



Have your say on Kiwi Point Quarry

wellington.govt.nz/kiwipointquarry

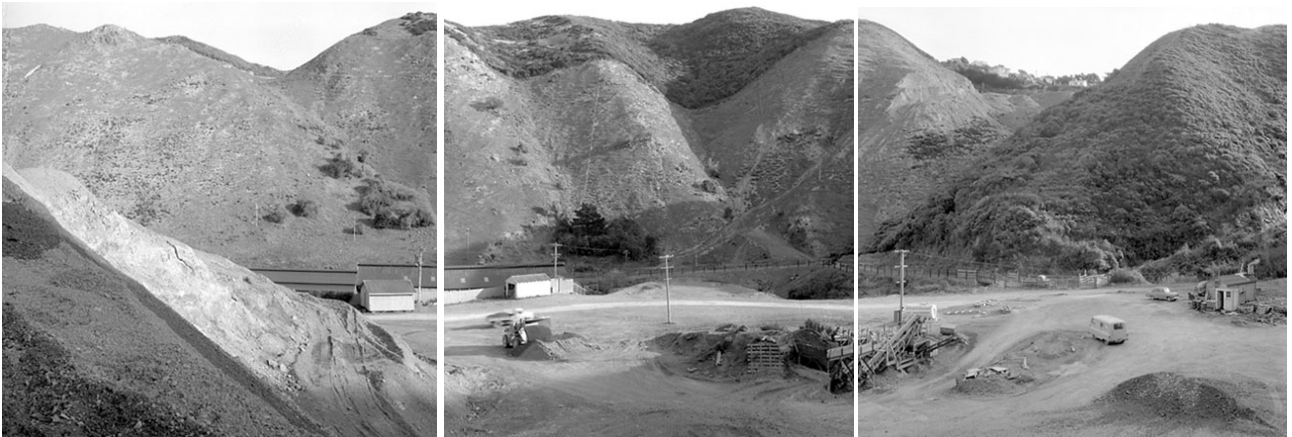
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Kiwi Point Quarry - a brief history

Kiwi Point Quarry in Ngauranga Gorge has existed since the 1920s, with rock extraction taking place since the 1880s. It is the last remaining quarry in Wellington City and is owned by Wellington City Council.

The quarry provides the raw materials to pave roads and build bridges and structures across the Wellington region, which has included redeveloping Lambton Quay, Willis Street, Victoria Street and the Pukeahu National War Memorial Park.



Panorama Kiwi Point Quarry 1964



New crusher in 1967



Quarry expansion in 1967

What is the rock from Kiwi Point Quarry used for?

The aggregate and rock produced at Kiwi Point Quarry are used to build bridges, offices, houses, apartments, tunnels and every road in Wellington. Aggregates makes up 75-90 percent of all the concrete used in construction projects.

Projects in Wellington using Kiwi Point quarry aggregates include:

- Waterloo Quay redevelopment
- Mark Avenue extension and associated developments
- Lambton Quay redevelopment
- Golden Mile redevelopment
- Willis Street redevelopment
- Karo Drive widening
- Pukeahu National War Memorial Park
- Victoria Street redevelopment
- Council roads and footpath maintenance work.

Rock extracted from Kiwi Point Quarry goes into making:

- Roding products - 43 percent
- Asphaltic aggregate - 17 percent
- Concrete aggregate - 23 percent
- Other purpose aggregates - 17 percent.



The future of the quarry

- Based on the current rate of extraction, the existing north face quarry has only a few more years of useful life.
- Forecasts suggest that by 2043 there will be between 53,000 to 82,000 more Wellingtonians in the central city and to the north, which will mean more construction work requiring the types of rock extracted from Kiwi Point Quarry.
- There are two other quarries in the Greater Wellington region. If we don't do anything, resources from these two quarries will be depleted sooner and supplies will have to be transported in from outside the region, increasing costs to Wellingtonians and raising the number of trucks on the road.

There were four options considered by specialists for the future of Kiwi Point Quarry.

- Option 1 was to close the quarry when resources are depleted. This would not help meet aggregate demand or the city's wider obligations around growth and development. A new quarry would have to be identified or aggregate would have to be sourced from outside the region. Either of these situations would result in significantly increased construction costs to the community and the Council.
- Option 2 was to continue quarrying in the permitted south face Business 2 area, but this was discounted because the cost of removing the overburden and spoil would be greater than the value of the high-quality rocks that can be quarried.

This leaves two options - medium development or maximum development of the south face.

OPTIONS	Advantages	Disadvantages
3. Medium development of the south face	<ul style="list-style-type: none"> Construction costs maintained at current level in Wellington No additional heavy trucks on the road Rock resources secured for Wellington for an additional 15 years Some residential buildings will get extended harbour views Rockfall protection for State Highway 1 and Tyers Road Business Park Provides flat land for future development 	<ul style="list-style-type: none"> Closer to residential housing (100m buffer when only 25m required) Increased impact on landscape (before mitigation) Ecological impact
4. Maximum development of the south face	<ul style="list-style-type: none"> Construction costs maintained at current level in Wellington No additional heavy trucks on the road Rock resources secured for Wellington for an additional 20 years Some residential buildings will get extended harbour views Rockfall protection for State Highway 1 and Tyers Road Business Park Provides flat land for future development 	<ul style="list-style-type: none"> Closer to residential housing (70m buffer when only 25m required) Increased impact on landscape (before mitigation) Visual and ecological impact will be similar to Option 3.

