative valuation of the Quarry land on the basis that it is remediated to an identified standard. The report extends to consider the types of business and commercial land uses that would likely generate demand for remediated land (post quarry activity) and a high level overview of the market for business and industrial zoned land in the Wellington Region. The report was prepared on the assumption that the land will:

- be provided with building platforms of a size suitable for commercial development;
- be remediated to a contamination standard suitable for commercial development; and
- have north-bound only access and egress from SH1 (as provided for presently).

The report identifies limited availability for new industrial areas within Wellington City and the wider region, noting the following:

- there are very few sites of sufficient scale suitable for modern industrial development requirements;
- traffic congestion and proximity to arterial routes limits efficiency for a number of sites;
- few sites have close proximity to main commercial areas; and
- competing land uses have raised land prices in some areas making industrial land uses uneconomic.

The report concludes that the site is well located in the context of Wellington City (being close to the CBD and the northern suburbs with existing access to SH1) and could accommodate a wide range of industrial and commercial land uses with *relatively strong levels of demand*¹⁷. The report comments that unless additional access is made to the site then demand for retail use is unlikely. The combined land

¹⁵ Spire Consulting Ltd Revised Spreadsheet February 2017.

¹⁶ CBRE Kiwi Point Quarry Indicative Value Impact Report July 2016

¹⁷ At page 10.

value (approx. 26.8 ha) as at June 2016 is estimated to be \$42.1m, with estimates for land values at 2050 ranging from \$53.2m to \$76.6m.

In terms of the RMA process, the report adds to the business case understanding, estimating land value and identifying potential future demand for industrial/commercial activities following the completion of quarrying activity on the site. Future commercial/industrial land-use is a key assumption of the report. From a high level assessment perspective, the site generally appears to support commercial/industrial land-use as a long-term outcome for the site.

This report is considered to be highly consistent with the likely overall Project focus to consider not only quarrying outcomes but also long-term land-use options for the site.

5.3 Geotechnical Report

The Review of Geotechnical Information¹⁸ prepared by Opus Consultants Ltd provides a high level review of available geotechnical reports to date with the stated report objectives as follows:

- To ensure that the appropriate geotechnical information and assessment are in place to support the proposed change of the District Plan.
- To ensure that the slope stability and other geotechnical risks imposed to the surrounding environment by the quarry operations are low.
- To ensure that the long term stability of the final slopes to be returned to WCC is satisfactory, without the need to implement extensive stabilisation and risk mitigation measures, or additional change of the District Plan for laying back.

The report extends to include consideration of both North Face and South Face works. The following discussion only considers the South Face works.

The report provides a slope description, noting that the height of the quarry slopes of the proposed South Face vary at the different stages of the proposed quarry development, with the final slope height to be approximately 170m. The overall slope angle proposed is approximately 55 degrees.

Existing infrastructure adjacent to the new development is State Highway 1 at the northeast and the Commercial Centre at the southeast. The residential area of Khandallah, which is located upslope at the southwest of the proposed development, appears to be at a distance of ~100 m from the final proposed slopes and is not considered to be affected (with regard to geotechnical considerations).

¹⁸ Opus Consultants Limited 11 July 2016

The report specifically considers: the suitability of the proposed slope angles; slope stability analysis; geological mapping and assessment; investigation of rock defects; geological interpretation of South Face; and, rock fall analysis for North Face. The report concludes as follows:

A better understanding of the rock structure and presence of defects in the entire area is required to provide confidence on the proposed slope angles for both the Northern Face and new development at the Southern Face. The assessment should be carried out with a focus on the Northern Face, where there is abundance of rock exposure, and the results adequately extrapolated to the proposed areas for new development, Area H and Open Space B.

The report further recommends that a supplementary assessment be carried out for the South Face to include the following:

- assessment of rock defects and mass quality;
- supplementary geological mapping and interpretation;
- stability and rock fall risk analysis (with regard to long-term land use options post-quarry); and
- investigation of the extent and depth of possible fault zone.

Following receipt of the Opus review, additional material has been provided through Ormiston Associates Ltd on behalf of Holcim Ltd as the Quarry operator. These documents include the following:

- Memorandum - Kiwi Point Quarry Queries Response for Wellington City Council, prepared by Ormiston Associates Ltd., dated 28 July 2016
- Report on the Development Potential of the Quarry, prepared by Ormiston Associates Ltd., dated July 2015
- Slope Stability Review, prepared by ENGEO Limited (formerly Geoscience Consulting NZ Limited), dated February 2015
- Addendum Slope Stability Report for the North Wall and Area H, KiwiPoint Quarry, Wellington, prepared by ENGEO Limited (formerly Geoscience Consulting NZ Limited), dated April 2015.

It is understood from discussion with the Project Manager¹⁹ that with the investigations undertaken to date (by ENGEO, Ormiston and Opus) geotechnical matters have been appropriately assessed sufficient to enable further progression of the RMA process. This report cannot clarify the accuracy of the material presented as this is beyond our area of expertise. Instead we rely on the information presented as being accurate.

From an RMA perspective, decision makers need to be satisfied that geotechnical matters have been robustly assessed and will rely on expert opinion. In progressing RMA processes the Council, as the Project proponent, similarly needs to be satisfied that geotechnical matters have been suitably addressed.

¹⁹ Logen Logeswaran, Project Manager (Personal communication, 26 August 2016).

5.4 Quarry Management Plan

The current Quarry Management Plan (QMP) is due for review in 2019. The QMP is planned to be updated this year as Holcim, as the quarry operator, has recently replaced the main operating plant. Technical information in the QMP is to be updated to reflect the new plant. Information relating to the general management of the quarry site will not otherwise change.

At this stage, noting that only technical information is to be updated, there is limited comment to be made regarding the QMP in the context of the RMA process other than the fact that the document will need to be updated.

5.5 Air Quality Assessment

The Air Quality Assessment²⁰ prepared by MWH examines the potential air quality effects that may arise during the operation of the quarry, including the Quarry southern expansion into the Business 2 zone as provided for under Plan Change 25. The report was prepared to support *WCC's resource consent application to GWRC to discharge to air contaminants (predominantly dust) associated with the extraction (quarrying) and processing (crushing and screening) activities undertaken at the project site.* The report notes that a number of mitigation measures are currently implemented onsite by Holcim to control dust emissions but recommends a number of additional measures to further reduce the potential for dust nuisance effects in the surrounding community.

This report does not extend to consider the now proposed works to the North Face and South Face as part of this RMA process. The report does however provide a good understanding of effects of the general quarrying activity on the site and presents a range of mitigation options. The report concludes that the quarry activity can be appropriately mitigated such that any adverse effects from dust nuisance on the surrounding area would be no more than minor.

5.6 Ecology

Even though there was ecological input into the Alternatives Assessment it was determined that there needed to be a full baseline assessment of existing ecology for the southern face. To this end Wildlands Consultants were asked to prepare an Assessment of Ecological Effects²¹.

