## **Appendix D**

## Landscape & Visual Assessment (Opus)



# McPhersons Quarry Ltd

McPhersons Quarry Expansion Proposal Landscape and Visual Assessment



### **Contact Details**

#### Name: Paul Murphy

Level 3, The Westhaven, 100 Beaumont St PO Box 5848, Auckland 1141 New Zealand

Telephone: +64 9 355 9500 Mobile: +64 27 615 6717

#### Document Details:

Date: 31 August 2018 Reference: 3-39019.00 Status: Issue 1

Prepared By

Villy in

Paul Murphy Principal Landscape Architect

Reviewed By

Terry Palethorpe Senior Landscape Architect

Approved for Release By

Orson Waldock Work Group Manager: Landscape Architecture

# າເຊຍ | opus

### Contents

1	Exe	cutive Summary	3
2	Intro	oduction	4
	2.1	Purpose and Scope of Report	4
	2.2	The Proposal	4
3	Asse	essment Methodology	5
	3.1	Desk top study and scoping	5
	3.2	Data sources	6
	3.3	Site visit	6
	3.4	Describing the existing environment	6
	3.5	Evaluating the magnitude of change to the existing environment	7
	3.6	Cumulative effects	7
	3.7	Effects of magnitude of change	7
	3.8	Statutory and Non-Statutory documents	8
	3.9	Other possible locations	11
4	Land	dscape Character	11
	4.1	Wider Landscape Context	11
	4.2	Site Landscape Context	17
	4.3	Site Landscape Content	17
5	Nati	ural Character Assessment	19
	5.1	Visual Absorption Capability	19
6	Visu	al Amenity	20
	6.1	Viewing Catchment	20
	6.2	Viewing audience	20
	6.3	From houses and farm buildings	20
	6.4	From Roads	21
	6.5	From public places	22
7	Asse	essment of effects	23
	7.1	Landscape effects	23
	7.2	Natural Character effects	23
	7.3	Visual effects	24
	7.4	Visual absorption capability	25
	7.5	Cumulative effects	25
	7.6	Effects of magnitude of change	26

# אאט | opus

8	Conclusion	26
9	Recommended Conditions	27
Appe	ndix A - Viewpoint analysis	28
Appe	ndix B - Definitions	32

# ארא | OPUS

### 1 Executive Summary

McPherson Resources Limited is applying to Waikato District Council for Resource Consent to continue existing quarry activities and expand their quarry at 47 McPhersons Road, Mangatawhiri. The quarry operation has been established for a number of years extracting brown and blue rock aggregate which contribute to the ongoing local and regional development and the social and economic wellbeing of the local communities. The quarry is well located close to State Highway 2 (SH2) to continue providing a vital resource to the area.

The site is located in the southern foothills of the Hunua Ranges and is edged on the east and west sides by areas identified as a Significant Natural Feature (SNA) in the Waikato District Plan. The Operative version of the plan has the SNA crossing the site, whereas the Proposed version of the plan shows the SNA stopping either side of the site, which is the reality of the situation given that the quarry has been in place for over 60 years. The proposed expansion will remove small areas of the in the east, Stage 1, and west, Stage 3, as shown in the Vegetation Assessment, Map 2. The band of vegetation to the south of proposed Stage 3 will remain and it is likely that there will be negligible effects on the SNA due to the proposal.

The quarry is operating with existing use rights and has been in existence for a number of years and as such can be considered to form part of the local character, located in a landscape which has been modified for the purposes of farming, agricultural production and industrial activities.

The proposed SH2 realignment will further remove the transient viewing audience from the proposal site and further reduce potential effects. The SH2 intersection with McPherson Road will have some minor alterations to the existing roadside embankment to improve visibility for turning traffic. There will be a small increase in quarry traffic as the volumes to be removed increase slightly form the current level. It is unlikely that this will have any effect on the existing environment.

The expansion of the quarry will be in incremental steps for each of the stages and involves cutting and benching of the quarry face. The operation is of small scale and the machinery involved in exposing the resource is similarly small in scale and number. The changes may be briefly noticeable through a change in colour appearance of the face, although this will weather over time to a similar appearance as the existing quarry. The scale of the benching is smaller than that currently employed. The activity is a continuation of the existing activity and not a new activity which will likely reduce the impact and effects of change on viewers.

The overburden area is located to the south of the quarry on land currently in pasture. The area is low in the landscape and not widely visible beyond the immediate environment of the site. The level of material will fluctuate as material is stored and removed from site. A band of mitigation planting is proposed for the southern edge of the overburden area to reduce potential effects on the closet neighbours.

It is considered that the proposed expansion is in keeping with the relevant principles of the Resource Management Act and objectives and policies of the District Plan and the overall level of effects is low. This conclusion was reached due to a number of factors including, the limited viewing catchment and audience, the gradual development of the site is proposed over a long period of time, potentially in excess of 30 years, and the location of a large area of the expansion is away from a direct line of sight.

### 2 Introduction

### 2.1 **Purpose and Scope of Report**

WSP-Opus has been engaged by McPherson Resources Ltd to assess the landscape and visual effects of the proposed quarry expansion of the McPhersons Quarry site located at 47 McPhersons Road, Mangatawhiri. The site is located on the northern side of State Highway 2, approximately 2.7 km east of the State Highway 1 – State Highway 2 interchange at Pokeno. Refer to Attachment A – Graphics Supplement, Context Plan, Sheet 4.

The potential effects on natural character, landscape and visual amenity are assessed using professional judgement to evaluate the relationship between a site's sensitivity and the magnitude of change. The seven-point scale as recommended in the New Zealand Institute of Landscape Architects (NZILA) Best Practice Guide<sup>1</sup> is used to rate the overall effects:

### 2.2 The Proposal

The existing quarry is a small-scale operation and has been part of the local landscape for over 60 years. The site is located away from a large viewing audience, with good access to SH2. The existing quarry includes a series of cut faces and benches with haul roads and manmade watercourse diversions and ponds, most of which are not seen beyond the site. The processing and stockpiling activities take place on the quarry floor and are not seen beyond the site. A number of buildings are located near the floor of the quarry and are not visible beyond the site. With the exception of the highest quarry faces, the operation is largely unseen from beyond the site.

The proposal is to extend the existing quarry to the north and west of the existing operation. Refer to **Attachment A – Graphics Supplement, Staging Plan, Sheet 5.** The proposal is to be implemented over 3 stages, which could be up to 30 years. The process includes the following:

- the stripping of topsoil and overburden to expose rock for quarrying
- stockpiling of reusable soil for future use
- stockpiling of overburden, refer to Attachment A, Staging Plan, Sheet 5
- extraction of blue rock, with some brown rock
- stockpiling on site of extracted material, some material is sold
- movement on site excavators, diggers, trucks
- movement off site trucks, small increase in number, small changes to SH2 intersection to improve sight lines
- other facilities required, buildings etc no new buildings proposed at this time
- removal of existing ponds B, C and D Refer to Attachment A, Staging Plan, Sheet 5;
- forming new water courses and ponds Refer to WSP-Opus Stormwater report
- rehabilitation/mitigation beyond 30 years

<sup>&</sup>lt;sup>1</sup> NZILA Best Practice Guide - Landscape Assessment and Sustainable Management 10.1. The ratings are - Extreme/Very High/High/Moderate/Low/Very Low/Negligible

# ארא | opus

Refer to Attachment A, Sheet 5 for proposed staging.

