

Section 1

Introduction

PREAMBLE

This section introduces a project to extend the existing approved extraction areas within the Teralba Quarry and in turn increase the operational life of the Teralba Quarry and reviews:

- *the format of the document;*
- *the Proponent and the Project Site;*
- *the existing operations;*
- *the approvals process for a major project and the indicative project timetable;*
- *the ongoing management and documentation applicable to the Teralba Quarry; and*
- *the team involved in the preparation of the Environmental Assessment and supporting documentation.*

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1.1 SCOPE

This *Environmental Assessment* (EA) has been prepared by R.W. Corkery & Co. Pty. Limited in conjunction with Metromix Pty Limited (hereafter referred to as “Metromix”) in support of an application to the Department of Planning & Infrastructure by Metromix (Project Application No. 10_0183) to extend the areas of extraction and to continue the operation of the Teralba Quarry for a further 30 years (“the Project”).

For the purposes of this document, the area which is subject of the Project Application, incorporating both the existing quarry and proposed extended extraction areas, is referred to as the “Project Site”. The Project Site, illustrated in **Figure 1.1**, lies west of the suburb of Teralba, beyond the western shores of Lake Macquarie.

In order to guide the design of the extensions to the existing approved extraction areas, Metromix commissioned a team of specialist consultants to investigate and assess the resources, flora, fauna, noise, air quality, Aboriginal heritage, surface water and groundwater issues within and surrounding the Project Site. Each consultant has examined, to the extent necessary, issues relating to the existing extraction and processing operations to ensure the most current legislative requirements and relevant government guidelines are being satisfied in those areas. Each consultant has recommended design and operational safeguards for the extension areas and provided an impact assessment of the activities within the proposed extension areas and the overall Project Site.

The *Environmental Assessment* describes the Project and provides information on the design of the extended extraction areas and the mitigation measures and management controls Metromix would continue to adopt to avoid or reduce potential impacts within and surrounding the Project Site. The residual impact(s) are described and proposed monitoring outlined to assess the ongoing environmental performance of the Project. The *Environmental Assessment* has been prepared in accordance with the provisions of Part 3A, Section 75 of the *Environmental Planning and Assessment Act 1979*.

The Project is classified as a Major Project in accordance with *State Environmental Planning Policy (Major Development) 2005*. The application is made possible by virtue of the fact that extractive industries are a permissible land use within the nominated areas of the Project Site in accordance with the prevailing Lake Macquarie Local Environmental Plan 2004.

This document addresses those components of the existing approved operation that are planned to continue and the progressive development and operations within the proposed Southern and Northern Extensions. This approach has been taken to enable all readers to fully understand how the entire quarry would operate as a single entity and what level of environmental impact would occur. Furthermore, it would enable the Minister for Planning and Infrastructure to issue a project approval for the entire quarry (including the proposed extensions), for the remainder of its operational life.

Text addressing the specific requirements of the Director-General of the Department of Planning & Infrastructure and other relevant State and Local government agencies has been incorporated into the appropriate section(s) of the document. **Appendix 2** reproduces the Director-General’s Requirements and provides a summary of all documented requirements from government agencies together with reference to the section(s) of text where each requirement has been addressed in the *Environmental Assessment*. It is noted that the documented requirements in **Appendix 2** have been addressed to the extent considered appropriate for the existing operation and proposed quarry extensions. In some cases, the nominated requirements are considered as irrelevant or their detailed consideration is assessed to be of little benefit to the Minister when determining Metromix's application.



1.2 FORMAT OF THE DOCUMENT

This *Environmental Assessment* has been compiled as a single document with a supporting two-volume compendium document drawing together the relevant specialist consultant studies.

The format of the *Environmental Assessment* is structured as follows.

Section 1: introduces the Project and Metromix as the Proponent, describes the Project Site and the existing operations on site, identifies the ongoing documentation applicable to Teralba Quarry and introduces the team involved in the preparation of the *Environmental Assessment* and supporting documentation.

Section 2: describes each of the proposed project areas within the Teralba Quarry, the defined resources, the design and operation of the two proposed extensions to the approved extraction areas, processing and product despatch activities, infrastructure, services, hours of operation, waste management, employment and rehabilitation. Each of these components of the quarry operation covers both the existing and proposed operations. This format is in keeping with the scope of the anticipated project approval, which would cover both the existing quarry and proposed extensions.

Section 3: provides a description of the process used to identify and prioritise the key issues for assessment with reference to the Director-General's Requirements for the Project, stakeholder consultation through the Project planning stages and an environmental risk analysis undertaken to establish the specific environmental risk(s) posed by the issues identified.

Section 4: describes the environmental setting within and surrounding the Project Site with emphasis placed upon the environmental features that contribute to or influence the assessment of various environmental parameters.

Section 5: provides:

- i) a description of the environmental features of the existing environment that may or would be affected by the Project;
- ii) the design and operational safeguards and, where appropriate, management procedures, that are currently implemented and would continue to be implemented to minimise any potential adverse impacts;
- iii) the relevant design goals or assessment criteria relating to components such as air quality, noise and vibration;
- iv) an evaluation of the environmental impacts of the on-site activities and off-site product transportation;
- v) the additional design and operational safeguards, and, where appropriate, management procedures, that would be introduced to manage the environmental impacts arising from the increased level of production; and
- vi) an analysis of the potential impacts the Project would have once all design and operational safeguards and procedures are implemented.

- Section 6:** provides a draft Statement of Commitments the Proponent is prepared to implement with respect to environmental management and monitoring for the Project which would ultimately be incorporated with a project approval for the Project, if it is approved by the Minister for Planning & Infrastructure.
- Section 7:** presents an evaluation and justification of the Project in relation to the biophysical, economic and social considerations assuming the adoption of all proposed mitigation measures and commitments. Also presented is an evaluation of the Project with respect to the relevant planning instruments and ecologically sustainable development principles. The consequences of not proceeding with the Project are also examined.
- Section 8:** presents the publications and data sources referenced throughout this document.
- Section 9:** presents a glossary of Acronyms, Symbols and Technical Terms.
- Appendices:** include:
- i) a copy of the application for the Project;
 - ii) a copy of the Director-General's Requirements (DGRs) for the *Environmental Assessment*, a summary of the DGRs and the requirements of other government agencies and a reference to the relevant section(s) of this document where each of these requirements is addressed;
 - iii) a copy of the Development Consent DA 130/42; and
 - iv) a set of Extraction Sequence Plans for Southern Extension Extraction, Mid Pit Extraction Area and Northern Extension Extraction.

The *Environmental Assessment* has been prepared with the input of nine specialist consultant firms, listed in Section 1.7. Their reports have been compiled into a two volume supplementary document entitled *Specialist Consultant Studies Compendium* which has been placed on exhibition with this *Environmental Assessment*.

1.3 THE PROPONENT AND THE PROJECT SITE

1.3.1 The Proponent

The Proponent for the Teralba Quarry Extensions is Metromix Pty Limited ("Metromix"). Metromix, formed in 1985, is wholly owned by Holcim (Australia) Pty Ltd and Hanson Australia Pty Ltd, two of the most successful building materials companies in Australia. Both companies originated as Australian companies but are now incorporated within multi-national companies operating in all continents around the world. Metromix is none-the-less a small company with both a customer and community focus.

Metromix operates eight concrete plants throughout Sydney and the Blue Mountains as well as three raw material extraction sites, namely the Marrangaroo Quarry near Lithgow, Anna Bay near Port Stephens and the Teralba Quarry. Metromix currently employs a total of 108 full time personnel as well as a fleet of 52 owner/driver concrete carriers.

1.3.2 The Project Site

The Project Site encompasses the freehold land incorporating the full area of the existing Teralba Quarry extraction and processing operations, the areas incorporating the proposed Southern and Northern Extensions and a 20m wide section across Rhondda Road. The Project Site covers an area of approximately 130ha and is located entirely within an area of freehold land Metromix leases from the landowner, Mr A.C. Fowkes. The boundaries of the Project Site have been defined in the following manner.

- The western boundary coincides with the edge of the road easement that traverses the leased property for the private coal haul road between various coal mines to the north and Eraring Power Station to the south.
- The southwestern and southern boundaries are generally set back a minimum distance with the proposed Southern Extension area and areas previously disturbed by quarry-related activities.
- The eastern and northeastern boundaries are similarly set back a minimum distance of 20m from existing or proposed areas of disturbance.
- The northwestern boundary is set back a minimum distance of 20m from the cleared areas used by the Newtech Pistol Club (see Area 1 on **Figure 1.2** and further description in Section 4.3).

The Project Site excludes two areas within the existing Southern Extraction Area, namely:

- Area 2: Civilake Operations (see Section 2.2.6).
- Area 3: Downer EDI Operations (see Section 2.2.6).

The freehold land titles within the Project Site are located within the Parish of Teralba and County of Northumberland and comprise:

- Lot 1 DP 224037 (Vol. 13128 Fol. 19) (155ha) ; and
- Lot 2 DP 224037 (Vol. 13128 Fol. 20) (87ha).

The boundaries of these titles are displayed on **Figure 1.2**.

For the purposes of the Project Application, the Project Site also includes a 20m wide corridor across Rhondda Road for a proposed sub-surface crossing between the southern and northern sections of the quarry.

1.3.3 Project Extraction Areas

The Project Site incorporates four extraction areas (see **Figure 1.2**). The first area, referred to as the “existing Southern Extraction Area,” encompasses all approved extraction and processing operations south of Rhondda Road. The second area is referred to as the “approved Mid Pit Area” which is located north of Rhondda Road. The two areas not yet approved and the subject of the Project Application are referred to as the “proposed Southern Extension” and the “proposed Northern Extension” (**Figure 1.2**).

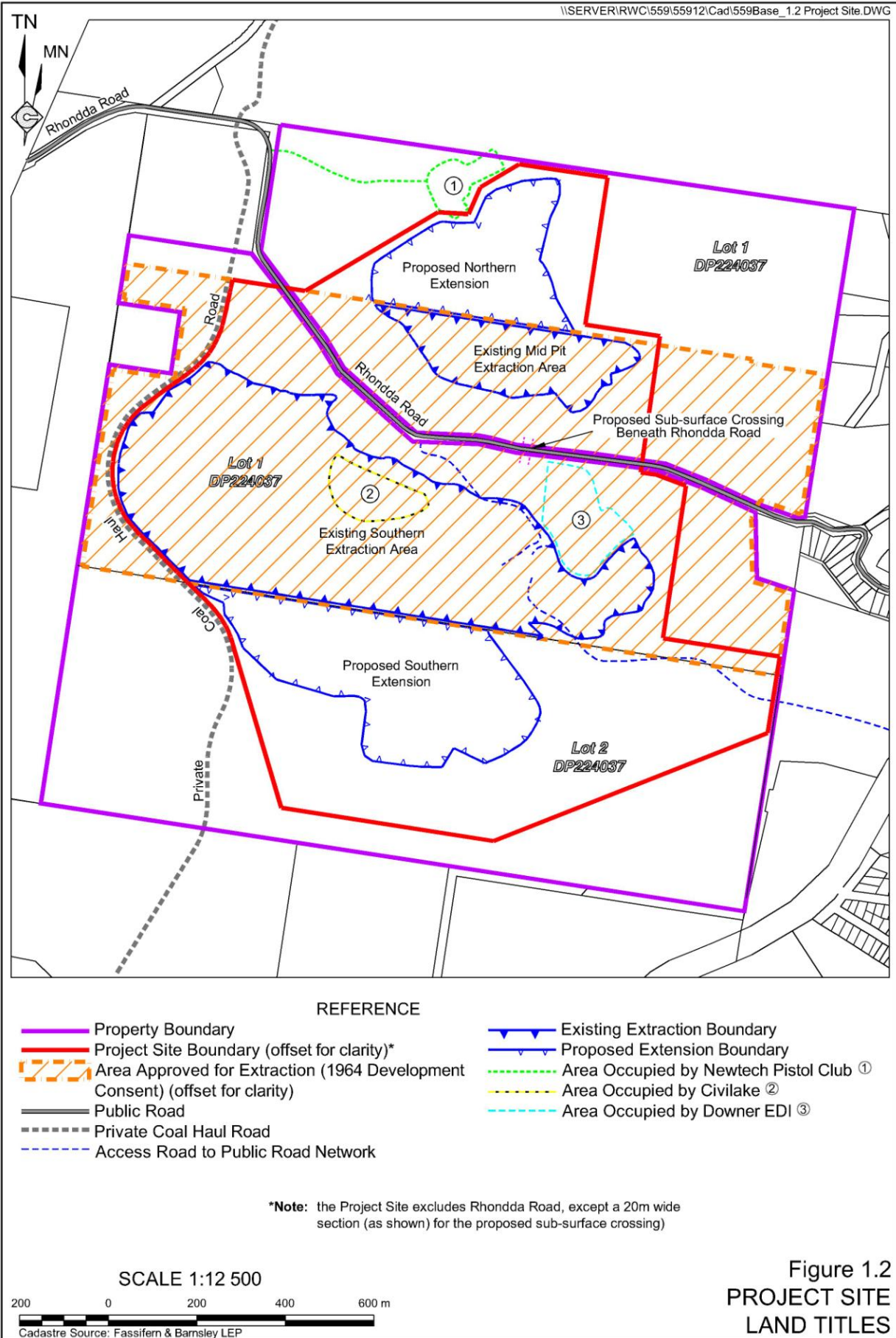


Figure 1.2
 PROJECT SITE
 LAND TITLES

Existing Southern Extraction Area

The existing Southern Extraction Area currently covers approximately 40ha, and incorporates the active extraction area, a processing plant and a range of related infrastructure including a workshop, office, fuel, storage, water management structures, roads, utilities and services. These components are described in more detail in Section 1.4.4. It is noted that the Civilake and Downer EDI operations undertaken within the existing Southern Extraction Area are operating under agreements with Metromix who has the responsibility for the final rehabilitation of all areas disturbed within the Project Site including the areas of the asphalt plant and pugmill operation, i.e. whilst Metromix is undertaking quarry-related activities on site.

Existing Mid Pit Extraction Area

The existing Mid Pit Extraction Area covers approximately 7.5ha. Extraction commenced in this area during the third quarter of 2010 to supplement the resources extracted from the existing Southern Extraction Area over the next 2 to 3 years.

Proposed Southern Extension

The proposed Southern Extension covers approximately 16.5ha and is located entirely within Lot 2 DP 224037. This lot is traversed by a number of transmission line easements and a small area is leased to Oceanic Coal for the purposes of a private coal haul road between various coal mines to the north and the Eraring Power Station to the south.

Proposed Northern Extension

The proposed Northern Extension is located entirely within Lot 1 DP 224037, on the northern side of Rhondda Road and comprises an area covering approximately 9.3ha. The Newtech Pistol Club is located beyond the northwestern boundary of the proposed Northern Extension within the land leased by Metromix.

1.4 EXISTING APPROVED OPERATIONS

1.4.1 Introduction

An overview of the existing approved operations at the Teralba Quarry is provided in this section to provide readers with an understanding of the various activities already undertaken within the Project Site and which are planned to continue in conjunction with the proposed quarry extensions. **Figure 1.3** presents the existing site layout of Teralba Quarry together with the current approved extraction areas.

1.4.2 Quarry History

The Teralba Quarry was initially established by Premier Metal and Gravel Pty Ltd in 1964. It was acquired by the Readymix Group in October 1983 who on-sold it to Metromix in August 1986. When Metromix purchased the quarry, sales were in the order of 250 000 tonnes per annum (tpa). In 2010/2011, sales were in the order of 1 million tpa.

In the early 1990s, Metromix sold approximately two thirds of its production to its two shareholders for the production of premixed concrete. Because of changes to specifications and market conditions (local gravel operations closing), the current volume of work is more aligned to the civil construction industry. A major proportion of the sales from the Teralba Quarry now includes roadbases, drainage aggregates, sands and fill products for the civil construction industry throughout Newcastle suburbs, the Central Coast and the lower Hunter Valley.

1.4.3 Existing Approvals and Licences

The Teralba Quarry is currently being operated in accordance with Development Consent (DA 130/42) granted by the former Lake Macquarie Municipal Council on 8 May 1964 (see **Appendix 3**). This development consent is valid for the life of the resource identified at the time and covers 29.6ha north and 75.2ha south of Rhondda Road. The area covered by the 1964 Development Consent is displayed on both **Figures 1.2** and **1.3**.

Whilst the development consent is somewhat dated, the daily operations of the quarry are managed in accordance with a current Quarry Management Plan and Safety Management Plan.

Metromix also holds an Environment Protection Licence (EPL) No. 536 for Land-based Extractive Activity within an operational scale of 500 000tpa to 2 000 000tpa. The licence also covers crushing, grinding or separating works, is renewed annually, and encompasses both Lots 1 and 2 DP 224037.

1.4.4 Existing Operations

This sub-section incorporates an overview of the existing operations at Teralba Quarry. A more detailed description is included in Section 2 as the ongoing operations would be similar to those undertaken within the existing operations.

The Resource

The conglomerate resource exposed in the Teralba Quarry is located within a geological unit referred to as the “Teralba Conglomerate” which is approximately 45m to 60m thick and sits directly above the Great Northern Coal Seam. The conglomerate is interbedded with layers of sandstone, although the proportion of sand and gravel varies throughout the unit and across the entire site. A 2010 estimate of the recoverable resources remaining in the existing Southern Extraction Area revealed approximately 1 million tonnes of conglomerate remained whilst approximately 1.4 million tonnes remained within the existing Mid Pit Extraction Area north of Rhondda Road. The remaining recoverable resources at the date of this document have not been exactly quantified, however, Metromix anticipates all remaining reserves will be recovered by mid to late 2012. Importantly, the requested project approval is required well ahead of that time to ensure a smooth transition is achieved into the proposed quarry extensions.

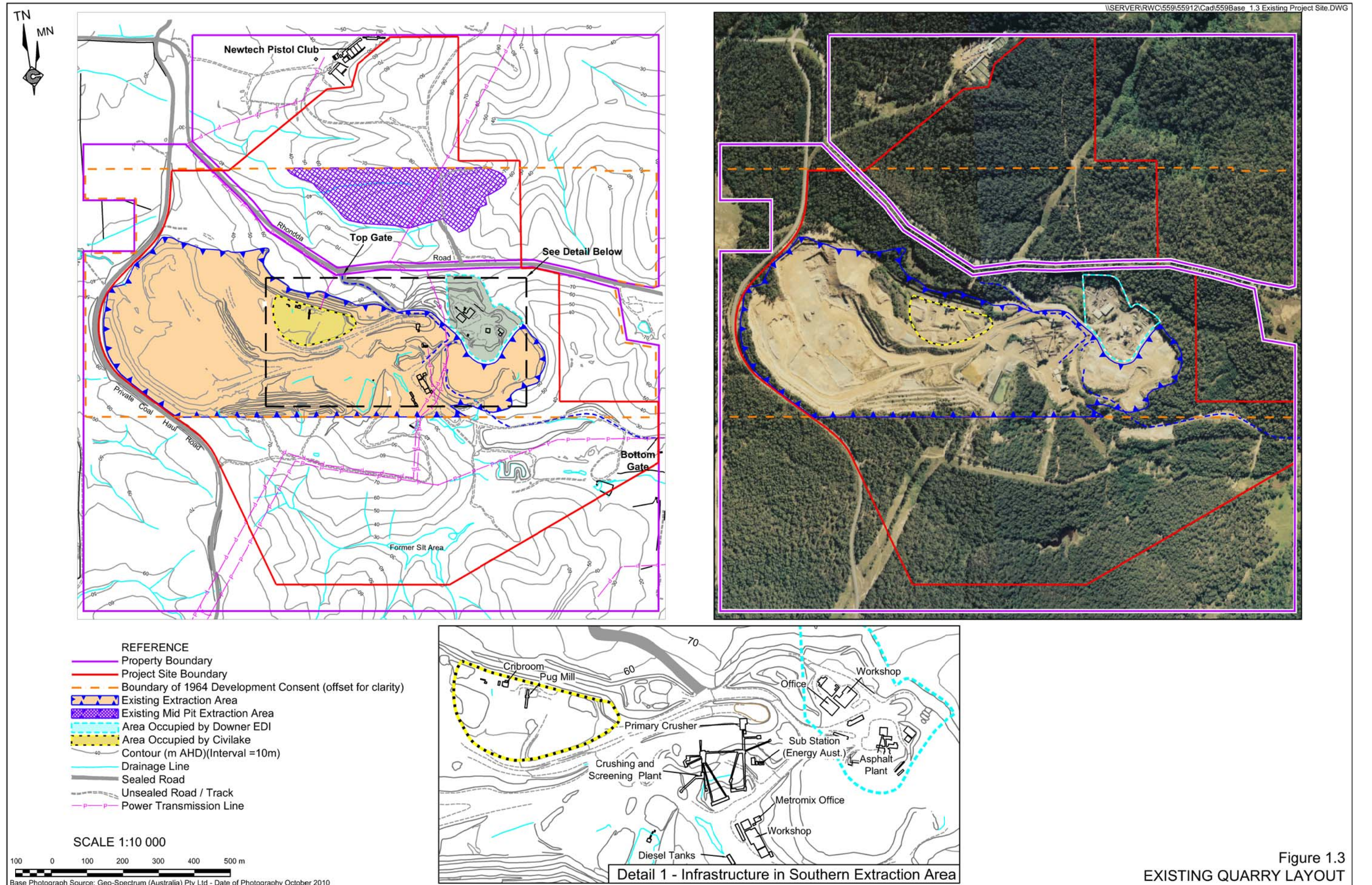


Figure 1.3
EXISTING QUARRY LAYOUT

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Extraction

The conglomerate within the Project Site is sufficiently consolidated for it to require blasting to assist in disaggregation prior to being extracted, loaded and transported for processing. Blasting is currently undertaken typically once or twice per week with between approximately 10 000 tonnes and 35 000 tonnes fragmented in each blast. Details of the blasting are presented in Section 2.6.5. **Plates 1.1** and **1.2** display oblique aerial views across the existing Southern Extraction Area and active extraction area. **Plate 1.3** displays the initial extraction activities in the existing Mid Pit Extraction Area.

Processing

Processing involves both size reduction with a series of crushers and screening to separate preferred product sizes. Processing commences with all raw materials passing through a dry process (with dust suppression) and approximately 65% of this crushed material passing through a wet circuit. The actual proportion of raw materials washed reflects the prevailing sales. Details of the processing operations are presented in Section 2.8. **Plates 1.3** and **1.4** display the primary crusher building and the remainder of the processing plant.

Product Stockpiling

Products are stored in the overhead storage bins displayed in **Plate 1.4** and within a range of dedicated product stockpile areas around the processing plant (see **Plate 1.1**). Products are stockpiled both by type and specific customers. The principal product stockpile area is currently located to the east of the processing plant. The products are routinely transferred from the overhead storage bins to this stockpile area. Some small quantities of products are currently stockpiled around the margins of the approved Southern Extraction Area.

Existing Traffic and Transport

Products from the existing Teralba Quarry are currently transported by a fleet of vehicles either driver/owner or owned by Metromix, Holcim, Hanson or other external operators/contractors.

Existing product despatch from Teralba Quarry is via one of two exits (**Figure 1.3**), namely:

1. from the Teralba Quarry “top gate” to the west along Rhondda Road; or
2. from the Teralba Quarry “bottom gate” using a section of road leased from Teralba Engineering beyond the eastern exit of the quarry, effectively bypassing Rhondda Road and entering the public road network at the intersection of Railway Street and Rhondda Road. This route avoids loaded trucks using the steep eastern section of Rhondda Road.

Metromix currently distributes its quarry products by truck via four transportation corridors (see **Figure 1.4**). The corridors are summarised as follows.

- Northwestern corridor – Product trucks exit the quarry at the top gate on Rhondda Road, travel westwards and then turn northwards along Wakefield Road to travel towards Barnsley.
- Southwestern corridor – Product trucks exit the quarry at the top gate on Rhondda Road, travel westwards and then turn southwards along Wakefield Road to travel towards the F3 freeway.



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Plate 1.1: An oblique aerial view to the west across the existing Southern Extraction Area and all operational areas south of Rhondda Road (Ref: E559L/006)

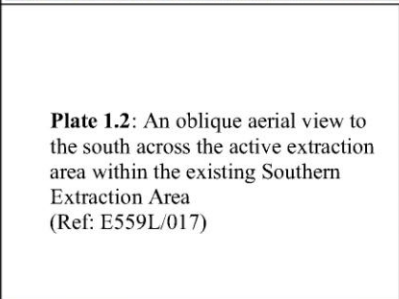


Plate 1.2: An oblique aerial view to the south across the active extraction area within the existing Southern Extraction Area (Ref: E559L/017)

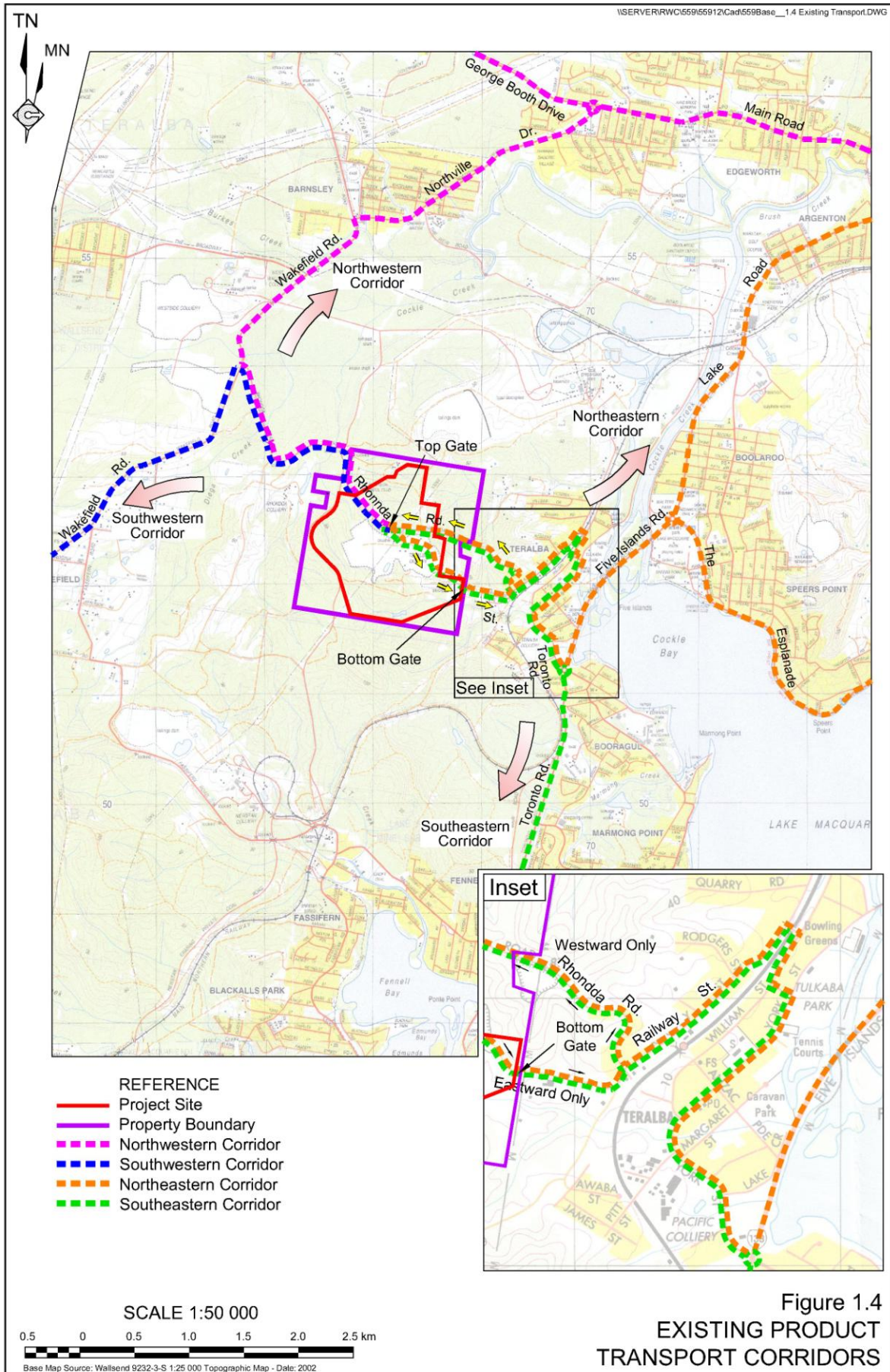


Plate 1.3: A view to the southeast towards the active area of the existing Mid Pit Extraction Area (Ref: E559T/048)



Plate 1.4: An oblique aerial view to the south across the Processing Plant (Ref: E559L/019)





- Northeastern corridor – Product trucks exit the quarry at the bottom gate and enter the public road system at the southern end of Railway Street. The trucks then travel through Teralba and northward along Five Islands Road where after they turn eastwards along The Esplanade or continues northwards.
- Southeastern corridor – Product trucks exit the quarry at the bottom gate and enter the public road system at the southern end of Railway Street. The trucks then travel through Teralba and turn southwards on Toronto Road towards Toronto.

With the exception of the eastern routes along Rhondda Road unladen trucks generally travel the same routes but in the reverse direction. The inset on **Figure 1.4** illustrates how laden trucks exit the quarry at the bottom gate and enter the public road system at the southern end of Railway Street, and unladen trucks travel through Teralba and enter the quarry site from Rhondda Road at the top gate.

The level of heavy vehicle traffic travelling to and from Teralba Quarry directly reflects product sales. Over the past three years, annual sales have varied between approximately 700 000tpa and 1 million tpa. A detailed evaluation of traffic levels in July 2008, when the annualised sales were marginally above 700 000tpa, established the distribution pattern when operating at that level of sales.

Increased traffic levels associated with increased sales (up to 1 million tpa) since July 2008 have been established by proportionally increasing those levels to reflect the 1 million tpa sales. The only exception to this was that Metromix adopted a self-imposed limit upon the number of trucks travelling through Teralba. The limit related to maintaining the truck levels through Teralba (travelling to or from Teralba Quarry) to a level comparable with the maximum level in July 2008 when operating at an annualised level of 700 000tpa. **Table 1.1** lists the average and 85th percentile daily and hourly traffic levels at sales levels of 700 000tpa and 1 million tpa.

Table 1.1
Existing Metromix Heavy Vehicle Movements[@]

	Type of Sales Day	700 000tpa			1 million tpa		
		Eastward*	Westward	Total	Eastward*	Westward	Total
Average Daily Movements	Average and Likely	81	107	188	81	222	303
85 th Percentile Daily Movements	A busy day which occurs once or twice per month	127 [#]	156	283	127 [#]	325	452
Average Peak Hour Movements	Average Likely	10	13	23	10	26	37
85 th Percentile Peak Hour Movements	A busy hour which occurs at least weekly	15	17	32	15	35	50

[@] Based on annual production of 700 000tpa and traffic distribution recorded in July 2008. * Through Teralba

[#] Note: An 85th percentile level of 127 trucks per day is comparable to a maximum level of 170 trucks per day, albeit on only one or two days per year.

Source: Modified after Halcrow (2011) – Table 3.2 and Table 3.3.

Eastwards Movements

During busy days or periods, trucks travelling to and from Teralba Quarry through Teralba have been recorded at an average of 81 movements per day or an 85th percentile level¹ of 127 movements per day. The maximum number of daily truck movements through Teralba on a few days per year have been in the order of 170. Heavy vehicles travelling to and from Teralba Quarry through Teralba averaged 10 per hour and peaked at 18 per hour with an 85th percentile level of 15 per hour. These daily levels were consistent with the annualised rate of 700 000tpa. When sales levels have reached 1 million tpa, the number of truck movements through Teralba have remained the same.

Westwards Movements

During busy sales periods, when annualised sales are in the order of 700 000tpa, truck traffic to the west of Teralba Quarry, along Rhondda Road, involved truck movements of approximately 156 per day or 13 truck movements per hour. When sales levels reached 1 million tpa, the 85th percentile truck movements increased to 325 per day or approximately 35 per hour.

Non-Project Related Activities

Two non-Project related activities are located within the existing Southern Extraction Area.

- i) Civilake, a division within Lake Macquarie City Council, operates a road base pugmill in an area west of Metromix's processing plant within Lot 1 DP 224037.
- ii) Downer EDI operates an asphalt plant in an area north of the offices/workshop, also within Lot 1 DP 224037.

Both companies operate under their own approvals and environment protection licences. The activities of these two companies are described in more detail in Section 2.2.6.

1.4.5 Products – Uses and Market

Uses

The range of products produced at Teralba Quarry and their approximate proportion of sales are shown in **Table 1.2**. It is noted that the proportion of sales varies each year reflecting Metromix's flexibility in meeting their customer's requirements. The main product is roadbase, making up approximately 24% of sales. Concrete aggregates make up more than one fifth of the product mix.

Table 1.2
Existing Teralba Quarry Products

Product	% of Sales
Roadbases	24
Concrete Aggregates	22
Packing and Fill Sands	16
Drainage Aggregates and Aggregates for Landscape Yards, etc.	14
Concrete Sand	9
Fills	8
Drainage Sands	7
Total	100
Source: Metromix 2011	

¹ The 85th percentile level equates to a typical busy day.

Market Areas

The market areas for Teralba Quarry products, based on 2011 sales, are listed in **Table 1.3**. It is notable that over 50% of the products produced at Teralba Quarry are consumed within the Lake Macquarie Local Government Area – highlighting the importance of the quarry to development within the Lake Macquarie area.

Table 1.3
Market Areas for Teralba Quarry Products

Market Area	Market %
Lake Macquarie	55
Newcastle	24
Port Stephens	3
Cessnock	2
Maitland	3
Central Coast	5
Sydney	7
Other	1
Total	100
Source: Metromix 2011	

As a result of the planned cessation of gravel extraction at Penrith Lakes in Western Sydney within the next few years, Metromix expects its sales of gravels into the Sydney area to increase. The supply of rounded gravels will be sought as similar products cannot be produced at conventional hard rock quarries.

1.4.6 Employment

The current employment statistics for Teralba Quarry are shown in **Table 1.4**. Like many businesses, Metromix also employs local contractors and consultants to undertake a number of tasks on its behalf. This typically amounts to an average of 1000 hours per month which is equivalent to an additional 5.5 full time positions. Furthermore, local haulage contractors are also used to deliver various products that the Metromix fleet is unable to deliver. The products transported by the local haulage contractors generate in the order of 20 full-time positions.

Table 1.4
Employment at Teralba Quarry – March 2011

Positions	Numbers
Quarry Manager	1
Quarry Supervisors	2
Sales – Customer Service Manager	1
Sales – Weighbridge Operator	1
Administration	1
Leading Hands	2
Quarry Operators	9
Full Time Contractors	2
Metromix Employed Truck Drivers	7
Total	26
Source: Metromix 2011	

In summary, Teralba Quarry provides direct employment for approximately 52 persons.

1.4.7 Environmental Performance

Metromix has operated Teralba Quarry for the past 25 years with a high standard of environmental performance. This high standard is attributable to both the Company's commitment and excellent location of the quarry itself, i.e. set back from surrounding residences and with substantial vegetated buffers and intervening topography between the quarry and the surrounding residences.

An appreciation of the status of Metromix's environmental performance is established through a review of the record of complaints and the environmental monitoring data assembled for the quarry.

With respect to complaints, Metromix has recorded four complaints received in the past five years. The complaints that have been received have related to product transportation and have invariably been attended to quickly and to the satisfaction of the complainants.

Metromix has been monitoring deposited dust levels at three locations since June 2004 with dust levels attributable to the quarry well below the OEH criteria (see Section 5.7.2.2 for further details). The number of monitoring locations has recently been increased to five (see Section 5.7.2).

The quality of water discharging eastwards from the existing quarry operations has been acceptable due principally to the effective reed-lined sediment retention ponds on site (see Section 5.3 for further details).

From a noise and blasting perspective, the various monitoring results recorded over the past 10 years have always demonstrated compliance.

Metromix has placed considerable emphasis upon the rehabilitation of areas no longer required for quarrying-related purposes. **Plates 1.5** and **1.6** displays a 10.7ha area of the area previously disturbed in 1992 and the same area recorded in 2010. The high standard of rehabilitation has been achieved through direct transfer of biomass and revegetation through direct seeding and regular maintenance. This practice has also assisted in the re-establishment of a population of *Tetratheca juncea* within the rehabilitation area (see **Plate 1.6**).

1.5 APPROVALS PROCESS FOR A MAJOR PROJECT AND THE PROJECT TIMETABLE

Table 1.5 presents the component stages of the overall approvals process for a major project and provides an indicative Project timetable currently being followed by Metromix. Based upon the submission of an adequate *Environmental Assessment* in November 2011, the determination of the Application by either the Minister for Planning or the Planning Assessment Commission (*Stage 11* of **Table 1.5**) could occur by about May 2012.

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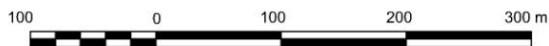


Plate 1.5: Area Targeted for Rehabilitation in 1992



Plate 1.6: Rehabilitation Area in 2010

SCALE 1:6 000



- REFERENCE
- Project Site Boundary
 - Area of Rehabilitation (10.7ha)



Table 1.5
Approvals Process for a Major Project and the Proponent's Indicative Timing

Stage	Activity	Indicative Timing
1	⇒ A <i>Preliminary Environmental Assessment</i> for the Project is prepared and submitted to the Department of Planning for distribution to relevant government agencies.	Early October 2010
2	⇒ Metromix writes to the Department of Planning lodging its Application for Planning Approval, and a final copy of the <i>Preliminary Environmental Assessment</i> .	Late October 2010
3	⇒ The Department of Planning receives the written requirements of the government agencies consulted and issues the Director-General's Requirements for the Project.	Late November 2010
4	⇒ Metromix undertakes consultation with the local and wider community – which continues throughout the entire process.	Late November 2010 onwards
5	⇒ An <i>Environmental Assessment</i> is provided to the Department of Planning & Infrastructure for consideration and assessment of adequacy by the Department and other government agencies (prior to it being placed on public exhibition). A range of adequacy issues were raised that required follow-up.	June 2011
6	⇒ The <i>Environmental Assessment</i> was lodged with modifications reflecting the comments provided by the various government agencies. The Department of Planning & Infrastructure will place all documents on public exhibition and notify neighbours and other stakeholders about the Project and the exhibition period.	November 2011
7	⇒ Review of the <i>Environmental Assessment</i> during the exhibition period by the community and government agencies.	November / December 2011
8	⇒ The Department of Planning & Infrastructure seeks from Metromix, a response / clarification of issues raised in the submissions from government agencies and the community.	December 2011 / January 2012
9	⇒ Metromix provides a response to the issues raised and, if necessary, a revised Statement of Commitments and/or Preferred Project Report.	Late February 2012
10	⇒ The Department of Planning & Infrastructure prepares its assessment report based on all documentation submitted by Metromix, government agencies and the community. If considered appropriate by the Minister, the application will be referred to a Planning Assessment Commission.	Late April 2012*
11	⇒ Determination by the Minister for Planning & Infrastructure.	May 2012*

Note *: Estimated timing only

1.6 ENVIRONMENTAL MANAGEMENT AND DOCUMENTATION

1.6.1 Site Environmental Management

The responsibility for environmental management within the Teralba Quarry rests with the Quarry Manager. He is supported by the Company's Community Liaison Manager, on-site administrative staff and consultants, as required.

1.6.2 Environmental Documentation

Metromix proposes to record its planning and progress with environmental management in two main documents.

1. Environmental Management Plan (EMP)

The EMP would record the Company's long term plan but would focus on the next 5 year plan with sufficient detail provided to give site operators guidance to achieve the required resources/products in an environmentally responsible manner.

2. Annual Environmental Management Report (AEMR)

An AEMR would provide the opportunity for Metromix to communicate the extraction and processing activities that have been undertaken for the previous reporting period and those that are planned for the next reporting period. The AEMR would also include an assessment of environmental strategies implemented, or planned to be implemented on the site, an evaluation of actual environmental impacts (determined through monitoring) against those predicted in the *Environmental Assessment* and the effectiveness of environmental management controls and monitoring.

Metromix would also prepare documentation to satisfy the conditional requirements contained within a project approval for the ongoing operation of the quarry.

These would include the following:

- An Environmental Management Strategy (to guide site personnel on how to implement the Project approval conditions).
- A Soil and Water Management Plan (to guide site personnel on how to manage the sites soil resources and the surface water flows and groundwater beneath the quarry).
- A Landscape Management Plan (to guide site personnel on the requirements for proper rehabilitation of the quarry).

1.6.3 Other Documentation

Metromix would submit its annual production (sales) to the Division of Resources & Energy within Department of Trade and Industry, Regional Infrastructure and Services (DTIRIS) on an annual basis.

1.7 MANAGEMENT OF INVESTIGATIONS

The preparation of this document has been managed by Mr Rob Corkery, B.Sc(Hons), M.Appl.Sc., Principal of R.W. Corkery & Co Pty. Limited. He has been assisted by Ms Allison Thomas (B.Sc.(Hons),M.Sc.), Ms Tabitha Kuypers (B.Env.Man.,MPhil Phys.Geog.) and Mr Christopher Dickson (B.Sc. Phys.Geog.) Environmental Scientists also with R.W. Corkery & Co Pty. Limited.

Assessments relating to various technical aspects of the Project and the surrounding environment have been prepared by the following specialist consultants.

- Halcrow Pacific – Traffic Assessment.
- RCA Australia Pty Limited – Groundwater Assessment.
- BMT WBM Pty Ltd – Surface Water Assessment.
- Idyll Spaces Environmental Consultants – Flora Assessment.
- Kendall & Kendall Ecological Consultants – Fauna Assessment.
- Spectrum Acoustics Pty Ltd – Noise Assessment.
- SLR Consulting Pty Ltd – Air Quality Assessment.
- Archaeological Surveys and Reports Pty Ltd – Aboriginal Heritage Assessment.
- GSS Environmental – Soils and Land Capability Assessment.

The preparation of the document and provision of information was managed within Metromix by Mr Bill Sanderson, Manager Quarries, with input from Mr Ian Mace, the former Quarry Manager and Ms Debbie Charman, Community Liaison Manager also of Metromix.

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