The study concluded that the site contains two types of indigenous forest that represent the main vegetation values of the site. The forest vegetation is significant (according to the criteria in the Greater Wellington Regional Policy Statement) because it provides locally important seasonal habitat for indigenous forest birds. The ngaio-māhoe-māpou forest is also significant because it better represents the likely pre-human vegetation of the site, has moderately high plant species diversity, and provides

²⁰ Kiwi Point Quarry Air Quality Assessment MWH (now Stantec) July 2016

²¹ Assessment of Ecological Effects for Proposed expansion of the Kiwi Point Quarry – Wildlands July 2017

habitat for locally uncommon plant species. Other habitats may be significant depending on their significance for indigenous lizards and fish. Surveys for these fauna will be undertaken during the summer months.

The recommended option for mitigation is to revegetate the area adjacent to the proposed expansion area. This area has potential for mitigation for any adverse effects on or loss of mahoe-dominant forest. A viable alternative area is to be chosen for mitigation for loss of ngaio-mahoe-mapou forest. This area is Council land. Part of the District Plan Change process should be to commit to reclassification of these areas as reserves under the Reserves Act 1977 to be contiguous with Tyers Stream and Maldive Street Reserve. Planting of this area would start as soon as reserve status is given.

These areas are shown below:-

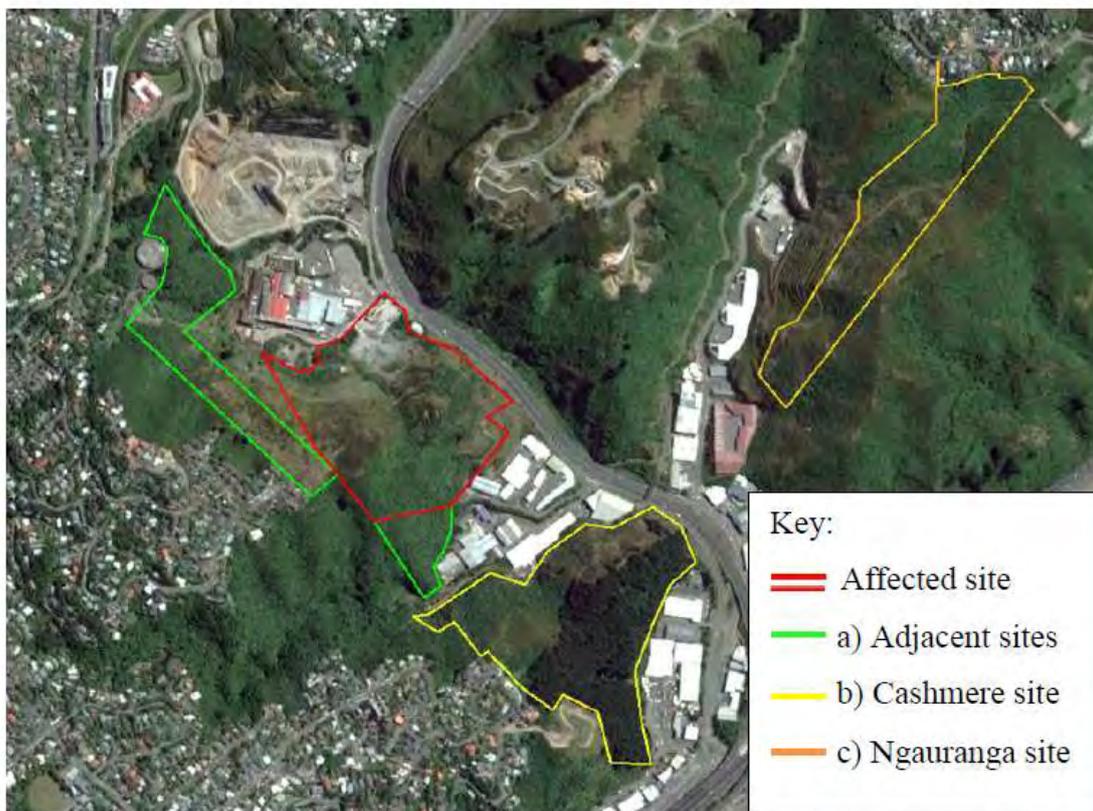


Figure 4: Potential local sites for which mitigation options could be considered.

The Wildlands report²² also considered the relative benefits and disadvantages of the sites proposed for ecological offset and mitigation should quarrying proceed.

²² At pages 18 and 19.

Table 5: Attributes of the suggested mitigation sites in relation to the areas to be affected.

Factors Compared to Areas to be Affected	Potential Mitigation Sites		
	a) Adjacent Sites	b) Cashmere (b)	c) Ngauranga
Size	Twice as large	3.5 times larger	2.5 times larger
WCC owned?	Yes	No	Yes
Similar landform?	Partly	Yes	No
Similar aspects?	Partly	Fully	Partly
Indigenous forest cover?	c.50% of area	c.10% of area	c.50% of area
Similar vegetation?	Partly	Partly	Partly
Similar elevation?	More at higher elevation, less at lower elevation.	More at lower elevation, less at higher elevation.	Mostly higher elevation.
Other factors			

Factors Compared to Areas to be Affected	Potential Mitigation Sites		
	a) Adjacent Sites	b) Cashmere (b)	c) Ngauranga
Opportunity for landscape mitigation?	Moderate, local mitigation	Significant if pines replaced with indigenous forest.	Limited as mostly on a successional trajectory to full indigenous dominance.
Additionality	Moderate	Strong if pines are replaced.	Limited as mostly on a successional trajectory to full indigenous dominance.

5.7 Landscape

Visual representations²³ of the expanded south face options were prepared by Isthmus to support the public consultation carried out (section 8). This encompassed 5 views of the site with representations to show:-

- The unmitigated cut face;
- The cut face one year after the commencement of site rehabilitation; and
- The mitigated cut face 15 to 20 years following the cessation of quarrying.

²³ <https://wellington.govt.nz/~media/have-your-say/public-input/files/consultations/2017/09/kiwi-point-quarry/visuals-medium-and-maximum-development.pdf?la=en>

Landscape advice was also given at the alternative assessment stage (see section 6).

As part of the consultation process feedback was also sought on potential options to screening quarry activities from SH1 motorists and passengers.

5.8 Report Assessment Summary

The above reports provide useful background information to support the RMA process. In particular, the CBRE Indicative Value Report and the Spire Consulting reports (Aggregate Demand and Indicative Model) support the business case for the Project. The other reports consider the effects of quarrying. These reports in part further support this s32 analysis report as required through the RMA process.

6. Kiwi Point Quarry Options

In considering the context of the north face of Kiwi Point Quarry nearing completion and the advice that the southern area allocated under the District Plan provisions was inadequate and impractical, consideration of further quarrying possibilities was carried out. Incite was approached by WCC in 2015 to advise on the planning implications of a possible extension and to lead a process of consideration of alternatives. In addition to considering Kiwi Point Quarry, WCC also commissioned the Regional Demand Forecasts for Aggregates in Wellington report from Spire Consulting referred to above.