**Stage 1** includes expansion of the existing quarry to the north and west, with a minor expansion to the east, resulting in the removal of a small area of regenerating vegetation<sup>2</sup>. Removal of Pond C;

**Stage 2** includes expansion to the north and west of Stage 1 with the inclusion of a water diversion channel, removal of Pond B and implementation of a small bund above the quarry face, Removal of small stands native vegetation<sup>3</sup>; and

**Stage 3** includes expansion to the west, removal of Pond D.. Vegetation removal is largely pasture and gorse, with 2 small stands of native regenerating bush at the extreme west of the stage.<sup>4</sup>

**Overburden storage area** is to the south of the quarry and is located in a modified landscape with predominant pasture cover.

The quarry face will be cut and benched as the quarry expands. Vertical faces will be a maximum of 15 m high with a 7.5 m wide bench. The scale of the benching and cutting is smaller than that currently experienced in the quarry. An indicative quarry section is shown on Sheet CO1 in WSP-Opus Hydraulic Assessment Report.

The time period for the expansion is not definitive and could be expected to take a number of years, and will be dependent on the volume of resource. As an indication, Stage 1 and 2 could take 10-15 years and Stage 3 up to 30 years.

Soil will be stripped along with overburden, a process which is required to expose the rock for quarrying. This will be carried out using a combination of hydraulic excavators, front-end loaders, dump trucks and bulldozers. All recoverable soil will be stored on-site for future rehabilitation uses. Overburden which is not saleable will be located in the overburden placement sites, material will be transported within the site by dump truck. Overburden will be placed on land to the south of the quarry area, Refer to Page 14, Attachment A.

Rehabilitation of the quarry will be implemented on completion and use native planting to establish an ecological corridor across the site. There is no definitive time for the rehabilitation to be implemented.

All overburden will be placed or stored on land to the south of the quarry at 93 Irish Road. The material will be available for rehabilitation purposes or for sale as appropriate, therefore the scale of the overburden material will fluctuate.

The overburden area will extend to within 20.0m of a stream which runs across the site. The land between the stream and the extent of overburden will be planted to provide screening of the stockpile.

Provisions will be made to establish methods to ensure that long term management of stormwater run-off minimises the risk of soil erosion and sediment discharge from the rehabilitated land.

### 3 Assessment Methodology

### 3.1 Desk top study and scoping

Preparation for this LVA has also included the collection of baseline information through desktop studies and coordination with other disciplines. The methodology for this Assessment is modelled

<sup>&</sup>lt;sup>2</sup> WSP- Opus McPhersons Quarry Vegetation Assessment. 4 Ecological Assessment - 4.2.1

<sup>&</sup>lt;sup>3</sup> WSP- Opus McPhersons Quarry Vegetation Assessment. 4 Ecological Assessment - 4.2.2

<sup>&</sup>lt;sup>4</sup> WSP- Opus McPhersons Quarry Vegetation Assessment. 4 Ecological Assessment - 4.2.3

### NSD OPUS

on the New Zealand Institute of Landscape Architects Best Practice Notes<sup>5</sup> and has been undertaken by an NZILA Registered Landscape Architect with reference to the Quality Planning Landscape Guidance Note<sup>6</sup>.

The desktop study includes the following: -

- Describe proposal;
- Describe landscape and planning context; and
- Confirm desk top plan of accessible areas, likely viewpoints and viewing audience;
- Establish landscape quality from base line studies already established (as outlined in scoping report) including:
  - Confirm opinion
  - Identify any localised issue and update opinion

### 3.2 Data sources

The following sources were used in preparing the Landscape and Visual Assessment: -

- Relevant statutory planning documentation; RMA, Regional Plans, District Plans;
- Non-statutory documentation; Character assessment;
- Google earth;
- Site visit observations;
- NZ 1:50,000 Topographic maps (BB32 Papatoetoe; BB33 Hunua);

### 3.3 Site visit

A site visit was completed on 25<sup>th</sup> July 2018 during the preparation of this LVA document. The visit included a visit to the existing quarry and the surrounding area to assist in understanding the receiving environment. The purpose of the visits was to: -

- To confirm and establish visibility from the surrounding area, including from public roads and publicly accessible locations; and
- Confirm landscape quality.

Visits were not made to individual neighbouring residences.

### 3.4 **Describing the existing environment**

This includes describing the natural character, landscape and visual character against which the potential impacts can be assessed. The assessment includes:

- Determining the relevant statutory context including Resource Management Act, Waikato Regional Policy Statement;
- An assessment of natural character and landscape attributes in the vicinity of the proposed expansion area;
- Identifying the visual catchment and viewing audience through mapping and site observation; and

<sup>&</sup>lt;sup>5</sup> NZILA Landscape Assessment and Sustainable Management 10.1 - Best Practice Note <sup>6</sup> Quality Planning - Plan Topics, Landscape 2013.

# \\sμ | opus

• Identifying key viewpoints

### 3.5 Evaluating the magnitude of change to the existing environment

The magnitude of change assesses the nature and scale of the change that could be expected from the implementation of the quarry expansion. The assessment covers the following:

- Changes to Natural character an assessment of the magnitude of change to the existing landscape character;
- Landscape and visual assessment under Section 6(b) of the RMA was undertaken to determine the potential effects of the proposal on landscape values; those identified as Significant Natural Areas (SNA's) in the District Plan. The assessment considers how the landscape features are affected or compromised by the proposal. The assessment considers the Visual Absorption Capability for each site; and
- Changes to Visual amenity this relates to effects resulting from the proposal and the ability for residents and visitors to experience the proposal. Effects are largely dependent on the extent to which the proposal is visible.

The seven-point scale used in all these cases is extreme/very high/high/moderate/low/very low/negligible.

### 3.6 Cumulative effects

The assessment of cumulative effects considers the natural character, landscape and visual amenity effects of the proposal in relation to other similar activities in the area and whether those activities can be seen in the same view. This also considers whether there are any potential cumulative effects of the proposed quarry expansion.

### 3.7 Effects of magnitude of change

The magnitude of change assesses the nature and scale of the change that could be expected from the implementation of the quarry expansion. The assessment describes the magnitude of change and the sensitivity to change as per Table 1 below. The assessment addresses the physical extent of the impact, the context of the impact and the timescale (temporary or permanent).

