

WOLFFDENE QUARRY extension

PLANNING ASSESSMENT REPORT

Development application for a material
change of use (development permit) for an
extension to extractive industry

Harts Road, Luscombe QLD 4207
(Lot 1 on SP244693, Lot 2 on RP15903, Lot 1 on CP893559, Lot 117 on
CP893560, Lot 5 on CP893561, Lot 101 on CP893561, Lot 2 on RP167150,
Lot 1 on CP893562, Lot 80 on CP893560, Lot 67 on WD1009,
Lot 2 on RP813599 and Lot 7 on CP893561)

October 2013

Ref. 1001_DA2_310_008



Document Control

Job Details

Ref no.:	1001_DA2_310_008 Planning Assessment Report Development Application for a Material Change of Use (Development Permit) for an Extension to Extractive Industry
Document Title:	Harts Road, Luscombe QLD 4207 (Lot 1 on SP244693, Lot 2 on RP15903, Lot 1 on CP893559, Lot 117 on CP893560, Lot 5 on CP893561, Lot 101 on CP893561, Lot 2 on RP167150, Lot 1 on CP893562, Lot 80 on CP893560, Lot 67 on WD1009, Lot 2 on RP813599 and Lot 7 on CP893561)
Principal Author:	John McKibben and Andrew Lyndon
Reviewer:	Andrew Lyndon and Clayton Hill
Client:	Hanson Construction Materials Pty Ltd

Document Status

Version	Description	Date	Author	Reviewer
V1	Planning Assessment Report	October 2013	John McKibben Andrew Lyndon	Andrew Lyndon Clayton Hill

Distribution Record

Destination	# Copies (electronic / hardcopy)								
	V1	V2	V3	V4	V5	V6	V7	V8	V9

Copyright ©

These materials or parts of them may not be reproduced in any form, by any method, for any purpose except with written permission from Groundwork Plus.

The information contained herein is for the sole use of Hanson Construction Materials Pty Ltd. Groundwork Plus and its officers and employees assume no responsibility for interpretations made, omissions or use of the information for other purposes or by third parties. Extracts or quotations from the report are not to be made without expressed written approval of Groundwork Plus.

Table of Contents

1.	EXECUTIVE SUMMARY	1
2.	INTRODUCTION	3
2.1	Scope of the Planning Assessment Report	3
2.2	The Applicant.....	3
2.3	Development Objectives.....	4
2.4	Background.....	4
2.5	Project.....	5
3.	SITE DETAILS	6
4.	DESCRIPTION OF THE DEVELOPMENT PROPOSAL	9
4.1	Development Outline	9
4.2	Facilities & Infrastructure	9
4.3	Plant and Equipment	9
4.4	Workforce	10
4.5	Hours of Operation	10
4.6	Access, Haulage Routes & Haulage Volumes.....	11
5.	TOPOGRAPHY AND GEOLOGY.....	12
5.1	Topography and Landform	12
5.2	Site Geology	12
6.	NEED	13
7.	PLANNING FRAMEWORK.....	14
7.1	Introduction.....	14
7.2	Sustainable Planning Act 2009.....	14
7.3	Environmental Protection Act 1994 and Regulation	14
7.4	Vegetation Management Act 1999.....	14
7.5	Southeast Queensland Regional Plan 2009 – 2031	15
7.6	State Planning Policies	15
7.7	Gold Coast Planning Scheme.....	15
8.	FLORA AND FAUNA	17
9.	HYDROLOGY AND WATER QUALITY	19
10.	AIR QUALITY.....	21
11.	NOISE	22
12.	TRAFFIC MANAGEMENT	23
13.	VISUAL IMPACTS	24
14.	CULTURAL HERITAGE.....	26

Table of Contents

15. COMMUNITY CONSULTATION.....27

16. SUMMARY29

TABLES

Table 1	Referral Agencies
Table 2	State Assessment Criteria
Table 3	Proposed ERAs and Thresholds
Table 4	State Planning Policies
Table 5	Overlay Controls
Table 6	Codes

FIGURES

Figure 1	Site Location Plan	<i>(Drawing No. 1001.197r1)</i>
Figure 2	Northern Darlington Range Key Resource Area (KRA 67)	<i>(Drawing No. 1001.239)</i>
Figure 3	Proposed Quarry Extension	<i>(Drawing No. 1001.215r1)</i>
Figure 4	Cadastral Plan	<i>(Drawing No. 1001.198r1)</i>
Figure 5	Aerial Photography, Topography and Cadastre	<i>(Drawing No. 1001.180r1)</i>
Figure 6	Domain Map	<i>(Drawing No. 1001.200r1)</i>
Figure 7	Yatala Local Area Plan – LAP Map 29.2	<i>(Drawing No. 1001.227)</i>
Figure 8	Regional Ecosystem Map	<i>(Drawing No. 1001.202r1)</i>
Figure 9	Regrowth Vegetation Map	<i>(Drawing No. 1001.203r1)</i>

ATTACHMENTS

Attachment 1	Development Approval
Attachment 2	Conceptual Quarry Development Stages
Attachment 3	Targeted Flora and Fauna Assessment
Attachment 4	Site Based Management Plan
Attachment 5	Cultural Heritage Assessment
Attachment 6	Noise and Dust Impact Assessment
Attachment 7	Title Searches
Attachment 8	Project Need Assessment
Attachment 9	Planning Framework Assessment
Attachment 10	State Development Assessment Provisions Assessment
Attachment 11	Consultant's Environmental Objectives Assessment
Attachment 12	DNRM Vegetation Clearing Exemption Correspondence
Attachment 13	DNRM Watercourse Correspondence 11 October 2012
Attachment 14	Code Assessment
Attachment 15	Hanson's Drivers Code
Attachment 16	Community Engagement Report

DIAGRAMS

Diagram 1	Annual Consumption of Aggregates in SEQ
Diagram 2	Cumulative Resources vs Consumption 2005-2028
Diagram 3	Resource Situation
Diagram 4	Schematic of Receeding Rim Development Technique

1. EXECUTIVE SUMMARY

This development application seeks an approval for the inclusion of additional land into the existing, approved Extractive Industry operation at Wolffdene Quarry, located at 145 Harts Road, Luscombe (Site). This quarry has been in operation under Hanson's management since 1983.

The development relates only to the inclusion of two new extraction areas, establishment of additional buffers on land surrounding the existing quarry and minor realignment of approved alternative access road directly onto Stanmore Road. Importantly, the volume and type of materials extracted, haulage volumes (truck numbers), processing output and product distribution will not change as a result of this application.

Wolffdene Quarry is a high production quarry capable of producing in excess of 2.0 million tonnes of quarried product a year. As one of the largest quarries in Queensland it plays a critical role in South East Queensland's development and construction industry. Quarrying operations first commenced on the Site in 1981 following rezoning of part of the current Site to Extractive Industry by the then Albert Shire Council. Since this time, multiple approvals for Extractive Industry have been issued to allow for its expansion and integration of quarrying activities. The most recent development approval was issued by Council on 23 February 2011 however at this stage this approval has not yet been acted upon. As part of the assessment of the 2011 Development Application, careful consideration was given to the potential impacts that the development could have on the local and wider environment and appropriate design and management measures and conditions were incorporated for effective implementation to safeguard the amenity of the community and the ecological values of the surrounding environment. It is considered that a similar condition package to the 2011 Approval would be appropriate for this development application.

The Site is included within a Key Resource Area (KRA) under the *State Planning Policy 2/07: Protection of Extractive Resources* and within the Extractive Industry / Open Space Precinct on the Yatala Local Area Plan in the Gold Coast City Council Planning Scheme. The proposed development is consistent with the objectives of Council's Planning Scheme and with other legislative requirements. The Site is located within an established and well recognised extractive industry precinct which includes three other working quarries (two Boral quarries and a Holcim quarry). These quarries have also operated within the surrounding community for many years and appropriate infrastructure exists to accommodate quarrying activities.

The approval of this application is important for securing the long term production capacity of the quarry so that it can continue to satisfy the demand for construction materials within the Gold Coast and Southern Brisbane regions well into the medium and long term future. It will also result in the extraction of the total resource, under Hanson's control within the KRA. It will provide access to the best quality extractive resources within the Northern Darlington Range KRA, improve the operational efficiency and reduce environmental impacts through optimised staging of extraction and improve environmental management by providing additional buffer lands. CCAA pamphlet "*Striving for Smart Resource Utilisation*" 2005 discusses the potential for a significant shortfall of available resources in the future.