6.1 Project Objectives

At the outset of the study Project Objectives for RMA purposes were developed. The Project Objectives are:

1. *To enable extraction activity in a cost efficient manner to assist in meeting future regional aggregate demand;*
2. *To plan and co-ordinate effective rehabilitation of the site post-quarry activity to enable viable long-term land use options;*
3. *To manage the immediate and long-term cultural, social, land use and other environmental impacts of the Project by so far as practicable avoiding, remedying or mitigating any such effects;*
4. *To minimise landscape impacts as far as practicable, recognising landscape values in the context of the gateway experience.*

6.2 Workshop Process

An assessment of alternative options for site development was undertaken through a workshop process. The purpose of the workshop was to review the analysis of alternative options carried out to date, identify any additional viable options and to then assess the identified range of alternative options within an RMA framework. The following represents a summary of the full workshop report²⁴ that included assessments from the following disciplines:-

- Water Quality

²⁴ Incite - Kiwi Point Quarry Expansion Alternatives Workshop Report 16 December 2016

- Air Quality/Wind
- Landscape and Visual Effects
- Geotechnical Matters
- Quarry Operations
- Terrestrial Ecology

Following completion of the workshop, information was consolidated to review specialist scoring and assessments, apply sensitivity testing and assess each of the identified options against the Project Objectives. Specialists were tasked with assessing each of the short list options when compared to the existing site characteristics, with Option 1 Do Nothing (forming as the existing site) assigned a value of 0. A summation of the existing site characteristics is provided in Table 5.1 below.

Table 1: Existing site characteristics relative to each specialist area

Specialist Area	Existing Site Characteristics
Quarry Operations	Quarry resources to be exhausted after 4 years. Quarry activities must be undertaken in accordance with the current Quarry Management Plan.
Geo-technical	Considerable geotechnical risks. Existing natural slopes rise very steeply - exhibits evidence of previous slope failures and includes overhangs. No rockfall protection measures currently installed. Risk to both SH1 and Tyers Road Business Park. Increased risk during earthquake events.
Landscape	Area important as part of the “gateway experience” for Wellington City. Rugged, strong topography with urban wilderness characteristics (including regenerating vegetation). Distinct spatial qualities, sense of enclosure, steep descent and dramatic emergence out to the harbor and city; contributing to the City sense of place. Recognisable elements, including the spur, forming part of the viewshaft /western skyline. High visibility to SH1 but relatively limited views of the existing quarry and short list option final quarry face from existing residential areas.
Terrestrial Ecology	Area of contiguous regenerating indigenous coastal forest from Tyers Stream Reserve, covering the southern faces on Tyers Road through to the end of the ridgeline leading down towards SH1 - extends to include part of the South Face area. Limited forest type remaining within Wellington. Range of avifauna detected within area - species with threat classification or locally significant. Suspected lizard species to include national threat status, regionally threatened or locally significant.

Specialist Area	Existing Site Characteristics
	Gradual rehabilitation of this area will have a positive effect on the terrestrial ecology.
Air Quality	<p>All existing extraction, processing and associated activities undertaken at the quarry (and therefore the potential for adverse air quality effects generated by quarry activity) will cease in three to four years.</p> <p>Existing quarry activity likely to result in only slight adverse air quality effects in the local community. Unlikely that the Ministry for the Environment's 24-hour mean trigger value for dust nuisance or the National Environmental Standard for particles less than 10 microns in diameter (PM₁₀) would be exceeded beyond the site or at any sensitive receptor locations.</p> <p>Mitigation measures are in place to minimise air quality effects from quarry operations.</p>
Water Quality	<p>Urbanisation of the catchment throughout Khandallah, Johnsonville and Newlands as well as construction of the SH1 motorway through Ngauranga Gorge have resulted in widespread loss of aquatic habitat and reduced ecological function of Ngauranga Stream (loss of natural flow regime, loss of connection to its floodplain, loss of connectivity to groundwater, barriers to fish migrations, loss of riparian vegetation).</p> <p>Ecological value of Ngauranga Stream is assessed as low, except within parts of the Tyers Stream tributary which have retained moderate to high ecological values.</p> <p>Status quo; continuation of the existing (northern) quarry face until the rock resource is exhausted, estimated to be in 3 to 4 years:</p> <ol style="list-style-type: none"> 1. Water is taken from the Ngauranga stream at one location at a rate of up to 55 m³/day. 2. There are very few discharges of stormwater or process water to the stream because excess water is stored in the pit and later recycled. 3. All wet weather discharges to the stream are treated and are required to contain total suspended solid concentration of <120 g/m³.

Four options were developed as short list options to be assessed as part of the alternatives workshop process. A key assumption for all options is that the site will be rehabilitated following the completion of quarry activity in the respective areas.

- **Option 1 - Do Nothing**
This option is to cease quarry activity in the South Face area. This option forms as the baseline option against which all other options will be assessed.
- **Option 2 - Permitted Activity Development**
This option is to develop the quarry as provided for as a permitted activity under the current District Plan framework within the Business 2 Area to the south of the site access road.
- **Option 3 - Five Stage Development/Medium Expansion**

The option extends into an Open Space B zone to incorporate a series of benches to the 190m contour of the hillside peak. The option provides for an approximate 100m buffer between the maximum extent of the quarry activity and the closest residential site boundary in Gurkha Crescent.

- **Option 4 - Maximum Expansion**

This option further extends into an Open Space B zone to maximise the western expansion to the boundary of the quarry site. The option provides for an approximate 70m buffer between the maximum extent of the quarry activity and the closest residential site boundary in Gurkha Crescent.

Spatially these options can be shown as follows:

Option 1 - Do Nothing



Image source: WCC Webmap

Figure 4: Existing Situation

Option 2 - Permitted Activity Development

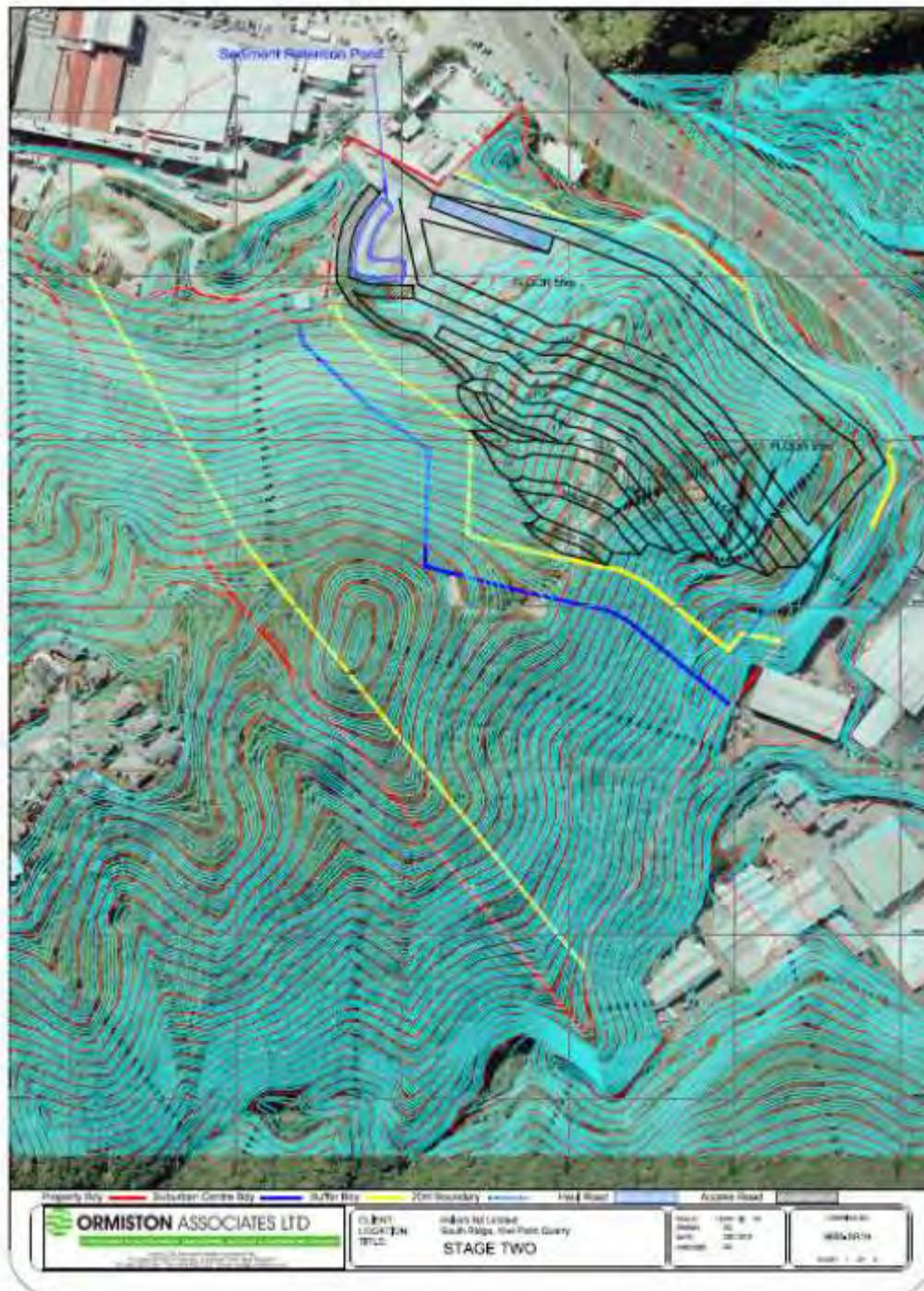


Image source: Ormiston Associates Ltd

Figure 5: Permitted Activity Quarrying of the southern face

Option 3 - Five-Stage Development

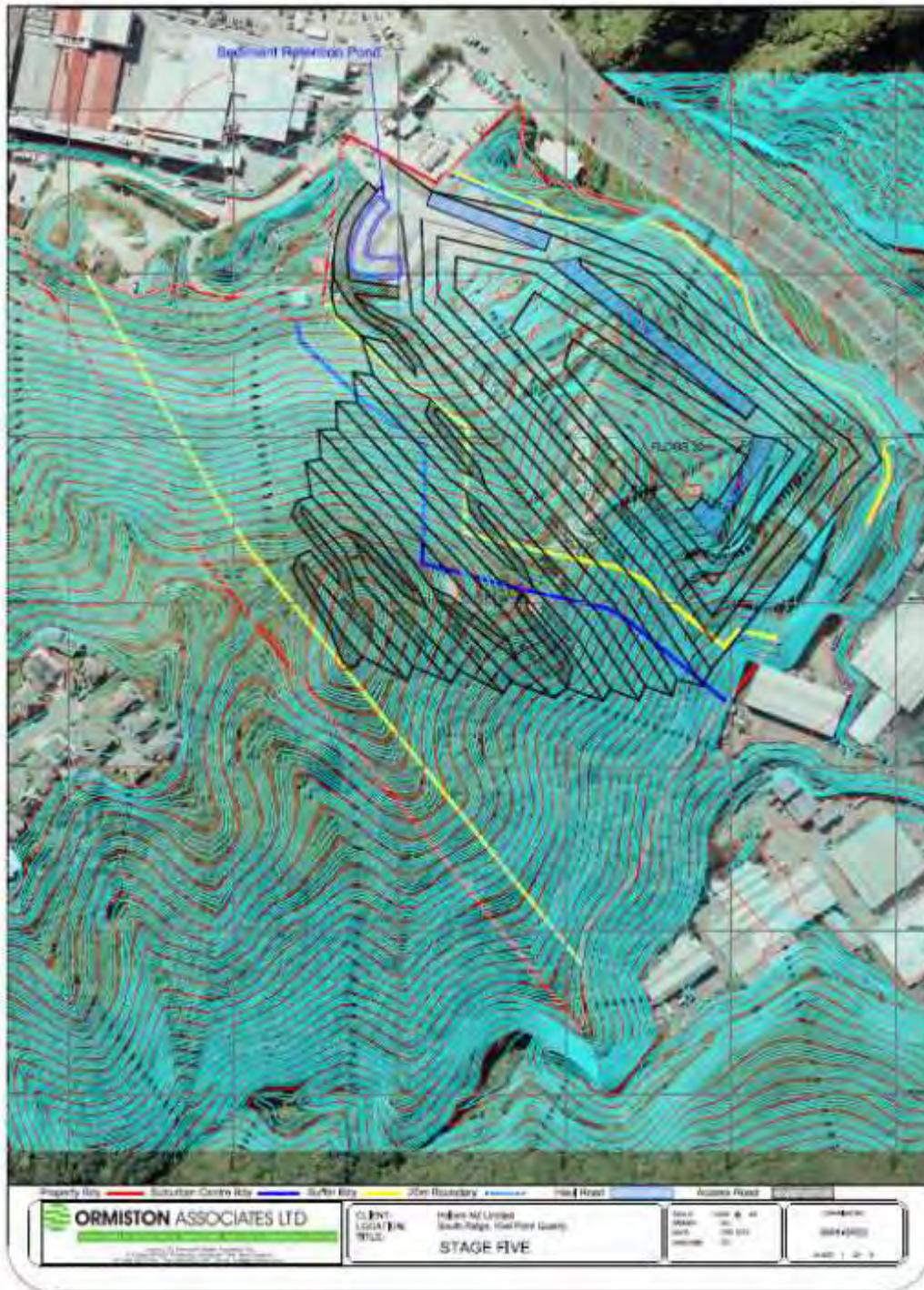
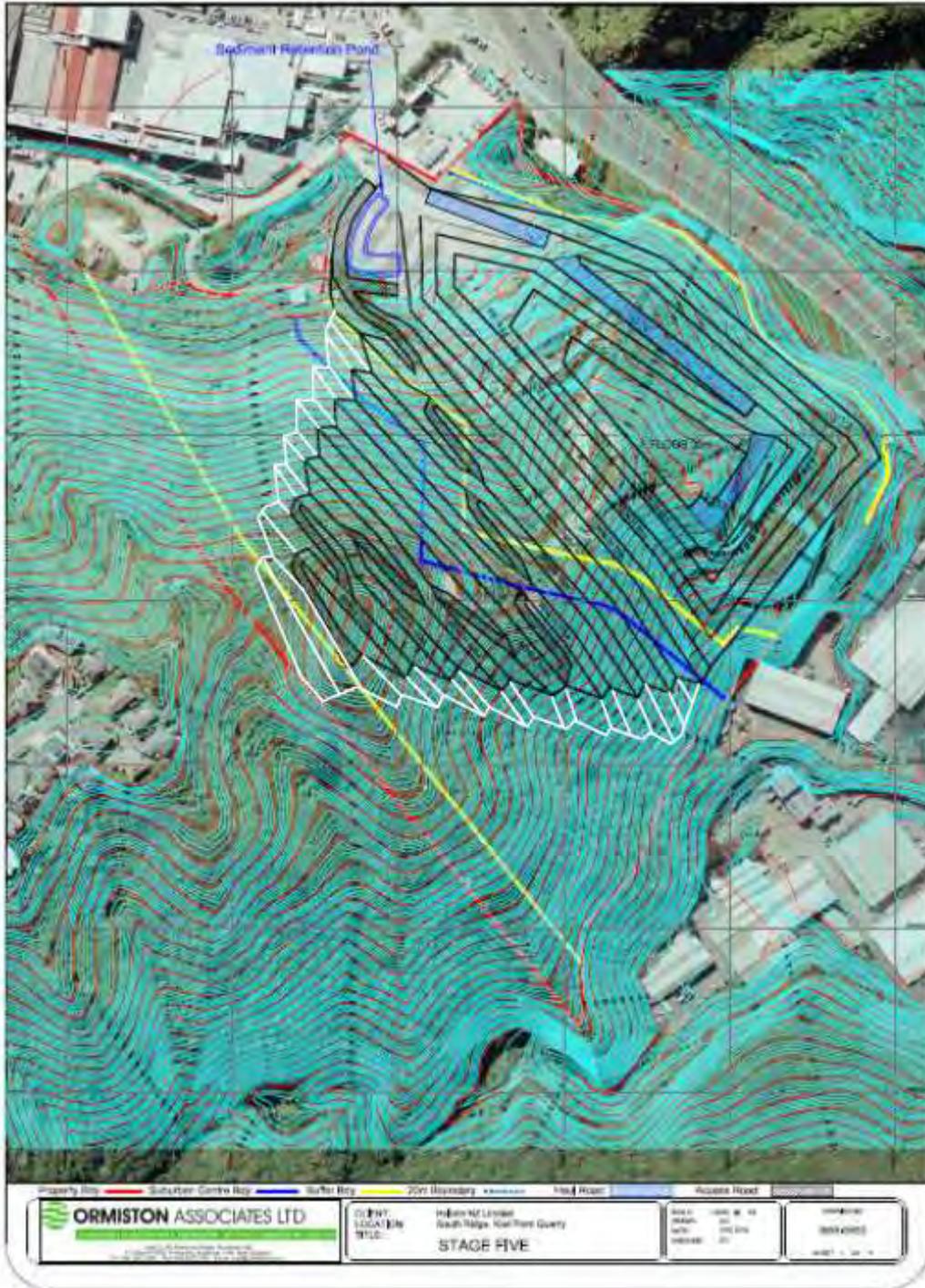


Image Source: Ormiston Associates Ltd

Figure 6: Five Stage Development/Medium Expansion

Option 4 - Area 2B Maximum Expansion



Base Image Source: Ormiston Associates Ltd

Figure 7: Maximum Expansion

7. Assessments against Objectives

Following completion of the Specialist Workshop the Core Project Team finalised assessment of each of the options against the Project Objectives. The following presents results and discussion from the objectives assessment process. Similar to the specialist assessment process, each of the options were assigned an individual score based on a 7 point scale. All objectives are of equal value with no weighting applied.

7.1 Objective 1: Extraction

Objective 1 reads as follows:

1. To enable extraction activity in a cost efficient manner to assist in meeting future regional aggregate demand

Table 7.1 sets out scoring and ranking of each option against Objective 1. Scores were based on the specialist report for quarry operations.

Table 7.1: Assessment of options against Objective 1: Extraction

Development Option	Score	Score Rank
Option 1: Do Nothing	-3.0	4
Option 2: Permitted Development	-1.0	3
Option 3: Five Stage Development/Medium Expansion	2.0	2
Option 4: Maximum Expansion	3.0	1

7.2 Objective 2: Rehabilitation

Objective 2 concerns rehabilitation of the site post-quarry activity and reads as follows:

2. To plan and co-ordinate effective rehabilitation of the site post-quarry activity to enable viable long-term land use options

Table 7.2 sets out scoring and ranking of each option against Objective 2. Scores were based on workshop discussions in which participants concluded that the key determinant in assessing options relative to Objective 2 should be the area of land available to future land uses. On that basis, Option 4 ranks highest, providing for the largest area of formed platform at the base of the quarry batters.

Table 7.2: Assessment of options against Objective 2: Rehabilitation

Development Option	Score	Score Rank
Option 1: Do Nothing	0	4
Option 2: Permitted Development	1.0	3
Option 3: Five Stage Development/Medium Expansion	2.0	2

Development Option	Score	Score Rank
Option 4: Maximum Expansion	3.0	1

7.3 Objective 3: Effects

Objective 3 relates to adverse effects and reads as follows:

- To manage the immediate and long-term cultural, social, land use and other environmental impacts of the Project by so far as practicable avoiding, remedying or mitigating any such effects.

Table 7.3 presents scoring and ranking of each option against Objective 3. Raw scores were first assigned based on aggregate weighted scores (workshop weighted scenario) for specialist areas excluding quarry operations. Scores were then adjusted relative to the 7 point scale on the basis of the following conversion:

Aggregate Weighted Score Range	Adjusted Score
4.1 or greater	+3 - Significant positive
2.1 to 4.0	+2 - Moderate positive
0.1 to 2.0	+1 - Minor positive
0	0 - Neutral or <i>de minimus</i>
-0.1 to -2.0	-1 - Minor negative
-2.1 to -4.0	-2 - Moderate negative
-4.1 or less	-3 - Significant negative
F	F – Fatal Flaw

Table 7.3: Assessment of options against Objective 3: Effects

Development Option	Aggregate Weighted Score	Adjusted Score	Adjusted Score Rank
Option 1: Do Nothing	0	0	1
Option 2: Permitted Development	-2.0	-1	2
Option 3: Five Stage Development/Medium Expansion	-4.0	-2	3
Option 4: Maximum Expansion	-4.3	-3	4

7.4 Objective 4: Landscape

Objective 4 concerns landscape values and reads as follows:

- To minimise landscape impacts as far as practicable, recognising landscape values in the context of the gateway experience.

Table 7.4 presents scoring and ranking of each option against Objective 4. It was agreed at the workshop that specialist landscape scores should be directly applied to each option.

Table 7.4: Assessment of options against Objective 4: Landscape

Development Option	Raw Score	Raw Score Rank
Option 1: Do Nothing	0	1
Option 2: Permitted Development	-2.0	2
Option 3: Five Stage Development/Medium Expansion	-3.0	3
Option 4: Maximum Expansion	-3.0	3

7.5 Objective Assessment Rankings

Table 7.5 presents overall rankings for each option when assessed against the combined Project Objectives. Option 4 ranks highest at 0 followed by Option 3 at -1.0. Options 1 and 2 both rank lowest, scoring -3.0.

Table 7.5: Combined scoring and ranking of options against objectives

Development Option	Objective 1: Extraction	Objective 2: Rehabilitation	Objective 3: Effects	Objective 4: Landscape	Total	Rank
Option 1: Do Nothing	-3.0	0	0	0	-3.0	3
Option 2: Permitted Development	-1.0	1.0	-1.0	-2.0	-3.0	3
Option 3: Five Stage Development/ Medium Expansion	2.0	2.0	-2.0	-3.0	-1.0	2
Option 4: Maximum Expansion	3.0	3.0	-3.0	-3.0	0.0	1

7.6 Summary of Alternatives Process Findings

Results were assessed to identify the best performing option relative to aggregated raw and weighted specialist score scenarios as well as against the Project Objectives.

Option 4 (Maximum Expansion) ranked first and Option 3 (Five Stage Development) ranked second when assessed against nearly all combined specialist score weighting scenarios and the combined Project Objectives (both options rank first equal under aggregate specialist raw scores). Option 1 (Do Nothing) and Option 2 (Permitted Activity Development) rank equal last when assessed against the combined Project Objectives. Option 2 ranks third and Option 1 ranks fourth when assessed against specialist aggregate raw and weighted scenarios (except for weighted scenarios where landscape and

ecology is elevated to 10, resulting in Option 1 scoring slightly higher than Option 2, and reduced quarry operations weighting scenarios).

There is a clear separation between Options 1 and 2 when compared to Options 3 and 4. Options 1 and 2 fail to achieve the fundamental objective of providing for aggregate to meet demand (in a cost efficient manner, as is the case with Option 2). Options 3 and 4 present viable options from a quarry operations perspective but would have adverse environmental effects ranging from minor through to significant (although Option 2 would also have moderate adverse environmental effects).

The key impacts of the expansion options (Options 2, 3 and 4) relate to landscape, visual amenity and ecology effects, with key features being the gorge landscape and regenerating vegetation. None of the key features are identified as outstanding or significant within the current plan framework (i.e., outstanding natural features and landscapes or as areas of significant indigenous vegetation and significant habitats of indigenous fauna in accordance with section 6 matters of national importance). None of the expansion options were fatally flawed under specialist assessments. The effects of the expansion options are not considered to be detrimental to the point that they should not be considered further. Option 1 Do Nothing is not the only viable option under the RMA framework.

In summary, key considerations for each option are as follows:

- **Option 1 - Do Nothing:**

Does not contribute to meeting aggregate demand and will require the development of an alternative quarry site or sourcing from a more distant location. Retains valued existing site characteristics (landscape and ecology) - these characteristics are not matters of national importance.

- **Option 2 - Permitted Activity Development:**

Not financially viable.

- **Option 3 - Five Stage Development/Medium Expansion:**

Provides for aggregate demand and future land use options. Moderate to significant adverse ecology and landscape effects.

- **Option 4 - Maximum Expansion:**

Provides for the highest amount of aggregate demand and land available for future land use options. Moderate to significant adverse ecology and landscape effects similar to those under Option 3.

Overall, in the context of the RMA framework, Option 4 was identified as the preferred option to be taken forward for public consultation.

8. Site Specific Resource Management Issues

The alternatives assessment which was undertaken provided a basis for the understanding of effects from the quarry expansion. An overview of the key effects considerations is summarised below.

8.1 Quarry Operations

Assessment of each of the options under consideration of quarry operations was based on the overall ability of the quarry to operate as a viable entity. The assessment extended to include consideration of (but not limited to);

- Aggregate yield
- Cost of removing overburden versus the recoverable rock
- Life of resource versus predicted sales
- Operational logistics (i.e. location of overburden placement and aggregate washing).

In considering a plan change the practicality and workability of plan provisions need to be considered.

8.2 Residential Amenity

With a potential rezoning from Open Space B to Business 2 quarrying operations would be closer (within some 70 metres) of the closest residential properties in Gurkha Crescent. The effects upon these properties of noise, dust, proximity for the occasional blasting, quarry vehicle movements all need to be considered through permitted activity standards and conditions attached to them. In addition there are a significant number of residential properties that can see the wider quarry area but are not in such close proximity.

8.3 Landscape

The Ngauranga Gorge area is important as part of the Wellington City “Gateway Experience”. The site features recognisable landscape elements, including the South Face spur, forming part of the viewshaft/western skyline. The South Face area also contributes to the sense of enclosure associated with the gorge landscape. The site is highly visible from SH1. In general, direct views from residential areas of the existing quarry (as well as the final quarry face of the expansion options) are limited.

There will be landscape effects from cuts. Effects can be softened to an extent through site rehabilitation (including planting). It should be noted that the current District Plan provisions provide for quarry activity in the Business 2 zone South Face area (with associated cuts and site rehabilitation in accordance with the Quarry Management Plan) as a permitted activity.

8.4 Ecology

Tyers Stream Reserve adjoins the southern boundary of the site. The reserve features regenerating indigenous coastal forest and is noted by Council officers as an area of ecological value with limited remaining examples in the Wellington Region. The stand of regenerating forest extends to include part of South Face area on the Quarry site.

Gradual rehabilitation of the South Face area under Option 1: Do Nothing would have a positive effect on ecology. The expansion options would have some ecological effects through loss of habitat. Effects can be reduced based on best practice off-site mitigation, however the potential for onsite mitigation is limited due to challenging environmental conditions.

8.5 Geotechnical

There is considerable geotechnical risk with the existing site:

- Steep natural slopes – evidence of previous slope failures.
- No rockfall protection measures installed.
- Risk to both SH1 and Tyers Road Business Park.
- Increased risk during earthquake events.

Expansion options provide for significant resilience improvements. In particular, potential risk to SH1 from slope failure/rockfall in the South Face area could be mitigated by engineered design solutions (batter slope angles, rockfall protection measures).

8.6 Air quality

Mitigation measures are in place to minimise air quality effects from existing quarry operations. Air quality effects for expansion options would essentially be no different to the existing quarry – slight adverse air quality effects with mitigation measures in place.

In the short to medium term, any air quality effects associated with the expansion options would be able to be managed on site to comply with acceptable standards. In the long term, any air quality effects will cease once quarry activity ends and the site is rehabilitated.

8.7 Water Quality

Urbanisation of the catchment area (Khandallah, Johnsonville and Newlands) and the formation of SH1 has resulted in the loss of aquatic habitat and reduced ecological function of Ngauranga Stream. The ecological value of Ngauranga Stream (running through the site) is assessed as low, except within parts of Tyers Stream tributary which retain moderate to high ecological values.

Some minor temporary water quality effects would occur with the expansion options. All effects are able to be reversed long-term through site rehabilitation post quarry activity.

8.8 Economic Benefits

By extending the life of the quarry, the net estimated financial benefit to the city and community is \$65.3 million²⁵, not including the broader direct benefits to the local private construction industry as a direct result of reduced costs associated with maintaining a local supply. The flat land resulting from

²⁵ Spire Consulting July 2016.

quarrying will also provide a development opportunity broadly estimated to be circa \$51 million at 2016 prices.

Additionally, the meat processing company Taylor Preston Ltd leases Council-owned land to the south of the existing quarry site (north face), which is also part of the Business 2 area in the District Plan. The company is seeking an extension of its lease to establish a cold-store on the site. The establishment of this and associated facilities will enable Taylor Preston to continue operations in Wellington for many years to come.²⁶

²⁶ Report to City Strategy Committee 14 September 2017 p209.

9. Consultation

9.1 Legislative Requirements

Clause 3 of the First Schedule of the RMA specifies the people who must be consulted in the preparation of a plan, including plan changes. The provisions relevant to this plan change are:

3. Consultation

- (1) *During the preparation of a proposed policy statement or plan, the local authority concerned shall consult—*
 - (a) *The Minister for the Environment; and*
 - (b) *Those other Ministers of the Crown who may be affected by the policy statement or plan; and*
 - (c) *Local authorities who may be so affected; and*
 - (d) *The tangata whenua of the area who may be so affected, through iwi authorities.*
- (2) *A local authority may consult anyone else during the preparation of a proposed policy statement or plan.*
- (3) *[not relevant]*
- (4) *In consulting persons for the purposes of subclause (2), a local authority must undertake the consultation in accordance with section 82 of the Local Government Act 2002.*

9.1.1 Statutory Consultation

Statutory consultation is yet to occur. This section of the s32 report will be updated prior to it being finalised.

