



METROMIX PTY LIMITED

Waste Management Plan

December 2019

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Next Review Due	Within 3 months of the submission of an: (a) annual review under Schedule 5 Condition 4; (b) incident report under Schedule 5 Condition 7; (c) audit report under Schedule 5 Condition 9; and (d) any modifications to the Project Approval, Note: Metromix will review, and if necessary, also revise the strategies, plans, and programs prepared in accordance with the Project Approval that are referred to in this Strategy.			

Approved by
 the Secretary's nominee, Matthew Sprott,
 in December 2019

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COMMONLY USED ACRONYMS

AS	Australian Standard
DPIE	Department of Planning, Industry and Environment
DRG	Division of Resources and Geoscience
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ENM	Excavated Natural Material
PA	Project Approval
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
SHE	Safety Health and Environment
SWMS	Safe Work Method Statement
VENM	Virgin Excavated Natural Material

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1 INTRODUCTION

The *Waste Management Plan* has been prepared by Metromix Pty Limited (Metromix) in conjunction with R. W. Corkery & Co. Pty Limited for the Teralba Quarry (the Quarry). The Quarry is located west of the suburb of Teralba, beyond the western shores of Lake Macquarie (**Figure 1.1**). The Plan has been prepared in satisfaction of *Condition 3(48)* of Project Approval (PA) 10_0183 (originally approved on 22 February 2013). A modification to PA 10_0183 was approved on 16 April 2018.

The requirements of Condition 3(48) of PA 10_0183 are as follows.

3(48): Waste Management Plan

“The Proponent must prepare and implement a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must:

- a) be prepared in consultation with DRE and Council, and submitted to the Secretary for approval prior within 4 months of the date of this approval;*
- b) identify the various waste streams of the project;*
- c) estimate the volumes of waste material that would be generated by the project, including recycled concrete brought on-site;*
- d) describe and justify the proposed strategy for disposing of this waste material, including recycled concrete brought on-site; and*
- e) include a program to monitor the effectiveness of these measures.”*

For the purposes of this Plan, “waste” is referred to the materials discarded during the operation and administration of the Quarry. Details of the waste generated are outlined in Section 7.

The approved Quarry is fully described in the following documents.

- *Environmental Assessment* for the Teralba Quarry Extensions, November 2011.
- *Specialist Consultant Studies Compendium* for the Teralba Quarry Extensions, 2011.
- *Environmental Assessment of Modification 1 for Project Approval 10_0183 for the Teralba Quarry* – December 2017.

The Plan addresses the following elements.

- The activities approved under PA 10_0183.
- The consultation undertaken during preparation of this Plan.
- The legal and other requirements associated with waste management at the Quarry.
- The objectives and key performance outcomes for this Plan and the Quarry.

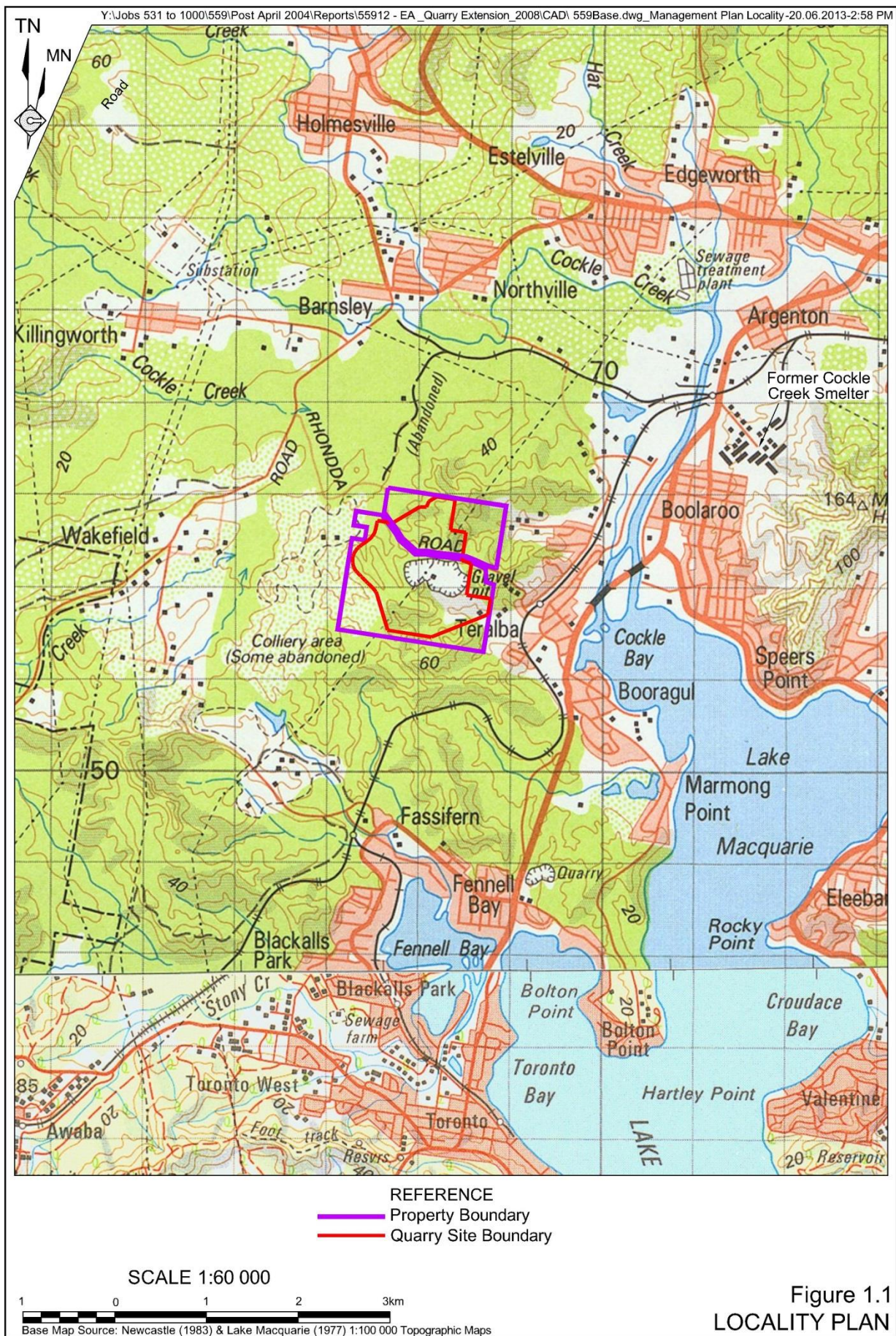


Figure 1.1
LOCALITY PLAN

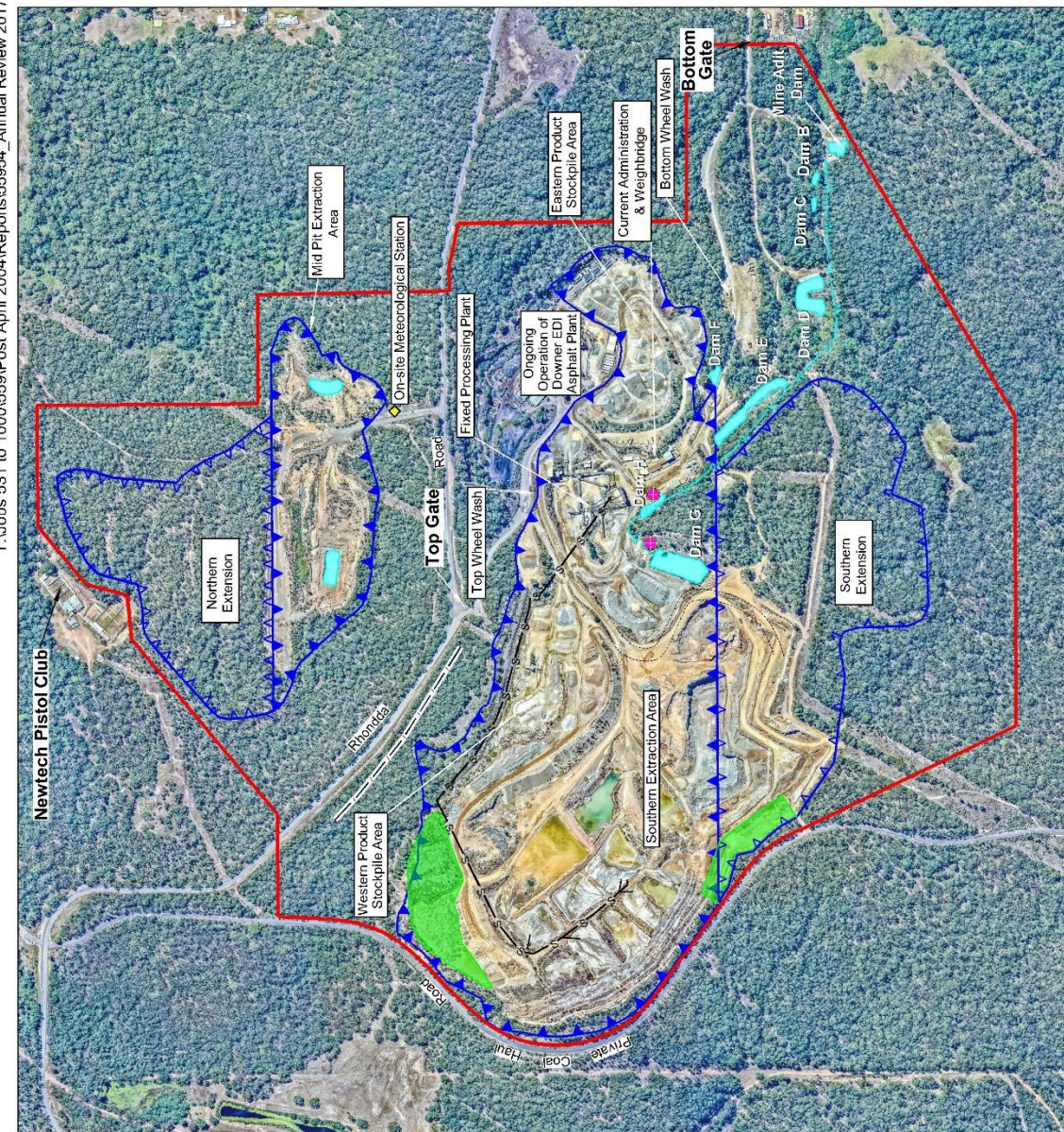
- Roles and responsibilities in implementing this Plan.
- Competence training and awareness for Metromix's personnel and contractors.
- Waste management practices that will be implemented during the ongoing operation of the Quarry.
- Waste-related record keeping that will be undertaken.
- Complaints handling and response procedures that will be implemented.
- Incident reporting procedures.
- Publication of waste-related records.
- Plan review.

The above elements reflect each of the relevant specific issues outlined in *Condition 5(3) of PA 10_0183*, where relevant.

2 APPROVED ACTIVITIES

The approved activities within the Teralba Quarry comprise the full range of activities undertaken prior to 22 February 2013 and the extension of extraction operations to the north and south of the previously approved extraction areas. The approved activities on site comprise the following, the locations of which are displayed on **Figure 2.1**.

- Conglomerate extraction (blasting and excavation).
 - Southern Extraction Area.
 - Mid Pit Extraction Area.
 - Southern Extension.
 - Northern Extension.
- Processing Operations (size reduction, screening and blending) using the existing processing plant.
- On-site Load and Haul Operations.
 - Off-road trucks on the on-site road network.
 - Conveying primary-crushed rock from the Southern and Northern Extensions to processing plant (including conveyor beneath Rhondda Road).
- Off-site Transportation of Products.
- Vehicle/equipment maintenance and ancillary activities and stores.



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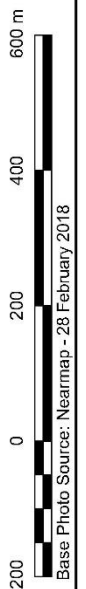


Figure 2.1
QUARRY SITE LAYOUT

- Administration and product despatch.
- Progressive rehabilitation and maintenance.

The sequence of extraction throughout the life of the Quarry will be consistent with the staging of vegetation clearing and therefore retirement of biodiversity credits specified in Conditions 3(54) to 3(56) of PA 10_0183. It is estimated that extraction activities over approximately the next 15 years, will only take place in the Southern Extension.

3 CONSULTATION

The following government agencies were consulted during the preparation of this Plan:

- Lake Macquarie City Council.
- Division of Resources and Energy.
- Department of Planning, Industry and Environment

An update to this plan was prepared in March 2019. As the updates were only clerical in nature, consultation only occurred with Council and DPIE. Comments received from these agencies relating to the updated plan are provided in **Appendix 2**.

During the implementation and annual reviews of the Plan, Metromix will consult with employees and contractors through the following methods.

- Review of this management plan.
- Incident investigations.
- Communication meetings / tool box talks.

Quarry personnel and relevant contractors undergo company and site specific inductions that will incorporate basic waste management awareness training. The Quarry Manager will be responsible for ensuring the appropriate waste management training is included in the induction for employees and contractors.

Metromix hosts biannual Community Consultative Committee meetings at which operations, including waste management, if relevant, are discussed.

4 LEGAL & OTHER REQUIREMENTS

4.1 PROJECT APPROVAL

The project approval includes the expectations of Metromix with respect to Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM) or wastes generated within the Quarry Site,

including sewage. Relevant waste management conditions associated with this approval are reproduced in **Table 4.1. Condition 3(48)** which sets out the requirements for the *Waste Management Plan* has previously been reproduced in Section 1.

Table 4.1: Waste-related Project Approval Conditions

Condition	Requirement
3(24)	The Proponent shall manage on-site sewage to the satisfaction of Council and EPA.
3(46)	Prior to importing any Virgin Excavated Natural Material or Excavated Natural Material to the site, the Proponent must obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this approval to the Department.
3(47)	The proponent must: <ul style="list-style-type: none"> a) minimise the waste generated by the project; and b) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Secretary.
3(48)	The Proponent must prepare and implement a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must: <ul style="list-style-type: none"> a) be prepared in consultation with the DRE and Council, and submitted to the Secretary for approval within 4 months of the date of the approval; b) Identify the various waste streams of the project; c) estimate the volumes of waste material that would be generated by the project, including recycled concrete bought on site; d) describe and justify the proposed strategy for disposing of this waste material, including recycled concrete bought onsite; and e) include a program to monitor the effectiveness of these measures.

4.2 STATEMENT OF COMMITMENTS

Table 4.2 presents the relevant waste management commitments from the Statement of Commitments incorporated within the *Project Approval - Appendix 3*.

Table 4.2: Waste Management Commitments

Commitment	
3.1	Place all paper and general wastes originating from the site office, together with routine maintenance consumables from the daily servicing of equipment in garbage bins adjacent to the site office and workshop.
3.2	Segregate waste into recyclables and non-recyclable materials for removal by a licensed contractor.
3.3	Organise the regular collection of industrial wastes.
3.4	Store waste oils and greases within the workshop area in either self-bundling containers or within suitably contained areas.

4.3 ENVIRONMENT PROTECTION LICENCES AND OTHER LEGISLATIVE REQUIREMENTS

Condition L4 of EPL 536 relates to waste management within the Quarry Site. Under these conditions it is specified that Metromix must not cause, permit or allow any waste generated outside the

premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.

This requirement does not include concrete waste (in accordance with Condition L4.2) which may be received at the Quarry Site as long as that activity does not exceed the thresholds specified in Schedule 1 of the *Protection of the Environment Operations Act 1997* and the *Recovered Aggregate Exemption 2010* resource recovery exemption under Clause 51 and Clause 51A of the *Protection of Environment Operations (Waste) Regulation 2005*.

Schedule 1 of the *Protection of the Environment Operations Act 1997* sets the following thresholds for activities to be considered a 'scheduled activity' under the Act (Resource Recovery). These include the following.

- having on site at any time more than 1,000 tonnes or 1,000 cubic metres of general waste; or
- processing more than 6,000 tonnes of general waste per year.

Metromix will not exceed the threshold for resource recovery activities specified in Schedule 1 of the *Protection of the Environment Operations Act 1997*.

EPL 13015 relates to the operation of the pugmill within a dedicated area formerly operated by Civilake (see **Figure 2.1**). Recovery of general waste and waste storage (other types of waste) are scheduled activities for this licence. It is noted that EPL 13015 does not relate to activities approved under PA 10_0183 and therefore the limits specified in Condition 3(10) and Condition 3(11) of PA 10_0183 do not apply in the specified area and therefore are not related to this plan. However, for ease of management, these activities are included in this plan.

Condition L2 of EPL 13015 relates to waste management and authorises Metromix to receive, store and process the following materials within the area specified for the activities.

- Building and demolition waste.
- Asphalt waste.
- Virgin excavated natural material.

EPL 13015 does not contain specific limits for each type of material, however Condition L2.3 specifies that the amount of waste permitted on the premises cannot exceed 37,000t at any time.

Metromix will undertake the management of waste in accordance with regulations and guidelines contained within the following statutes and guidelines.

- *Protection of the Environment Operations Act 1997*;
- *Waste Avoidance and Resources Recovery Act 2001*;
- *Protection of the Environment Operations (Waste) Regulation 2014*; and

- *NSW Waste Classification Guidelines.*

5 OBJECTIVES AND OUTCOMES

The objectives and key performance outcomes of this Plan relevant to the Quarry are presented in **Table 5.1**.

Table 5.1: Objectives and Key Performance Outcomes

Objectives	Key Performance Outcomes
a) To ensure compliance with all relevant Project Approval and Environment Protection Licence criteria and reasonable community expectations.	1) Compliance is achieved with all relevant criteria nominated in the Project Approval 10_0183 and Environment Protection Licence 536 and reasonable community expectations.
b) To implement appropriate waste management and control measures throughout the life of the Quarry.	2) All identified waste management and control measures are implemented to the extent required.
c) To implement an appropriate monitoring program to establish compliance or otherwise with relevant criteria throughout the life of the Quarry.	3) All identified monitoring is undertaken in accordance with the relevant procedures and at the relevant intervals.
d) To minimise waste generation/disposal and maximise re-use/recycling.	4) Site personnel, contractors and suppliers are involved and encouraged to adopt correct waste management practices through training and induction.

6 ROLES AND RESPONSIBILITIES

The roles and responsibilities for the implementation of this Plan by the management and personnel of the Quarry are presented in **Table 6.1**.

Table 6.1: Roles and Responsibilities

Position	Responsibility
Quarry Manager and Supervisors	<ul style="list-style-type: none"> • Ensure the effective implementation of this plan and strategies to reduce waste generated during the operation and administration of the Quarry. • Ensure waste streams are disposed of in accordance with the requirements of this Plan. • Ensure licenced waste companies are contracted and that the processes that they employ are in accordance with the requirements of this Plan. • Actively promote the hierarchy of waste management to all employees and contractors. • Authorise internal and external reporting requirement of this plan.
All employees and contractors	<ul style="list-style-type: none"> • Ensure the effective implementation of this Plan with respect to their work area. • Ensure any potential or actual waste management issues, including environmental incidents relating to waste management are reported to the Quarry Manager or Supervisor.

7 WASTE STREAMS AT TERALBA QUARRY

Waste classification at the Quarry has been undertaken in accordance with the *Waste Classification Guidelines* (November 2014). Under Part 1 the guidelines waste is classified into six (6) waste classes:

- i. special waste;
- ii. liquid waste;
- iii. restricted solid waste;
- iv. hazardous waste;
- v. general solid waste (putrescible); and
- vi. general solid waste (non-putrescible).

Table 7.1, details the waste streams generated at the Quarry for each of the waste classifications. The legislative requirements on how to manage this waste has been identified based on the waste classification defined by the *Protection of the Environment Operations Act 1997* (POEO Act 1997).

Table 7.1: Waste Streams Generated from Teralba Quarry

Waste Classification	Teralba Quarry Waste Streams	
Special Waste	Asbestos Waste	Tyres
Liquid Waste	Sewage/effluent	Degreaser
	Waste oil	Engine coolant
General Solid Waste (putrescible)	Food Waste	
General Solid Waste (non-putrescible)	Municipal Waste	Scrap metal
	Paper and cardboard	Air filters
	Wood waste	Plastic drums
	Concrete	Asphalt
	VENM / ENM	
Hazardous Waste	Batteries	Oil filters
	Oily rags	Empty oil drums
	Oil absorbent material	Waste grease
	Aerosols	

Wastes classified as Hazardous Waste, Restricted Solid Waste and Liquid Waste are subject to specific monitoring and reporting requirements under the POEO Act 1997 (known as waste tracking and record keeping) and in accordance with the *Waste Classification Guidelines*. **Appendix 1 – Waste Management Matrix**, details the specific management of these waste streams.

As described in Section 4.3, under EPL 13015 Metromix may receive, store and process a maximum of 37,000t of building and demolition waste, asphalt waste or VENM in the area specified in the licence (see **Figure 2.1**). Currently all waste materials received at the Quarry are stored in this area.

However, where the material is to be blended with the raw materials of the Quarry Site, the limits of PA 10_0183 and EPL 536 apply. Therefore, Metromix will receive no more than 120t of concrete to the Quarry Site per day and store no more than 2,500t of concrete material on the Quarry Site at any one time (in accordance with Condition 3(10) of PA 10_0183. No more than 30,000t of concrete will be processed in this manner each year.

If storage of concrete within the Quarry Site is predicted to exceed 1,000t or processing of concrete is predicted to exceed 6,000t in any year, Metromix will seek a variation to EPL 536 from the EPA to update the scheduled activities applied to EPL 536.

Currently all waste material is received, processed and stored within the area specified for activities under EPL 13015.

8 WASTE SOURCES WITHIN TERALBA QUARRY

8.1 ADMINISTRATION BUILDING AND CRIB ROOM

The main type of office waste is waste paper, comprising general office paper, photocopy paper, office stationary and paper from other sources. Other office waste includes cardboard/packaging and toner/print cartridges from printers. The quantity of waste generated is set out below, the majority of which will continue to be recycled.

- Cardboard – 6 bales per year.
- Shredded Paper – 6 x 240L bins per year.

Domestic waste includes food scraps, aluminium cans, glass bottles, plastic and paper containers and putrescible waste. Domestic waste is generated by employees and contractors while on site. Domestic waste is recycled where practical or otherwise disposed of off site by a licensed contractor. The quantity of general waste and co-mingled recyclables generated are as follows.

- General Waste – 1 x 20m³ skip per month.
- Co-mingled recyclables – 2 x 240L bins per fortnight.

Ablution waste includes waste from toilets, showers, kitchens sinks and basins. All sewage waste water will be managed on site using the existing septic tanks. The septic tanks are inspected regularly and pumped out by a licensed contractor.

8.2 WORKSHOP AND GENERAL OPERATIONAL WASTE

Workshop and maintenance activities associated with the Quarry's operation will generate wastes such as rags, gloves, general packaging material, empty drums, material off cuts, machinery parts, oils, lubricants, paints and waste tyres. These wastes will continue to be segregated and recycled

where possible or otherwise disposed of to a licenced facility by a licenced contractor. General wastes from the workshop are included with the overall site general waste discussed above. The quantities of waste oil and scrap steel generated (and recycled) are as follows.

- Waste Oil – 4 000L/year.
- Scrap Steel – 8 to 10t/year.

General operational waste includes a variety of waste materials including unused or out of date chemicals, rubber, plastics or hoses. These wastes are segregated and recycled where possible. Tyres from mobile equipment are re-used around the Quarry for building retaining walls, traffic control barriers or bin walls. Any oversupply will be disposed of to a licenced facility by a licenced contractor. Waste conveyor belts will be sold for re-use, where possible.

9 CONTROL MEASURES

9.1 WASTE MITIGATION MEASURES

Waste Management at the Quarry is based around the hierarchy of waste management:

- **Return** what you can. If you can't return to suppliers, then;
- **Reduce** what you can. If you can't reduce it then;
- **Re-use** what you can. If you can't re-use it then;
- **Recycle** what you can. If you can't recycle then; and
- **Dispose** of in landfill.

Specific controls utilised within the Quarry are detailed in the sections below, however, the underpinning strategy for waste management is minimisation and segregation at the source. The benefits for minimising and separating waste streams include:

- reducing the potential for contamination of general waste streams;
- improve the ease of waste storage, handling, disposal and tracking;
- educating employees and contractors of the importance of waste stream segregation and recycling; and
- reducing the potential disposal cost for some items.

9.2 RETURN

Where possible, all containers and packaging, particularly drums, will be returned to suppliers of products used within the Quarry. The selection of suppliers recognises their policy towards the return

of containers and packaging. For those containers and packaging that can be returned, Metromix has defined minimum quantities for the containers and packaging to be returned.

9.3 REDUCE

Where possible, opportunities for waste avoidance will be considered during equipment procurement and material purchasing from suppliers. Purchasing roles and processes for elimination and reduction include the following.

- All employees/contractors to consider opportunities for waste avoidance when purchasing resources from suppliers.
- Quarry Manager/Supervisors to consider opportunities for waste avoidance when establishing contracts and during equipment procurement.

9.4 RE-USE

Where possible, opportunities to re-use materials will be undertaken to ensure maximum utilisation of the resource is achieved. This can be achieved by the following.

- All employees/contractors to consider opportunities for material re-use when purchasing resources from suppliers.
- Quarry Manager/Supervisors or relevant personnel to consider opportunities for material re-use when establishing contracts and during equipment procurement.

9.5 RECYCLE

In the event waste materials cannot be re-used Metromix embraces the need to recycle. To assist in the recycling, designated bins are placed at two locations (in the vicinity of the administration buildings and at the workshop). Recycling bins are collected by Council with Metromix employees making sure these bins are readily accessible for collection on the designated days. Colour coded/labelled bins are provided for the following waste streams:

- General waste.
- Hazardous waste bin (i.e. oily rags, oil filters).
- Scrap metal.
- Paper and cardboard.
- Co-mingled recyclables.
- Waste grease drums.

In addition to the bins mentioned above, Metromix will also segregate/recycle:

- Timber/pallets.
- Waste oil.
- Conveyor belts.
- Batteries.
- Waste coolant.
- Waste tyres.
- Plastics.
- Printer/toner cartridges.

9.6 STORAGE AND DISPOSAL

Where recycling options are not available, waste classified as General Solid Waste (putrescible or non-putrescible) is placed in designated skip bins located at the workshop and transported by a licenced contractor for disposal at a licenced solid waste landfill. Waste contractors enter the Quarry via the bottom gate and proceed directly to the workshop from where the material is collected. As waste contractors are not transporting Quarry product and are subject to their internal safety management systems, they are not required to undergo site-specific training and induction.

Hazardous waste is segregated from other waste streams and stored in an appropriately bunded area prior to transportation off site. Transportation of hazardous waste is undertaken by a licenced waste transporter for disposal at a suitably licenced facility.

Under no circumstances is waste received at the Quarry for storage, treatment, processing or disposal.

9.7 GENERAL WASTE MANAGEMENT

The following actions/strategies will be implemented across the Quarry to maximise efficient waste management.

- All employees and contractors undergo a site induction and annual re-induction. Each induction includes a section on waste management practises at the Quarry.
- Clear instructions detailing waste segregation procedures and recycling procedures are to be maintained at various locations across the Quarry.
- All designated waste bins, skips or storage areas are clearly identifiable.

Metromix will apply for a 'resource recovery exemption' under the POEO Act 1997 prior to importing VENM or ENM to the Quarry.

10 MONITORING AND EVALUATION OF COMPLIANCE

To ensure this Plan is working 'on the ground', Metromix will require the Site Compliance Officer to undertake daily inspections of the following.

- General waste bins.
- Co-mingled recycled bins.
- Waste oil.
- Rags and oil filters.
- Scrap metal.
- Empty oil and grease drums.

The emphasis with the daily inspections will be upon checking:

- cross contamination;
- volume collected (any additional bins required); and

- correct location for the bin(s).

Monthly inspections will be undertaken by the Quarry Manager and/or Supervisors to monitor the daily records and the overall implementation of the Waste Management Plan. The aim of the monthly inspections is to identify return, re-use, recycling and minimisation initiatives which will also include the following checks.

- Housekeeping.
- Cross contamination.
- Regulated and liquid waste volumes and storage.
- Recurrent problem issues arising on a daily basis.

These inspections are documented using site specific inspections sheets. The inspections highlight any areas of concern and assist in the programming of collections and waste tracking. Where non-conformances are observed, the person(s) responsible for the areas are notified immediately to ensure the issue is rectified.

Metromix will develop and maintain a comprehensive database of all wastes generated on site and how they have been managed. This database will be updated on a monthly basis and capture all records of wastes removed by licenced contractors.

Internal audits are undertaken by Metromix at a corporate level on a quarterly basis (i.e. SHE, Compliance, etc.). Actions from audits will be entered and tracked in Metromix's Online Event Reporting System. The extent of compliance within the conditional requirements and commitments in Section 4 arising from the internal audits will be reported in each *Annual Review*.

11 INFORMATION & COMMUNICATION

11.1 INTERNAL INFORMATION AND COMMUNICATION

Key avenues for internal communication on environmental and community aspects/concerns of the Quarry operations are maintained mainly through toolbox meetings. In addition, Metromix has the following methods of communication with its employees and contractors.

- Monthly Safety, Health and Environmental Meetings.
- Internal communiques.
- Distribution internally and externally of Metromix's newsletter "Metronews".
- Formal communication meetings approximately 4 times per year.

11.2 INCIDENT REPORTING

PA 10_0183 defines an incident is an occurrence or set of circumstances that:

- causes or threatens to cause material harm to the environment; and/or
- exceeds the limits or performance measures/criteria in this approval

where material harm to the environment is unauthorised harm that:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)

Incidents relating to waste management are to be recorded using the “Rapid Online Reporting System” that is available through the Metromix website. The Risk Manager is to be notified as soon as possible to assist in determining appropriate corrective actions.

All incidents are to be notified to the Department of Planning, Industry and Environment in accordance with Condition 7 of Schedule 5 of PA 10_0183 and a report detailing at a minimum the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and discussion of any non-compliance with PA 10_0183 that resulted.

In addition, a summary of all incident reports will be provided to the Community Consultative Committee (CCC), made publicly available on the Metromix website and included in the *Annual Review* for the Quarry.

11.3 EXTERNAL INFORMATION AND COMMUNICATION

This Plan has been made available on the Metromix website in accordance with *Condition 5(11) of PA 10_0183*.

In addition, all records assembled and community complaints relevant to waste management will also be available on the Metromix website in accordance with *Condition 5(11)*.

11.4 COMPLAINTS HANDLING AND RESPONSE

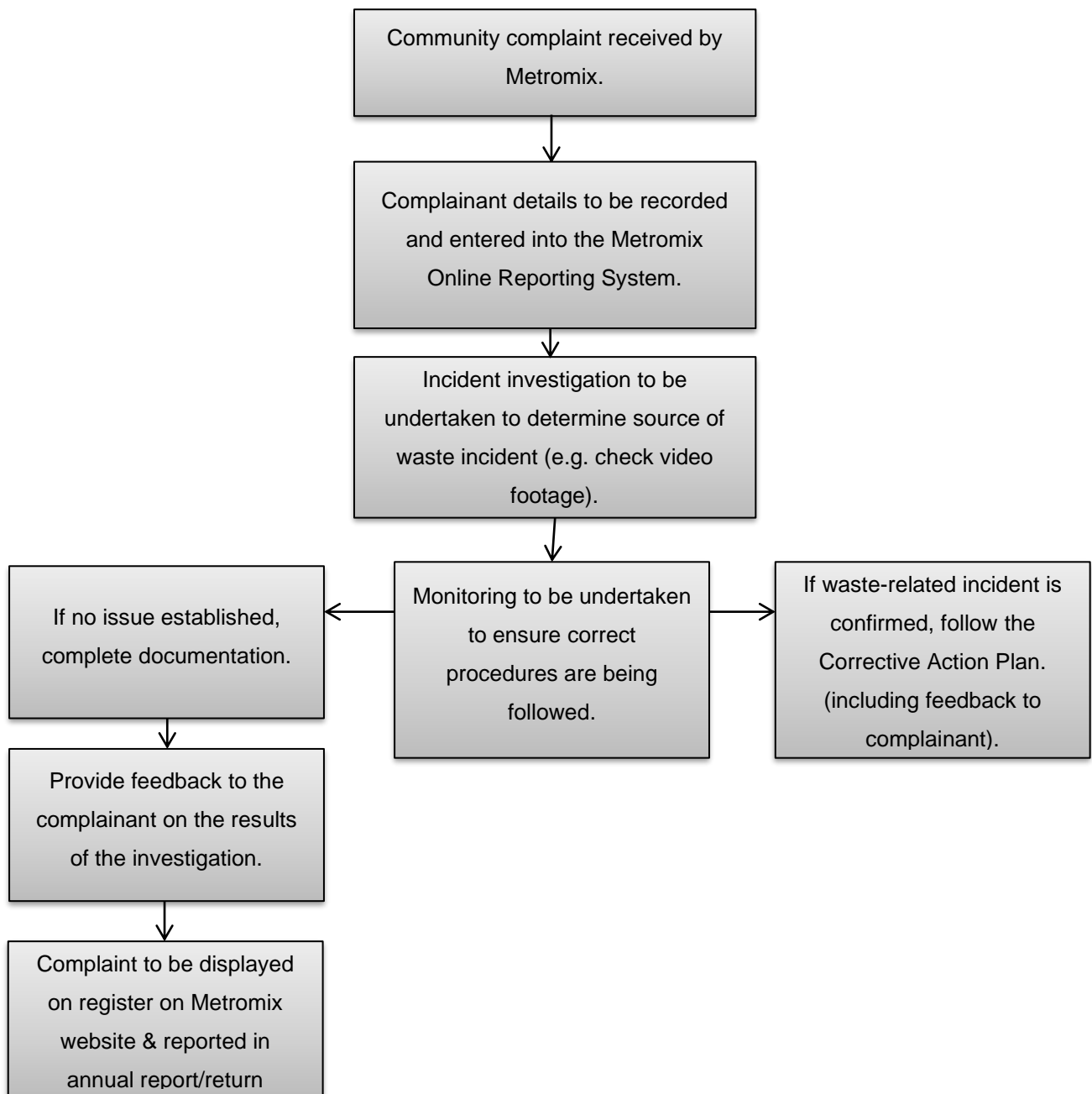
Metromix will advertise the community inquires/complaints line 02 4950 6640 as a minimum in the local phone directory and may also consider advertising the number through local media or on newsletters.

Metromix will respond to any registered community inquiries or complaints received by this number as described in the Rapid Online Reporting System.

The following flowchart shows the process that Metromix will follow in the event a waste complaint is received.

All complaints will be recorded using a proforma complaints record sheet and the nature and outcome of the complaint and subsequent investigation provided in summary form to the CCC and in the Annual Review.

Teralba Quarry Complaint Management Process



12 REPORTING

Metromix will report on the performance of the Waste Management Plan in the Annual Review and provide regular updates to members of the CCC.

The Annual Review will also be submitted to the CCC and made available for public information on the Metromix website.

13 PLAN REVIEW

In accordance with *Condition 5(5) of PA 10-0183*, this *Waste Management Plan* will be reviewed and, if required, revised within 3 months of an:

- a) annual review;
- b) incident report;
- c) independent audit report; or
- d) any modification of Project Approval 10_0183.

The Quarry Manager will be responsible for the review of this Plan.