Although market conditions have changed since the issue of the pamphlet, in general terms the long term shortage of approved quarry resources still represents a major constraint for the industry. It is anticipated that the issue of this approval will assist with alleviating the long term shortages of approved resources in the market place and possibly postpone the need to open new greenfield sites in the long term, especially in the local area.

Hanson is proud to be strongly connected to the local community and has a long history of responsive community engagement and involvement. The following reports and assessments have been prepared to assist Council with the assessment of the development application:

- Targeted Flora and Fauna Assessment
- Site Based Management Plan
- Noise and Dust Assessment
- Cultural Heritage Assessment
- Planning Assessment Report
- Community Engagement Report.

The reports find that the proposed quarry modification should be approved as it provides for appropriate measures and complies with the provisions of the Planning Scheme and relevant legislative requirements for extractive industry to ensure that any potential impacts of its activity can be effectively managed without causing environmental harm or nuisance to the surrounding environment.

2. INTRODUCTION

2.1 Scope of the Planning Assessment Report

Groundwork Plus has been commissioned by Hanson Construction Materials Pty Ltd (Hanson) to prepare a Planning Assessment Report (Planning Report) to accompany a development application to the Gold Coast City Council (Council) for the inclusion of additional land into the existing Extractive Industry operation at the Wolffdene Quarry on land situated at Harts Road, Luscombe QLD 4207 and described as Lot 1 on SP244693, Lot 2 on RP15903, Lot 1 on CP893559, Lot 117 on CP893560, Lot 5 on CP893561, Lot 101 on CP893561, Lot 2 on RP167150, Lot 1 on CP893562, Lot 80 on CP893560, Lot 67 on WD1009, Lot 2 on RP813599 and Lot 7 on CP893561 (Site) (refer FIGURE 1 – SITE LOCATION PLAN).

The development application involves:

- A Material Change of Use assessable against the *Gold Coast Planning Scheme* to establish an extension to Extractive Industry on the Site.
- Referral to the State Assessment Referral Agency (SARA) for Environmental Authority for Environmentally Relevant Activities (ERAs):
 - ERA 16(2)(c) – Extracting and screening activities: Extracting, other than by dredging, in a year, the following quantity of material – more than 1,000,000 t.
 - ERA 16(3)(c) – Extracting and screening activities: Screening, in a year, the following quantity of material – more than 1,000,000 t.

The purpose of the Planning Report is to provide a description of the proposed development and to ensure that sufficient information is provided to the Council, referral agencies and other interested parties to reach a reasonable conclusion regarding the development after consideration of potential impacts and proposed control measures to demonstrate compliance with applicable planning requirements and constraints.

2.2 The Applicant

The applicant is Hanson Construction Materials Pty Ltd (Hanson).

Hanson (ABN: 90009679734) is part of the Heidelberg Cement Group (Heidelberg Cement).

Heidelberg Cement is one of the world's leading heavy building materials companies. It is the world's largest producer of aggregates – crushed rock, sand and gravel and one of the largest producers of concrete products, clay bricks and ready-mixed concrete. Other principal products include asphalt and concrete roof tiles and its operations are in North America, the UK, Australia, Continental Europe and Asia Pacific. Heidelberg Cement employs approximately 27,400 people in 14 countries.

In Australia, Hanson employs more than 4,500 staff and permanent contractors. Nationally, Hanson operates over 60 quarries and more than 240 concrete plants, along with a network of preformed concrete product manufacturing plants. Delivery assets include a transport fleet of more than 1,500 trucks.

The Wolffdene Quarry employs approximately twenty-one (21) persons in full time positions. In addition, approximately ten (10) persons are employed on a casual and contract basis and cartage contractors and other contractors are deployed on a regular basis. The Quarry also employs the services of local businesses such as mechanics, environmental consultants, electricians, etc which provides wider economic benefits to the community.

Where practicable, Hanson employs a local workforce and has a developed comprehensive community engagement initiatives to strengthen relationships with community groups, local businesses and residents at Wolffdene. Further information regarding community engagement initiatives is provided within the Community Engagement Report. Refer to Section 15 – Community Consultation, of this Planning Report.

2.3 Development Objectives

The principal objectives of the development are to:

- utilise a valuable extractive resource
- provide for long term supply of construction materials for the local and wider community
- ensure that operations are well managed and carried out efficiently
- minimise potential environmental impacts associated with the operation
- provide for sound environmental management.

2.4 Background

The Wolffdene Quarry is a high production quarry capable of producing in excess of 2 million tonnes of quarried product a year. As one of the larger quarries in Queensland, it provides a critical role in South East Queensland's development and construction industry. Approval of this development application is important for securing the long term production capacity of the quarry so that it can continue to satisfy the demand for construction materials well into the medium to long term future. In particular the approval will provide access to the best quality extractive resources in the Northern Darlington Range KRA, improve the operational efficiency through optimised staging of extraction and improve environmental management by providing additional buffer lands.

Quarrying operations commenced as the Pioneer Quarry in about 1981 following rezoning of part of the current Site by Gold Coast City Council to Extractive Industry. Approvals were also issued by Council for an Excel Quarry on the Site in 1995. Since this time, the Site has been subject to multiple development approvals for expansion and integration of the Pioneer Quarry and the Excel Quarry to form the Wolffdene Quarry.

The most recent development approval for the Site was issued by Council on 23 February 2011 for a Material Change of Use for Extractive Industry over the majority of the Site (Gold Coast City Council Approval Reference: PN131878/01/DA2). This development permit consolidated the previous approvals of the Site into a single approval and endorsed an extension to the hours of operation as well as other operational features of the quarry (refer ATTACHMENT 1 – DEVELOPMENT APPROVAL). The most recent development approval relates to the following lots:

- Lot 2 on RP167150
- Lot 1 on RP54359 (now Lot 1 on SP244693)
- Lot 67 on WD1009
- Lot 1 on CP893559
- Lot 1 on CP893562.

The 2011 Development Permit includes a suitable set of conditions to ensure that the Site is developed in an appropriate manner to safeguard the amenity of the surrounding community and the ecological values of the surrounding environment. It is considered that similar conditions should be imposed on this development to that of the existing approval to achieve an acceptable environmental outcome.

It is important to note that the existing quarry operates under approvals issued prior to the most recent approval (Gold Coast City Council Approval Reference: PN131878/01/DA2).

The Site is included within the Northern Darlington Range Key Resource Area (KRA 67) under State Planning Policy 2/07 – Protection of Extractive Resources. Refer to FIGURE 2 – NORTHERN DARLINGTON RANGE KEY RESOURCE AREA (KRA67).

State Planning Policy 2/07 Guideline includes the extractive resource description for KRA 67 as follows:

"The resource consists of resistant metagreywacke, quartzite and greenstone, and forms hilly terrain at the northern end of the Darlington Range. The resource area extends for about 6 kilometres in a northerly direction and is up to 4 kilometres wide.

Three large quarries are established in the northern Darlington Range, supplying in excess of 3 million tonnes of crushed rock. The rock is used for concrete and asphalt aggregates and crushed road base. Manufactured sand is also produced in substantial volumes.

An additional extractive operation has been approved, but full-scale production has not commenced.”

2.5 Project

The proposed inclusion of additional land into the existing approved quarry extraction areas and buffer lands will secure a high quality extractive resource for the purpose of supplying construction materials for the development and construction industry as well as providing for more effective environmental management on the Site. The Site is proposed to be progressively developed for rock extraction, with the majority of the Site eventually forming part of the active pit in the long term. The proposed inclusion of additional land within the existing quarry involves the following key features:

Proposed Inclusion of Additional Land for Extraction Purposes

- Lot 2 on RP813599
- Part of Lot 80 on CP893560
- Part of Lot 2 on RP15903.

Proposed Inclusion of Additional Land for Buffers

- Lot 117 on CP893560
- Lot 5 on CP893561
- Lot 101 on CP893561
- Lot 7 on CP893561
- Part of Lot 2 on RP813599
- Part of Lot 80 on CP893560
- Part of Lot 2 on RP15903.