Sensitivity is the measure of the visual importance of the view and depends on the following factors:

- Distance between viewer and proposal;
- The category of viewer resident, visitor, worker;
- The elements of the proposal which are visible; and
- Importance of the view

	Sensitivity to change					
Magnitude of Change	Low	Medium	High			
Extreme	Moderate/ substantial	substantial	unacceptable			
Very high	moderate	Moderate/ substantial	substantial			

High	moderate	Moderate/	Moderate/
		substantial	substantial
Moderate	moderate	moderate	moderate
Low	slight	Slight/ moderate	Slight/ moderate
Very low	Insubstantial/ slight	Slight/ moderate	Slight/ moderate
Negligible	insubstantial	insubstantial	slight

#### Definitions criteria:

#### Magnitude

- Extreme unacceptable change
- Very high significant change
- High major change
- Moderate moderate change
- Low low level of change
- Very low barely perceptible change
- Negligible no discernible change

#### Sensitivity

- Low largely tolerant to change, transient viewers
- Medium reasonably tolerant to change, viewers not in proximity to proposal
- High sensitive to small change, viewers in close proximity

### 3.8 Statutory and Non-Statutory documents

A number of documents have been reviewed in complying the assessment and include:

Resource Management Act: 1991; Section 5, Section 6 (a) + (b), Section 7 (c) + (f)

The development must meet the requirements of the Act, therefore the assessment of visual and landscape effects addresses the requirements of Part 2 of the Act

6 Matters of national importance

(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development

7 Other matters

(c) the maintenance and enhancement of amenity values;

(f) the maintenance and enhancement of the quality of the environment

With respect to Section 6(b), the proposal site does not include any identified outstanding natural features or landscapes.

With respect to Section 7(c), the effects of the proposed quarry expansion on existing rural amenity is likely to be low. The quarry is an existing feature of the landscape and the proposal will see the expansion expand inland, away from viewers and in a location which is not highly visible. The rural character will remain the dominant character. There will be no change to the foreground or

## ∖ւsp≑opus

background of the proposal site and the existing features of the rural landscape will remain unaltered.

#### Waikato Regional Policy Statement: May 2016;

- 3 Objectives
- 3.20 Outstanding natural features and landscapes
- 3.21 Amenity
- 3.22 Natural character
- 12 Landscape (including seascape), natural character and amenity
- Policy 12.1 Outstanding natural features and landscapes
- Policy 12.2 Preserve natural character

Policy 12.3 Maintain and enhance areas amenity value

#### Waikato Landscape Assessment: 2010;

Identifies the various character areas of the Waikato Region, locating the subject site in the Hauraki Plains character area. There are no Outstanding Natural Features and Landscapes or High Value Amenity Natural Features and Landscapes or Significant Landscape Features on the site.

#### Operative Waikato District Plan

3.4 Issue - Landscape and Visual Amenity Values

Objective 3.4.1 – Landscapes and visual amenity values, as viewed from public places, are retained and enhanced.

Policy 3.4.2 - Natural features and landscape, including locally distinctive landforms and prominent ridgelines, and general visual amenity values should be protected from inappropriate subdivision, use and development, in particular by:

e) avoiding, remedying or mitigating as soon as practicable, the adverse visual effects of earthworks and vegetation clearance by:

- Retaining vegetation, and
- Restoring natural contours and replanting with appropriate species, and
- Limiting the area of soil exposed by earthworks and the length of time it is exposed, and
- Locating and constructing roads, tracks and vehicle accesses to minimise their visual impacts.

#### 13.6 Rural Character

Objective 13.6.1 - Rural Character is preserved.

Policy 13.6.2 Rural subdivision and development should be of a density, scale, intensity and location to retain or enhance rural character, ... While recognising that mineral extraction activities are of a different scale and intensity, and where appropriate should be accommodated.

Objective 13.6.5 The cumulative effects of subdivision or development on rural character and amenity values are avoided.

## NSD OPUS

Policy 13.6.9 Subdivision, use and development should not further compromise rural character in rural areas already modified by non-rural activities.

### Franklin District

16.2.3.2 Issue - Rural and Coastal Amenity and Character

Attributes that can contribute to rural character, but are not limited to, the following:

- a) The dominance in the landscape of natural vegetation and dynamic primary production regimes, including pasture, crops and forestry;
- b) The absence or subservience of manmade structures other than those related to rural production activities;
- c) A high ratio of open space relative to the built environment;
- d) Significant areas of land in pasture, crops, forestry and/ or indigenous vegetation;
- e) and
- f) Low population densities relative to urban areas

17C.3.2 Objective - Coastal and Rural Amenity and Character

#### 17C.3.2.2 Objectives

- To avoid or minimise the adverse effects of activities on outstanding natural features and significant habitats
- To manage other effects on rural and coastal landscapes, character and amenities
- To maintain and/ or enhance the character of rural and coastal zones

#### 17C3.2.3 Policies

• Proposed mineral extraction activities shall be assessed against their impact on rural and coastal landscapes

#### Waikato District Plan: 2013; Franklin Section. The proposal is a Discretionary activity.

#### 3. Landscape Treatment and Screening

The extent to which landscape treatment and screening will avoid, remedy or mitigate the adverse visual effects of the proposal (including those areas where extraction has been completed) and shall include but not be limited to the following:

#### b) General Amenity Planting

Where planting trees will achieve visual screening, trees shall be planted and maintained to avoid, remedy or mitigate any visual impacts which are due to the appearance of any aspect or part of the extraction activity or site which is or could become incongruous with the rural or natural character of the surrounding areas; where agreement with affected adjoining property owners can be obtained and is submitted in writing to the Council, such planting may also be on those affected properties provided that the cost of all such works shall be entirely borne by the owner or occupier of the extraction activity site.

#### c) Rehabilitation

Land which is excavated or is disturbed by deposition of overburden shall be rehabilitated as soon as practicable.

# NSD OPUS

### Proposed Waikato District Plan July 2018

Chapter 3: Natural environment

3.4 Significant Amenity Landscapes

- 3.4.1 Objective Significant amenity landscapes
  - a) The attributes of areas and features valued for their contribution to landscape values and visual amenity are maintained or enhanced.
- 3.4.2 Policy Recognising Significant Amenity Landscapes
- 3.4.3 Policy Maintaining and enhancing Significant Amenity Landscapes

Chapter 5; Rural Environment

5.3 Rural Character and amenity

- 5.3.1 Objective Rural character and amenity
  - a) Rural character and amenity are maintained

Under the Proposed District Plan, the relevant Planning Map indicates the Significant Natural Area of the Operative plan does not connect across the site, which has been the case for as long as the quarry has been in operation, and confirmed when historic aerial views of the site are reviewed.

### 3.9 Other possible locations

The RMA requires a description of any possible alternate locations where the proposed activity will result in *any significant adverse effect*. No other locations have been assessed in the scoping exercise as the proposal is a continuation of an existing activity and other locations would not be connected to the site.

### 4 Landscape Character

The landscape character has been described based on a site visit and desktop analysis of aerial photos and maps of the surrounding area.

"Landscape is the cumulative expression of natural and cultural features, patterns and processes in a geographical area, including human perceptions and associations."<sup>7</sup>

### 4.1 Wider Landscape Context

The subject site is located in a rural area at the southern extent of the Hunua Ranges. State Highway 2 (SH2) generally marks the change from the flat land of the Hauraki Plains to the south and the hill country to the north.

The northern side of SH2 has an undulating pattern of spurs and gullies ascending to the north with uses including pastoral, horticultural, commercial activities and lifestyle bocks. There are a limited number of roads off SH2 to the north which serve a small and generally scattered arrangement of rural properties. The largest collection of dwellings is located along Pinnacle Hill Road, approximately 1.2 km east of the subject site. **Refer to Photograph 4** below. The road is separated from the subject site by a number of spurs and stands of vegetation. Vegetation cover

<sup>&</sup>lt;sup>7</sup> NZILA Best Practice Guide 10.1

# ∖ւsp≑opus

includes native bush cover and stands of exotic forestry species. The Vegetation Assessment prepared by WSP-Opus details the vegetation cover in more detail.

To the south of SH2, the land is generally flat and is the beginning of the Hauraki Plains. **Refer to Photograph 1 below**. Land use is largely a mix of horticultural and agricultural activities with large lots and scattered dwellings and accessory buildings. To the south west is a large wetland area adjacent to State Highway 1 (SH1), approximately 3.0 km from the subject site. The Waikato River is located approximately 6.5 km south of the subject site on the western side of SH 1, where it turns and heads to the west.

To the west, the landscape is a mix of flat and gentle to moderate contour rising toward the north. Land uses include commercial activities including the Max Birt Sawmill, approximately 1.2 km south west of the subject site, located on 137 ha, and the Redfire Nursery located on O'Leary Road, approximately 1.5 km south west of the subject site on 364ha of land. Other land uses include horticultural and agricultural activities and a mix of native and plantation vegetation cover across to SH1. SH1 is approximately 2.8km from the subject site.

The Mount William Walkway is located at the end of McMillan Road, noted as an advanced tramp, the track heads north from McMillan Road, through the Mount William Scenic Reserve and continues north to the peak of Mount William at 369 m. The track continues north to Puketutu Road and the peak of Puketutu at 376 m. The track is closed seasonally for lambing. Access to a kauri grove within the reserve has been permanently closed. The Mount William track is open to the public and is located approximately 1200m west of the existing quarry. The lower track is located in bush and the upper path is through more pasture. Views from the summit are over a wide area to the south from east to west.

A review of aerial photographs reveals a strong land patterning on a mix of small to medium lifestyle type holdings. West of SH1 is Pokeno, which is a developing residential area. Notable features in Pokeno include the large Hynds concrete plan and the Yashily milk plant, both visible from some distance. **Refer to Photo 2** below. There is a substantial quarry on Ridge Road, Holcim Aggregates, and the Allied Concrete plant, approximately 3.8 km west of the subject site. The Ridge Road Quarry is a further large operation on Ridge Road of a similar nature to the subject site.

There are numerous watercourses in the area which generally head to the south and west and join the Waikato River, with many starting in the hill country around the subject site before flowing toward the wetland and eventually the Waikato River.

The key features of the overall landscape character include:

- Undulating landform to north, transitioning from Hunua foothills to Hauraki Plains
- Flat, pastoral land of Hauraki Plains to the south transitioning to bush covered ranges to the north;
- Exotic plantation trees east of the site;
- Exotic trees and shelter belts in pasture and production areas;
- Key landscape features and high points include Mount William and Puketutu peaks; and
- Watercourse and wetlands leading to the Waikato River.

Key land use features include:

• Productive land use including pastoral grazing, horticultural blocks with distinctive field patterning;

# NSD OPUS

- State Highway 2, transport route;
- Commercial land uses including quarry's, sawmill and nursery;
- Scattered rural housing and associated accessory buildings; and
- Rural service centre at Pokeno

In general, the rural character of the area aligns with the features identified in Policy 13.6.2 of the Waikato District Plan including:

- a) A very high ratio of open space in relation to areas covered by buildings.
- b) Open space areas in pasture, trees, crops or indigenous vegetation
- c) Tracts of unmodified natural features, indigenous vegetation, streams, rivers, wetlands and ponds

While recognising that mineral extraction activities are of a different scale and intensity, and where appropriate should be accommodated.

The flat contour limits the experience of all of these uses, with those activities in close proximity to the road network most engaged with.

Refer to Photos of existing landscape.



Photo 1 - view to the south east from quarry entrance, looking over Hauraki Plains. Features are largely pastoral with assorted vegetation patterns, predominantly in shelter belts or stands of trees.

### ארא | opus



Photo 2 – view to south west toward Pokeno, Yashily Milk plant is the large white structure. Landscape includes mix of pasture and shelter belt/ hedge planting with scattered buildings.



Photo 3 – view to west toward Mount William summit. Track is located in bush on lower extent before continuing in pasture to the summit. Track is approximately 1200m west of the existing quarry. The bush covered slopes are part of the Significant Natural Area. Pond A in the foreground.

### \\sp | opus



Photo 4 - view to north toward Pinnacle Hill Road, features include more undulating landform, exotic tree cover in shelter belts and stands, large areas of pasture, scattered buildings.



Photo 5 - view from intersection SH2 and Irish Road, looking north. Landscape includes more built features of a larger scale, hedges, pasture and shelterbelts. Roads have no kerbs or footpaths. Undulating hill country background.

### \\<mark>\</mark>]) | ΟΡUS



Photo 6 - view from intersection SH2 and Irish Road, looking along SH2 to east. Road is enclosed by shelter planting. Traffic volumes vary by time, day and season. High speed environment (90km/h).



Photo 7 - view of wider landscape from Pokeno, pasture planting. Approximate site highlighted.

## ∖ւsp≑opus

### 4.2 Site Landscape Context

The immediate site context includes pasture to the north and south and a mix of bush cover and pasture to the east and west. The subject site is located between two spurs ascending to the north. The bush cover to the east is on steeply sloping land, falling into a gulley to the east, before rising steeply to a further spur. Refer to **Photographs 1-4**.

To the west the land rises gently to a moderate spur ascending to the north. The land continues in a series of gullies and spurs with water courses and bush cover.

To the south is flat pastoral land. To the north is moderately sloped land rising to the north and a developing lifestyle subdivision, with the closest dwelling approximately 530 m north of the existing quarry.

There are a small number of dwellings in close proximity to the subject site, although there are none within a 400 m radius of the existing quarry. Dwellings tend to be located close to roads and have planted vegetation in close proximity, largely providing shelter from prevailing winds.

When viewed from SH2 heading west, the upper extent of the western edge of the site is partially visible above a pastoral foreground and against a bush background. When viewed from SH2 heading east, the full extent of the existing quarry face is visible above a pastoral foreground, flanked either side by bush clad slopes. There is a minimal pastoral background above the site visible.

### Refer to Attachment A, Sheet 4

### 4.3 Site Landscape Content

The site itself includes the 'V' shaped quarry face with large benches. The quarry is largely free of vegetation, there is some self-seeding pampas, and there are no significant or notable identified features within the site. The Operative Waikato District Plan indicates a Significant Natural Feature extends across the site providing a corridor link. The existing quarry breaks this link and it is not actually present. Areas to the east and west of the site are identified as Significant Natural Areas in the Proposed Waikato District Plan. To the west the SNA is partially on the subject site, but generally outside of the expansion footprint. To the east a small area of the SNA is within the proposed expansion footprint. The existing quarry is not part of this designation. Refer to **Page 5**, **Context Plan of Attachment A**.

There is a small area of native bush cover to the east of Stage 1 and scattered stands of vegetation across Stages 2 – 3. There are a number of small ponds across the site, noted as Ponds A-D in the Hydraulics Assessment Report prepared by WSP-Opus, with manmade water courses falling to the east. The existing quarry is located toward the south east of the subject site and includes a number of buildings associated with the quarry operation, close to McPherson Road. A stockpile area is located at the southern end of the site.

