Executive Summary

INTRODUCTION

This *Environmental Assessment* has been prepared by R.W. Corkery & Co. Pty. Limited in conjunction with Metromix Pty Limited (hereafter referred to as "Metromix") to accompany an application (Project Application No 10_0183) to the Department of Planning & Infrastructure by Metromix. The application relates to Metromix's plans to extend the areas of extraction and to continue to operate Teralba Quarry for a further 30 years ("the Project").

For the purposes of this document, the area which is the subject of the project application is referred to as the "Project Site".

The Project Site, illustrated in **Figure A**, lies west of the suburb of Teralba, beyond the western shores of Lake Macquarie.

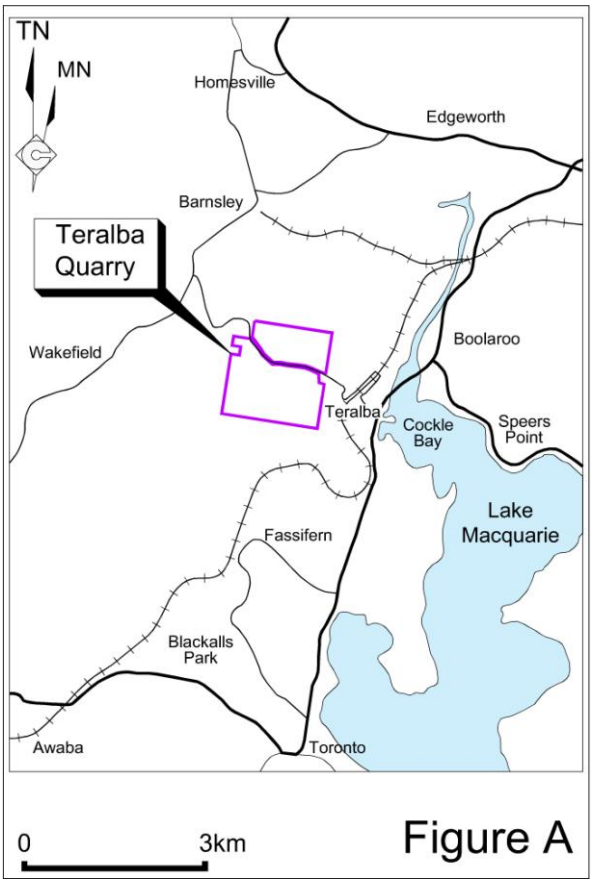


Figure A

THE PROJECT SITE

The Project Site encompasses the freehold land which incorporates the full area of the existing Teralba Quarry extraction and processing operations, 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 Project Site incorporates two existing extraction areas and two proposed extraction areas (see **Figure B**). The "existing Southern Extraction Area," encompasses all approved extraction and processing operations south of Rhondda Road. The second area, referred to as the "existing Mid Pit Extraction Area", is located nort8h of Rhondda Road.

The two proposed extraction areas that are the subject of the project application are referred to as the "proposed Southern Extension" and the "proposed Northern Extension".