Prior to a plan change being notified, the Ministry for the Environment, the Port Nicholson Block Settlement Trust, Te Runanga o Toa Rangatira Inc., GWRC and the neighbouring local authorities within the Wellington Region will be consulted. Initial consultation has already occurred with some of these parties.

9.2 Consultation with Stakeholders

Wellington City Council undertook targeted (non-statutory) consultation with what were considered to be key stakeholders in September 2017. The stakeholders consulted were:

- Iwi

- Greater Wellington Regional Council including a specific briefing to planning policy and biodiversity staff.
- New Zealand Transport Agency including a specific briefing.
- The Department of Conservation was also contacted with the offer of a briefing.

9.3 Public Consultation

Prior to making a decision as to the future of the quarry the Council undertook a period of public engagement. The engagement was undertaken between the 22nd of September and the 30th of October 2017. The purpose of the public engagement was to:

- Inform people of the options the Council are considering for the future of the quarry, why they are being considered and their potential implications; and
- To obtain stakeholder and public feedback on the proposed options.

A particular attempt was made to engage with residents who live in a close proximity to the quarry and/or who have a view of the quarry and business in close proximity to the Quarry. In total 1028 letters were sent to nearby residents and businesses. This was comprised of 256 households in Johnsonville, 595 households in Broadmeadows, 68 households in Newlands and 109 households in Khandallah.

The letter set out the background of the quarry and communicated to residents that the Council was investigating expanding the quarry. It specifically sought their feedback as nearby residents, provided the link to material on the Council's website and details on how to make a submission.

The public had the opportunity to make a submission on the options, via the Council website or email. Two public open days were held and advertising of the submission period was undertaken via direct engagement with identified stakeholders and wider public advertising, including the use of social media.

In total, 18 people attended the public open days and 69 submissions were received. Submitters were comprised of residents who live on the boundary of and/or can see the quarry, local businesses, users of quarry products and residents from further afield. A high portion of submissions were made by residents near the quarry, and while most submitters were from Wellington City, submissions were also received from people in Lower Hutt, Kāpiti, Napier and Hawkes Bay.

When asked to select their preferred option that 57% of the Submitters support Option 4, however, 22% support the closure or no expansion of the quarry. Planting was the preferred screening option, followed by urban design features such as decorative panels. 23% of respondents did not think screening was important.

10. s32 Considerations

The following sections set out in some detail the problem with the Open Space B zoning of the proposed expansion area for Kiwi Point Quarry, which this plan change is directed to address. It is apparent that the existing Open Space B zoning and associated planning framework does not fit the purpose of providing for an extension of the site, although the framework for quarry operations is now well established through the District Plan and under a site and activity specific set of provisions. Some changes to the framework are considered to be required (i.e. the do nothing approach is not appropriate).

There are only two options available to address the most appropriate zoning and associated framework and these have been discussed in detail below. In looking at these zoning options, the specific history, context and characteristics of the site, it has been concluded that a tailored approach would be necessary if a rezoning was ultimately determined to be the "most appropriate". This has been evaluated as follows.

10.1 Status Quo - Retain Open Space Zoning

Retaining Open Space Zoning in the specified area would mean that once quarrying of the northern face has been completed, quarry operations at Kiwi Point would either need to close or resource consents to facilitate quarrying as a non-complying activity could be sought. Given that the Open Space objectives and policies are very restrictive and there is potential for adverse effects, it is considered that this is not an option that would be likely to pass the gateway test under s104D of the Resource Management Act 1991 and has not been taken further.

Given the assessment of alternatives the status quo is not recommended. The table below summarises these points.

Benefits	Disadvantages, Costs and Risks	Planning Outcome
<ul style="list-style-type: none"> • Requires no direct action on behalf of the Council. • Avoids costs and risks associated with a Plan Change • No additional effects to adjoining residential property owners. • No visual effects beyond that which currently exist • Enables planting and landscape enhancements. 	<ul style="list-style-type: none"> • Does not provide for a further source of aggregate well located to sources of demand. • Does not enable quarrying expansion. • Economic costs to Wellington City from having to source aggregate from alternative locations. • Loss of opportunity to 	<p>The option is not recommended because:</p> <ul style="list-style-type: none"> • It does not represent the most appropriate or efficient use of the land. • It does not enable a further source of aggregate for the Wellington Region.

	create further business land.	
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10.2 Rezone the land to Business 2

This would mean that the existing enabling provisions of the current District Plan framework for the northern face and the existing zoned portion of the site could be adapted to enable quarrying in the larger south face location. This is the preferred option. The following table considers this further.

Benefits	Disadvantages, Costs and Risks	Planning Outcome
<ul style="list-style-type: none"> • Provides for a further source of aggregate well located to sources of demand. • Enables quarrying expansion. • Provides economic benefits to the Region. • Provides an opportunity to create further business land • Provides an opportunity for off-site ecological restoration. 	<ul style="list-style-type: none"> • Costs and risks associated with a Plan Change. • Additional effects to adjoining residential property owners. • Visual effects. 	<p>The option is recommended because:</p> <ul style="list-style-type: none"> • Provisions can be tailored to address site specific residential amenity and to mitigate and/or offset landscape and ecological effects. • It represents the most appropriate or efficient use of the land. • It enables a further source of aggregate for the Wellington Region.

This option is therefore favoured. A proposed plan change to support this option has been developed that:-

- Rezones the land identified in Figure 1 from Open Space B to Business 2;
- Provides an activity specific objective relating to quarrying at Kiwi Point Quarry;
- Includes the existing Policy 33.2.2.7, amends the explanation and references offset planting and ecological restoration;
- Amends the existing Rule 34.1.5 to reference the titles of the expanded area;
- Adds a controlled activity rule so that details contained within a quarry management plan can be assessed including precise locations of the buffer area, slopes, quarrying methodology including phasing and remediation;
- Makes consequential changes to the existing standards.

10.3 Site specific resource management issues and objectives to address them

Section 32(3)(a) of the RMA requires local authorities to identify plan change objectives and then to examine whether those objectives are the most appropriate way to achieve the sustainable management purpose of the Act.

Given the high level determination about the appropriate zoning for the site, Council as plan change proponent has consulted with residents and other stakeholders to understand the site qualities. This followed a process that has ultimately determined the provisions that make up the plan change. This has involved:

- Identification of the issues and preparation of expert reports for the Council
- Recognition of these issues in the content and direction of policies and methods of the plan change.

Through this process, few genuine "alternatives" presented themselves and as a result there has been a focus on ensuring the specific resource management issues are thoroughly addressed. These issues are shown in the table below along with objectives developed at the outset of investigations.