The quarry face presents a contrasting appearance to the surrounding bush cover and pastoral land uses. **Refer to Photograph 8** below. The colour of the cut and benched faces, exposing the rock resource, is in contrast to the predominant green of the surrounding landscape. The weathered grey / black colour is recessive when viewed from a distance and is similar in appearance to the surrounding bush cover colour. **Refer to Photograph 9** below. The quarry has been in operation for 60 years, so the appearance of cut faces has been a consistent element in the landscape and the expansion won't be a new element in the landscape and is considered to be part of the existing landscape.

An overburden stockpile area is located to the south of the quarry on flat pasture.

### Refer to Attachment A, Site Plan, Sheet 5.

# າເຮµ∣ opus



Photo 8 - view of existing quarry, looking north from site entrance



Photo 9 - view of existing quarry face

# ארא | OPUS

### 5 Natural Character Assessment

The subject site sits at the base of the Hunua Hill range extending from east to west. The foreground to the site is largely pastoral with shelter belts, hedges and trees and associated buildings. **Refer to Photos 1-4**. There are numerous small watercourses dissecting the paddocks which are generally outside the subject site, generally heading to the west, which are part of the Waikato River Catchment. Watercourses are a combination of modified and natural passages, largely unfenced where they pass through pasture areas.

Under the Operative District Plan, the subject site is bordered to the north and west by an Environmental Enhancement Overlay area and has an Ecological Corridor extending across the site although this is interrupted where it crosses the subject site. The Proposed District Plan indicates a break between Significant Natural Areas.

The flat land to the south of the subject site is highly modified and used for agricultural, horticultural and commercial activities including grazing, cropping, glass houses, timber mill and nursery production. The hill country has a more intact natural character through the retention of tracts of native bush cover. These form quite extensive linked areas, although the link is broken across the subject site.

The key components of the proposal which have the potential to affect the landscape and visual amenity include:

- Changes to the quarry faces in form and location
- Colour contrast between quarry face and surrounding land
- Machinery movement associated with the quarry expansion and operation

### 5.1 Visual Absorption Capability

Visual Absorption Capability (VAC) is the capability of the surrounding landscape to absorb a development as in being the ability of a landscape to integrate a development into the existing visual character without significant change.

Factors which determine the VAC include:

- a) the degree to which the development is visible;
- b) visual and physical links with other similar elements in the landscape;
- c) the level of modification to the surrounding landscape;
- d) appropriateness of scale;
- e) distance; and
- f) backdrop.

The following VAC ratings are applied.

Very low - highly visible, potential focal point, different in appearance or scale to existing

Low - clearly visible, not a primary focal point, alter existing character

Neutral - neither screened or a focal attraction, no effect on existing character, a visual element which may viewed in similar landscape types

Moderate - partially screened or visually absorbed, still readily identifiable, secondary focal point, no effect on existing character

## \\sp ⊨opus

High - mostly screened or visually absorbed, still identifiable, tertiary focal point, no effect on existing character

Very High – completely or nearly completely screened, unidentifiable at a distance, no effect on existing character

### 6 Visual Amenity

### 6.1 Viewing Catchment

The viewing catchment is confined to a small area, largely to the south, east and west. The catchment is defined by the series of spurs and gullies to the east and west of the site. The catchment to the south flat and offers a broader view but is quite sparsely populated with little built development. SH2 and planting and contour alongside the road restrict the views from the road corridor. The local road network connects to SH2 and provides access to residential dwellings. The nature of the roads is narrow, undulating and winding and the degree of enclosure is created by placement within cuttings and vegetation alongside the road. The areas proposed for the expansion are currently not clearly visible from outside the site, views from the east are blocked by contour and vegetation, views from the north look over the site, from the south look across pasture and vegetation and the west over pasture and vegetation.

### Refer to Attachment A, Sheet 6 Visual Catchment Plan.

### 6.2 Viewing audience

The viewing audience is likely to consist of the following:

- Motorists travelling on SH2, both east and west, with transient views;
- Motorists/ pedestrians on local roads, predominantly those heading south, transient views, pedestrian volume is likely to be low as there are no footpaths;
- Residents of dwellings on properties around the site, small number, fixed views;
- Recreational walkers using the Mount William walking track, transient views experienced at walking pace. Views generally experienced at the summit and on descent. The summit offers an expansive view to the south from east through to west;
- Employees of the commercial premises, secondary views; and
- Workers on the land around the subject site, secondary views.

### 6.3 From houses and farm buildings

Dwellings are generally well separated from the subject site, with the closest property approximately 450m south of the existing quarry. Individual dwellings were not visited to assess the potential effects of the proposal. Locations were identified from a site visit and the use of Google Maps, including street view. Houses tend to be singularly placed and usually in close proximity to the road. Many include planting around the dwelling to protect from prevailing wind, which limits or restricts views of the subject site.

The highest density of housing is on Pinnacle Hill Road, approximately 850 m east of the subject site. Houses are generally in close proximity to the road and dwellings tend to be surrounded by vegetation

A small cluster of houses have recently been developed to the north of the subject site off Pinnacle Hill Road. The closest dwelling is approximately 375 m north of the northernmost extent of Proposed Stage 3. These houses are mostly visually screened from the subject site by an existing exotic evergreen shelter belt, approximately 10.0m tall x 300.0m long in an east west alignment.

Other dwellings are located to the south of the subject site on Baird Road, south of SH2, and tend to be set in landscaped gardens. Baird Road is in excess of 1.5 km south of the subject site.

To the south west dwellings are located on McMillan and Irish Roads, with the closest dwelling on Irish Road approximately 375 m south of the subject site. Other dwellings west of the site are generally oriented away from the site.

Other residential dwellings are located across the landscape, in excess of 500m, and are located relative to productive land uses and tend to be singular locations. Enclosure with planting is also typical of these properties, limiting views toward the site. Vegetation between the properties and the subject site further contribute to limiting views toward the proposal.

### Refer to Context Plan on Sheet 5 and Visual Catchment Plan on Sheet 7 of Attachment A.

The magnitude of change of the proposal is considered to be low/ moderate given the extended time period of the development and the incremental changes, rather than a sudden change. The entire development is unlikely to be seen in view given the intervening vegetation, orientation of view and distance. The sensitivity of viewers from residences is medium as the viewers are generally not in close proximity to the proposed development and the foreground will not be affected, the background is also likely to remain unchanged.

The visual effect level from dwellings is considered to be low. The majority of the proposal is unlikely to be seen given the angle of view and separation distance from the site. Stage 3 is located behind existing vegetation which will remain and is oriented away from viewers. Any views of the proposal will present a view similar in character to that which is currently experienced, being cut faces of the quarry wall. There may be some variation in colour of the cut face initially, but this is likely to weather over time to match the existing quarry.

The visual absorption capability when viewed from the buildings is high, the proposal is mostly screened and the proposal is similar to the existing character. There is no effect on the skyline, the foreground or background and the proposal is largely absorbed by the existing landscape. The viewing distance and the incremental change also contribute to absorbing the proposal.

### 6.4 From Roads

There are limited views of the subject site available from SH2 travelling east and west. SH2 is a major road connection to the south and east and has large volumes of traffic, which varies with the time of day, the day of the week and the season. The road is generally two lanes with occasional shoulder and is in a 90 km/h speed zone. There is no kerb or channel to the road and limited lighting.