Proposed Southern Extension

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

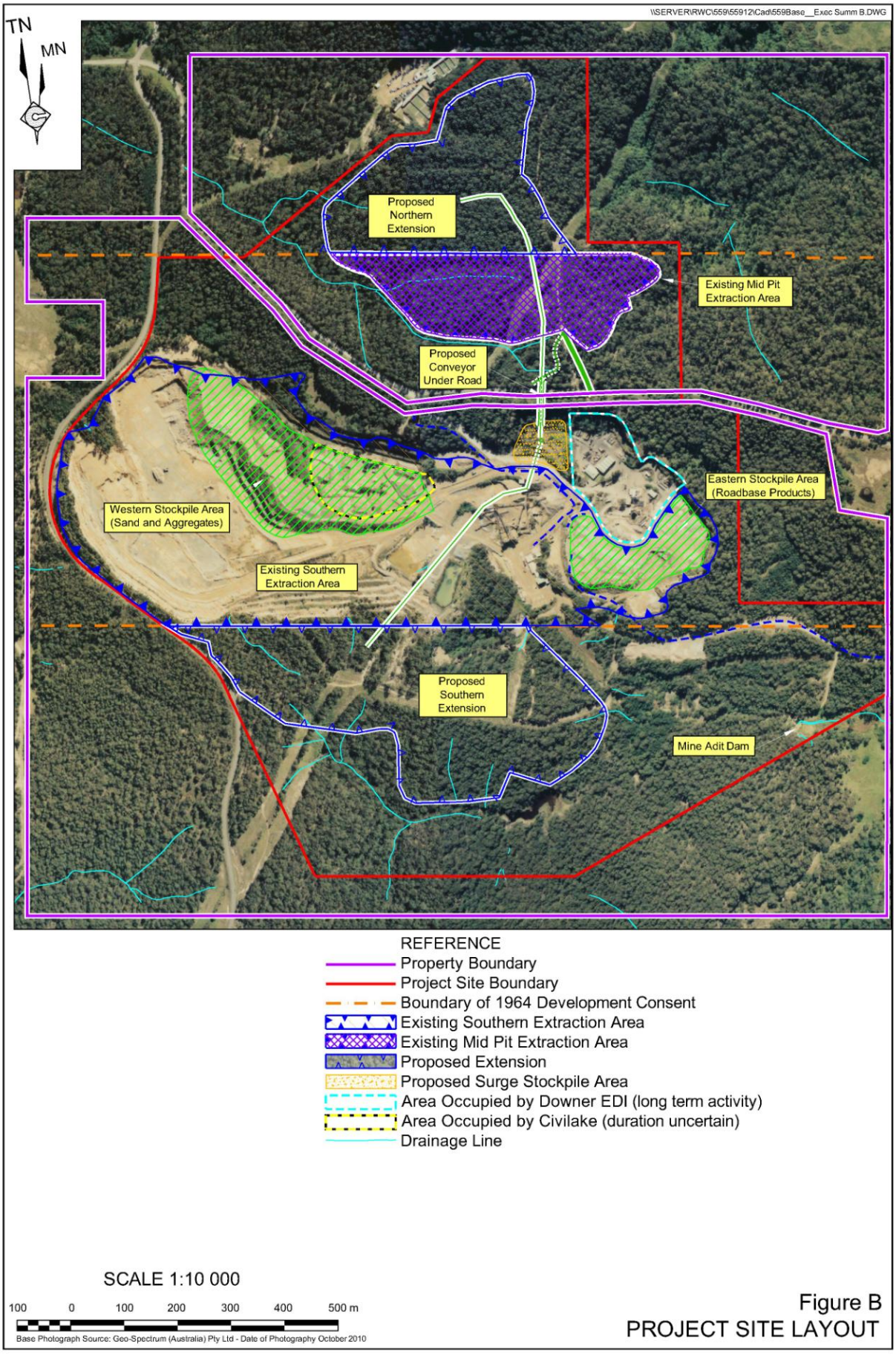


Figure B
PROJECT SITE LAYOUT

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, and 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.

PROJECT DESCRIPTION

The project for which Metromix is seeking approval involves the ongoing operation of the existing quarry and extensions of the two existing extraction areas. An overview of both the existing operations and the proposed extensions/ongoing operations of the quarry is presented as follows.

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, a coal seam that has been extensively mined beneath the quarry. 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. Metromix anticipates all remaining reserves will be recovered by mid to late 2012.

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.

Processing

Processing involves size reduction with a series of crushers and screens 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.

Products, Production and Sales

Metromix produces a range of quarry products at its Teralba Quarry, namely, roadbases, aggregates (for a range of uses) and sand. Approximately 50% of the quarry products are consumed within the Lake Macquarie Local Government Area.

Metromix needs to extract approximately 1.2 tonnes of conglomerate to produce approximately 1 tonne of product. The reduction in quantity is attributable to the overburden removed from above the conglomerate, oversize material (unsuitable for processing) and fine materials separated during processing.

Annual sales of quarry products have increased over the past 3 years from approximately 700 000 tonnes per year to almost 1 million tonnes in 2010/2011.

Other Activities

Metromix currently accepts waste concrete which is recycled through the processing plant and Virgin Excavated Natural Materials, which is used to create the final landform in completed areas of the quarry.

Product Stockpiling

Products are stockpiled by type and for 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.

Product Distribution

Products from the 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 the Teralba Quarry (see **Figure C**) is via one of two exits, namely:

1. the Teralba Quarry "top gate" to the west along Rhondda Road; or
2. 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.

All products are transported to customers via four product distribution route corridors (see **Figure C**).

The current levels of heavy vehicle movements to the east (through Teralba) and to the west (through Barnsley and Wakefield) Are displayed in **Table ES-1**.

Table ES-1
Existing Daily Traffic Levels*

Direction	Average Day	Busy Day
Eastwards	81	127
Westwards	222	325
* Annuals Sales Level = 1 million tpa		

PROPOSED EXTENSIONS

Project Objectives

Metromix's objectives in proposing the Teralba Quarry Extensions are as follows.

- To acquire a long term secure tenure over the adjoining areas of valuable conglomerate resource adjacent to existing quarry infrastructure.
- To extract quality conglomerate material to produce a range of high quality products for the next 30 years in a manner consistent with ecologically sustainable development principles.
- To operate the existing approved extraction areas and the proposed Northern and Southern Extensions in a manner that minimises impacts on surrounding landowners, land users and residents.
- To provide for the progressive rehabilitation of the Project Site to a combination of native vegetation and land suitable for ongoing industrial uses.