Refer to FIGURE 3 – PROPOSED QUARRY EXTENSION and ATTACHMENT 2 – CONCEPTUAL QUARRY DEVELOPMENT STAGES.

In addition, the project involves:

- mobile in-pit crushing equipment
- a realignment of part of the approved internal haul route to avoid steep slopes and gullies and watercourse crossings.

Importantly, the volume and type of quarry materials, haulage volumes (truck numbers), processing output (including crushing, screening, blending, conveying and washing), stockpiling and product distribution will not change as a result of this application.

The following reports and assessments have been prepared to assist Council with the assessment of the development application:

- Targeted Flora and Fauna Assessment (refer ATTACHMENT 3)
- Site Based Management Plan (refer ATTACHMENT 4)
- Cultural Heritage Assessment (refer ATTACHMENT 5)
- Noise and Dust Impact Assessment (refer ATTACHMENT 6).

These reports find that with appropriate measures in place the proposed development is able to comply with the provisions of the *Gold Coast Planning Scheme* and relevant legislative requirements for Extractive Industry to ensure that any potential impacts of the extractive industry activity can be managed so as not to cause environmental harm or nuisance.

3. SITE DETAILS

Section 3 provides a description of the locality and the Site.

Location: The Site is located at Harts Road, Luscombe QLD 4207 (refer FIGURE 1 – SITE LOCATION PLAN).

Access: Harts Road via Stanmore Road however an alternate direct access to Stanmore Road has been approved by Council which has not yet been constructed.

Real Property Description:

- Lot 1 on SP244693
- Lot 2 on RP15903
- Lot 1 on CP893559
- Lot 117 on CP893560
- Lot 5 on CP893561
- Lot 101 on CP893561
- Lot 2 on RP167150
- Lot 1 on CP893562
- Lot 80 on CP893560
- Lot 67 on WD1009
- Lot 2 on RP813599
- Lot 7 on CP893561.

Refer FIGURE 4 – CADASTRAL PLAN and FIGURE 5 – AERIAL PHOTOGRAPHY, TOPOGRAPHY AND CADASTRE.

Site Area (Ha):

- Lot 1 on SP244693 = 22.70 ha
- Lot 2 on RP15903 = 2.876 ha
- Lot 1 on CP893559 = 4.61 ha
- Lot 117 on CP893560 = 7.34 ha
- Lot 5 on CP893561 = 5.389 ha
- Lot 101 on CP893561 = 2.493 ha
- Lot 2 on RP167150 = 225.946 ha
- Lot 1 on CP893562 = 76.54 ha
- Lot 80 on CP893560 = 32.15 ha
- Lot 67 on WD1009 = 81.249 ha
- Lot 2 on RP813599 = 48.16 ha
- Lot 7 on CP893561 = 5.023 ha
- TOTAL AREA = 514.476 ha

Registered Proprietors:

Lot on Plan	Owner	Tenure
1 on SP244693	Hanson Construction Materials Pty Ltd	Freehold
2 on RP15903	Pioneer Construction Materials Pty Ltd	Freehold
1 on CP893559	Pioneer Construction Materials Pty Ltd	Freehold
117 on CP893560	Pioneer Construction Materials Pty Ltd	Freehold
5 on CP893561	Pioneer Construction Materials Pty Ltd	Freehold
101 on CP893561	Pioneer Construction Materials Pty Ltd	Freehold
2 on RP167150	Pioneer Construction Materials Pty Ltd	Freehold
1 on CP893562	Pioneer Construction Materials Pty Ltd	Freehold
80 on CP893560	Pioneer Construction Materials Pty Ltd	Freehold
67 on WD1009	Hanson Construction Materials Pty Ltd	Freehold
2 on RP813599	Hanson Construction Materials Pty Ltd	Freehold
7 on CP893561	Pioneer Construction Materials Pty Ltd	Freehold

Refer to ATTACHMENT 7 – TITLE SEARCHES.

Easements/Encumbrances: The following easements, encumbrances and interests apply to the Site:

Lot on Plan	Encumbrance
1 on SP244693	Easement – Water Pipeline
2 on RP15903	Easement – Access Lease – Basalt
1 on CP893559	Easement – Access
117 on CP893560	Lease – Basalt
5 on CP893561	Lease - Basalt
101 on CP893561	Lease - Basalt
2 on RP167150	Nil
1 on CP893562	Lease – Telecommunications
80 on CP893560	Easement – Access Lease - Basalt
67 on WD1009	Nil
2 on RP813599	Nil
7 on CP893561	Lease - Basalt

Local Authority: Gold Coast City Council

Land Use Designation:

Lot on Plan	Domain	Local Area Plan / Precinct
1 on SP244693	-	Yatala Enterprise Area Local Area Plan / Future Industry
2 on RP15903	-	Yatala Enterprise Area Local Area Plan / Open Space
1 on CP893559	Extractive Industry	-
117 on CP893560	Rural	-
5 on CP893561	Rural	-
101 on CP893561	Rural	-
2 on RP167150	-	Yatala Enterprise Area Local Area Plan / Extractive Industry and Open Space
1 on CP893562	-	Yatala Enterprise Area Local Area Plan / Extractive Industry and Open Space
80 on CP893560	-	Yatala Enterprise Area Local Area Plan / Extractive Industry and Open Space
67 on WD1009	-	Yatala Enterprise Area Local Area Plan / Extractive Industry
2 on RP813599	-	Yatala Enterprise Area Local Area Plan / Extractive Industry
7 on CP893561	Rural	-

Refer FIGURE 6 – DOMAIN MAP and FIGURE 7 – YATALA LOCAL AREA PLAN – LAP MAP 29.2.

State Planning Policy 2/07: Northern Darlington Range Key Resource Area (KRA 67) (refer to FIGURE 2 – NORTHERN DARLINGTON RANGE KEY RESOURCE AREA (KRA 67)).

Vegetation: The Site is shown as comprising the following vegetation as identified on Regional Ecosystem Mapping prepared by the Queensland Government (refer FIGURE 8 – REGIONAL ECOSYSTEM MAP):

- Non remnant
- Remnant vegetation that is a least concern regional ecosystem
- Remnant vegetation that is a least concern regional ecosystem (essential habitat)
- Remnant vegetation containing of concern regional ecosystem.

The Site is shown as comprising the following vegetation as identified on Regrowth Vegetation Mapping prepared by the Queensland Government (refer FIGURE 9 – REGROWTH VEGETATION MAP):

- High value regrowth vegetation that is a least concern regional ecosystem
- High value regrowth vegetation containing of concern regional ecosystem.

Correspondence from Patrina Birt, Vegetation Management Officer from the Department of Natural Resources and Mines (DNRM) dated 13 August 2012 confirmed that the proposed clearing for the application is exempt under Schedule 24, Part 2 of SPR.

Existing Land Use:

Extractive Industry

Landform / Topography:

The Site comprises elevations between 25 m AHD to 275 m AHD (refer FIGURE 5 – AERIAL PHOTOGRAPHY, TOPOGRAPHY AND CADASTRE).

4. DESCRIPTION OF THE DEVELOPMENT PROPOSAL

4.1 Development Outline

Hanson seeks approval for a Material Change of Use for an extension to Extractive Industry on the Site (refer ATTACHMENT 2 – CONCEPTUAL QUARRY DEVELOPMENT STAGES).

More specifically, the proposed development comprises:

- A Material Change of Use assessable against the *Gold Coast Planning Scheme* to establish an extension to Extractive Industry on the Site.
- Referral to the SARA for Environmental Authority for Environmentally Relevant Activities (ERAs):
 - ERA 16(2)(c) – Extracting and screening activities: Extracting, other than by dredging, in a year, the following quantity of material – more than 1,000,000 t.
 - ERA 16(3)(c) – Extracting and screening activities: Screening, in a year, the following quantity of material – more than 1,000,000 t.

The proposed development seeks to realise the full potential of a proven high quality hard rock extractive resource, to supply the South East Queensland region (including Council, State road and rail construction projects) with essential quarry materials and thereby support and enhance the economic viability of the region. In regards to rock quality, the material is suitable for the production of all high specification materials including concrete aggregates, sealing aggregates, specified roadbase, and ballast and the rock type also has exceptionally high skid resistance value.

The existing quarry uses typical quarrying methodologies that involve clearing, topsoil and overburden stripping, drill and blast, extraction, processing and stockpiling, load and hauling. Further details are provided in the Site Based Management Plan (SBMP) which has been prepared to assist in the management and protection of surrounding environmental values and describes how the operator proposes to manage potential environmental impacts associated with Extractive Industry (refer ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN).

The proposed development relates to inclusion of additional land into the existing quarry operations. Careful consideration has been given to the potential impacts that the development could have on the local and wider environment and appropriate design and management measures have been incorporated for effective implementation to safeguard the amenity of the community and the ecological values of the surrounding environment.

4.2 Facilities & Infrastructure

With the exception of the approved alternate access route to provide direct access to Stanmore Road, the Site is adequately serviced to support the current and future operations with no additional facilities or infrastructure proposed as part of the application.

4.3 Plant and Equipment

To access the resources within the proposed new extraction areas, Hanson proposes to utilise mobile 'in-pit' crushing equipment. However this additional crushing equipment will not increase the crushing capacity of the existing plant and equipment.

The existing plant and buildings which will be maintained on the Site to support the proposed development include:

- crushing and screening plants
- office
- employee and visitor amenities
- weighbridges
- laboratories

- storage facilities / storage sheds
- fuel and oil storages
- truck and wheel wash facilities
- workshops.

The existing equipment which is involved in the extraction process for the proposed development include:

- loaders
- excavators
- drill rigs
- dump truck (articulated)
- haulage trucks
- graders
- service vehicles
- other ancillary equipment.

4.4 Workforce

The existing permanent full-time Site workforce which will be maintained will be approximately twenty-one (21) persons. No additional workforce is proposed. Casual and contract workforce will be approximately ten (10) persons. In addition, cartage contractors and other contractors may be deployed on the Site. All staff working on-site will be trained in accordance with the SBMP prepared for the Site (refer ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN).

4.5 Hours of Operation

This development application does not seek to change the currently approved hours associated with the existing approval over the Site (Gold Coast City Council Approval Reference: PN131878/01/DA2), being:

Extractive industry operations

- Monday to Friday: 6:00am to 6:00pm
- Saturday: 8:00am to 3:00pm
- Sunday: No quarry operations permitted.

Plant Maintenance

- 24 hours, 7 days a week.

Haulage of quarry material by vehicle utilising Harts Road

- Monday to Friday: 6:30am to 5:30pm
- Saturday: 8:00am to 3:00pm
- Sunday: No haulage permitted.

Haulage by vehicles accessing directly onto Stanmore Road

- Monday to Friday: 6:00am to 10:00pm
- Saturday: 8:00am to 3:00pm
- Sunday: No haulage permitted.

Blasting

- Monday to Saturday: 9:00am to 5:00pm.

No operations will be carried out on Anzac Day, Good Friday, Easter Monday or Christmas Day.

4.6 Access, Haulage Routes & Haulage Volumes

The Site currently has access from Harts Road via Stanmore Road off the Pacific Motorway. This route is identified as the KRA Haul Route on Northern Darlington Range KRA Map. Refer to FIGURE 2 – NORTHERN DARLINGTON RANGE KEY RESOURCE AREA (KRA 67). The proposed development will utilise the existing access on Harts Road as well as the already approved direct access to Stanmore Road (refer to Council Approval ref: PN131878/01/DA2) which is yet to be constructed. The application involves a minor realignment of part of the approved internal haul route to avoid gullies and steep land and to utilise the additional land included in this development application. The approved direct access to Stanmore Road is identified as a Haul Route on the Draft Northern Darlington Range Key Resource Area Maps (KRA 67) which is available on the Department of State Development Infrastructure and Planning (DSDIP) website.

Internal haul routes connect the principal quarry workings with the crushing and screening plants and the KRA haul routes.

Importantly, the volume and type of quarry materials, haulage volumes (truck numbers), processing output (including crushing, screening, blending, conveying and washing), stockpiling and product distribution will not change as a result of this application.

Therefore there are no net impacts on the road networks as a result of this development application.

5. TOPOGRAPHY AND GEOLOGY

5.1 Topography and Landform

The Site consists of rugged hilly terrain in the east, south and north whilst the areas in the west are of a more gentle relief and less incised nature. The northern, southern and eastern landforms are characterized by steep slopes and gullies. The slopes of these upper flanks of the ridges are steep to very steep while the lower flank slopes are generally moderately inclined.

5.2 Site Geology

The area has long been known to host rocks suitable for use in Extractive Industry. This area has been subject to several desktop reviews by the Geological Survey of Queensland.

The Site is within the Neranleigh - Fernvale beds of Devonian to Carboniferous age, consisting of mixed meta-volcanic (e.g. greywacke, meta-greywacke, greenstone) and sedimentary rocks. In particular the lithology is described as containing mudstone, shale, arenite, chert, jasper, basic metavolcanics, pillow lava, conglomerate.

Proposed quarrying operations will focus primarily on the extraction of the greywacke, meta-greywacke and greenstone, with greywacke being the preferred / optimal rock. For engineering purposes this rock is interpreted to be hard, durable and of high or very high strength. The rock lacks free silica and is predicted to be innocuous in terms of alkali silica reactivity.

Large volumes of greywacke have been identified within the land to be included into the existing quarry. This development application seeks approval for the extraction of these significant and valuable resources in the early stages of the quarry development. Refer to ATTACHMENT 2 – CONCEPTUAL QUARRY DEVELOPMENT STAGES. Improving access to these resources will assist with maintaining and improving the quality of construction materials produced on Site and will ensure the continued viability of the quarry.

The soil profile thickness was generally around 300mm over the main ridgelines however the soil and alluvium increases away from the ridgelines down slope, with the overburden thickness at the base of the slope up to 10m thick.

6. NEED

This development application seeks to include additional land into an existing quarry for securing the long term production capacity of the quarry so that it can continue to satisfy the demand for high quality construction materials well into the medium to long term future. In particular the approval will provide access to the best quality extractive resources in the Northern Darlington Range KRA, improve the operational efficiency through optimised staging of extraction and improve environmental management by providing additional buffer lands.

Importantly, the volumes and type of materials extracted, haulage volumes (truck numbers), processing output and product distribution will not change as a result of this application.

The need for the quarry has already been assessed through the granting of successive development approvals. Therefore this project does not require a typical need assessment associated with a new quarry establishing in the market place or a project which seeks to increase their market share (ie. justification of need for a new competitor). Rather the need assessment simply involves commentary on the market characteristics to support the long term viability of the existing quarry.

The project involves the inclusion of additional land into the existing quarry to provide access to a substantial resource. CCAA pamphlet *"Striving for Smart Resource Utilisation"* 2005 discusses the potential for a significant shortfall of available resources in the future.

Although market conditions have changed since the issue of the pamphlet, in general terms the long term shortage of approved quarry resources still represents a major constraint for the industry. It is anticipated that the issue of this approval will assist with alleviating the long term shortages of approved resources in the market place and possibly postpone the need to open new greenfield sites in the long term, especially in the local area.

A detailed assessment of need for the project is provided at ATTACHMENT 8 – PROJECT NEED ASSESSMENT.

7. PLANNING FRAMEWORK

7.1 Introduction

In Queensland, land use planning and development assessment is regulated under multiple layers of legislation. The proposed development has been assessed against the relevant legislative requirements. Refer to ATTACHMENT 9 – PLANNING FRAMEWORK ASSESSMENT.

The summary below provides a brief assessment of the proposal against each relevant legislative requirement.

7.2 Sustainable Planning Act 2009

The proposed development triggers a material change of use and hence is classified as development under the Sustainable Planning Act 2009 (SPA).

Furthermore, the proposed development triggers referral to the following referral agencies for assessment:

- State Assessment Referral Agency (SARA) as Concurrence Agency for Environmentally Relevant Activities and impacts on State Controlled Road.
- Powerlink for impacts on Electricity Infrastructure.

Assessment against the relevant provisions of the State Development Assessment Provisions has been included in ATTACHMENT 10 – STATE DEVELOPMENT ASSESSMENT PROVISIONS ASSESSMENT.

7.3 Environmental Protection Act 1994 and Regulation

In accordance with the *Environmental Protection Regulation 2008* (EP Reg), the following ERAs are proposed to be carried out on the Site:

- ERA 16, 2(c) extraction other than by dredging more than 1,000,000 t/a
- ERA 16, 3(c) screening more than 1,000,000 t/a.

The environmental management and monitoring of the above activities is outlined in the SBMP prepared for the Site.

Pursuant to section 115 of the *Environmental Protection Act 1994* (EP Act), this development application is also taken to be an application for an Environmental Authority and is coordinated in the Integrated Development Assessment System (IDAS) process of SPA.

Furthermore and in accordance with Section 125 of the EP Act, this development application includes the mandatory requirements for making an application for Environmental Authority.

An Environmental Objective Assessment has been made against the environmental objective and performance outcomes prescribed in Schedule 5, Part 3, Tables 1 and 2 of the EP Reg. Refer to ATTACHMENT 11 – CONSULTANT'S ENVIRONMENTAL OBJECTIVES ASSESSMENT.

7.4 Vegetation Management Act 1999

Although part of the Site is mapped as remnant vegetation on Regional Ecosystem Mapping, correspondence from Officers from the DNRM dated 13 August 2012 confirmed that the proposed clearing for the application is exempt under Schedule 24, Part 2 of Sustainable Planning Regulations 2009 (SPR) (refer ATTACHMENT 12 – DNRM VEGETATION CLEARING EXEMPTION CORRESPONDENCE).

Schedule 24, Part 2, Item (g) of the SPR includes the following exemption for clearing on freehold land –

for urban purposes in an urban area and the vegetation is regulated regrowth vegetation, or an of concern regional ecosystem or a least concern regional ecosystem—

- (i) *shown on a PMAV for the area as a category B area; or*
- (ii) *if there is no PMAV for the area—shown on the regional ecosystem map or remnant map as remnant vegetation.*

Therefore the proposed development is exempt from assessment against the *Vegetation Management Act 1999*. Notwithstanding, a number of measures will be taken to preserve large tracts of vegetation on the Site as buffers which will be rehabilitated to assist with fauna movement and habitat. Biodiversity, Assessment and Management Pty Ltd (BAAM) have prepared a Targeted Flora and Fauna Assessment for the Site which outlines the recommended rehabilitation and conservation objectives for the Site. (Refer to ATTACHMENT 3 – TARGETED FLORA AND FAUNA ASSESSMENT).

7.5 Southeast Queensland Regional Plan 2009 – 2031

The majority of the Site is located within the 'Regional Landscape and Rural Production Area', while part of the Site (i.e. lot 1 on SP244693) is included in the 'Urban Footprint' under the South East Queensland Regional Plan 2009 – 2031 (Regional Plan).

The Regulatory Provisions of the Regional Plan are required to be taken into account in planning and development decision-making processes.

Extractive Industry is defined as a 'Primary Industry' under the Regional Plan. Primary Industry within the Regional Landscape and Rural Production Area and the Urban Footprint is consistent with the provisions of the Regional Plan. As such, the proposed extension to the existing approved quarry is consistent with the provisions of the *South East Queensland Regional Plan 2009 – 2031*.

7.6 State Planning Policies

The proposed development triggers assessment against the following State Planning Policies:

- State Planning Policy for the protection of Extractive Resources (SPP2/07)
- Temporary State Planning Policy for Planning for Prosperity (SPP2/12)

The proposed development is entirely consistent with both State Planning Policies.

7.7 Gold Coast Planning Scheme

The Site is located within the Gold Coast City Council administration area and is subject of the Gold Coast Planning Scheme (Planning Scheme).

The Site is located within the Darlington Domain Map of the Planning Scheme (refer FIGURE 6 – DOMAIN MAP). Under the Darlington Domain Map, the Site is located within the Yatala Enterprise Area (YEA) Local Area Plan Domain, Rural Domain and Extractive Industry Domain. Under the YEA Local Area Plan, the Site is located within the Future Industry, Extractive Industry and Open Space Precincts.

The table below indicates the domains and precincts for the Site.

Lot on Plan	Domain	Local Area Plan/Precinct
1 on SP244693	-	Yatala Enterprise Area Local Area Plan / Future Industry
2 on RP15903	-	Yatala Enterprise Area Local Area Plan / Open Space
1 on CP893559	Extractive Industry	-
117 on CP893560	Rural	-
5 on CP893561	Rural	-
101 on CP893561	Rural	-

2 on RP167150	-	Yatala Enterprise Area Local Area Plan / Extractive Industry and Open Space
1 on CP893562	-	Yatala Enterprise Area Local Area Plan / Extractive Industry and Open Space
80 on CP893560	-	Yatala Enterprise Area Local Area Plan / Extractive Industry and Open Space
67 on WD1009	-	Yatala Enterprise Area Local Area Plan / Extractive Industry
2 on RP813599	-	Yatala Enterprise Area Local Area Plan / Extractive Industry
7 on CP893561	Rural	-

Part 4, Division 1, Chapter 2 of the Planning Scheme outlines and defines uses. Under the Planning Scheme 'Extractive Industry' is defined as:

The use or intended use of land for extraction and removal of sand, gravel, soil, rock, or similar materials. This term includes but is not limited to the winning of materials, ripping, blasting, dredging, storage, loading, cartage and treatment of extracted materials that may involve crushing, screening, washing, blending, grading or other treatment processes. The term involves ancillary activities such as collection and storage of water, environmental management and rehabilitation works in accordance with an approved plan. The term does not include the removal of materials authorised by the Local Government Act 1993 or mining within the meaning of the Mineral Resources Act 1989.

The proposed development is considered Impact Assessable under the Planning Scheme.

The proposed development triggers assessment against the Desired Environmental Outcomes (DEOs), Codes and Planning Scheme Policies of the Planning Scheme. Refer to ATTACHMENT 9 – PLANNING FRAMEWORK ASSESSMENT. The proposal is consistent with the intent statements for each of the Domains / Precincts, the DEOs, relevant Codes and Planning Scheme Policies.

Having regard to the above, the proposed development is consistent with the planning and environmental objectives of relevant planning instruments and policies. Therefore, there are sound planning grounds for the proposal to be approved.

8. FLORA AND FAUNA

The Site is mapped as comprising non remnant vegetation, high value regrowth vegetation and remnant vegetation on the State Vegetation Mapping. Refer to FIGURE 8 – REGIONAL ECOSYSTEM MAP and FIGURE 9 – REGROWTH VEGETATION MAP. The remnant vegetation is predominantly ‘Least Concern Regional Ecosystem’ with pockets of ‘Of Concern Regional Ecosystem’. These are as follows:

- Remnant Vegetation Containing of Concern Regional Ecosystems:
 - 12.3.11 (100%) – *Eucalyptus siderophloia*, *E. tereticornis*, *Corymbia intermedia* open forest on alluvial plains usually near coast.
 - 12.11.9 (100%) – *Eucalyptus tereticornis* open forest on metamorphics +/- interbedded volcanics. Usually higher altitudes.
- Remnant Vegetation Containing Least Concern Regional Ecosystems:
 - 12.11.3 (100%) – Open forest generally with *Eucalyptus siderophloia*, *E. propinqua* on metamorphics +/- interbedded volcanics.
 - 12.11.5 (100%) – Open forest complex with *Corymbia citriodora*, *Eucalyptus siderophloia*, *E. major* on metamorphics +/- interbedded volcanics.
 - 12.11.10 (100%) – Notophyll vine forest +/- *Araucaria cunninghamii* on metamorphics +/- interbedded volcanics
 - 12.11.11 (100%) – Araucarian microphyll vine forest on metamorphics +/- interbedded volcanics; usually southern half of bioregion.

There are also pockets of high value regrowth vegetation containing ‘Least Concern Regional Ecosystem’ and a PMAV Category X area.

The project involves the establishment of a 100 metre wide covenant area from the Northern Boundary of Lot 1RP54359, and a 100 metre wide area for rehabilitation at cessation of works adjacent to the entire boundary of the Site. Furthermore a licensed fauna spotter and catcher will be engaged prior to any clearing activities on the Site.

Biodiversity, Assessment and Management Pty Ltd (BAAM) have prepared a Targeted Flora and Fauna Assessment for the Site which confirms the Site’s moderate to high ecological values. (Refer to ATTACHMENT 3 – TARGETED FLORA AND FAUNA ASSESSMENT).