Views from the west are available intermittently from west of the Max Birt Sawmill when travelling east. Views are moderated by the height of the road which differs between being located in cuts or at grade. The view towards the site is lost just east of Irish Road and is available again from a sweeping left hand corner opposite 264 SH2. Other influencing factors include the existing roadside vegetation, often in the form of hedges or shelter belts. The proposed expansion areas are difficult to distinguish from the existing site. There is no view of the subject site once past McPherson Road heading east.

A short duration view is available for motorists travelling west on SH2, approximately 600m east of McPherson Road. The view is of the upper extent of the existing quarry face. The view is not

available once past McPherson Road. The proposed expansion areas are not visible when travelling to the west.

The proposed realignment of SH2 will take the road further south of the subject site and alter how the site is experienced. The proposal currently includes a 4 lane road on a slightly raised profile. The road alignment will be further from the site and offer a wider view of the area which may include the quarry, although as a smaller element of the overall view. The scale of the proposed expansion is unlikely to be greatly different from the exiting condition.

There will be small changes to the intersection of SH2 and McPherson Road to improve sight lines for turning traffic. There will be a small increase in truck movements in and out of the site. This increase is considered to be negligible for the majority of viewers. The realignment of SH2 will have a more noticeable effect and could serve to reduce the impact on traffic movements depending on any future interchange configurations or a reduction in traffic on the existing SH2.

The magnitude of change for motorists is considered to be very low as the experience of the site is incidental to the purpose of travel. The incremental change and expansion relative to the road will also limit the experience of change for motorists. The experience from the road is generally a secondary or tertiary experience, and the sensitivity of the viewer group is low as it is a transitory experience.

Views of the proposal from McPherson Road are only available in close proximity to the site, within 100 m of the site entry, heading north. McPherson Road ends just past the quarry entrance and serves a small number of properties.

Views from Pinnacle Hill Road are unlikely due to the existing vegetation between the road and the site. Views from other local roads, Irish Road, Baird Road, Serpell Road are likely to be glimpse views only with a large separation distance and intervening elements including vegetation and buildings. Views from these smaller local roads will be for local traffic in small volumes. The character of the expansion is similar to that currently experienced.

The visual absorption capability when viewed from the road environment is high, the proposal is mostly screened and the proposal is similar to the existing character. Engagement with the site is short in duration and secondary to the activity of travelling.

### 6.5 From public places

Views from public places are limited in number with the only likely location being the Mount William walkway which is located approximately 1.0km to the west of the subject site, Refer to **Context Plan on Sheet 5 of Attachment A**. A small parking area at the end of McMillan Road would not have any views. Views from the track would be available where the track is in pasture areas which is on the higher areas above the bush line, less likely from bush areas. Views from the summit may be available, although the subject site is not likely to be the centre of focus in an expansive view. The sensitivity of the viewer group is low, with low numbers of users, separation distance from the site and lack of effects on the wider landscape.

The visual absorption capability when viewed from the public places is very high, the proposal is mostly screened, there is a small viewing audience and the proposal is similar to the existing character.

### 7 Assessment of effects

### 7.1 Landscape effects

The proposal will bring about changes to the landscape through the excavation of the site to remove the rock resource. The excavation will create large cut faces and benching, with a maximum height of 15.0 m, which is smaller in scale than the existing quarry.

The expansion includes the removal of some stands of vegetation across each of the stages with the most notable being the eastern edge of Stage 1. The removal of bush will be against a backdrop of the remaining existing bush and less likely to be obvious to the majority of viewers. The removal of bush will not noticeably affect the visual experience of the bush cover. The magnitude of change is considered to be negligible and the sensitivity to change is considered to be low.

Existing ponds will be removed in Stages 1, 2 and 3. The ponds are not visible from outside the site and their removal will have no noticeable effect. The magnitude of change is negligible and the sensitivity of change is low. Small watercourse will be affected in all stages. The water courses are not visible from outside the site.

The landform will be altered by the proposed excavation through the removal of spurs in Stages 2 and 3 although this is likely to be located away from the viewing audience and the spur is not a significant feature being a moderate slope. The change is over a long period of time and will be implemented incrementally. The magnitude of the change is considered to be low taking into account the extended period of change, the viewing distance, the small viewing audience and the similarity to the existing activity which has been occurring over the past 60 years. The sensitivity to change is considered to be low.

The quarrying activity is not new to the landscape, as the quarry has been in operation over 60 years, and as such is considered part of the existing landscape character. The noticeable differences from the surrounding landscape are the variation in colour, with the quarry face ranging from the yellow/ brown soils to the dark grey/ blue rock, with contrasts with the varying shades of green found in the pasture and bush cover. With the quarry faces being predominantly south facing, there are effects created by the sun at various times of the day, where the all or part of the face is in deep shade, reducing the contrast with the surroundings.

The area of excavation is to the north and west of the existing quarry and will be largely unseen from beyond the site because the contour largely flattens out and no significant landforms will be altered. The quarry face will appear the same, but further from the viewer.

As much of the expansion is away from the majority of viewer and into areas which are not highly visible, the potential effects are low. Very little of the proposed excavation work will have any effect on what is currently experienced in the landscape. No new works are planned which would interrupt existing views of anything outside the site, no significant new views will be opened up. Expansion is contained within existing landscape features which are not being removed, including vegetation cover, and such expansion is not likely to be clearly visible.

### 7.2 Natural Character effects

There is limited removal of vegetation cover arising from the proposal, with a small area of vegetation at the eastern extent of Stage 1 and the western extent of Stage 3. Any removal will be staged in line with the quarry expansion and will take place over an extended period. As noted above, the removal will occur in front of existing bush and the perception of removal will be low.

## လူ) opus

The Waikato Regional Plan indicates a continuous band of cover extending from east to west which is identified as a Conservation Policy Area and an Ecological Corridor. In reality, the cover is not continuous, it is interrupted by the existing site operation. Stage 3 will encroach on an Environmental Enhancement Overlay Area (17C.1-2)<sup>8</sup>. Stage 3 also removes a small piece of the Conservation Policy Area.

The Proposed Waikato District Plan shows an area along the eastern and western edge of the subject site as a Significant Natural Area, refer to **Attachment A**, **Mitigation Plan**, **Sheet 13**, which illustrates the limited amount of this vegetation to be removed. The proposed plan notes that the coverage is not continuous across the site which has been the reality for a long time.

There are changes to the landform (abiotic features) through the excavation of the site to expose the rock to be sourced. The excavation will be carried out over a number of years and change will be a gradual process. The process will continue in much the same way as it has to date, although benching will be at lower levels than the existing quarry face. The excavation occurs largely out of view from most surrounding areas and the perception of the site will not be markedly changed.

The effect on experiential attributes of the proposal will be slowly evolving as the change is introduced incrementally over an extended period. The effect level is considered to be low.

### 7.3 Visual effects

While the scale of the proposed works is extensive, the majority of excavation will occur in areas which do not have a high visibility. The proposed works do not intrude into views of elements outside the subject site, the excavation is generally below the highest point of the existing quarry.