Resources

Resource drilling and records from drill hole data compiled for coal mining activities have established that there are approximately 22 million tonnes of conglomerate that is recoverable from the two proposed extensions, i.e. 14 million tonnes in the proposed Southern Extension and 8 million tonnes in the proposed Northern Extension.

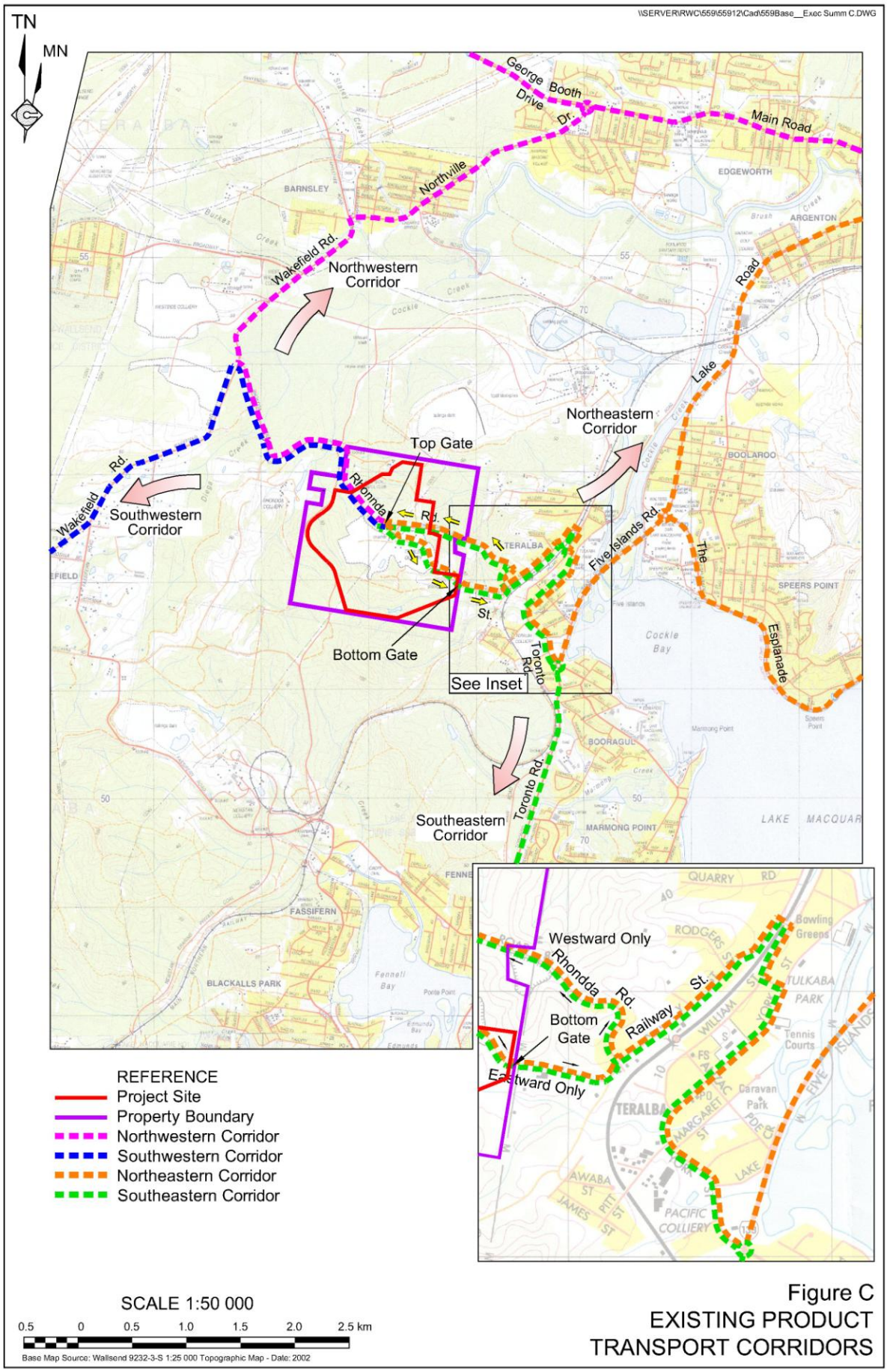


Figure C
EXISTING PRODUCT
TRANSPORT CORRIDORS

Ongoing Extraction and Processing

The conglomerate would be extracted in a manner consistent with current practices and transported to the central primary crushing facility. Metromix would establish a re-locatable crusher in the Northern Extension and the eastern section of the Southern Extension to transport primary-crushed rock by conveyor to the processing plant. The conveyor to the processing plant from the Northern Extension would be positioned within a concrete culvert beneath Rhondda Road.

Processing would continue in a manner similar to current operations, with the separation of product stockpiling activities involving both an eastern and western stockpiling area.

Fines produced during processing will be placed in silt cells constructed on the floor of the existing Southern Extraction Area.

Other Activities

Metromix would continue to accept waste concrete to be recycled through its products. Similarly, both Virgin Excavated Natural Material and Excavated Natural Material would continue to be accepted on site, principally to assist in the construction/ rehabilitation of the on-site silt cells.

Product Levels and Distribution

Metromix proposes to cap its annual sales at 1 million tonnes per year (the 2010/2011 sales level) with an average annual production level set at 900 000 tonnes per year.

Metromix has already capped the truck traffic through Teralba at 2008 levels when annual sales were approximately 700 000tpa. The additional products are transported westward via Rhondda Road to Wakefield and then either northwards or southwards (see **Figure C**).

At maximum production, average and busy day truck movements through Teralba would be 81 and 127 per day respectively. Average and busy day truck movements westward via Wakefield Road would be 222 and 325 per day respectively. These levels are comparable with existing movements (see **Table ES-1**).

Hours of Operation

The proposed hours of operation are presented in **Table ES-2**. These hours are essentially the same as those already worked at the Teralba Quarry.

Rehabilitation

The final land use of the Project Site would reflect the intended industrial and environmental zones promoted in the Lake Macquarie Local Environmental Plan 2011. The area zoned for industrial use would be levelled/terraced and leased or sold for industrial purposes. It is feasible the asphalt plant currently operated by Downer EDI would remain operational after Teralba Quarry closes and be incorporated in the overall industrial precinct within the former quarry. The remainder of the area south of Rhondda Road would be rehabilitated to native vegetation for nature conservation.

Table ES-2
Proposed Hours of Operation

	Extraction and Processing Operations South of Rhondda Road	Extraction and Processing Operations North of Rhondda Road	Product Sales	Maintenance
Monday to Friday	6:00am – 8:00pm#	7:00am – 8:00pm	24 hours	24 hours@
Saturday	6:00am – 2:00pm	7:00am – 2:00pm	24 hours	24 hours@
Sunday	Occasional *	Occasional	Occasional *	24 hours@

* Occasional Sundays are worked, primarily in response to demand from specific infrastructure projects.
\# Occasionally, the quarry operates until 8:00pm in response to high demand.
@ The maintenance activities undertaken of an evening/night are generally inaudible at the nearest residence.

The final landform would comprise a relatively flat central floor with a gentle slope to the southeast, generally following the coal seam dip. Edges of the final landform would have silt and/or overburden built up against the terminal faces.

Virgin Excavated Natural Material and Excavated Natural Material would be regularly imported to assist with construction of silt cells and to create the final landform. Topsoil would be placed on the final slopes and then stabilised by seeding with a quick-growing cover crop.

The final landform north of Rhondda Road would be left with a partially stepped landform with a series of 8m x 8m benches and a profiled embankment. The stepped benches, floor and lower slopes within the extraction area would all be covered with overburden and topsoil to provide a substrate for the long term vegetation on the site, i.e. in areas not required for a future land use, e.g. for the Newtech Pistol Club.

Land Ownership, Land Use and Surrounding Residences

Figure D presents the land ownership status surrounding the Project Site.

Teralba Quarry is located in an area where the land to the north and west remains in large landholdings and is owned by coal companies. The land to the south is similarly a single landholding owned by Landcom. The suburbs of Teralba to the east and Wakefield to the west are the main areas of population near the Teralba Quarry.