Resource Management Issue	Objective
<p>Site zoning and planning framework</p> <p>The site’s zoning does not reflect actual or potential uses for the site and needs to be changed to provide for its efficient use within appropriate environmental parameters. Economic analysis has identified a shortfall of aggregate in the Wellington region. The suitability of the site to provide for quarrying which can help alleviate this shortfall, thereby providing a range of economic benefits (subject to suitable environmental controls).</p>	<p><i>33.2.1 To provide Business Areas that can accommodate a wide range of business and industrial activities to meet the social and economic needs of the City.</i></p> <p><i>33.2.2 To enable an appropriate range of activities to occur in Business Areas, provided they do not undermine the City’s Centres, and that adverse effects are avoided, remedied or mitigated.</i></p>
<p>Managing impacts on established residential areas</p> <p>The site is located in close proximity to established residential properties and owners and occupiers of these properties are entitled to expect a reasonable level of amenity. This is an objective of the District Plan. Quarrying activity and associated traffic can be incompatible with adjacent residential activity if not properly managed.</p>	<p><i>33.2.4 To ensure that activities and developments at least maintain the amenity values and public safety within Business Areas and those of any nearby Residential Areas.</i></p>

<p>Context specific, landscape and ecological values</p> <p>Landscape and ecological assessments have identified a range of values in the site’s wider setting. The planning framework for the Kiwi Point Quarry expansions needs to acknowledge these values and allow for balanced consideration of impacts on these values as quarrying proposals come forward. Of particular importance will be managing the visual impacts of development by quarry rehabilitation and offset mitigation.</p>	<p><i>33.2.3 To recognise where unique development opportunity areas exist within Business Areas and encourage redevelopment of these in a manner that is compatible with, and enhances amenity values and contribute to the City’s distinctive physical character, sense of place and contained urban form.</i></p>
<p>Long term land use once quarrying</p> <p>As has been identified in the CBRE report there is a lack of well located business/industrial land in the city. Once quarrying is completed there will be the opportunity for further development.</p>	<p><i>33.2.1 To provide Business Areas that can accommodate a wide range of business and industrial activities to meet the social and economic needs of the City.</i></p>
<p>Tangata whenua interests</p> <p>Port Nicholson Block Settlement Trust, Wellington Tenths Trust and Ngati Toa Rangatira are Iwi authorities representing tangata whenua interests in Wellington City. Council is required to give effect to the principles of the Treaty of Waitangi and other Iwi resource management practices, including tino rangatiratanga and kaitiakitanga, in the District Plan.</p>	<p><i>20.2.2 To facilitate and enable the exercise of tino rangatiratanga and kaitiakitanga by Wellington’s tangata whenua and other Maori (general objective for all zones)</i></p>

10.4 Assessment of efficiency and effectiveness

Set out below is an assessment of the efficiency and effectiveness of the methods chosen. This is structured under the project objectives identified at the commencement of the investigations.

<p>To enable extraction activity in a cost efficient manner to assist in meeting future regional aggregate demand</p>
<p>Assessment The aggregate demand assessment prepared by Spire and the Indicative Value Impact Report from CBRE identifies significant economic benefits to be derived from development of the land for quarrying and then future industrial/commercial development. Drawing on those assessments a business zoning is most appropriate for the site as without the expansion area the quarry would need to close. A consequence of closure is that aggregate would need to be sourced</p>

from alternative locations. The existing policies and other methods identified in the District Plan once adapted are generally fit for purpose to reflect a business zoning which is tailored to the quarrying opportunities and constraints presented by the site. The policies and other methods identified above are regarded as the most appropriate, effective and efficient means of giving effect to Objective 35.2.1 and Objective 35.2.2.

To plan and co-ordinate effective rehabilitation of the site post-quarry activity to enable viable long-term land use options

Assessment The existing policies and other methods identified in the District Plan once adapted are generally fit for purpose to reflect the need to plan for rehabilitation of both the existing north and the proposed south faces. This will generally be enabled through the certification and review of the quarry management plan.

In addition offset ecological restoration on alternative sites assists in rehabilitation. The amended policies and other methods identified above are regarded as the most appropriate, effective and efficient means of giving effect to District Plan Objectives 35.2.1 and Objective 35.2.2.

To manage the immediate and long-term cultural, social, land use and other environmental impacts of the Project by so far as practicable avoiding, remedying or mitigating any such effects

Assessment Methods for managing adverse effects for the southern face are similar to the manner in which adverse effects are currently managed for the northern face. There are two primary adverse effects potentially with quarrying an expanded quarry face. There are:-

- Residential amenity effects primarily to the closest residential properties in Gurkha Crescent, Shastri Terrace and Imran Terrace. These are mitigated by site specific management controls through compliance with District Plan standards, the imposition of a minimum 70 metre buffer area, hours of operation controls and effective quarry operations, codified and approved by Council as regulatory authority under a Quarry Management Plan. The effects of noise, dust and general disturbance to adjoining residential properties are therefore considered acceptable.
- Ecological effects as with quarrying an extended southern face there will be total loss of existing vegetation and therefore sites of habitat. Effects are mitigated firstly through rehabilitation of cut faces upon completion of quarrying and then secondly by ecological restoration of sites in close proximity through planting.
- Other effects such as traffic are no more than minor as there is no intention of altering the existing SH1 left in left out access to the Ngauranga Gorge.

Overall the amended policies and other methods identified above are regarded as the most appropriate, effective and efficient means of giving effect to District Plan Objectives 35.2.4 and Objective 35.2.3.

To minimise landscape impacts as far as practicable, recognising landscape values in the context of

the gateway experience.

Assessment: Landscape effects of quarrying an extended southern face will be significant as it introduces cut faces upon an area of natural landform. The area is not an outstanding landscape and there has been a long history of quarrying in the Ngauranga Gorge. Mitigation is provided for through effective quarry rehabilitation once cut faces are worked and by ecological restoration of Council owned land in close proximity. With these measures in place it is considered that landscape effects can be managed to an acceptable degree.

10.5 s32(2) considerations

A further part of s32 is consideration of the provisions of s32(2). Each of the constituent parts are commented on below the provision.

An assessment under subsection (1)(b)(ii)²⁷ must—

- (a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*

The overall benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions have been fully outlined in this report sections 10.2 and 10.3 above.

- (i) economic growth that are anticipated to be provided or reduced; and*

By providing for continuation of quarrying this will assist with the city and regions economic growth by providing a well located source of aggregate that is currently utilised for a range of purposes. If quarry operations were to cease economic growth would be reduced as alternative sources would need to be found leading to higher costs per cubic metre of material. As has been stated in the Spire report new quarrying locations within the region would at the very least be challenging to find and develop.

- (ii) employment that are anticipated to be provided or reduced; and*

The existing employment at the quarry would be lost if quarrying was to cease. It has been presumed that this can be offset by quarry employment elsewhere.

- (b) if practicable, quantify the benefits and costs referred to in paragraph (a); and*

²⁷ Assessing the efficiency and effectiveness of the provisions in achieving the objectives;

By extending the life of the quarry, the net estimated financial benefit to the city and community is \$65.3 million, not including the broader direct benefits to the local private construction industry as a direct result of reduced costs associated with maintaining a local supply²⁸. The flat land resulting from quarrying will also provide a development opportunity broadly estimated to be circa \$51 million at 2016 prices.

- (c) *assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.*

Based on the analysis above that the risks of not acting have been identified. This is primarily around the lack of certainty of supply of quarry aggregate in the future. It is also considered that there is sufficient information about the subject matter of the provisions.

²⁸ Spire Consulting Ltd 2016.