The BAAM Report finds:

“with suitable rehabilitation planning and management of retained habitats potential detrimental ecological impacts of the proposed activity can be effectively managed without resulting in significant impact to local ecological values.”

The clearing of native vegetation is generally assessable development for which a development permit under the SPA is required (in accordance with Schedule 3, Part 1, Table 4, Item 1 of the *Sustainable Planning Regulation 2009* (SPR)), unless exemption under Schedule 24 of the SPR applies.

Schedule 24, Part 2, Item (g) of the SPR includes the following exemption for clearing on freehold land:

“for urban purposes in an urban area and the vegetation is regulated regrowth vegetation, or an of concern regional ecosystem or a least concern regional ecosystem—

- (i) *shown on a PMAV for the area as a category B area; or*
- (ii) *if there is no PMAV for the area—shown on the regional ecosystem map or remnant map as remnant vegetation.”*

Correspondence from Patrina Birt, Vegetation Management Officer from the Department of Natural Resources and Mines (DNRM) dated 13 August 2012 confirmed that the proposed clearing for the application is exempt under Schedule 24, Part 2 of SPR.

Furthermore, the Site is located entirely within the Northern Darlington Range Key Resource Area (KRA 67) under the State Planning Policy for the Protection of Extractive Resources (SPP2/07). This Policy aims to protect KRAs from incompatible development when land use planning decisions are made and to maintain the long-term availability of extractive resources in KRAs.

Under the provisions of SPP2/07 and the SPA, the State has effectively assigned a higher priority for extractive resources. Notwithstanding this and in accordance with the recommendations of the BAAM Report, appropriate additional applications, separate to the IDAS process under SPA, will be made to ensure that the clearing activities comply with the relevant legislative requirements (eg. Referral under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and applications under the *Nature Conservation Act 1992*). Furthermore, the SBMP outlines important provisions for any clearing activities on-site including engaging a fauna spotter and catcher prior to the commencement of clearing activities on the Site. Refer to ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN. These management practices will ensure responsible clearing activities in accordance in legislative requirements.

9. HYDROLOGY AND WATER QUALITY

A broad scale assessment of surface water runoff characteristics has been completed for the proposed quarry development. This assessment has included modelling of sub-catchment runoff for various stages of quarry development including water treatment systems which have been integrated into the staged quarry designs and a Stormwater Erosion and Sediment Control Plan is included as part of the SBMP for the Site. Refer to ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN.

The main principles for water management at this Site which have been the basis for the design of water control and treatment features and have been incorporated in the existing quarry are as follows:

- Drainage systems and flow control devices are designed to control stormwater for a minimum design Average Recurrence Interval (ARI) of 5 years for a 24 hour event. Designs are based on calculated water discharge rates and velocities and are accompanied by construction dimensions.
- Run off from 'clean water' catchments will be diverted around disturbed areas to the greatest extent practicable.
- Land disturbance will be minimised to the maximum practicable extent.
- Stormwater drainage elements (catch drains, check dams, diversion drains/banks, sediment traps) will be installed as soon as practical and in a logical progression.
- Diversion or catch drains will be rip-rapped unless otherwise stated. Drains will be excavated and lined with specified rock materials to the design depth.
- Mobile equipment will be restricted to designated roads or hardstand areas.
- Water treatment systems comprising of grit traps, sediment settling ponds and filtration systems will be constructed to treat stormwater reporting to the quarry sumps. Monitoring and maintenance of the water treatment systems will ensure that sediment trapping capacity remains effective.
- Water will be recycled to the maximum practicable extent.

The water management strategy for the Site incorporates the physical controls that have been integrated into the quarry design process and the Stormwater Erosion and Sediment Control Plan for the Site which addresses operational procedures and requirements that support the physical controls.

Future water demand on-site will be dependent on production rates and market demand. Based on anticipated production rates, an average daily water consumption of 150 Kilolitres is estimated. Water usage has been estimated based on current experience and approximate average water requirements per tonne of material processed and average daily usage for dust suppression and cleaning requirements. Water will be harvested and stored on-site within sumps, water settling basins and purpose built water storage areas. Water losses from the Site are primarily water used for dust suppression, materials processing and evaporation losses. Future water demand will be met by the proposed water ponds. Additional water storage capacity may be established if necessary.

A Stormwater Erosion and Sediment Control Plan is included as part of the SBMP for the Site. Refer to ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN. The emphasis of the Stormwater Erosion and Sediment Control Plan is on the ongoing maintenance of the water conveyancing and treatment structures on-site and day to day operational activities and procedures which may impact on water quality. The Plan sets out the principles for water management and erosion control on-site and builds on current procedures and requirements for the following:

- installation and maintenance of erosion control devices
- installation and maintenance of water conveyancing and drainage controls
- management of fuel, oil, and chemical systems
- general housekeeping
- water conservation / reuse
- monitoring
- review of the Plan.

Correspondence from Fred Hundy – Senior Project Officer, Water Services from the DNRM dated 11 October 2012 confirms the extent of watercourses on the Site (refer ATTACHMENT 13 – DNRM WATERCOURSE CORRESPONDENCE 11 OCTOBER 2012).

Any applications for entitlements / allocations for water resources will be made separately to this development application process in accordance with the provisions of the Water Act.

10. AIR QUALITY

The principal potential emission from an Extractive Industry such as the proposed quarry operations is dust. Other potential emissions may include exhaust emissions from mobile and stationary plant and equipment utilised for the extraction and transportation of extracted materials from or within the Site. These emissions are known to dissipate into the atmosphere at safe levels so as not to cause harm or nuisance to the surrounding community.

Max Winders and Associates were engaged to undertake an assessment of the affects of potential noise and dust emissions, refer to ATTACHMENT 6 – NOISE AND DUST ASSESSMENT. The Max Winders and Associates Report includes a detailed assessment of the following:

- potential emissions from quarry development
- ambient background air quality data
- meteorological conditions
- regulatory air quality guidelines
- air quality modelling
- control measures for mitigating impacts on air quality.

In summary, the modelling undertaken demonstrates that with appropriate control measures in place the proposed quarry extension can operate within the regulatory air quality guidelines and not result in unreasonable adverse air quality impacts at the surrounding residences. Further, current quarry operations appropriately comply with the relevant environmental standards and conditions of approval.

Continual visual surveillance of dust emissions will be carried out by quarry personnel. Dust emanating from point or mobile sources is readily visible and the source readily identified. Observations of excessive dust could indicate under performance of dust control measures and permit prompt rectification.

All complaints will be investigated and reported which may be undertaken by a suitably qualified consultant. Additional monitoring will be carried out in response to reasonable complaint as determined and directed by the EHP. The form and duration of any additional monitoring will be determined by EHP, in consultation with Council. Any rectification works will be performed by the Quarry Manager to the satisfaction of EHP and / or Council.

Additional detail regarding monitoring, reporting, and general air quality management is provided in ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN.

11. NOISE

Extractive Industry involves the use of machinery, handling and transfer of rock particles, use of diesel, electrical and air motors, drilling and the use of heavy vehicles. The likelihood of noise generated by such activities causing noise nuisance depends on the specific circumstances and measures adopted to abate noise. In the design of the quarry particular emphasis has been placed on locating the infrastructure in the most topographically favourable position to use the natural landform as a barrier to minimise any potential noise effects at nearby dwellings. Wolffdene Quarry has established and maintained suitable buffers as a measure for managing noise impacts from Extractive Industry operations.

Max Winders and Associates were engaged to undertake an assessment of the affects of potential noise and dust emissions, refer to ATTACHMENT 6 – NOISE AND DUST ASSESSMENT. The Max Winders and Associates Report includes a detailed assessment of the following:

- potential noise sources from quarry development
- ambient background noise data
- relevant noise criteria
- noise modelling
- control measures for mitigating impacts on noise.

In summary, the detailed noise modelling undertaken demonstrates that with appropriate control measures in place the proposed quarry extension can operate within the relevant noise criteria so as not to cause unreasonable noise impacts on surrounding residential and commercial areas. Further, current quarry operations appropriately comply with the relevant environmental standards and conditions of approval.

Monitoring and reporting will be carried out by quarry personnel on-site.