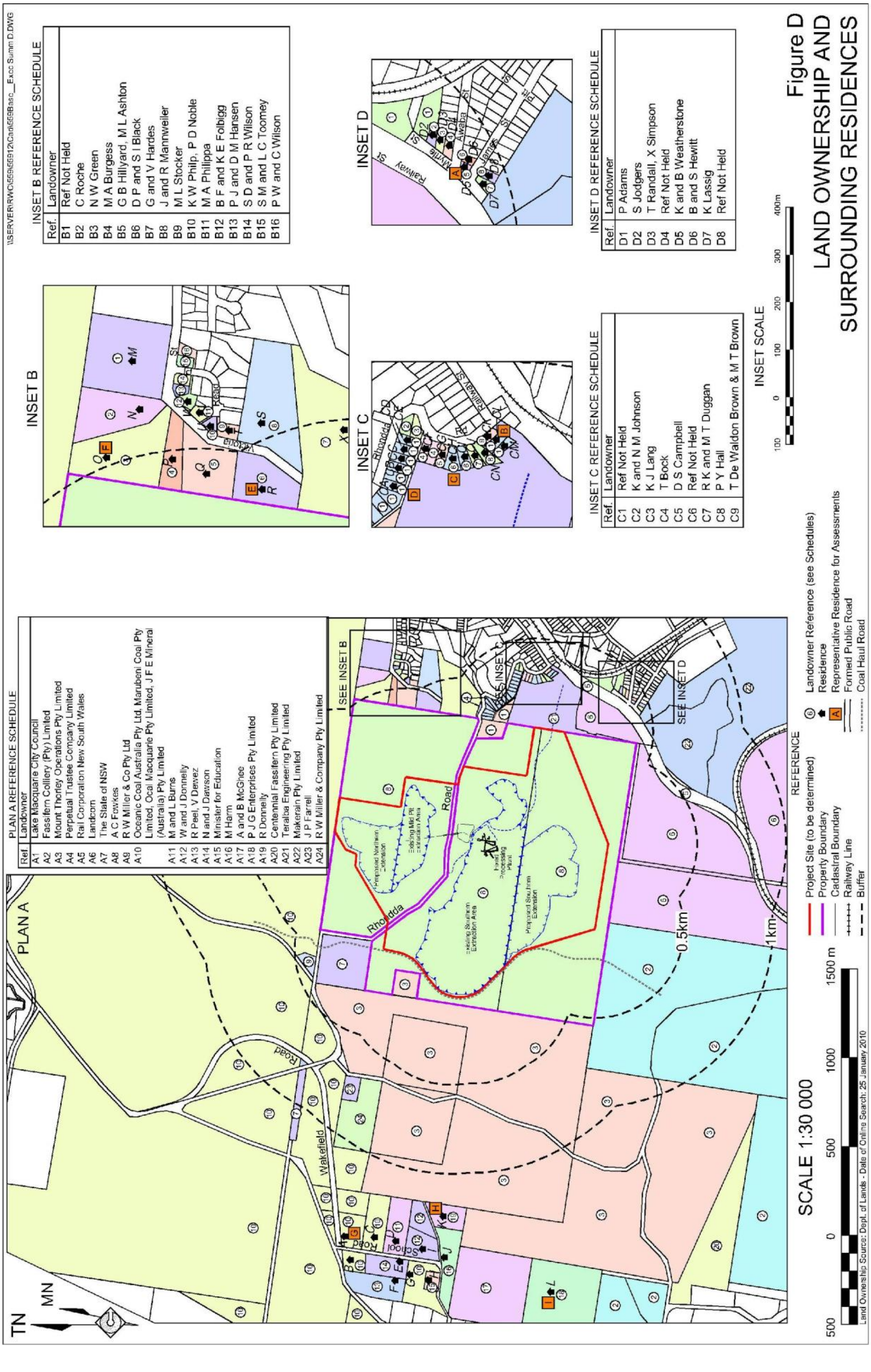
The closest residences to the existing Southern Extraction Area are located adjacent to Rhondda Road, where the closest five residences are located between 500m and 600m to the east of the existing Southern Extraction Area. The closest residences to the west-northwest are located on Wakefield and School Roads, where 12 houses are situated between 1.25km and 1.75km from the existing Southern Extraction Area. The closest residences to the proposed Northern Extension are located in Victoria Street, Teralba, between 460m and 550m from the closest boundary of the proposed extension. The closest residences to the proposed Southern Extension are located in Myrtle Street between 795m and 840m from the eastern boundary of the extension.

LAND USES

The land use between the Project Site and the closest residences is predominantly remnant native bushland with undulating ridge and creek topography.

The following land uses occur on the property leased by Metromix, i.e. in addition to Metromix's activities.

- The Newtech Pistol Club leases an area in the northwestern quadrant of the property. The lease is renewed annually with Metromix.
- An asphalt plant operated by Downer EDI, occupying an area of approximately 3ha within the northern central section of the existing Southern Extraction Area (see **Figure B**).
- A pugmill operation conducted by Civilake, the civil works section of Lake Macquarie City Council, occupying an area of approximately 2.1ha adjacent to the active Southern Extraction Area.
- Oceanic Coal leases a narrow, north-south tract of land on the western side of the property. This lease covers the sealed road that is used to haul coal from the Macquarie Coal Preparation Plant and Westside Mine to the Eraring Power Station.


\\SERVER\RWC\559\55912\Cad\559Basc__Exec Summ D.DWG
TN
MN
PLAN A
PLAN A REFERENCE SCHEDULE
Ref. Landowner
A1 Lake Macquarie City Council
A2 Fassifern Colliery (Pty) Limited
A3 Mount Thorley Operations Pty Limited
A4 Perpetual Trustee Company Limited
A5 Rail Corporation New South Wales
A6 Landcom
A7 The State of NSW
A8 A C Fowkes
A9 R W Miller & Co Pty Ltd
A10 Oceanic Coal Australia Pty Ltd, Marubeni Coal Pty Limited, Ocal Macquarie Pty Limited, J F E Mineral (Australia) Pty Limited
A11 M and L Burns
A12 W and J Donnelly
A13 R Peel, V Dewez
A14 N and J Dawson
A15 Minister for Education
A16 M Harm
A17 A and B McGhee
A18 P J G Enterprises Pty Limited
A19 R Donnelly
A20 Centennial Fassifern Pty Limited
A21 Teralba Engineering Pty Limited
A22 Makerain Pty Limited
A23 J P Farrell
A24 R W Miller & Company Pty Limited
Wakefield
Road
School
Rhondda
Road
Proposed Northern Extension
Existing Mid Pit Extraction Area
Existing Southern Extraction Area
Fixed Processing Plant
Proposed Southern Extension
SEE INSET B
SEE INSET C
SEE INSET D
0.5km
1km
SCALE 1:30 000
500 0 500 1000 1500 m
Land Ownership Source: Dept. of Lands - Date of Online Search: 25 January 2010
REFERENCE
Project Site (to be determined)
Property Boundary
Cadastral Boundary
Railway Line
Buffer
Landowner Reference (see Schedules)
Residence
Representative Residence for Assessments
Formed Public Road
Coal Haul Road
INSET B
Vittoria
Road
St
INSET B REFERENCE SCHEDULE
Ref. Landowner
B1 Ref Not Held
B2 C Roche
B3 N W Green
B4 M A Burgess
B5 G B Hillyard, M L Ashton
B6 D P and S I Black
B7 G and V Hardes
B8 J and R Mannweiler
B9 M L Stocker
B10 K W Philp, P D Noble
B11 M A Philippa
B12 B F and K E Folbigg
B13 P J and D M Hansen
B14 S D and P R Wilson
B15 S M and L C Toomey
B16 P W and C Wilson
INSET C
Rhondda
Rd
Railway St
INSET D
Railway St
Myrtle St
Awaba St
James St
Pitt St
INSET C REFERENCE SCHEDULE
Ref. Landowner
C1 Ref Not Held
C2 K and N M Johnson
C3 K J Lang
C4 T Bock
C5 D S Campbell
C6 Ref Not Held
C7 R K and M T Duggan
C8 P Y Hall
C9 T De Waldon Brown & M T Brown
INSET D REFERENCE SCHEDULE
Ref. Landowner
D1 P Adams
D2 S Jodgers
D3 T Randall, X Simpson
D4 Ref Not Held
D5 K and B Weatherstone
D6 B and S Hewitt
D7 K Lassig
D8 Ref Not Held
INSET SCALE
100 0 100 200 300 400m
Figure D
LAND OWNERSHIP AND
SURROUNDING RESIDENCES

ISSUE IDENTIFICATION AND PRIORITISATION

Issue Identification

In order to undertake a comprehensive *Environmental Assessment* of the Project, appropriate emphasis needs to be placed on those issues likely to be of greatest significance to the local environment, neighbouring landowners and the wider community.

These issues and their potential impacts were identified through a program of community and government consultation, preliminary environmental studies and literature review. This was followed by an analysis of the risk posed by each potential impact, in order to prioritise the assessment of the identified environmental issues within the *Environmental Assessment*.

Issue Prioritisation

Based on the issues identified throughout the consultation process and the risk ratings allocated to the potential environmental impacts of these, the following order of priority of environmental issues has been determined.

1. Traffic
2. Groundwater
3. Surface Water
4. Flora
5. Fauna
6. Noise
7. Air Quality
8. Soils
9. Aboriginal Heritage

ENVIRONMENTAL SAFEGUARDS AND IMPACTS

The components and features of the existing environment within and surrounding the Project Site have been studied in detail and the proposed extensions to the existing extraction areas designed to avoid or minimise impacts on that environment. A brief overview of the prioritised environmental issues, the proposed safeguards and the assessed level of impact are set out below.

It is noted that the approach to the management of environmental issues for the ongoing operation of the Teralba Quarry reflects the experience gained by Metromix over the past 25 years.

Traffic

A traffic assessment completed for the Project has used extensive traffic counts at intersections and throughout the road network used by trucks travelling to and from the Teralba Quarry.

Traffic modelling has shown that the intersections on the surrounding road network will continue to operate satisfactorily with the quarry traffic in current conditions and in 2022, 10 years after the receipt of project approval, should it be granted.

Metromix intends to pay a contribution to Council, based upon the quantity of products leaving the quarry, to fund the accelerated pavement wear and tear and road upgrade requirements attributable to use of these roads by quarry-generated traffic.

No quarry trucks have, to date, been involved in any of the accidents identified on the surrounding road network and as the Project will not increase production beyond existing levels, there is no evidence to suggest that this would result in any additional adverse safety conditions. Nonetheless, a code of conduct for drivers travelling to and from the quarry will be implemented to ensure that safety and responsible driver behaviour is fostered.

Groundwater

The principal groundwater resources beneath the Teralba Quarry occur in the former underground coal mines that convey both natural infiltration and inflows from surrounding coal mines and the processing silts from Metromix's processing plant, a practice that is soon to cease. A former exit and discharge point (for drainage purposes) from the underground mines is located in the southeastern side of the Project Site. Water draining from the mines collects within the Mine Adit Dam – see **Figure B**. Metromix draws its make up water requirements from the Mine Adit Dam.

The groundwater assessment determined that there are no significant downstream groundwater users and the water supply required for the quarry would have a minimal impact on groundwater resources.

It is assessed that the Project will have no measurable impact on groundwater levels and flows, or groundwater dependent ecosystems in the area around Teralba Quarry.

The potential impacts on groundwater would continue to be monitored by Metromix and Coal and Allied who hold an environment protection licence for discharge leaving the Mine Adit Dam.

Surface Water

Surface water would continue to be appropriately managed to ensure all sediment-laden water or potentially contaminated water (exceeding relevant criteria) is retained on site, thereby ensuring a minimum level of impact. Additional dams would be constructed to provide the level of control required.

The surface water assessment determined there would be no adverse impacts on the downstream environment, given the adoption of the proposed design and operational safeguards.

A Soil and Water Management Plan would be prepared and implemented at the Project Site. This plan would include a water monitoring program to enable Metromix to review the effectiveness of its management measures.

Flora

Two forest vegetation communities were identified and mapped as dominant within the Project Site, namely: Spotted Gum - White Mahogany - Grey Ironbark Open Forest & Woodland; and Blue Gum - White Stringybark Shrubby Open Forest.

One species of National and State conservation significance was recorded, namely *Tetratheca juncea,* listed as Vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the NSW *Threatened Species Conservation Act 1995* (TSC Act). One regionally significant plant species, *Macrozamia flexuosa,* was also recorded.

The boundary of the Southern Extension has been designed to avoid three of the four populations of *Tetratheca juncea*, however, identified one population containing 36% of the total species within the Project Site would be removed. Emphasis would be placed on translocating the plants removed from the Southern Extension (and their surrounding soil) to nearby areas (formerly cleared for transmission lines) that would be enhanced with native vegetation.

It is proposed that 118ha of native vegetation on the property would be legally protected in perpetuity and managed as a biodiversity offset for the clearing of 28.7ha of native vegetation for the proposed quarry extensions and associated infrastructure. The ratio of native vegetation to be included in the biodiversity offset is 4.1 times the area of native vegetation that would be removed to develop the Northern and Southern Extensions.

Fauna

The range of fauna species recorded within the Project Site is typical of species associated with drier sclerophyllous vegetation types, lacking in tree hollows. Some waterfowl were also recorded on the water quality control dams. The introduced dog and fox were the biggest terrestrial predators recorded on the Project Site.

The fauna surveys recorded:

- one threatened species and six migratory species listed under the provisions of the EPBC Act;
- seven threatened species listed on the schedules of the TSC Act; and
- seven introduced species including three predators.

The key mitigation measures proposed comprise:

- a staged and seasonal approach to vegetation clearing;
- the installation of nesting boxes for bats, birds and squirrel gliders, including monitoring and active management of the boxes to maximise their use; and
- an active re-vegetation program to assist in the long term enhancement of fauna habitat within the Project Site.

It is assessed that with the adoption of the key mitigation measures the proposed extensions are unlikely to have an adverse effect on the life cycle of threatened fauna species identified or likely to occur within the Project Site.

Noise

The shielded location of the existing quarry operations and the proposed extensions would assist Metromix to limit adverse noise impacts on the local community. Background noise levels have been established around the Teralba Quarry and project-specific criteria developed. All criteria would be satisfied during future operations.

The results of the noise assessment indicate that there will be no adverse impacts as a result of the night-time loading of trucks, the transportation of quarry products by trucks, and/or noise and vibration associated with blasting. The noise assessment identified the need for truck speeds to be kept <15km/hr beyond the eastern exit of the quarry until they enter Railway Street.

Air Quality (Dust)

The shielded location of the existing quarry operations has also assisted to limit deposited dust levels within Teralba, as recorded by 7 years of dust monitoring data.

The air quality assessment concluded (based upon detailed dust modelling studies) that with the ongoing adoption of the proposed air quality control measures, PM_{10} (24hr and annual average) and dust deposition levels would be minimal and satisfy relevant environmental and health criteria.

Aboriginal Heritage

Field investigations and consultation with Aboriginal stakeholders commenced in 2003 and continued in 2008 and 2010/2011.

No sites of Aboriginal origin or potential archaeological deposits were observed within the Project Site during the 2011 survey or the previous surveys.

There are no archaeological or cultural constraints to the proposed extensions to Teralba Quarry.

Soils

The soils assessment identified a variety of soil types across the Project Site. Based upon field observations and a review of the physical and chemical data, soil-related design and operational safeguards were identified, including soil stripping and stockpiling procedures.

With the adoption of the proposed soil stripping and stockpiling procedures, the impacts associated with topsoil/subsoil removal, storage and re-use is assessed to be minimal.

CONCLUSION

The Project has been designed to address all issues raised by the local community and all levels of government, as well as the principles of ecologically sustainable development. The Project provides for the continued extraction, processing, sale and despatch of products which would be significant in extending employment opportunities and maintaining stimulus to the local economies of Teralba and surrounding communities. The ongoing operation of Teralba Quarry for 30 years would provide a range of raw materials for the ongoing growth throughout Lake Macquarie and surrounding LGAs. Construction projects throughout Lake Macquarie LGA are currently consuming approximately 50% of the products from the Teralba Quarry.

In light of the assessments presented throughout the *Environmental Assessment*, it is concluded that the proposed Northern and Southern Extensions could be developed and operated in a manner that would satisfy all relevant statutory goals and criteria, environmental objectives and reasonable community expectations.

The *Environmental Assessment* supported by the range of specialist consultant studies has established that if the Project is approved, it would:

i) continue to contribute to satisfying the demand for the range of raw materials produced;

ii) satisfy sustainable development principles;

iii) have a minimal and manageable impact on the biophysical environment;

iv) address the perceived social impacts; and

v) contribute to the continued economic activity of Teralba and Lake Macquarie Local Government Area.

Key Project Components and Statistics

Key Project Components	
Project Summary	Seek approval for the extension of two existing extraction areas including: • extracting up to 1.2 million tonnes of conglomerate and overburden per year; • produce a maximum of 1 million tonnes of products per year (similar to 2011 level); • establish a tunnel beneath Rhondda Road for a conveyor (about Year 10); • transportation of all products to customers by road; and • rehabilitation of all disturbed areas.
Key Statistics	
Project Areas	• Property leased by Metromix 242ha • Project Site 130ha • Existing Southern Extraction Area 40ha • Existing Mid Pit Extraction Area 7.5ha • Southern Extension 16.5ha • Northern Extension 9.3ha • Area of Remnant Native Vegetation Removal 28.7ha • Biodiversity Offset Area 118ha
Total Resource	22 million tonnes.
Main Products	Road bases, aggregates and sand (various grades).
Production Rate	Approximately 900 000 tonnes of products per year (average).
Project Life	30 years.
Extraction Methods	Initial blasting, followed by excavation and on-site transportation by off-road haul truck or conveyor to processing plant.
Processing	Extracted rock to be processed on site through a series of crushers and screens to preferred product sizes. This includes processing through a dry circuit with approximately 65% of product also processed through a wet circuit.
Product Transportation (Existing and Proposed)	All products would be transported to final destinations via public roads. Average Day: 81 truck movements (eastwards). 222 truck movements (westwards). Busy Day: 127 truck movements (eastwards). 325 truck movements (westwards).
Stockpiles	Products would be stockpiled in the eastern stockpile area (roadbase products) and western stockpile area (sand products).
Final Landform and End Land Use	Progressive rehabilitation would continue to be undertaken to provide a stable final landform that would reflect the relevant industrial and environmental zones. • South of Rhondda Road – a sloping landform (above of the proposed silt cells), selected vegetated stepped benches and two final level areas (for industrial use). • North of Rhondda Road – Vegetated, stepped benches, providing an amphitheatre for Newtech Pistol Club, the southern edge shaped to a relatively flat area and batter slope to the north.

Key Project Components and Statistics

<table>
<tr><th colspan="2">Key Statistics (Cont'd)</th></tr>
<tr><td>Biodiversity Offset</td><td>Adoption of a strategy that incorporates remnant native vegetation within the property providing a 4.1:1 ratio of protected vegetation compared to the 28.7ha of vegetation to be removed.</td></tr>
<tr><td>Employment</td><td>A total of 60 employees (including contractors/drivers) would be employed when operating at maximum production levels.</td></tr>
<tr><td>Capital Investment Value</td><td>$25 million.</td></tr>
<tr><td>Hours of Operation</td><td>
<table>
<tr><th></th><th>Operations South of Rhondda Road</th><th>Operations North of Rhondda Road</th></tr>
<tr><td>Monday to Friday</td><td>6:00am – 8:00pm</td><td>7:00am – 8:00pm</td></tr>
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<tr><td>Sunday</td><td>Occasional</td><td>Occasional</td></tr>
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Product sales and Maintenance – 24 hours per day.
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