The expansion will remove some existing vegetation, although this is largely unseen. The expansion of the quarry is unlikely to open up any new views beyond the subject site. There are no alterations to the foreground of the subject site. There are no new elements being introduced which would alter the visual perception of the activity, the ongoing operation is the same as currently exists. The increased number of benches may have a short term noticeable effect as there will be a variation in colour of the quarry face. The distinction will diminish as the face weathers. The expansion of the face will be in a northerly direction, away from most viewers, and the effects of shading on the quarry face will assist in diminishing the colour distinction.

There will be an increase in the overburden area toward the south west area of the site, although this will largely only be noticeable to fixed permanent views from residences in the immediate vicinity, notably Irish Road.

The scale of the quarry face will minimise the effects of movement of machinery across the site, the scale of the machinery will be insignificant in the overall view. Movement around the base of the quarry will remain largely screened, as will the stockpiles, crusher plant and buildings.

A series of Viewpoints that are representative of views available of the site have been identified and assessed as to the magnitude of change and visual effect. The proposed expansion is on relatively flat contoured land which is currently not visible from within the visual catchment. Viewers above the site on Pinnacle Hill Road look down toward the site but their view is screened by an existing shelter belt between the sites and the expansion will be below the top level of the existing quarry.

Viewpoint 1 - SH2, east of Birt Sawmill, looking north east;

Viewpoint 2 - SH2, south of subject site, looking north;

<sup>&</sup>lt;sup>8</sup> Waikato District Plan - Franklin Section

# \\<mark>\</mark>β| OPUS

Viewpoint 3 - SH2, east of Serpell Road, Looking west;

- Viewpoint 4 Irish Road, looking north east;
- Viewpoint 5 McPherson Road, at entrance to quarry, looking north west; and

Viewpoint 6 - Baird Road, looking north.

The visual effect level for viewers from SH2 are considered to be low. Traffic is moving at speed through the landscape and views are generally peripheral to the line of travel. Any direct views are of short duration and unlikely to reveal the entire proposal. Views toward the site are further influenced by the grade of the road and vegetation either side of the road. Views from minor roads are likely to have very small viewing audiences and glimpse views of the subject site.

The visual effect level from public places is considered to be very low. The number of public places is very small, with no parking or rest areas in the vicinity. The access to Mount William Walkway on McMillan Road is screened from the site. Glimpse views from the track may be available when descending toward the east. Views will be limited by enclosing vegetation, orientation and distance to the site.

The visual effect from residences will vary with proximity to the site and the degree of openness each property has toward the site. The majority of properties have some form of planted enclosure around the dwelling, reducing views toward the subject site. For properties on Irish Road, the extension of the overburden south of its current location may be visible, although this is likely to be low in the landscape and spread over a wide area. The expansion is generally away from viewers in the south. In general, the level of effect is considered to be very low to low taking into consideration all the mitigating factors. An isolated incidence of moderate effect may be experienced at a single residence at 93 Irish Road which is largely due to the close proximity of the potential overburden stockpile, although this may be offset by the proposed mitigation planting. The effects of the quarry expansion on this property are likely to be low as most of the expansion happens out of their view.

A table of analysis for each of the viewpoints is located at Appendix A of this report.

### 7.4 Visual absorption capability

The Visual Absorption Capability (VAC) of the proposal is considered to be High based on the sixpoint scale. This conclusion was reached due to the limited visibility of the proposed quarry expansion from a confined viewing catchment. The quarry will largely appear in an outlook similar to that presently experienced, in that it is seen at a distance and is developing to the north and west away from viewers, not getting any closer to viewers. The surrounding landscape, foreground and background, will remain intact as there is no works required beyond the boundary of the site.

### 7.5 Cumulative effects

The proposal is an expansion of an existing activity. The expansion is inland from the existing activity and given the angle of view and the contour the expansion is over, the exposure to viewers is limited. The expansion could be considered cumulative on itself, but it is considered that the incremental change over a long period and expansion largely away from view will counter this.

There are similar activities occurring in the wider area but they not visually connected with the subject site.

It is considered that there are no cumulative effects arising from the proposal.

### 7.6 Effects of magnitude of change

The magnitude of change is considered to be low and the sensitivity to change is also considered to be low, resulting in a slight effect for fixed and transient viewers. The impact on viewers is considered to be neutral. The proposal enlarges the quarry area markedly when compared to the current state. The time period to achieve this is lengthy, with the ultimate form of the quarry achieved in 10-15 years for Stage 1 and 2 and up to 30 years for Stage 3. The visibility of the proposed expansion is limited by the contour, the restricted view and the similar appearance in magnitude to the existing activity, or diminishing as the quarry face moves to the north. In general the magnitude of change is considered to be low, resulting in a minor alteration of the landscape and the continuation of elements that are currently experienced in the landscape.

### 8 Conclusion

The proposed expansion of the existing quarry will take place over a period of 10-15 years for Stages 1 and 2 and up to 30 years for Stage 3, therefore the change will be incremental rather than abrupt, and it is considered that the length of time for change will contribute to minimising any potential visual effects.

The landscape will undergo changes as the quarry is excavated, although the direction of expansion is generally away from the viewing audience and in the case of Stage 3 is concealed behind existing landforms which will not be altered. There is a loss of small areas of existing vegetation through the expansion, although this is at the edges of the expansion and does not include large tracts of vegetation. The removal of existing ponds will not be noticeable.

It is considered that there is unlikely to be any change in effects or experience for users of the Mount William Walkway. Views are likely to be over an expansive area, particularly from the summit which locates the viewer considerably higher than the top of the quarry, in the order of 200m above.

The associated activities within the quarry operation including, crushing and processing, stockpiling, machinery and buildings will remain largely unseen from outside the site. There is no planned increase in built form or stockpiling of material

It is considered the at the expansion of the quarry will not result in a loss of rural amenity values or rural character. The contributing factors to this include:-

- Limited fixed viewing audience, views moderated by existing vegetation in the landscape;
- Limited clear views of the site and proposed quarry expansion;
- Stage 3 is largely concealed from view due to its location;
- The transient viewing audience experience the site at high speed, with limited clear or prolonged views of the site;
- A small increase in truck movements, particularly joining SH2 from McPherson Road;
- The activity is long established in the area and the expansion will be a continuation of the same visual elements;
- The expansion of the overburden area will result in a change of land use, although the experience of this will be limited to immediate neighbours; and
- The planting of the southern edge of the overburden area will reduce the visual effects of the stockpiled material, with effects diminishing over time as the planting establishes and grows.

## ∖ւsp≑opus

In summary, it is considered that the proposed expansion of the McPhersons Quarry will be a gradual process of change to an existing feature. It is considered that effects overall will be low, with moderate effects for the closest neighbour.

Mitigation of the quarry will be implemented once the quarry has reached the end of its life. There is no interim planting planned for retired areas of the quarry at this time. Mitigation will be limited to the southern end of the overburden stockpile. Where possible all future mitigation planting should include native species to complement the existing planted environment.

This assessment has been based on the existing conditions of the wider landscape and has not considered any effects which may come about due to development of land outside the site. The only element outside the site which has been considered is the potential realignment of SH2 and the impact this may have on views for road users.

It is considered that the effects of the proposed quarry expansion meets the intent of the relevant objectives and policies of the District and Regional Plans and is consistent with the requirements of the RMA.

### 9 Recommended Conditions

Should consent be granted, it is recommended that the following conditions be considered:

- 1. The proposed mitigation of the overburden stockpile shall be implemented before the stockpiling commences. A detailed Landscape plan shell be prepared for planting prior to implementation.
- 2. A fully detailed Landscape Mitigation and Rehabilitation Plan be prepared for the rehabilitation of Stage 1 and 2 once the expansion moves on to Stage 3. The plan shall be prepared for the approval of the Waikato District Council. The plan shall include:
  - a. An implementation strategy which identifies the timing of all mitigation and rehabilitation works within the quarry site.
  - b. Plant schedule with botanical names, common names, grades, spacings and numbers
  - c. A maintenance programme to ensure the successful establishment of the planting
- 3. A fully detailed Landscape Mitigation and Rehabilitation Plan be prepared for the rehabilitation of Stage 3 within 6 months of the completion of works on the site. The plan shall be prepared for the approval of the Waikato District Council. The plan shall include:
  - a. An implementation strategy which identifies the timing of all mitigation and rehabilitation works within the quarry site.
  - b. Plant schedule with botanical names, common names, grades, spacings and numbers
  - c. A maintenance programme to ensure the successful establishment of the planting

### Appendix A - Viewpoint analysis

See Table overleaf.



# NSD OPUS

VP	Location	Туре	Key attributes of	VAC rating	Potential effects/	Effect
No			view		mitigation	rating
VPI	SH2, Southern Palms	Public	800m south east, looking north west. Enclosed view over rolling pasture. Upper extent of existing quarry visible. Bush clad hills and Mount William visible beyond.	<u>Neutral</u> Short duration view, partial view only. Similar to the existing view. No effect on the wider landscape.	future benching recedes from view, benching smaller than existing, Similar appearance to existing, shaded in afternoon. Small change to spur at northern extreme of site. No alteration to the background. No alteration to the foreground. View experienced at speed for short duration heading west on SH2. Small loss of vegetation. Mitigation potential, planting of benches on completion.	Low
VP 2	233 Pinnacle Hill Road	Public	800m SW, viewed from above the subject site. Enclosed view over pasture and intermittent scrub. Pokeno town and milk factory visible in background. Indicative of a possible residential view.	<u>Good</u> Small viewing audience. Small alteration in existing landscape. Quarry faces away from viewer. Stage 4 is the last proposed stage, number of years away from development.	Upper extent of Stage 4 potentially visible. No effects on background views. Mitigation potential around northern extent of Stage 4. Native revegetation.	Low



## NSD OPUS

VP3	93 Irish Road	Public	590m south west, looking north east, viewed from level of existing quarry floor. Enclosed view over pasture. Indicative of a residential fixed view.	<u>Neutral</u> Very small viewing audience. Single residence, view from road.	Expansion of Stage 1 and 2 partially visible, receding from viewer. No effects on background. May open a view to background. Overburden stockpile visible in foreground.	<u>Moderate</u>
VP4	SH2, outside 286	Public	810m N Enclosed view from road travelling east on SH2	<u>Neutral</u> Clearly visible, although a continuation of the existing activity. Peripheral to line of travel, experienced for a short duration		<u>Very low</u> <u>(</u> from SH2) <u>Moderate</u> (from residential)
VP5	113 Baird Road	Public	1800m south, looking north. Enclosed view over pasture and vegetation, evergreen and deciduous. Indicative of possible residential view.	<u>High</u> Mostly screened by existing vegetation, varies seasonally. Distant view, small viewing audience, looking north. Expansion is receding from viewer.	Minor potential effects from Stage 2 expansion. No effect on background.	Low
VP6	Hitchen Road, Pokeno	Public	4700m south west, looking north east. Panoramic view over Pokeno, pasture and vegetation.	High	Loss of pasture area between bands of vegetation, largely Stage 3 and 4.	<u>Very low</u>



	Existing quarry barely visible, backdrop of vegetation.		
	Pasture area		

### Appendix B - Definitions

Visual Absorption capability<sup>9</sup>

The capability of the surrounding landscape to absorb a development. The ability of a landscape to integrate a development into the existing visual character without significant change.

Factors which determine the VAC include

- g) the degree to which the development is visible
- h) visual and physical links with other similar elements in the landscape
- i) the level of modification to the surrounding landscape
- j) appropriateness of scale
- k) distance
- l) backdrop

This rating determines the extent of visibility of a proposed development and is rated under the following

Very low – highly visible, potential focal point, different in appearance or scale to existing, significantly alter existing character. Introduce a new element.

Low - clearly visible, not a primary focal point, alter existing character.

Neutral - neither screened or a focal attraction, no effect on existing character, a visual element which may viewed in similar landscape types

Moderate - partially screened or visually absorbed, still readily identifiable, secondary focal point, no effect on existing character

High – mostly screened or visually absorbed, still identifiable, tertiary focal point, no effect on existing character

Very High – completely or nearly completely screened, unidentifiable at a distance, no effect on existing character

Visual effect type<sup>10</sup>

Visual effect type is classified as one of the following

Positive - beneficial, contributing to the quality of the environment

Negative - adverse, detracting from the existing quality of the environment

Neutral - no effect on the existing character

Visual effect level

Describes the degree of effect of the proposal as one of the following

Extreme - Use- the development/ activity would:

 <sup>&</sup>lt;sup>9</sup> Visual Assessment Best Practice Methodologies - Lisa Rimmer
<sup>10</sup> Visual Assessment Best Practice Methodologies - Lisa Rimmer

### \\<mark>\</mark>]) | ΟΡUS

• result in an extreme change on the characteristics or key attributes of the receiving environment and/ or the vista within which it is seen; and/ or

- have an extreme effect on the perceived amenity derived from it
- unacceptably high visual effects, dominant feature, character of landscape is significantly affected

Very High - Use - the development/ activity would:

- have a very high level of effect on the character or key attributes of the receiving environment and/ or the vista within which it is see; and/ or
- have a very high level of effect on the perceived amenity derived from it

High - Use - the development/ activity would:

- have a high level of effect on the character or key attributes of the receiving environment and/ or the vista within which it is see; and/ or
- have a high level of effect on the perceived amenity derived from it
- high visual effect, significant and apparent change affecting overall landscape character

Moderate - Use - the development/ activity would:

- have a moderate level of effect on the character or key attributes of the receiving environment and/ or the vista within which it is see; and/ or
- have a moderate level of effect on the perceived amenity derived from it
- visual effects of some significance, visible and recognisable new element, may have a noticeable impact on viewers

"Minor" threshold under the RMA

Low - Use - the development/ activity would:

- have a low level of effect on the character or key attributes of the receiving environment and/ or the vista within which it is seen; and/ or
- have a low level effect on the perceived amenity derived from it
- no more than minor visual effects under RMA, no more than minor effects on view, minor component of a wider view

Very low - Use - the development/ activity would:

- have a very low level of effect on the character or key attributes of the receiving environment and/ or the vista within which it is see; and/ or
- have a very low level effect on the perceived amenity derived from it

Negligible - Use - the development/ activity would:

- have a negligible level of effect on the character or key attributes of the receiving environment and/ or the vista within which it is see; and/ or
- have a negligible level effect on the perceived amenity derived from it

# \\S|} OPUS

www.wsp-opus.co.nz