In the event of a complaint or failure to meet noise conditions in the relevant approvals, corrective action will be undertaken in accordance with the provisions of the SBMP. Refer to ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN.

Additional detail regarding monitoring, reporting, and noise management is provided in ATTACHMENT 4 – SITE BASED MANAGEMENT PLAN.

12. TRAFFIC MANAGEMENT

This development application does not involve increasing the maximum production rates of the existing approved quarry and hence there is no proposed increase in the volume of truck movement to and from the Site as a direct consequent of this application. Therefore there are no net impacts on the road network as a result of this development application.

The current Site access is from Harts Road via Stanmore Road off the Pacific Motorway. This transport route is identified as the KRA Transport Route on the Northern Darlington Range KRA Map. Refer to FIGURE 2 – NORTHERN DARLINGTON RANGE KEY RESOURCE AREA (KRA 67).

Currently Hanson has approved access from Harts Road and alternate direct access to Stanmore Road (Council Approval Reference: PN131878/01/DA2). At this point in time, Hanson has not constructed the alternate direct access to Stanmore Road however endeavour to do so in the near future. However this application also involves a minor realignment of part of the alternate direct access to Stanmore Road. The realignment is proposed over Lot 80, which is now included in this application and provides for a better environmental and engineering outcome.

Internal haul routes connect the principal quarry workings associated with Lot 2 and Lot 80 with the crushing and screening plants.

Hanson has developed a Drivers Code to ensure that all drivers operate vehicles in accordance with the rules of the road, specifications of the vehicles and with specific Site and operational safety requirements. This Drivers Code is enforced by the Quarry Manager as required. Refer to ATTACHMENT 15 – HANSON'S DRIVERS CODE.

13. VISUAL IMPACTS

Extractive resources are formed as a result of fortuitous geological events and thus occur in fixed and limited locations.

The geological events (i.e. volcanic activities and faults) typically deposit hard rock resources on hill tops and ridgelines or other elevated locations which are visually prominent.

It is impracticable to maintain the landscape character of hilltops and ridgelines as a result of Extractive Industry when this is the principal landscape which hosts extractive (hard rock) resources however it is viable to minimise visual impacts through careful quarry development planning and effective rehabilitation.

The Wolffdene Quarry is located on the western side of the principal Darlington Range ridge line and associated foothills. The proposed quarry extension is located to the north and north west of the existing approved quarry footprint. The proposed quarry extension is not visible from the eastern or south easterly aspect because the topography of the Darlington Range screens the quarry from view. Furthermore, the proposed quarry extension will not result in any substantial visual impacts when viewed from the South compared to the existing approved quarry impacts. The primary visual impacts will occur from the north and north westerly view sheds which is consistent with the current visual impacts of the approved quarry. However the continuation of current careful quarry development planning practices (receding rim methods – refer to DIAGRAM 4 – SCHEMATIC OF RECEEDING RIM DEVELOPMENT TECHNIQUE below) in association with progressive rehabilitation of disturbed areas will assist with minimising any visual impacts on the Site.

The staging of the quarry activities over the life time of the quarry is an important factor for mitigating visual impacts.

The quarry has been designed to be quarried from the top down and will commence at the eastern extremity of the extraction area. This will ensure terminal faces are reached early in the quarrying process thus enabling progressive rehabilitation to commence early in the project life. As demonstrated by current progressive rehabilitation on Site, early rehabilitation of the upper benches provides opportunities to soften visual impacts for the remainder of the quarry extraction lifetime. Hanson has received commendation awards by industry on the success of its progressive rehabilitation programs for the Site.

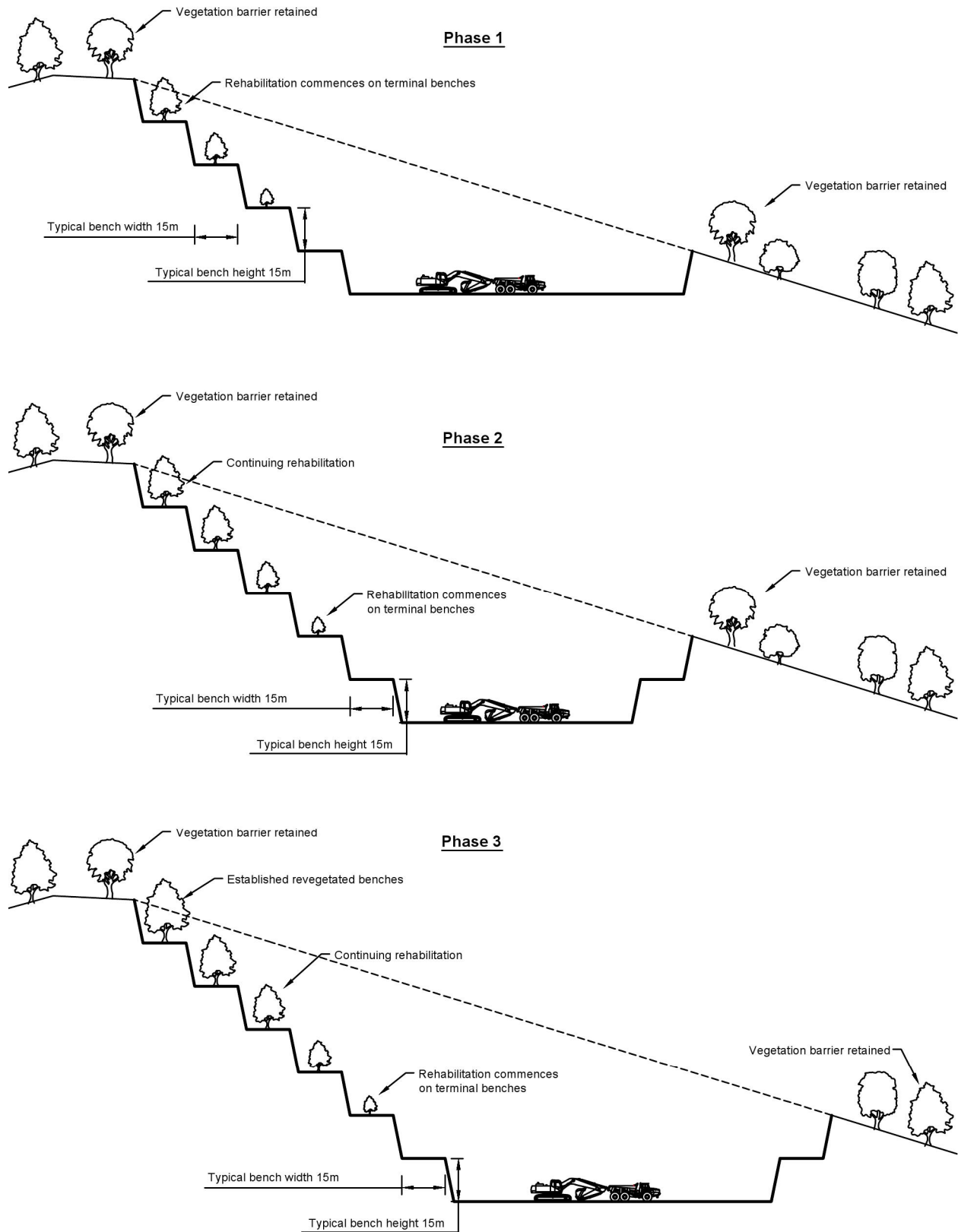
The quarry design seeks to retain bushland and foothills in the initial stages to screen views of the working areas on the upper benches, so that the quarry is effectively working behind the natural vegetated topography. This technique is known as the 'receding rim' extraction method. Upon completion of the initial stages of extraction, the foothills (or rim) are subsequently extracted however by this time the terminal benches have been fully rehabilitated on the outer limit benches which provide opportunities to soften visual impacts. Any impacts of disturbed areas are thus temporary in nature and minimised through staging and progressive rehabilitation. Refer to DIAGRAM 4 – SCHEMATIC OF RECEEDING RIM DEVELOPMENT TECHNIQUE below.

The project also involves other visual mitigation measures which include:

- retention of vegetation a buffer zone around the perimeter of the site (ranging from 40 metres to 100m+ in width)
- rehabilitation of the buffer areas (where necessary) in accordance with an approved Rehabilitation Management Plan
- neutrally coloured plant and equipment to minimise their visual prominence
- dust suppression to minimise dust plumes and other dust impacts.

The visual impacts of the proposed operation will be largely limited to the north and north westerly aspects of the Site. Appropriate quarry development planning in association with progressive rehabilitation of disturbed areas will assist with minimising any visual impacts on the Site.

Diagram 4 - Schematic of Receeding Rim Development Technique



Dwg 1001.240

14. CULTURAL HERITAGE

The *Aboriginal Cultural Heritage Act 2003* requires that a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage (the cultural heritage duty of care). Extractive Industry in areas of remnant vegetation is considered a Category 5 high risk activity to Aboriginal cultural heritage. Hanson has engaged Jabree Limited to undertake a Preliminary Cultural Heritage Assessment of the Site. Refer to ATTACHMENT 5 – CULTURAL HERITAGE ASSESSMENT. Under the *Aboriginal Cultural Heritage Act 2003* Jabree Limited is the Registered Aboriginal Cultural Heritage Body for the Gold Coast Native Title Group QUD346/2006 claim area.

In accordance with the recommendations of the Preliminary Cultural Heritage Assessment, Hanson will engage suitably qualified and approved experts to undertake further investigations of Aboriginal cultural heritage prior to undertaking any land disturbing activities associated with the extension of the quarry. In the event the further investigations find items of cultural heritage significance, further investigations will be undertaken and approvals sought in accordance with the requirements of the *Aboriginal Cultural Heritage Act 2003*.

In addition, the Site is not identified as being constrained by heritage buildings and sites as per Council's Planning Scheme Overlay Map 3.

15. COMMUNITY CONSULTATION

Wolffdene Quarry has been operated under Hanson's management since 1983 and ensuring good community relations with its neighbours, surrounding residents and the wider community has been an ongoing focus for the company and the quarry.

Over time the quarry has consistently worked to establish and consolidate strong relationships with residents' groups, local schools, local businesses and a range of community organisations, providing tours of the quarry and information about its programs and operations.

In addition to positive community relationships, in recent years Wolffdene Quarry has won a number of awards for its environmental rehabilitation and management achievements and awards at local, state, national and international levels for its creation of a young driver safety program involving local youth and road awareness groups.

Hanson recognised the importance of its community relations several years ago by contracting a dedicated communications officer to field, address and monitor community concerns, complaints and positive feedback. This officer regularly meets with residents individually and in groups, attends to Council officer requests and meetings, and coordinates representation from the quarry at community events, group meetings and to host on site tours of the quarry and its operations. Community engagement and consultation continues to be a major commitment by Hanson and is undertaken year round in keeping with a strategic communications plan. A detailed report on the community engagement initiatives of the Wolffdene Quarry is included as ATTACHMENT 16 – COMMUNITY ENGAGEMENT REPORT.

Specific community engagement activity will be undertaken during the public notification and consultation period for the development application for the quarry's extension.

The objectives are twofold:

1. To be responsive to any enquiries from local residents, Council and the wider community.
2. To provide factual information updates to stakeholders already included in Wolffdene's database as they have expressed interest in direct communication.

All documents and information formally submitted to Council for the development application are generally available to the public. Materials will be provided upon request, uploaded to the company website and proactively provided to community representatives.

Specific actions to be undertaken are:

1. Continuing to update the database as community members seek information about the quarry and this development application.
2. Fielding and promptly returning all calls from the community, including general public enquiries about the advertisement notice of the development application.
3. Providing a Fact Sheet that outlines factual information about this development application for Wolffdene Quarry to all enquiries. A copy of the Fact Sheet can be found within the Community Engagement Report. Refer to ATTACHMENT 16 – COMMUNITY ENGAGEMENT REPORT.
4. Hand delivering the Development Application Fact Sheet to residents noted within the database as interested in direct communication to inform them of the development application.
5. Directing all enquiries to the dedicated website landing page for information or to contact the community engagement officer for Wolffdene Quarry.
6. Continuing to share positive news of the quarry's outreach activities with the community, e.g. ongoing programs and projects with local schools and community groups.
7. Emailing the Development Application Fact Sheet and a link to the website to specific stakeholders including the divisional Councillor, local political representatives, school Principals and teachers that are currently involved in quarry

projects and community ambassadors with whom the quarry has developed programs to date, e.g. Beenleigh-Yatala Chamber of Commerce and Ormeau Lions Club.

8. Offering community members an opportunity to tour the quarry with the Development Application Fact Sheet as a handout and enabling question and answer time for responding to any queries.

On the closure of the public notification period this Community Engagement Report will be updated to include a record of community concerns and support and company responses to those, to inform the ongoing strategic community relations plan for Wolffdene Quarry.

Further information regarding the community consultation for the development application is included in the Community Engagement Report. Refer to ATTACHMENT 16 – COMMUNITY ENGAGEMENT REPORT.

16. SUMMARY

Pursuant to the provisions of the *Gold Coast Planning Scheme*, the proposed development is 'Impact Assessable'.

This Planning Report has been prepared to accompany an application to the Gold Coast City Council for a Development Permit for a Material Change of Use to include additional land within the existing Extractive Industry located at the Wolffdene Quarry. The proposed development is an appropriate use as it is identified as a Key Resource Area and is consistent with the land use intent of the Planning Scheme.

The proposed development is to include additional adjoining land to facilitate and enhance the existing quarry development. Importantly, the volume and type of materials extracted, haulage volumes (truck numbers), processing output and product distribution will not change as a result of this application.

The proposed development seeks to realise the full potential of a proven hard rock extractive resource, to satisfy the local and wider surrounding market demand for essential quarry materials and thereby support and enhance the economic viability of the region. The Site is ideally located as a large hard rock quarry operation being in proximity to the Pacific Motorway. In regards to rock quality, the material is suitable for the production of all high specification materials including concrete aggregates, sealing aggregates, road construction materials and ballast and the rock type also has exceptionally high skid resistance values.

Planning for the proposal has involved the consideration of environmental, physical and operational constraints to evolve a preferred option of Site development and progressive rehabilitation. The extractive operations will be controlled by staged quarry development plans to ensure that extraction sequence minimises potential impacts upon the surrounding community and ensure that an efficient quarry layout is achieved. The SBMP provides a framework for environmental management on the Site and contains strategies and measures to control any adverse impacts on the environment.

Assessment of the development against the relevant Desired Environmental Outcomes and Codes of the Planning Scheme has shown that the development is consistent with the intent of the Planning Scheme and seeks to achieve ecologically sustainable development by positioning the quarry footprint to have the least impact on the environmental and social values of the Site whilst still providing an efficient quarry development plan that will supply an essential extractive resource to support and enhance the economic viability of the area.

The proposed development satisfies the requirements of the *Gold Coast Planning Scheme* that are applicable to carrying out Extractive Industry on the Site.

The proposed development is consistent with the SEQ Regional Plan, State Planning Policies and other legislative requirements. Consideration has been given to the potential impacts the development could have on the local and wider environment and appropriate design and management measures will be implemented to safeguard the amenity of the community and the ecological values of the environment.

The 2011 Development Permit includes a suitable set of conditions to ensure that the Site is developed in an appropriate manner to safeguard the amenity of the surrounding community and the ecological values of the surrounding environment. It is considered that similar conditions should be imposed on this development to that of the existing approval to achieve an acceptable environmental outcome.

Having regard to the above, the proposed development is consistent with the planning and environmental objectives of relevant planning instruments and policies. Therefore, there are sound planning grounds for the proposal to be approved.

attachments

Attachment 1

Development Approval

Attachment 2

Conceptual Quarry Development Stages

Attachment 3

Targeted Flora and Fauna Assessment

Attachment 4

Site Based Management Plan

Attachment 5

Cultural Heritage Assessment

Attachment 6

Noise and Dust Impact Assessment

Attachment 7

Title Searches

Attachment 8

Project Need Assessment

Attachment 9

Planning Framework Assessment

Attachment 10

State Development Assessment Provisions Assessment

Attachment 11

Consultant's Environmental Objectives Assessment

Attachment 12

DNRM Vegetation Clearing Exemption Correspondence

Attachment 13

DNRM Watercourse Correspondence 11 October 2012

Attachment 14

Code Assessment

Attachment 15

Hanson's Drivers Code

Attachment 16

Community Engagement Report