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Appendices

Appendix 1 Waste Management Matrix

Appendix 2 Consultation Record

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Appendix 1

Waste Management Matrix

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EPA Waste Classification	Waste Material	Site Locations/Sources	Storage	Waste Collection, Treatment and Destination	Waste Tracking
Special Waste	Asbestos	Old buildings	Not Applicable (All collected asbestos must be removed from site)	Collected in accordance with NSW WorkCover requirements. Transported by a licensed waste contractor to a licensed landfill	Required
	Waste Tyres (including Conveyor belts)	Workshop/Processing Plant	Stockpile in an appropriate location	Tyres re-used around the site for bund walls, traffic control barriers, building of bin walls for stock. Any oversupply to be removed from the Quarry by a licensed waste contractor for recycling/disposal. Conveyor belts are sold to local farmers for re-use.	Required for internal reporting only
Liquid Waste	Septic/effluent	Near main office	Septic tank	Effluent/sludge collected from septic tank by licensed contractor and transported to sewage treatment plant	Required
	Waste oil	Workshop/fuel shed	Empty oil drum bins stored in banded area (minimum quantity for collection is 800 to 2 000 Litres).	Collected by licensed contractor and transported to a licensed facility where it is recycled/re-used.	Required
	Degreaser	Workshop/fuel shed	Sealed drums	Collected by licensed contractor and transported to a licensed facility where it is recycled/re-used.	Required
	Engine coolant	Workshop/fuel shed	Sealed drums	Collected by licensed contractor and transported to a licensed facility where it is recycled/re-used.	Required
General Solid Waste (putrescible)	Food waste	Workshop Crib Room Administration Office	General waste bins (240L MGB with red lid)	Collected in dedicated general waste bins by licensed contractor and disposed of at off-site licenced landfill	Required for internal reporting only
General Solid Waste (non-putrescible)	Municipal Waste Garden Waste Wood Waste Air filters Plastic drums*	Various	General waste bins (painted blue)	Collected in dedicated general waste bins by licensed contractor and disposed of at offsite licenced landfill	Required for internal reporting only
	Paper and cardboard	Various	Paper/cardboard bins (all bins labelled)	Collected in dedicated paper/cardboard bins and transported by licensed waste contractor to local recycling facility	Required for internal reporting only
General Solid Waste (non-putrescible) (Cont'd)	Scrap metal	Graveyard area near workshop	Scrap metal bins (marked "One Steel")	Collected in dedicated scrap metal bins and transported by licensed waste contractor to scrap metal recycler	Required for internal reporting only
	Co-mingled Recyclables	Various	Recycle bins	Collected in dedicated recycling bins and transported by licenced waste contractor to local recycling facility	Required for internal reporting only

EPA Waste Classification	Waste Material	Site Locations/Sources	Storage	Waste Collection, Treatment and Destination	Waste Tracking
	Timber pallets	Workshop	Stockpiled	Hardwood timber pallets are returned to suppliers for re-use. Softwood pallets are taken off-site for disposal	Required for internal reporting only
	Toner Cartridges	Office areas	PlanetArk bin (located in office)	Collected by licensed waste contractor on behalf of PlanetArk	Required for internal reporting only
	Concrete, Asphalt VENM / ENM	Within the Pug Mill area as stated in EPL 13015	On ground stockpiles	Concrete washout waste is trucked in by Metromix Transport. The waste is then blended with extracted quarry material and stockpiled as recycled road base product ready for sale.	Delivery dockets are entered into the internal computer system
Hazardous Waste	Batteries	Workshop	Stored on bunded pallets	Collected by licenced waste contractor and transported to scrap metal recycler.	Required
	Oily rags/oil absorbent material	Workshop, processing plant	Oily rags bin	Collected by licensed waste contractor and transports oil rags to a licensed facility for further processing.	Required for internal reporting only
	Aerosols	Workshop	Empty aerosol bin	Collected in dedicated bins by licensed contractor, depressurised and sent to scrap metal recycler	Required for internal reporting only
	Oil filters	Workshop	Oil filters waste bins	Collected in dedicated bins by licensed contractor who transports them to a licensed facility for further processing.	Required
	Empty oil drums	Workshop	Contained within bunded area	Collected by licenced waste contractor, drained, cleaned, flattened and sent to scrap metal recycler. Any residual oil is collected by a licensed waste oil contractor and taken to a licenced facility for refining/re-use.	Required for internal reporting only
	Waste grease	Workshop	Stored in sealed drums	Collected by licenced waste contractor and transported to a licenced facility where waste grease is processed for recycling and drums are cleaned, flattened and sent to scrap metal recycler.	

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Appendix 2

Consultation Record

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From: Glen Mathews <gmathews@lakemac.nsw.gov.au>
Sent: Friday, 11 October 2019 4:33 PM
To: Nicholas Warren
Subject: RE: 559 - Teralba Quarry - Management Plan

Hi Nicholas,

I have received a response for air quality and blast management as below:

Blast Management Plan

I have reviewed the report titled *Metromix Pty Limited, Blast Management Plan (Incorporating a Blast Monitoring Program), November 2016* prepared by Metromix.

The report was initially approved by the Secretary's nominee Howard Reed on 10 October 2013.

The changes to this plan are mostly administrative such as the project approval reference, the Environmental Protection Licence conditions and the relevant legislation. There is also the inclusion of blast monitoring data from 2013 to 2017.

As a result, there are no objections to the updated report.

Air Quality Management Plan

I have reviewed the report titled *Metromix Pty Limited, Air Quality Management Plan (Incorporating Weather Monitoring), February 2019* prepared by Metromix.

The report was initially approved by the Secretary's nominee Howard Reed on 10 October 2013.

The changes to this plan are mostly administrative such as the project approval reference. There is also the inclusion of historic air quality monitoring results from 2013 to 2017.

In relation to traffic management plan the following comment has been received:

Roads maintenance and asset implications

In the Transport Management Plan Page 15 under Clause 4.3 Statement of Commitments –Commitments Table 4.3 - Item 9.4

"Provide a contribution to Lake Macquarie City Council during the ongoing life of the quarry if a suitable project approval is granted. "

In accordance with Lake Macquarie City Council's Contributions Plan- Toronto Contributions Catchment 2016- Part 4 Community Infrastructure and Contributions Item 4.2 Road Haulage - Council will seek road haulage contributions from developments that generate heavy vehicle movements as a significant and integral component of their operations.

A range of factors will be taken into consideration when calculating the haulage contribution rate for each applicable development including:

- The affected road sections and pavement types
- The rehabilitation costs, routine maintenance costs and programmed maintenance costs
- Existing traffic load quantified in terms of the number of equivalent standard axle loads
- Proposed increase in traffic load as a result of the development proposal quantified in:-
 - ✓ terms of ESA
 - ✓ Quantity of goods or materials proposed to be transported along nominated haulage routes as specified in the development proposal.

Council will calculate the haulage contribution rate for each applicable development using the formula as described in the plan, that could be levied on a tonne per kilometre or average rate per tonne that may leave the facility. A review of the agreed levy must be allowable based on any changes to the operation of the plant and impact on surrounding road network.

Truck configuration leaving the facility affects the ESA determination for the haulage levy and details on type and size of trucks may need further clarification. Should new markets, for the products be found, then this will influence production, routes and truck configuration.

Previous discussions held with Metromix regarding the proposed levy will require further work to enable the proposed payment structure to proceed.

All truck movements are to adhere to the approved routes. No truck movements in a Northerly direction along Racecourse Road shall be permitted that runs off Route 3 and Route 4.

Kind Regards,

Glen Mathews

Senior Development Planner



T 02 4921 0399 M 0439 647 504
E gmathews@lakemac.nsw.gov.au

lakemac.com.au



From: Nicholas Warren <nick@rwcorkery.com>

Sent: Tuesday, 8 October 2019 10:26 AM

To: Glen Mathews <gmathews@lakemac.nsw.gov.au>

Cc: Mo Yunusa <MoY@metromix.com.au>; Melissa Anderson <Melissa.Anderson@planning.nsw.gov.au>

Subject: RE: 559 - Teralba Quarry - Management Plan

Hi Glen,

I thought to follow up on the Teralba Quarry Air Quality Management Plan, Blast Management Plan and the Transport Management Plan comments from Council.

Please be advised that due to the length of time taken to receive comments, if we do not receive feedback by the end of this week, we will proceed to submit the plans to DPIE for final approval.

Metromix are operating in accordance with approved plans, however have been waiting almost 12 months since these plans were first submitted to Council.

Regards,
Nick

Nick Warren

Principal Environmental Consultant

B.Sc., M. Bus., M. Env.Sc.

Phone: 02 9985 8511

Mobile: 0437 635 975

Email: nick@rwcorkery.com

RW Corkery & Co Pty Limited

Geological and Environmental Consultants



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From: Glen Mathews <gmathews@lakemac.nsw.gov.au>
Sent: Friday, 6 September 2019 11:57 AM
To: Nicholas Warren <nick@rwcorkery.com>
Cc: Mo Yunusa <MoY@metromix.com.au>
Subject: RE: 559 - Teralba Quarry - Management Plan

Hi Nick,

I have received feed back from Council's waste section yesterday identifying:

Waste Storage:

- *The plan does not detail waste storage areas on the site to demonstrate that there is sufficient, safely accessible storage space (including routes between waste sources and storage) and communicate where each waste type is to be stored.*

Waste Collection:

- *The waste management plan and transport management plan do not detail waste collection vehicle access routes, turn circles and clearances. Although the transport plan mentions contractors must be provided with competence training, it does not clarify whether this applies to contracted waste collection vehicles.*

Air quality have been in contact and a reviewing currently and I will chase traffic again for their comments on the transport management plan.

Kind Regards,

Glen Mathews
Senior Development Planner



T 02 4921 0399 M 0439 647 504
E gmathews@lakemac.nsw.gov.au
lakemac.com.au
f in @ t

From: Nicholas Warren <nick@rwcorkery.com>
Sent: Friday, 6 September 2019 11:44 AM
To: Glen Mathews <gmathews@lakemac.nsw.gov.au>
Cc: Mo Yunusa <MoY@metromix.com.au>
Subject: FW: 559 - Teralba Quarry - Management Plan

Hi Glen,

Can you please give me an update on progress with this review?

Please let me know if you are not intending to review these plans so we can let the Department of Planning know that they can complete their review.

Regards,
Nick

Nick Warren
Principal Environmental Consultant
B.Sc., M. Bus., M. Env.Sc.
Phone: 02 9985 8511
Mobile: 0437 635 975
Email: nick@rwcorkery.com

DPIE REVIEW OF REVISED TERALBA QUARRY MANAGEMENT PLANS (DECEMBER 2019)

DPIE Comment	Response	Section
Comments Generally Applying to all MPs submitted 15 October 2019		
1. Please include the direct consultation with agencies required by conditions of approval in an appendix to each MP. I appreciate that this consultation has been provided in emails accompanying the lodged MPs, but the Department wishes that these comments be included in a single document (the MP). This allows the reviewing officer to check that comments received have not been overlooked, diminished or ignored. It also provides the Company a means to establish compliance with this component of a condition of approval at the time of an environmental audit.	Adjusted as noted	Various
2. Most of the MPs do not correctly describe the effect of modification of the Project Approval. The exception to this is the Waste MP. When a Project Approval or consent is modified, the project approval, as modified, becomes the legal project approval. This means there isn't project approval PA 10_0183 and PA10_0183 MOD 1. There is only PA_0183 which was approved on 22 February 2013 and modified on 16 April 2018. References throughout the MPs to PA 10_0183 MOD 1 should be removed and the surrounding text reconsidered to see if it still makes sense after the MOD 1 component is removed. If you need any further explanation about this matter, please contact me.	Adjusted as noted	Various
3. The name of our Department has changed (again!). We are now the Department of Planning, Infrastructure and Environment or DPIE. Please update all uses in the MPs, including the "Commonly Used Acronyms".	Adjusted as noted	Various
4. The name of the Division of Resources and Energy has changed to Division of Resources and Geosciences (or DRG) with DPIE.	Adjusted as noted	Various
5. Among the matters changed by MOD 1, were the introduction of change to the definitions of " <i>Incident</i> " and " <i>Material harm to the environment</i> ". This means that the procedures in the MPs that relate to Incident reporting and subsequent reporting must be consistent with these definitions and the requirements of condition 7 and 7B of Schedule 5. An incident includes an exceedance of a criteria in the Project Approval and reporting needs to include the Department and within the timeframes and methods set out in conditions 7 and 7B.	Adjusted as noted across each plan.	Various
Waste Management Plan (WMP)		
6. Please have full regard to the general comments 1 to 5, as relevant to this WMP.	Adjusted as noted	Various

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