Importance of a local quarry

Bulk low-cost products cost more to transport

Quarrying needs to be carried out close to where materials will be used. This keeps transportation costs low and helps keep building costs down in local communities.

For each tonne of aggregate produced, the first 30 kilometres it has to travel doubles the overall cost. There are further costs for every extra kilometre, and these costs are passed on to consumers. That's why it's crucial that aggregates are sourced as close as possible to where they are needed. Development of new quarry sites is expensive, uncertain and challenging.

If aggregate is to be transported from quarries outside the city limits, there will be greater road maintenance costs due to increased truck movements and increased carbon emissions. Kiwi Point Quarry's location next to the motorway means a minimal effect on suburban roads.



“The Aggregate and Quarrying Association are optimistic about the recognition being giving to infrastructure and its importance to our country’s economic future, but less so about how we will meet demand.

Our national plans must take into account that every road and the majority of buildings will need aggregate sourced locally to keep costs down. The importance of quarries cannot be underestimated, so it is crucial to protect existing and future sources of supply.”

Brian Roche,
Chair of the Aggregate and
Quarrying Association

Life after quarrying

Quarry operations are usually long term and they serve the needs of their communities for many years. As resources are extracted from the surface, there will be changes to landscape, vegetation and natural visual impacts. However, our quarry management plan ensures that we progressively restore the quarry's vegetation to help bring it back to its closest natural state.

Ngauranga Gorge is a highly modified environment but retains landscape qualities and characteristics of value. In particular, the gorge is noted as part of the "gateway experience" to Wellington.

Ecology

An assessment of the ecological effects for the proposed expansion site has been done. There are two types of indigenous forest on the site. The forest vegetation is significant because it provides locally important seasonal habitat for indigenous forest birds. The ngaio-māhoe-māpou forest is also significant because it represents the area's likely pre-human vegetation, has high plant species diversity, and provides a habitat for a locally uncommon plant species. Other habitats may be significant for indigenous lizards and fish. Surveys for these will be undertaken in the summer months.

The recommended option for mitigation is to re-vegetate the area adjacent to the proposed expansion area. This area is considered a viable alternative to address mitigation for the loss of ngaio-māhoe-māpou forest. It is Council-owned land and, if agreed by the Council, would be reclassified as reserve land, the same as neighbouring Tyers Stream Reserve and Maldive Street Reserve.

Mitigation

Mitigation is the process of returning the area to a natural state. This can start within the first couple of years of any expansion of the south face and starts from the top of the quarry down. The first 15 metres can be hydroseeded and can start growing quickly, depending on weather conditions. The bare quarried rocks will not be visible for more than a few years, as the process of hydroseeding is continual.



Extent of Option 3: Medium Development - Mitigated 15-20 years after quarrying



Extent of Option 4: Maximum development before mitigation



Extent of Option 4: Maximum Development mitigated 15-20 years after quarrying

Views from State Highway One

Quarrying the south face will be highly visible from State Highway One, particularly to motorists travelling south.

Options are being considered for screening quarry activities from motorists and passengers travelling on SH1 in both directions. This will form an important part of public consultation and engagement, given the significance of this area as a gateway to Wellington. Options could include artworks, urban design

elements including planting, as well as a temporary lighting feature and/or projection art. This would likely need to be static images (which could change regularly) to address highway safety concerns, but would still require appropriate NZ Transport Authority approvals.

As part of this consultation, we are keen to get your feedback on how we might mitigate or screen the quarry site.

Ngauranga Quarry Screen



Considerations:

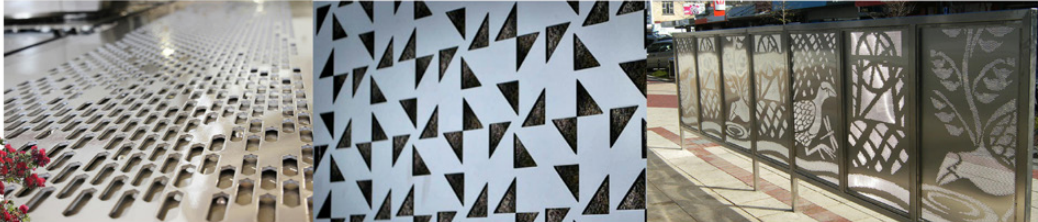
- 20 year life span
- Relocatable
- Wind loading
- Noise (anti whistling)
- Site context - NZ plants
- Opportunity for greening / tree protection

Screen Design

- NZ plants - abstracted design
- Perforated / turret press process
- Zig-zaged for better structural support

Plan View

Screens arranged to provide shelter to promote vegetation growth



Have your say on the future of Kiwi Point Quarry

We want to hear your views on the proposed expansion options for Kiwi Point Quarry.

You can make your submission online at wellington.govt.nz/kiwipointquarry or email your thoughts to kpq@wcc.govt.nz

If you prefer, you can also complete a hard copy form, which you can pick up and submit at Wellington Central Library, Johnsonville Library, Khandallah Library, or Wellington City Council at 101 Wakefield Street, or you can post your filled submission form to us (no stamp needed).

Tell us what you think by **5pm, 30 October 2017**.

Based on your feedback and other evidence available, we may then go through the District Plan Change process with formal submissions from stakeholders, oral hearings and a decision by an independent commissioner.



Approximate locations of the maximum extent of the quarry area cuts under options 3-4

New Zealand Government

Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke