BINGO INDUSTRIES

Proud Partner of PLANET ARK

ENVIRONMENTAL MANAGEMENT STRATEGY

EASTERN CREEK RECYCLING ECOLOGY PARK (& LANDFILL) FACILITY

DISCLAIMER:

ENVIRONMENTAL MANAGEMENT STRATEGY (EMS)

Occupant:	Dial-A-Dump (EC) Pty Ltd
Postal Address:	305 Parramatta Rd, Auburn NSW 2144 PO BOX 7, Enfield NSW 2136
Telephone:	1300 424 646
Street Address:	Honeycomb Drive, Eastern Creek, NSW

VERSION CONTROL

Date	Doc Version	Authorised by
31/07/2020	A	Ros Dent – Environmental Manager
24/08/2020	B	Ros Dent – Environmental Manager
27/01/2021	C	Ros Dent – Environmental Manager
01/02/2021	1	Ros Dent – Environmental Manager
30/03/2021	2	Ros Dent – Environmental Manager
22/04/2021	3	Ros Dent – Environmental Manager
08/10/2021	4	Ros Dent – Environmental Manager

THIS REVISION

Date	Revision #	Section / Paragraph	Description of Change	Authorised by
31/07/2020	A	Whole Document	Draft	Ros Dent
24/08/2020	B	Figures, Appendix to include AHMP	Draft	Ros Dent
27/01/2021	C	Whole document	Updated with Client comments	Ros Dent
01/02/2021	1	Whole document	Draft for submission to DPIE	Ros Dent
30/03/2021	2	Whole document	Updated for MOD8 approval	Ros Dent
22/04/2021	3	Whole document	Minor updates on MOD8 revision	Ros Dent
08/10/2021	4	Inclusion of new Section 2.4.5	Updated to address DPIE comment	Ros Dent

CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

ACRONYMS AND DEFINITIONS

Acronym / Term	Meaning
AHMP	Aboriginal Heritage Management Plan
AQMP	Air Quality, Odour and Greenhouse Gas Management Plan
Biosecurity Act	*Biosecurity Act 2015* (NSW)
C&D	Construction and Demolition
C&I	Commercial and Industrial
CEMP	Construction Environmental Management Plan
CLM Act	*Contaminated Land Management Act 1997* (NSW)
CoA	Conditions of Approval
Council or BCC	Blacktown City Council
DADI	Dial-a-Dump Industries
DPIE	Department of Planning, Industry and Environment
EHC Act	*Environmentally Hazardous Chemicals Act 1985* (NSW)
EES	NSW Environment, Energy and Science (part of DPIE)
EIS	Environmental Impact Statement:
EMP	Environment Management Plans
Employment Area SEPP	*State Environmental Planning Policy (Western Sydney Employment Area) 2009.*
EMS	Environmental Management Strategy
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	NSW Environment Protection Authority.
EPL	Environment Protection Licence
EFMP	Emergency and Fire Management Plan
GHG	Greenhouse gas
INP	Industry Noise Policy
LPG	Liquid Petroleum Gas
LVMP	Landscape and Vegetation Management Plan
MPC	Materials Processing Centre
NGER Act	*National Greenhouse and Energy Reporting Act 2007* (Commonwealth)
OEH	NSW Office of Environment and Heritage (now NSW EES, a part DPIE)
OEMP	Operational Environmental Management Plan
Operator	Dial-A-Dump (EC) Pty Ltd (ACN 617 664 212)
OSD	Onsite detention basin.
PIRMP	Pollution Incident Response Management Plan
POEO Act	*Protection of the Environment Operations Act 1997 (NWS)*
POEO Regulations	*Protection of the Environment Operations (Waste) Regulation 2014.*
RMS	Roads and Maritime Services

Acronym / Term	Meaning
RNP	NSW Road Noise Policy
RtS	Response to Submissions
Secretary	Secretary to the Department
SEQ	Occupational Health, Safety, Environment and Quality Management System
SSD	State significant development
SW Act	*Sydney Water Act 1994*
SWLMP	Soil, Water and Leachate Management Plan
TPA	Tonnes per annum
VENM	virgin excavated natural materials.
WARR Act	*Waste Avoidance and Resource Recovery Act 2001* (NSW)
WCMR	Waste Contribution Monthly Report
WM Act	*Water Management Act 2000* (NSW).
WRRP	Waste and Resource Reporting Portal

1 INTRODUCTION

1.1 Overview

Bingo Industries Limited (Bingo) acquired the Eastern Creek Recycling Ecology Park (& Landfill) (the Facility) in February 2019 and took over the management of the Eastern Creek site in April 2019. The site was previously known as the Genesis Facility.

The facility is located at Honeycomb Drive, Eastern Creek in the central western suburbs of Sydney NSW, approximately 36 km west of the Sydney CBD, 18 km west of Parramatta and 12 km east of Penrith. The site is wholly within the Local Government Area (LGA) of Blacktown, situated in the area known as the M7 Business Hub. The operational area is 54 hectares (ha) in area and was a former breccia quarry that closed when it ceased extraction activities.

The existing facility, including recycling centre/s and landfill were granted approval by the then Minister for Planning under Section 75J of the *Environmental Planning and Assessment (EP&A) Act 1979* on 22 November 2009 (MP 06_0139) and commenced operation in June 2012. The Project was transitioned to a State Significant Development (SSD) on 2 October 2020.

The Facility operates under two Environment Protection Licences (EPL) issued by the Environment Protection Authority (EPA); EPL 20121 focusses on resource recovery and EPL13426 covers landfill operations. The Facility has approval to:

- Accept up to two million tonnes per annum (Mtpa) of C&D (construction and demolition) and C&I (commercial and industrial) waste
- Landfill up to 1 Mtpa of non-putrescible waste and asbestos
- Stockpile up to 50 tonnes of waste tyres
- Stockpile up to 20,000 tonnes of green waste.

The Facility is operated by Dial-a-Dump (EC) Pty Ltd (DADEC), a fully owned subsidiary of Bingo Industries Pty Ltd.

This Environmental Management Strategy (EMS) has been prepared to satisfy the requirements of the Project Approval and the EPL.

The EMS is the working environmental management tool for the operation of the Facility, concentrating on key environmental issues, and includes supporting detailed plans for the management of water quality, waste, traffic, air quality, noise and vibration and vibration.

1.2 Scope and Objectives

The purpose of this EMS is to provide an overview of potential environmental impacts of the Facility during operation and describes the management and mitigation measures to protect the environment and sensitive receivers and to minimise potential adverse impacts on the environment.

The operation of the expanded operations must be carried out in accordance with this EMS as approved by the Department of Planning, Industry and Environment (DPIE).

The objective of this EMS is to:

- Provide an overview of the Facility (See the Site Layout Plan provided in **Appendix A**).
- Describe the relevant legislation, policies, guidelines and standards which apply to the operation of the facility and influence the environmental management principles and procedures to be used on the site **(Appendix B)**.
- Identify key environmental management issues relating to the operation of the Facility.
- Provide a means of implementing appropriate mitigation measures for the key environmental issues (A summary of all mitigation measure for the site are provided in **Appendix C**).
- Provide a working environmental management plan and tool to follow during operations of the Facility.

- Define roles and responsibilities for the Facility.
- Provide a guide for the interaction with relevant government authorities and other relevant stakeholders, including the community, during the operational phase of the Facility.
- Provide standard operating procedures for the management of the site and key environmental issues.
- Provide a basis for monitoring, reporting and maintaining compliance.

This EMS and the associated sub-plans provide the management measures to be implemented to minimise potential adverse impacts on the environment during operation of all components of the Facility.

This EMS is a live document. The management strategies and control measures detailed within it will be reviewed and updated, where necessary, to reflect changes introduced by the Bingo operational team, site specific outcomes, non-conformances and recommendations arising out of inspections, meetings and audits.

1.3 Supporting Environmental Management Plans

The following environmental management plans have been developed in support this EMS. These plans are provided as Appendices to this EMS:

- Landfill Plan (LEMP) (**Appendix E**)
- Soil Water and Leachate Management Plan (SWLMP) (**Appendix F**)
- Air Quality, Odour and Greenhouse Gas Management Plan (AQMP) (**Appendix G**)
- Landscaping and Vegetation Management Plan (LVMP) (**Appendix H**)
- Aboriginal Heritage Management Plan (AHMP) (**Appendix I**).

1.4 Document Structure

The structure of this EMS is as follows:

- **Section 1** provides a brief overview of the Facility and outlines the Environmental Management System (EMS) targets, scope and objectives of the EMS.
- **Section 2** provides a description of Facility operations.
- **Section 3** outlines the statutory requirements and obligations which need to be fulfilled during operation of the Facility.
- **Section 4** describes the environmental management systems in place and the roles and responsibilities for employees involved in the operation of the Facility. This section also outlines relevant training and inductions requirements so that employees are aware of their environmental obligations, and complaint and incident management and emergency response.
- **Section 5** details the implementation of managing environmental risk of the different environmental aspects during operation of the Facility.
- **Section 6** details the monitoring of environmental risks through environmental reporting, auditing, and how environmental incidences and non-conformance are managed during the operation of the Facility.
- **Section 7** provides a list of relevant documents which accompany this EMS.

1.5 Consultation

The EMS does not require consultation with stakeholders; however, the following sub-plans have been developed in consultation with the relevant government agencies.

Table 1-1: Requirements for consultation with Agencies

CoA	Plan	Relevant Agency
21	Soil Water and Leachate Management Plan (SWLMP)	EPA
37	Air Quality, Odour and Greenhouse Gas Management Plan (AQMP)	EPA
59	Landscaping and Vegetation Management Plan (LVMP)	DPIE Water (previously NSW Office of Water) Blacktown City Council
61	Aboriginal Heritage Management Plan (AHMP)	Heritage Division of Environment, Energy and Science, a part of DPIE (previously OEH)
16	Emergency and Fire Response Plan	NSW Fire and Rescue
NA	Emergency and Pollution Incident Response Management Plan (EPIRMP)	EPA

Details of consultation is provided in Appendix A of each of the specific sub-plans.

Meaningful stakeholder engagement and consultation will be undertaken in collaboration with relevant Regulatory Agencies and the local community in Blacktown LGA to resolve issues that result from operations at the Facility.

The approved EMS will be implemented during the life of the Facility and is retained at the office of the Facility. The EMS will be made available for inspection if requested.

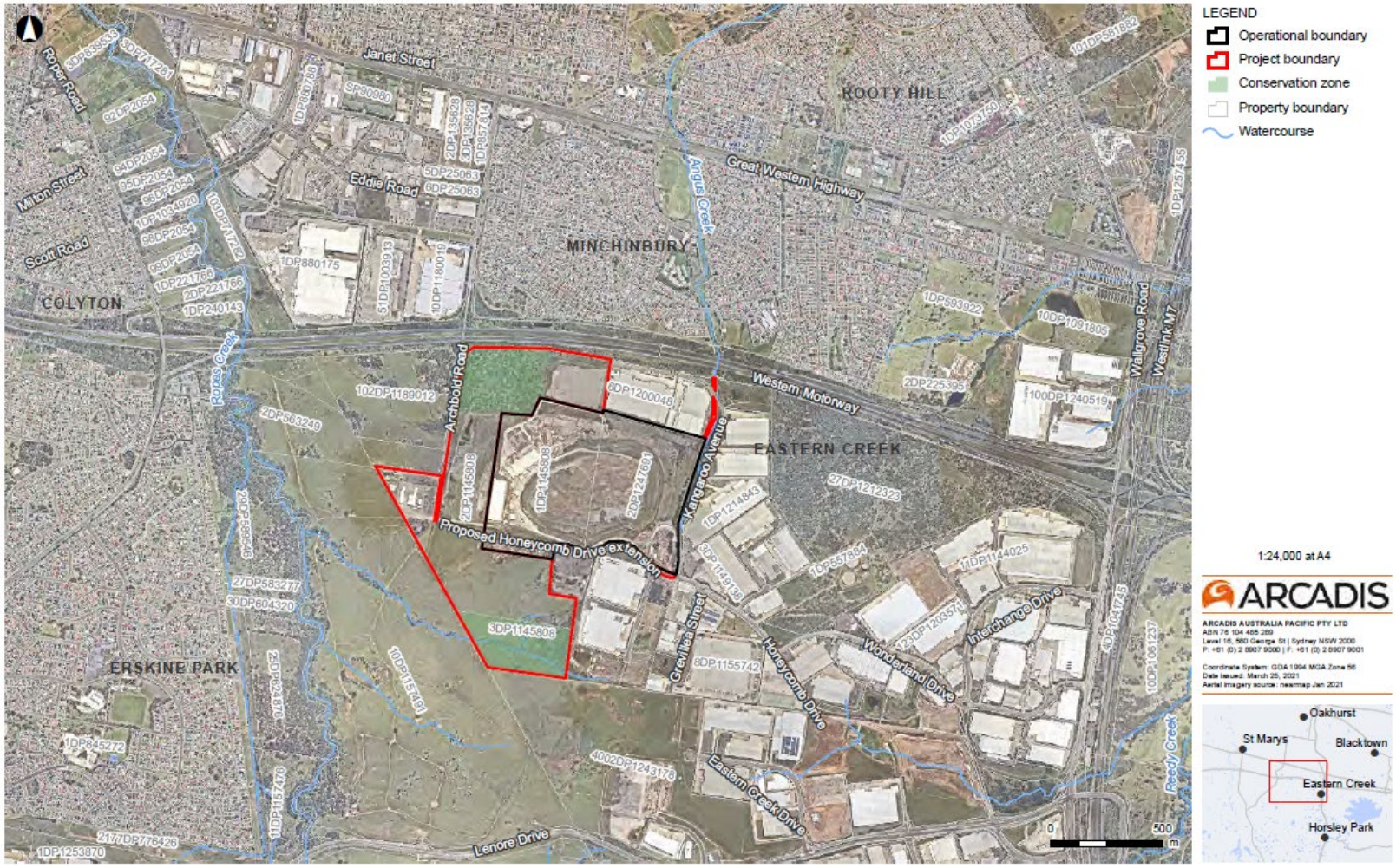


Figure 1-1: Facility location

Figure 1-1: Facility Location

2 FACILITY DESCRIPTION

2.1 Facility Overview

The Facility covers an area of 54 Ha (including the surface area of the quarry) at Lot 1 DP 1145808; and Lot 2 DP 1247691, within an area being developed for commercial and industrial use under the *State Environmental Planning Policy (Western Sydney Employment Area) 2009 (*the Employment Area SEPP). The adjacent land is owned by a mix of private companies and the NSW Government.

The Facility is currently accessed via Kangaroo Avenue located to the east and north-east of the site. The M4 Western Motorway is located to the north and Archbold Road is located to the west. An open grassland is located to the south.

The residential area of Minchinbury is about 430 m north and Erskine Park is about 1,200 m west of the nearest site boundaries. The nearest industrial premises are adjacent to the northern boundary of the site. (See **Figure 1-1**)

The Facility as managed under this EMS includes:

- Site entrance with security and weighbridge
- Site offices and amenities
- Parking for light vehicles and trucks, staff and visitors
- Materials processing centre with equipment comprising:
  - screening areas with overhead gantry crane, screener and conveyors
  - storage bays
  - load out area.
- Segregated materials area
- General solid (non-putrescible) landfill
- Wheel wash bay.

Mounds of overburden material (amenity berms) which act as impervious barriers and visual screens are located to the north, south and west of the Facility operational area and partially along the eastern boundary. A Conservation Area is also located at the north-western corner of the operations area which is fenced and maintained as part of the operations of the Facility.

Appendix A shows the layout of the Facility.

2.2 Operating hours

Table 2-1 details the operating hours as approved under *Schedule 3 Condition 39* of MP_06_0139 Modification 6.

Table 2-1: MP_06_0139 as modified approved operating hours

Activity	Day	Time
Construction	Monday to Friday	7:00am to 6:00pm
	Saturday	8:00am to 4:00pm
	Sunday and Public Holidays	Nil
Material Processing Centre (MPC1 and MPC2) Operation, waste receival, chute use and maintenance	Monday to Friday	24 hours
	Saturday	24 hours
	Sunday and Public Holidays	24 hours

Activity	Day	Time
Segregated Material Area (SMA): Crushing and screening	Monday to Friday	6:00am to 6:00pm
	Saturday	8:00am to 4:00pm
	Sunday and Public Holidays	8:00am to 4:00pm
Segregated Material Area (SMA): Receipt of segregated material	Monday to Friday	24 hours
	Saturday	8:00am to 4:00pm
	Sunday and Public Holidays	8:00am to 4:00pm
Landfill: truck deliveries	Monday to Friday	5am to 9pm
	Saturday	5am to 9pm
	Sunday and Public Holidays	5am to 9pm

2.3 Waste Limits

Schedule 3 Condition 1 of the Project Approval (MP_06_0139) as modified in MOD6 has stipulated various limits for the Facility. These limits are summarised in **Table 2-2.**

Table 2-2: MP_06_0139 as modified approved waste limits

Activity	Limit
C&D and C&I Waste	Not more than 2 million tonnes of materials at the site per calendar year.
Landfill	Not more than 1 Mtpa of non-putrescible waste per calendar year (excluding residual waste from the MPC and PSE)
Waste Tyres stockpile	up to 50 tonnes of waste tyres on site at any one time
Green waste stockpile	up to 20,000 tonnes on site at any one time

2.4 Waste Sources

2.4.1 Permissible waste

The Facility has the capacity to receive up to 2 Mtpa general solid waste (non-putrescible) types, as defined by Schedule 2 of the *Protection of the Environment Operations (POEO) Act 1997:*

The following type of materials will be received:

- Construction and demolition (C&D) waste
- Commercial and industrial (C&I) waste.
- Waste streams complying with acceptable waste for general solid waste (non-putrescible) facilities and assessed to be inert waste or solid waste following the technical assessment procedure outlined in Part 1 of the *Waste Classification Guidelines (NSW EPA, 2014).*
- Green waste.

Materials received will comprise both segregated materials and mixed materials ,which will include but not be limited to, brick, concrete, virgin excavated natural material (VENM), terracotta roof tiles, soils, green waste, timber, metals, paper and plastics. The undifferentiated materials incapable of economic separation or later sale, or which is the residue from recycling processes, will be taken to the landfill for disposal.

Materials suitable for recycling include, but not be limited to, both hardfill materials (e.g. sand, soil concrete, brick and tile) and also specified materials (e.g. metals (including steel), plastics, paper, timber, vegetation, carpet and mattresses etc).

Materials recycled for sale will meet specifications prescribed by the POEO Act and the relevant Resource Recovery Orders and Exemptions for aggregate, soils, fines and mulch.

2.4.2 Non-permissible wastes

Schedule 3 Condition 1 of the Project Approval details which wastes cannot be received at the Facility. These include:

- Putrescible wastes (which include food or animal matter and unstable or untreated biosolids)
- Waste that is contaminated by chemicals and/ or pathogens that will not be rendered harmless by the process or that may constitute a health or environmental risk, including clinical and related waste and diseased carcasses
- Waste containing contaminants classified as hazardous waste, restricted waste) or liquid waste under the POEO Act
- Scheduled Chemical Wastes will not be allowed into the MPC or the landfill site. Scheduled chemical wastes are controlled by the *Scheduled Chemical Wastes Chemical Control Order (2004)* under the *Environmentally Hazardous Chemicals Act 1985.*

Other unacceptable wastes include but are not limited to:

- Liquid wastes
- Explosives
- Poisons
- Dangerous goods
- Radioactive materials
- Clinical, hospital and related wastes
- Loose, uncovered (non-bonded) or friable asbestos
- Scheduled pharmaceuticals
- Scheduled wastes.

Screening of wastes at the weighbridge is for early detection of non-conforming waste to prevent entry to the site.

2.4.3 Conditional wastes

Conditional wastes are not permitted in the MPC but may be accepted if approved by NSW EPA and listed on the sites licence, and by prior arrangement for landfilling. Some Conditional wastes may be accepted but require prior treatment or particular disposal procedures as listed in **Table 2-3**.

Table 2-3: Conditional waste requirements

Waste type	Conditions for disposal and / or management
Bonded or stabilised asbestos wastes (not including friable asbestos)	Asbestos wastes including asbestos contaminated soils will be transported directly to landfill and disposed of by landfilling. Bonded asbestos waste must be contained, and all dust must be controlled Asbestos wastes will be dealt with at the site through a series of measures. These measures are detailed in the **Asbestos Management Plan**.
Friable asbestos	Friable asbestos waste must be packaged so that dust is not generated whilst handling, tipping or covering Asbestos wastes will be dealt with at the site through a series of measures. These measures are detailed in the **Asbestos Management Plan**
Soil wastes	Contaminated or potentially contaminated soils in containers pending assessment by a NATA accredited laboratory in accordance with the NSW EPA *Waste Classification Guidelines.*

Waste type	Conditions for disposal and / or management
Synthetic mineral fibre wastes	May be delivered and disposed in sealed containers by prior arrangement.
Pliable and spadeable sludge wastes	Spadeable moist wastes will be accepted for disposal only under the following conditions. The waste: • contains no free liquid • is dry enough to be spadeable • slump free at 1 vertical on 2 horizontal • does not contain materials above concentrations prescribed by NSW EPA as constituting *hazardous wastes* or *prescribed* in the Waste Classification Guidelines. • does not pass any prescribed leaching limits. Any other criteria established by NSW EPA in guidelines or statutes as may become applicable.
Drummed wastes	• Drummed wastes must be in solid form and meet the requirements for a GSW waste classification. Any drummed waste that arrives at the waste delivery area in liquid form will be rejected. • Drums shall not under any circumstances be opened for inspection by operators or supervisory staff. Unexpected finds of drummed or canned liquid wastes will be quarantined for offsite disposal at a lawful facility. • Drummed wastes should satisfy the NSW EPA GSW criteria as set out in the *Waste Classification Guidelines* and associated documents.
Empty drums	• Where appropriate empty drums may be made recovered for recycling. • Drums which are not punctured or are insufficiently punctured will be classified as drummed wastes and disposal arrangements for drummed wastes will apply.
Tyres	Under *Schedule 3 Conditions 1(c)* of the Project Approval, no more than 50 tonnes of tyres may be stockpiled on site at any one time. Tyres will be received handled and disposed of in accordance with EPL requirements to the NSW EPA guidelines and provisions set out in the Facility license.

These waste materials will be stored in accordance with the following procedures:

- *Storage of Hazardous Chemicals – Waste (OPL-SEQ020)*
- *Storage of Hazardous Chemicals – Special Waste (OPL-SEQ021)*

2.4.4 Management of non-conforming waste

Vehicles are not permitted to leave the tip floor area until they have been checked and cleared for unaccepted or excluded waste. If any non-conforming wastes are identified they will be immediately reloaded into the incoming vehicle and directed to return to the weighbridge. Bingo will record details of the waste and carrier and communicate this information to the weighbridge office and then to the NSW EPA under the provisions of the POEO Act. This will be done in accordance with the procedure *Visual Inspection and Management of Non-Conforming Waste (SOP-BDR007) and Process for Non-Conforming Waste (SOP-BDR011)* .

If tipping has occurred then the operator will (if safe to do so), segregate and isolate and/or remove any unacceptable wastes which have been deposited at the MPC and transport the wastes to a designated quarantine area (within the MPC) or other suitable location, where the wastes will be securely stored until off-site disposal arrangements are made by the original carrier.

If the carrier or owner of the waste does not make arrangements for the waste to be collected within 24 hours, a fee will be charged for storage of the waste, and if within 48 hours the waste has not been collected then the Bingo will make arrangements for the waste to be tested and disposed at an appropriate licensed facility and the owner or carrier of the wastes will be billed for the costs involved.

Bingo will inform the NSW EPA within 24 hours of the nature, origin, carrier, transporter and owner of the wastes and will inform the NSW EPA of the fate (if known) of such wastes. Details will be reported in monthly reports and summarised in the annual report.

Notification of Non-confirming Waste and Reload/ Rejected Load forms will be completed in accordance with Bingo's reject loads procedure, *Visual Inspection and Management of Non-Conforming Waste (SOP-BDR007) and Process for Non-Conforming Waste (SOP-BDR011), Reject Load Certificate (SF055)* and *Notification of Non-Complying waste and Rejected Reload Rejected Load (SF106)* filed in the facility Reject Load Register. A formal advice that the load contains materials that cannot be accepted at the Facility will be provided to the Customer (Driver).

2.4.5 Management of asbestos waste

Details on the management of asbestos is included in the **Waste Monitoring Program** and is also managed in accordance with the relevant Bingo SEQ management system Standard Operating Procedures (SOP), OPLs and Forms. These are summarised in Section 7. Below is a brief summary of how asbestos finds are managed.

- Where an inspection of inbound waste loads at the resource recovery facility identifies suspected asbestos and materials that are reasonably suspected to contain asbestos, the load is rejected and reloaded into the same vehicle and managed in accordance with the relevant procedures. Any waste materials suspected of containing asbestos will be manage as asbestos regardless.
- If asbestos is found in tipped material, this is managed in accordance with SOP and OPLs for non-conforming waste (Section 2.4.4).
- In the event that the vehicle that unloaded the asbestos waste has already left the Facility, the site operator will segregate the asbestos, so that operational activities can continue while the customer responsible for the waste is notified and advised to remove the asbestos. A separate area for the storage of non-conforming waste incorporates an asbestos bin area.
- Where asbestos is delivered to site in mixed waste or source separated, the material will be transferred to a dedicated tipping area in the landfill and immediately covered.

2.5 Weighbridge and Weighbridge Office

Waste material is delivered to the site by a combination of light, medium and heavy vehicles, with loads typically varying from about 1 tonne (t) to 40 t in weight. The vehicles will access the Facility via Kangaroo Avenue. **Figure 2-1** shows the standard traffic flow through the weighbridge and weighbridge office.

Preliminary waste acceptance and visual screening is undertaken at the weighbridge. All incoming vehicles and wastes are directed through the waste reception area and the loads inspected by the weighbridge operator via cameras (CCTV). The weighbridge is manned by a suitably trained operator. Waste is weighed on the weighbridge in gross tonnes, or in the case of the small vehicles the weight is calculated using published weight factors in accordance with the NSW EPA method.

The vehicles proceed beyond the weighbridge area along the main haul road where they are directed by appropriate signage for unloading.

Plate 1: Site directional signage

Trained traffic controllers located at various locations throughout the facility, direct vehicles to the correct location for tipping and loading after further determining the load contents or purchase. They assist in the determination of load weights and contents and will redirect the vehicles if required to the appropriate area i.e. segregated stockpiles, MPC, WTS and landfill. The vehicles are weighed out over the (exit) weighbridge when exiting the Facility. Any unacceptable (excluded) wastes are rejected.

The weighbridge will be operated and maintained in accordance with the procedure *Weighbridge Operation and Maintenance (SOP-BDR005).* If the weighbridge is not operational the *Procedure for Converting Waste to Tonnes when Weighbridge Not Operational (SOP-BDR003)* will be followed.

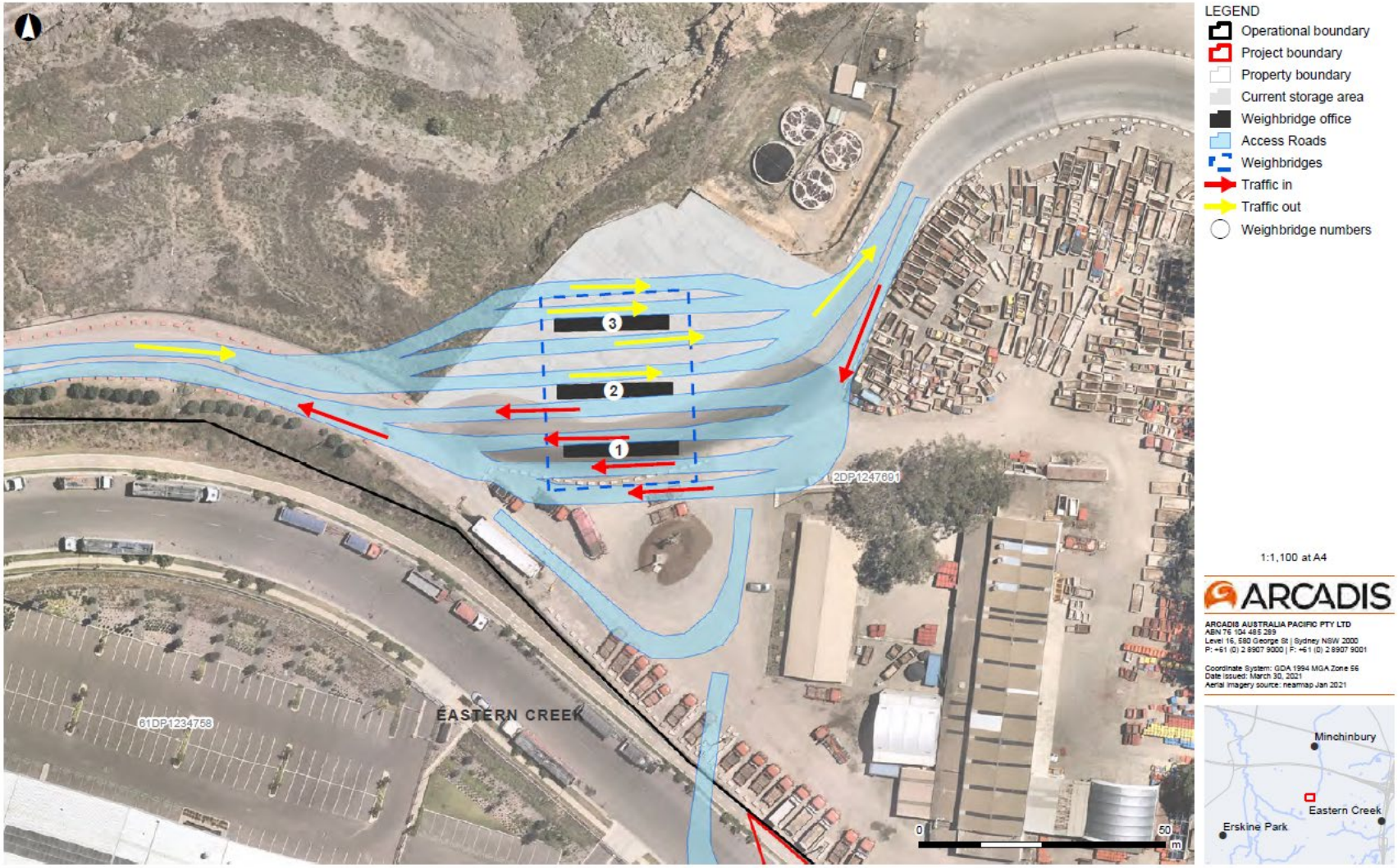


Figure 2-1: Standard traffic flow through weighbridge and weighbridge office

Figure 2-1: Standard traffic flow through the weighbridge and weighbridge office

2.5.1 Waste recording

The weighbridge load cell is linked to a computerised system provide accurate records of the weight of incoming wastes on a vehicle-by-vehicle basis. The system is capable of being operated by a single user within the weighbridge office and data obtained from the site can be transferred directly to Bingo's Head Office. If loads are overweight, they will be managed in accordance with the *Overweight Load Procedure (SOP-BDR002)*.

The weighbridge operator is responsible for the overall management and maintenance of weighbridge systems and the related preparation of management reports. This includes the detail of materials classified as non-recyclable wastes which enter the site for the purposes of landfilling. This information will be provided to the NSW EPA in the form of returns under the waste 'contributions' levy (S88 of POEO Act).

2.6 Segregated Material Stockpiles

Commercial quantities and hardfill type materials which are segregated prior to their arrival on site and do not require further treatment will be directed to a designated stockpile area where these materials may be stockpiled. This will include the following:

- Green and timber waste stockpiles
- Concrete, brick, ceramics and demolition material (segregated prior to arrival)
- VENM and soils.

The designated stockpile area is also used to store recycled hard-fill materials (e.g. brick concrete, sand soil stone, bitumen) resulting from the reprocessing and/or recovery process, until the product is sold.

As required by *Schedule 3 Condition 55* of the Project Approval, all stockpiles will be maintained to a level below the height of the amenity berms (<10 m) to minimise visual impacts to surrounding areas. Stockpiles will be managed in accordance with the relevant site operational plans.

2.6.1 Green and timber waste

Up to 20,000 tonnes of green waste may be stockpiled at the Facility at any one time (*Schedule 3 Condition 1* of the Project Approval).

Once screened by the weighbridge officer, loads of green waste and timbers are directed to the green waste/timber yard. Here tipping of the material is supervised and inspected to facilitate the removal of contaminating or non-biodegradable materials and separating materials which bio-degrade at a slower pace (i.e. separation of raw green waste from construction timbers). The materials are stockpiled separately for processing or transferred to an appropriate third party for recycling. Green waste and urban wood residues suitable for reuse will also be collected from the MPC and stockpiled in this area for further processing or transfer.

- True green waste, e.g. grass, leaves, branches, logs or tree stumps, are removed at this stage to a separate location within the green waste area, where the material is shredded separately to form woodchip or transferred to a third party for processing.
- Engineered wood products (e.g. MDF) and preservative-treated and coated wood residues (e.g. Copper Chrome Arsenate treated timbers), as defined in the *Mulch Exemption 2016*, are removed at this stage.

Green waste and timber waste processing and management is detailed further in the **Waste Management Plan**.

2.7 Materials Processing Centre 1 (MPC1)

MPC1 is a large building of cast concrete slab, steel and colour bond construction. Vehicles containing mixed loads which are suitable for the recovery process are directed to the MPC. These vehicles travel along internal roads around the west and north of the MPC then divert to the south to enter the MPC (See **Figure 5-2**).

Small mixed loads which can be unloaded by hand will be directed to the hand unload area at the western end of the MPC.

2.7.1 Mechanical processing

Mechanical processing involves the sorting and segregating of materials to remove valuable recoverable materials, principally metals, concrete, brick and tile, fines and timber. Preliminary gross sorting removes metals, wire, gas cylinders, batteries, fire extinguishers and materials of this nature which may be removed for re-use or have valuable re-use function without the need for intervention. The majority of this material can be removed by the use of a magnet.

Other materials removed and segregated at this stage include organic materials (i.e. green waste), asbestos and liquid or chemical wastes. Organic materials (green waste) are removed to the green waste stockpile. Asbestos material, if discovered whilst tipping the load is rejected however if discovered post tipping is dealt with in accordance with the relevant plans and procedures and regulations under the POEO Act.

Liquid and chemical wastes are unacceptable wastes and if found are removed to the appropriate unexpected finds storage area.

See **Section 2.4.2** for more information.

2.7.2 Sorting and screening

The remaining material is subjected to an automated process of screening and sorting which differentiates the materials into different classes. This includes:

- Plastics, paper, timber, metals (including steel), cardboard which is removed to designated areas for processing and recycling or sent to third party processors.
- Metals (ferrous and non-ferrous) will either be removed to the steel processing area of the site for sorting, shredding and shearing or sent to third party processors.

Reusable and surplus materials that have a commercial value resulting from processing at the MPC will be stockpiled, sold and transported off site. Materials that cannot be processed and residue of the materials listed above will be sent to the landfill. This includes bonded and non-friable asbestos wastes.

2.7.3 Shredding

Unsorted material which is residual to the automatic sorting process is transferred by conveyor to the shredder where any materials of <300 mm are finally shredded.

Materials pass by conveyor into a hopper within the MPC building which feeds the shredder, which reduces the size of the material to <20 mm. Where the target size is not achieved by the first pass of the shredder, a screen will be used to collect over-sized material, which is sent to the shredder for further processing.

2.8 Materials Processing Centre 2 (MPC2)

Waste received at MPC2 is primarily C&I waste but also includes light C&D waste not processed in MPC1. C&I waste processed through MPC2 will be separated into a number of product streams, using an advanced resource recovery facility.

The product streams include:

- Soils and aggregates

- Natural Timbers
- Paper and Cardboard
- Glass
- Ferrous and Non-Ferrous Metals.

Mixed waste is delivered by incoming vehicles at one of two locations. The northern holding pit and the main tip floor.

2.8.1 MPC2 design

The MPC2 comprises an entry and exit to the tip floor on the eastern side of the building, which has a concrete apron providing sufficient space for vehicles to turn and access the eastern entrance to the tip floor in a reverse direction. An exit ramp is also located on the eastern side of the apron, which allows vehicles to exit the apron while minimising conflicts with other tipping vehicles.

Awnings above the northern entrance, and along the eastern and western sides of the building protect and cover the processing equipment, and assist with minimising noise and air emissions.

Outfeed conveyors are located on the eastern side of the MPC2 and are enclosed and allow direct transfer of waste products from the processing equipment to existing stockpiles or the landfill pit.

The MPC2 building includes the provision of a fire sprinkler system suited to a high hazard facility.

2.8.1.1 Northern holding pit

Only Bingo vehicles with walking floor trailers will deposit waste at this pit. Vehicles reverse up to the northern building entrance and tip waste directly into the northern holding pit. Up to eight vehicles can tip simultaneously.

This waste originates from transfer stations within Bingo's network which has already been inspected at the facility of origin in accordance with the *Standards for Managing Construction Waste in NSW* (NSW EPA, 2019). As such no further inspection is required.

2.8.1.2 Main tip floor

Vehicles depositing waste at the main tip floor enter the building by reversing through the eastern entrance. Waste is tipped onto the main tip floor will be managed and inspected in accordance with the *Standards for Managing Construction Waste in NSW* (NSW EPA, 2019) except where an exemption has been granted permitting use of cameras for inspection purposes. Vehicles then exit the building in a forward direction.

2.8.2 Waste Management

2.8.2.1 Non-compliant waste

If non-compliant waste is found, the load is separated or rejected and reloaded for removal from site and disposal at an authorised facility. All loads contaminated with asbestos are rejected.

Management of contaminated loads would be undertaken in accordance with the Standards. Handling and management of asbestos would be undertaken in accordance with *Bingo's Asbestos Handling Procedure*.

A separate storage area will be demarcated at the western end of each of the holding pits for the storage of non-conforming waste; including unexpected finds and dangerous goods.

2.8.2.2 Compliant waste

If waste is deemed to be compliant, it is pushed into either the southern or northern waste holding pit by a front-end loader. The floor of the holding pits is 6 m lower than the tip floor which allows for physical separation of activities and allows waste to efficiently be 'pushed' by a front-end loader directly in the pits shortening the time it is on the tip floor and decreasing vehicle dwell times associated with tipping of waste.

2.8.2.3 Waste processing

Once the waste is in the waste holding pits, an overhead gantry crane with a 3 m^3 capacity grab will lift the mixed waste into a feed hopper. Two overhead gantry cranes are installed to service the northern and southern holding pits.

Waste from the northern holding pit is loaded into the western hopper, while waste from the southern holding pit is loaded into the eastern hopper. The feed hopper will regulate the flow of the waste stream onto the recycling plant.

The cranes are automatically programmed to carry out a regular pattern of loading the feed hoppers but can also be manually operated to remove specific items.

Once the waste has been fed into the feed hopper, the following processes are followed:

- Large ferrous metal is removed by a magnet
- Waste is shredded to <300mm in size.

Waste is then conveyed through a series of screens, drum separators, eddy current separators, sorters which separate the waste into various recyclable streams.

Recycled outputs are transferred via the enclosed overhead conveyors to the existing storage and processing areas within the broader Facility or for residual waste directly to the landfill via the landfill chute.

2.9 Landfill

All waste accepted into the landfill is delivered by customers after first being weighed in at the weighbridges or via transfer from the MPC via the chute (refer to **Section 2.10**) that enters the landfill on the northern side of the void.

All waste entering the landfill via the chute is weighed using the scales attached to the chute at the point the waste leaves the MPC. The landfill is licenced to accept General Solid Waste, Asbestos and Tyres as conditioned in the EPL.

The construction and operation of the landfill cells is detailed in the **Landfill Plan.**

2.9.1 Conveyor and chute

Shredded unsegregated waste from the MPC will be deposited via conveyor belt into a weighing hopper where it will be weighed, and then transported via a covered downhill conveyor and chute to the landfill working floor.

The maintenance and operation of the conveyor and chute system is detailed in the **Landfill Plan** and the *Conveyor and chute system maintenance procedure.*

2.10 Waste Process Flow

Figure 2-2 details the processing flow of waste material as the material is segregated, processed, stored and sold or disposed at the landfill.

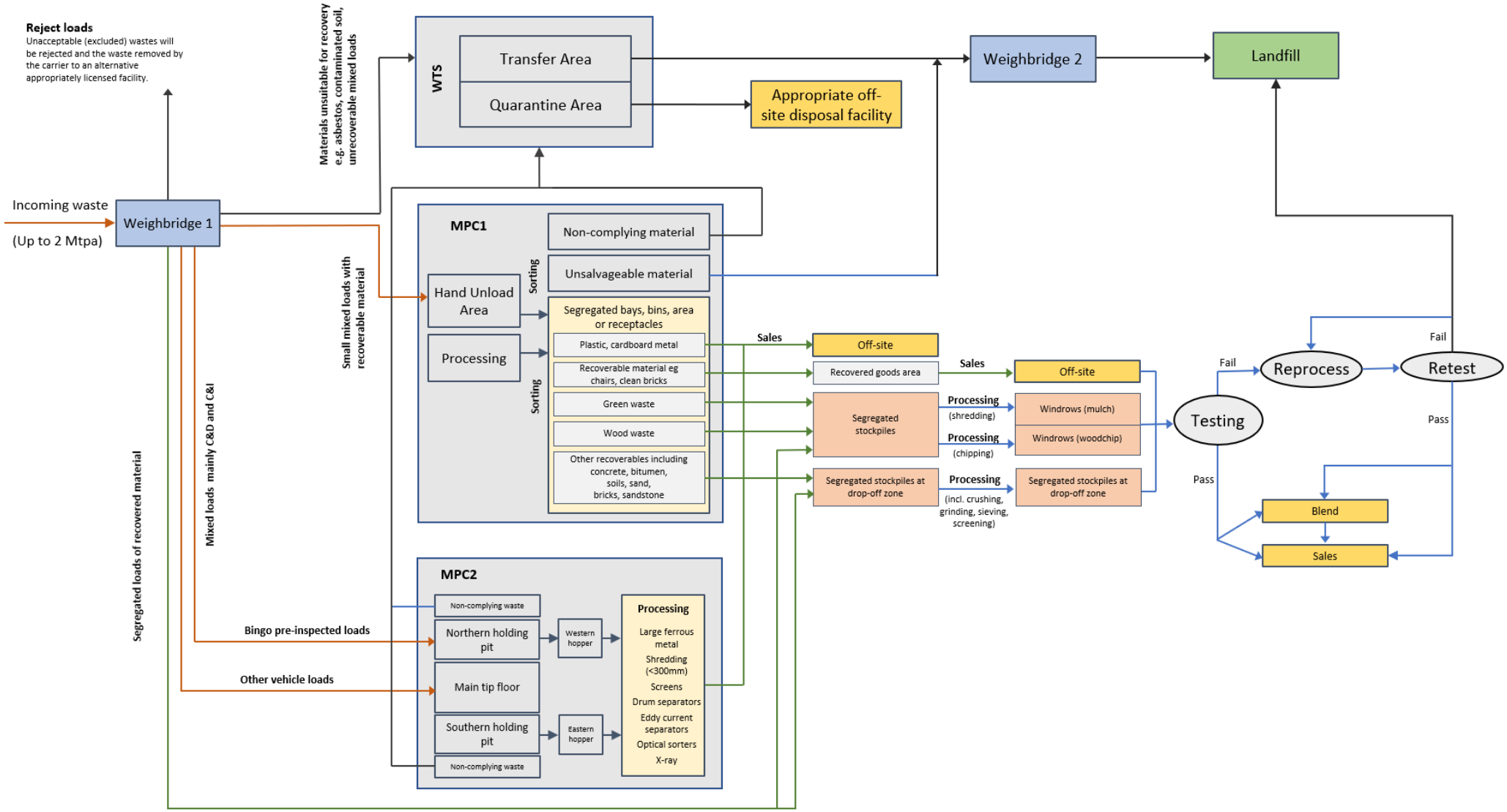


Figure 2-2: Process flow of facility inputs and outputs

2.11 Dangerous Goods Storage and Refuelling

A small volume of dangerous substances will be used during operation of the Facility. The key substances kept on site include diesel, liquid petroleum gas (LPG) for plant and equipment operation (i.e. forklifts), hydraulic oils and fluids.

The dangerous goods to be stored on site are below the screening thresholds and therefore not considered to be potentially hazardous, however, these substances will be stored where required in an appropriately ventilated and secure store in accordance with the Project Approval and EPL requirements.

Bingo's *Storing Dangerous Goods procedure (OPL-SEQ008)* provides guidance on storage of such substances at the Facility. The procedure requires that all substances be stored within a bund of 110% capacity of the volume of those liquids so that any release of substances is contained and minimises the risk of surface water contamination and fire. A Hazardous Substances and Dangerous Goods Register will be maintained to record such chemicals used at the Facility.

Diesel mobile plant and equipment will be refuelled on site using a mobile fuel cart with access to a double walled self-bunded fuel store located on site.

2.12 Security and fencing

2.12.1 Security fences and gates

The security fences are consistent with Council requirements and are 2.4 m high (with 1.8 m above ground) 50 mm OD galvanised steel pipes @ 3,000 mm spacings 1,800 mm chainmesh, with black plastic coating where the fence adjoins a precinct road.

Several lockable security gates have been installed at the Facility to ensure security and prevent vehicles accessing the premises without permission or via an unapproved route. Gates are engineered from 110 mm galvanised steel tube main gate posts with twin 2,100 mm long x 4,500 mm wide swinging gates to meet all relevant Australian Standards. Consistent with Council requirements, the gate frames are made from 50 mm galvanised steel tube attached to 2,100 mm high black, poly coated chain wire mesh.

Plate 2: Security gate to spotters 2

2.12.2 Stock fences

As the stock fencing does not delineate the boundary of the Facility or abut Precinct Road, they are not required to meet the requirements of fencing set out in the Precinct Plan. The stock fence line comprises 1,650 mm Black Waratah star posts at 3,500 mm spacings, 100 mm galvanised 2,100 mm Waratah "Easyslot" strainer posts and "Adjusta" stays are used on either side of all gate openings, all corners with acute angles of less than 120° and at least every 200 m.

The fence consists of 900mm "Hingedjoint" netting with a plain wire at the top line of the netting and a single 2.5 mm plain wire in the top penetration of the post.

Plate 3: Stock Fence on Archbold Road Boundary

Plate 4: Stock Fence on top of Western Amenity Berm

2.12.3 Conservation area

The perimeter of the Conservation Area, located in the north-western corner of the site, is enclosed with stock fencing to prevent uncontrolled access by animals. Locked gates have also been installed at the perimeter to prevent public access.

Signage to demarcate that the property is private land has been installed within the perimeter and at various locations adjacent to the M4 road reserve boundary.

Plate 5: Conservation fence near 4th Avenue

Plate 6: Locked gates at the perimeter of the Conservation Area

3 STATUTORY REQUIREMENTS

Operation of the Facility is required to comply with all relevant legislation, permits, licences and development approvals that apply to the Facility.

This section provides an overview of the environmental planning and statutory context for the operations of the Facility. It also describes the Facility operations in the context of Bingo's corporate environmental and sustainability policies.

Compliance to applicable regulatory requirements concerning the operations of the Facility will be achieved through:

- identifying and accessing legal and other requirements which are directly applicable to the organisation
- consulting and involving relevant government agencies
- internally communicating relevant information regarding legal and other requirements
- continually auditing, reviewing and upgrading company systems, management plans and supporting documentation
- providing relevant training.

3.1 Project Approval

The existing facility, including recycling centre/s and landfill were granted approval by the then Minister for Planning under Section 75J of the *Environmental Planning and Assessment (EP&A) Act 1979* on 22 November 2009 (MP 06_0139) and commenced operation in June 2012.

Since this time, six modifications have been approved which have facilitated several changes to the layout and operation of the Facility. **Table 3-1** provides a summary of the modifications for the Facility.

Table 3-1: Summary of MP06_0139 modifications

Mod #	Overview	Approval date
MOD1	Construction and operation of a conveyor and chute system, reconfiguration of the approved green waste facility and relocation of the truck wheel wash	30 September 2010
MOD2	Administrative modification to correct the land description	9 November 2010
MOD3	Revised landform levels and associated stormwater design, new office amenities buildings and relocation of the vehicle turning bay	5 December 2011
MOD4	Extension of the operating hours	14 December 2013
MOD5	Construction of an additional pre-sorting enclosure, requiring the removal of 123,300 m^3 of quarry spoil	17 March 2016
MOD6	Extension of site operations to 24 hours, increase to the direct-to-landfill waste volume and amendment of the noise limits for the site	29 April 2020
MOD7	Modification to the entry point and layout of the site operations area to facilitate the delivery of the Precinct Road required by the conditions of MP06_139 and generally improve the operation of the site	Withdrawn
Transition to State Significant Development	Following the repeal of Part 3A of the EP&A Act on 1 October 2011, the project was subject to the transitional arrangements provided by the Environmental Planning and Assessment Regulations 2000 (EP&A Regs). The transitional arrangements provided by EP&A Regs have now ceased, and the project has been transitioned to a State Significant Development (SSD) on 2nd October 2020.	2 October 2020

Mod #	Overview	Approval date
MOD 8	Proposes to make minor amendments to the approved plans under MOD5 and optimise operations within the pre-sorting enclosure, to be referred to as Materials Processing Centre 2 (MPC2). The changes include the following: • Minor change to the building footprint to include shed awnings; • Changes to tip floor operations; • Minor works external to MPC2 for provision of services and creation of a concrete apron; • Provision of advanced fixed recycling plant; • Provision of outfeed conveyors; • Temporary relocation of weighbridges; • Relocation of existing car parking spaces and provision of a dedicated site car park.	3 March 2021

The Approval Conditions issued by the DPIE identify measures that are required to:

- prevent, minimise, and/or offset adverse environmental impacts
- set standards and performance measures for acceptable environmental performance
- require regular monitoring and reporting
- provide for the ongoing environmental management of the development.

This EMS has been developed in accordance with specific requirements as prescribed in the Environmental Impacts Statements (EIS), Response to Submissions Reports (RtS), the Project Approval and Statement of Commitments.

The environmental assessments and modifications can be viewed on the following DPIE websites[1].

Bingo has also made available relevant approval and other documents on its website[2].

3.1.1 Conditions of Approval

Schedule 5 (Environmental Management, Reporting and Auditing) Conditions 1 and 2 of the Project Approval provide details regarding the Environmental Management Plan Requirements for the Project, as outlined in **Table 3-2**.

Table 3-2: Project Approval Requirements (MP 06_0139 as modified)

Condition #	Requirement	Sections or documents where addressed
Environmental Management Strategy		
1	The Applicant shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. The Strategy must:	This Plan
a)	Be submitted to the Secretary for approval prior to the commencement of construction;	Section 1.5
b)	provide the strategic framework for environmental management of the project;	Section 3 Appendix B – Legislation Register

[1] https://www.planningportal.nsw.gov.au/major-projects/project/29061

[2] www.bingoindustries.com.au

Condition #	Requirement	Sections or documents where addressed
c)	identify the statutory approvals that apply to the project;	Section 3 Table 3-2 Table 3-3
d)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;	Section 4.3 Table 4-1
e)	describe the procedures that would be implemented to: keep the local community and relevant agencies informed about the operation and environmental performance of the project;	Section 4.5.3
	• receive, handle, respond to, and record complaints;	Section 4.5
	• resolve any disputes that may arise during the course of the project;	Section 4.5
	• respond to any non-compliance; and	Section 6.3.2
	• respond to emergencies;	Section 4.7 Section 4.7.3
f)	Include: • copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and	Section 1.3 Relevant Appendix
	• a clear plan depicting all the monitoring currently being carried out within the project area.	Appendix C4 – Monitoring locations
Management Plans Requirements		
2	The Applicant shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:	
a)	detailed baseline data;	Section 2 Section 5
b)	A description of: • the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 2.11 Table 3-2 Table 3-3
	• any relevant limits or performance measures/criteria;	Appendix C2 – Summary of Monitoring Requirements
	• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;	Section 6.2
(c)	A description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/ criteria;	Appendix C1 – Summary of Mitigation Measures
(d)	A program to monitor and report on the: • impacts and environmental performance of the project; • effectiveness of any management measures (see c above);	Section 6 Appendix C3 – Summary of Reporting Requirements
(e)	A contingency plan to manage any unpredicted impacts and their consequences;	Section 6.6.2

Condition #	Requirement	Sections or documents where addressed
(f)	A program to investigate and implement ways to improve the environmental performance of the project over time;	Section 6.6
(g)	A protocol for managing and reporting any: • incidents;	Section 4.7
	• complaints;	Section 4.5
	• non-compliances with statutory requirements; and	Section 6.3.2
	• exceedances of the impact assessment criteria and/or performance criteria; and	Section 6.3
(h)	A protocol for periodic review of the plan.	Section 6.5.3
Additional Condition requirements – Schedule 3		
2	**Waste Acceptance and Screening** Procedures and training requirements are integrated into the Environmental Management Strategy for the Project (See Schedule 5 condition 1).	Section 4.4 Section 3.5 of the Waste Monitoring Program
3 (a)	The Proponent shall: implement procedures to identify and handle asbestos waste. These procedures should be in accordance with National Occupational Health and Commission (Safe Work Australia's) *Code of Practice & Guidance Notes for the Management & Control of Asbestos in WorkPlaces*, relative guidelines and legislation from Workcover NSW and the POEO Regulation; and	Section 2.4.5 Also throughout the Waste Monitoring Program Section 7
(b)	integrate these procedures into the Environmental Management Strategy for the Project (See Schedule 5 condition 1).	Section 2.4.5 Section 7
14 (a)	**Pest, Vermin, Feral Animal & Noxious Weed Management** The Proponent shall: Implement suitable measures to manage pests, vermin, feral animals and declared noxious weeds on site and identify those measures in the Environmental Management Strategy for the Project (See Schedule 5 condition 1)	Appendix C Table C1 MM AH6 (feral animals) MM AH7 (weed species) MM LV16 (weed management) MM LV20-24 (pest species) LVMP (Appendix H)

3.1.2 Statement of Commitments

The Statement of Commitments (SoC) are presented within the Environmental Assessment Report (ERM, 2008). The SoC applicable to the EMS and how they have been complied within this plan are provided in **Table 3-3**.

Table 3-3: Statement of Commitments (EIS, 2008)

SoC #	Requirement	Sections or documents where addressed
3	**Construction and Operation EMP**	
	A Construction Environmental Management Plan (CEMP) and an Operational Environmental Management Plan(OEMP) will be developed and approved by the Director- General and will respectively:	Construction plans developed specifically for the relevant work and this Plan

SoC #	Requirement	Sections or documents where addressed
	• describe all activities to be undertaken on the site during construction and operation;	Section 2
	• describe the work program outlining relevant timeframes that must be met during construction and operation;	Section 2
	• detail statutory and other obligations that must be met during construction and operation, including all approval and agreements required from authorities and other stakeholders;	Section 2.11
	• describe the roles and responsibilities for all relevant personnel involved in construction and operation;	Section 4.3
	• detail the environmental management procedures, monitoring and reporting to be implemented during the construction and operation phases and timing and triggers for their implementation;	Section 5 Section 6.2 (Monitoring) Section 6.5 (Reporting)
	• detail what incident management procedures will be in place during construction and operation;	Section 4.7
	• detail procedures for community consultation and complaints handling during construction and operation; and	Section 4.5
	• be made available for public viewing after approval from the Director-General.	Section 4.5.3

3.2 Applicable Legislation

3.2.1 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) aims to manage pollution and waste disposal in NSW, and is administered by the NSW EPA. Part 1 of Schedule 1 of the POEO Act defines premise based scheduled activities that require an Environment Protection Licence (EPL).

The Facility has been issued two EPLs based on the scheduled activities detailed in **Table 3-4**.

Table 3-4: Scheduled Activities under the POEO Act

Fee Based Activity	Scale
EPL 13426: Landfill	
Waste disposal by application to land	Any capacity
Waste storage - other types of waste	Any other types of waste stored
EPL 20121: Resource recovery	
Composting	> 5,000-50,000 T annual capacity to receive organics
Recovery of general waste	Any general waste recovered
Waste storage- other types of waste	Any other types of waste restored

3.2.2 Other legislation

Appendix B provides a legislation register summary of the other legislation applicable to the operation of the Facility.

SOP-SEQ007 Legal and Other Obligations is a register and summary of legislation, regulations and other obligation applicable to the operation of the Facility.

Should a change in legislation be identified, which is likely to impact on the operations of the Facility, the change management process will be followed to ensure the appropriate changes to operations are communicated and undertaken.

Communication with statutory authorities and communication of statutory requirements to employees and contractors of the Facility are to be conducted in accordance with specific communication processes (See **Section 6.5** and also the *Consultation and Communication Procedure (SOP-SEQ004)*).

3.3 Permits and Licences

In addition to the Project Approval Conditions, other key permits and licences applicable to the Facility is summarised in **Table 3-3**.

Table 3-5: Environmental Approvals

Licence / Permit Number	Licence / Permit	Activity	Regulator	Issued Date
13426	EPL	Landfilling operation	NSW EPA	25 June 2020
20121	EPL	Resource recovery operation	NSW EPA	25 June 2020
35580	Trade Wastewater Consent to discharge	Permitting the disposal of leachate to the sewer	Sydney Water Corporation	20 April 2020 as per biennial renewal requirement

The current EPLs describes the types of waste which may be received at the Facility and what activities can be undertaken in relation to each waste type permitted to be held on site.

Both EPLs will be amended to align with the modification (MP 06_0139 MOD8) approved on 3 March 2021 where required

It is the responsibility of the Site Operations Manager to ensure that all permits and licences are renewed, as required, and that reporting requirements includes the preparation of the necessary documentation to demonstrate compliance, are met.

3.4 Guidelines

The Facility design and operating procedures documented have due regard to relevant guidelines and codes of practice including but not limited to:

- Environmental Guidelines: Solid Waste Landfills
- Environmental Guidelines: Solid Waste Landfills second edition June 2016
- Waste Classification Guidelines – Part 1 (including Addendum): Classifying Waste, EPA, November 2014
- AS1940-2004 The Storage and Handling of Flammable and Combustible Liquids
- Resource Recovery Orders and Resource Recovery Exemptions under Protection of the Environment Operations (Waste) Regulations 2014 (Clause 93)
- Noise Policy for Industry (2017)
- Industrial Noise Policy Application Notes (EPA 2013)
- Road Noise Policy (EPA 2011)
- Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales
- Approved methods for the sampling and analysis of air pollutants.

Although the 1996 Solid Waste Landfill Guidelines have been replaced by a second edition in 2016, the EMS continues to refer to the 1996 Guidelines, where relevant, as the Landfill was constructed and became

operational before the second edition was released. Bingo note that the EPA website provides that *"It is not proposed that the new requirements [of the 2016 Solid Waste Landfill Guidelines will] be applied retrospectively to existing landfill cells that are operating well*".

4 ENVIRONMENTAL MANAGEMENT

4.1 SEQ Management System

Bingo has developed and implemented an integrated SEQ Management System (Occupational Health, Safety, Environment and Quality Management Systems) to assist in meeting the corporate objective of its waste operations through sustainable development.

The SEQ Management System has certification to:

- ISO 9001:2015 Quality Management Systems
- ISO14001:2015 Environmental Management Systems
- ISO48001:2018 Occupational Health and Safety Management Systems.

This system allows Bingo employees access to the SEQ Management Plans, Procedures and associated documents. This system outlines monitoring of environmental compliance requirements to manage all environmental risks, aspects and impacts. The SQE Management System will be applied to the environmental management of the Facility.

The general approach to the management and control of environmental impacts of site activities at the Facility, including staff and contractors, under this EMS is shown in **Figure 4-1**. Activities at the Facility would be undertaken in accordance with the requirements of the EMS.

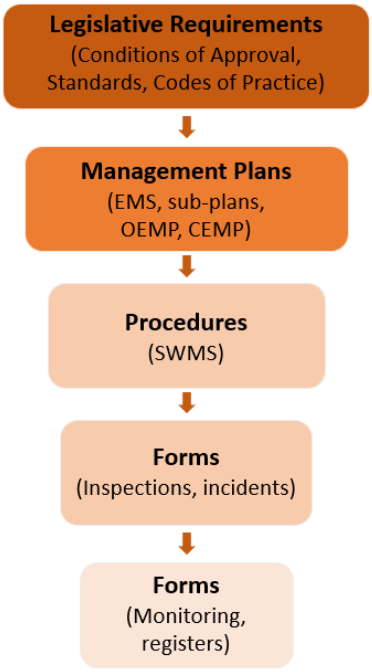


Figure 4-1: Approach to environmental management

4.2 SEQ Policy

The Bingo SEQ Policy is provided in **Figure 4-2**. Bingo is committed to continuous improvement aimed at the elimination of work-related injuries and illnesses and the elimination of waste, pollution, environmental harm and threats to human health.

The SEQ Policy is periodically reviewed through internal processes and communicated to all workers and sites, contractors and subcontractors. The policy is also prominently displayed around the Facility.

SEQ Policy

POLICY STATEMENT

At Bingo Industries Pty Ltd (Bingo), our commitment to occupational health, safety, the environment and quality (SEQ) is a key strategic initiative and we see it as core to our success. Our ultimate aim of zero harm is how we measure our success.

Zero harm means a serious commitment to protect people, the environment and provide quality products and services.

Our minimum standard is compliance across all facets of SEQ and considering our resolve to continuously improve our SEQ performance we are aiming beyond compliance.

AIMS AND OBJECTIVES

Our aim is zero harm.

Our SEQ objectives to achieve zero harm are to ensure:

- a framework for Bingo's integrated management system for setting SEQ objectives and targets, to reduce risks and impacts, enhance beneficial outcomes and to implement this policy
- quality workmanship by committed and trained personnel
- employees, customers, suppliers and regulators are satisfied with our activities, services and products
- knowledge of and fulfilment of our legal and other obligations
- professional, responsible and ethical activities products and services
- minimisation and management of risks to prevent detrimental impacts such as pollution and provide and support opportunities for beneficial SEQ outcomes that include sustainable resource use and climate change mitigation
- support and assistance to internal and external stakeholders and their involvement in consultation on SEQ issues
- continuous improvement aimed at the elimination of work-related injuries and illnesses and the elimination of waste, pollution, environmental harm and threats to human health
- our business leaders are visibly leading and committed to SEQ and excellent SEQ results and recognise performance and improvements aligned to our aims and objectives.

To achieve these aims and objectives and satisfy stakeholder expectations Bingo will maintain an integrated SEQ management system based on ISO 9001 and which incorporates the requirements of ISO 45001 in relation to Workplace Health and Safety and ISO 14001 in relation to Environmental Management.

SCOPE

This policy applies to all Bingo activities, products and services and adherence to the policy is the responsibility of all Bingo employees. Bingo includes subsidiaries and associate companies (collectively referred to as Bingo) together with all employees, contractors and employees of incorporated contractors engaged by Bingo (collectively referred to as employees).

Daniel Tartak
Managing Director and Chief Executive Officer
May 2019

BINGO INDUSTRIES

Figure 4-2: SEQ Policy

4.3 Roles and Responsibilities

All personnel undertaking operational activities at the Facility are responsible for the implementation of this EMS and have the responsibility to stop works if there is potential for a safety or environmental incident to occur.

Figure 4-1 outlines the staffing and organisational structure for the operation of the Facility, which will be amended from time to time as required. The key roles and responsibility for the Facility are outlined in **Table 4-1**.

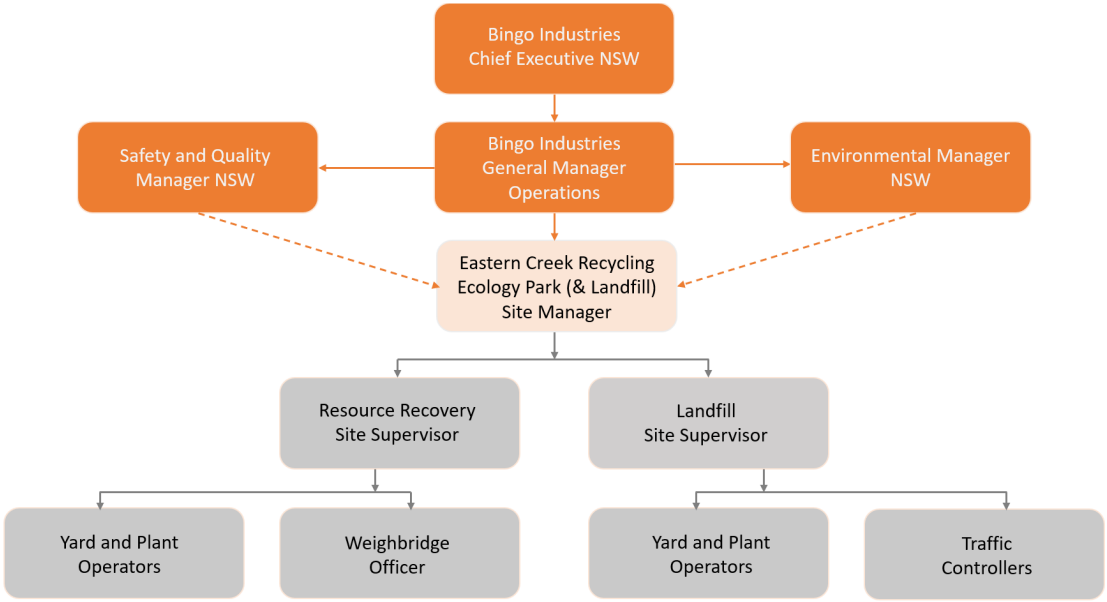


Figure 4-3: Organisation flowchart

Table 4-1: Key roles and responsibilities

Role (or equivalent)	Responsibility
Chief Executive NSW	• Authorise expenditure to implement environmental management requirements within limits of authority • Attend annual management review of EMS compliance with General Manager Resource Recovery NSW • Direct works to be performed in a more environmentally responsible manner that reduces impacts or stop works if there is a risk of environmental harm • Employ apprentices in trade roles wherever possible
General Manager Resource Recovery NSW	• Manage and direct works in an environmentally responsible manner that reduces environmental impacts or stop works if there is a risk of environmental harm • Report to senior management on the performance of the SEQ system and environmental breaches • Identifying resources, competencies and training required for implementation of the EMS • Organise and manage site plant, labour and temporary materials to meet approval conditions • Co-ordinating the implementation and maintenance of site environmental controls and provide support for the Environmental Manager NSW • Report all environmental incidents in accordance with incident reporting protocol • Participate in investigations where required • Take action to resolve non-conformances, non-compliances and incidents • Participate in annual environmental management review

Role (or equivalent)	Responsibility
Safety and Quality Manager NSW	• Provide support for the Site Supervisor • Participate in investigations of accidents on site • Take action to resolve non-conformances, non-compliances and incidents
Environmental Manger NSW	• Advise the General Manager Resource Recovery NSW on environmental issues • Report potential or actual environmental harm to regulators if required • Produce quarterly report summarising all environmental monitoring results and report environmental monitoring results to Regulatory Agencies as required. • Obtain, maintain and all required licences, permits, consents and approvals for operations • Liaise with and report to Government authorities where required in accordance with environmental obligations
Site Environmental Officer	• Oversee the implementation and review of the EMS • Investigate and report on identified non-conformances and non-compliances • Participate in incident investigations • Take action to resolve environmental non-conformances, non-compliances and incidents • Review audit corrective actions and take action as necessary to ensure timely close out of issues • Assist and guide the respective workers to meet their environmental responsibilities and minimise the potential for environmental incidents • Oversee/undertake site monitoring, inspections and internal audits • Undertake regular environmental inspections including against implementation of management measures and environmental controls • Ongoing identification and mitigation of environmental risks and notify the Site Supervisor of any required change • Develop environmental components of site induction and ensure a register of attendance is maintained • Manage environmental document control, reporting, inductions and training • Monitor and report on the environmental capability and performance of subcontractors • Cooperate and participate in audits and action results of any audit findings • Coordinates incident investigations and management actions • Maintain records of Waste Monitoring Program • Report the Waste Contribution Monthly Report (WCMR) using the EPAs online Waste and Resource Reporting Portal (WRRP) • Make changes to the plant and stop or suspend operations as required to meet environmental obligations
Site Operations Manager	• Effectively implement environmental controls on-site in accordance with environmental obligations • Demonstrate that suppliers and sub-contractors are implementing environmental requirements • Report environmental non-conformances, incidents and potential incidents to the Environment Manager NSW and General Manager Operations NSW • Manage and direct works in a manner that minimises potential for environmental impacts or stop works if there is a risk of environmental harm

Role (or equivalent)	Responsibility
Site Managers/ Supervisors (Landfill / MPC / Crusher)	• Effectively implement environmental controls on-site in accordance with environmental obligations • Demonstrate that suppliers and sub-contractors are implementing environmental requirements • Deliver toolbox talks and meetings • Report environmental non-conformances, incidents and potential incidents to the Environment Manager NSW and General Manager Resource Recovery NSW • Manage and direct works in a manner that minimises potential for environmental impacts or stop works if there is a risk of environmental harm • Manage and direct implementation of Drivers Code of Conduct • Managing on-site response to incidents where safe to do so • Verify waste classification and record all non-permitted waste • Maintain records of Waste Monitoring Program • Manage Maintain appropriate storage of dangerous goods and hazardous substances • Maintain plant and equipment in a proper and efficient condition and operated in a proper and efficient manner • Ensure operation of meteorological station and management of data collection • Undertake daily site inspections of work area
Yard and Plant Operators (all sites)	• Report environmental issues to the Site Supervisor/ Environmental Manager NSW • Verify waste classification • Inspect waste deposited at site to ensure no unacceptable materials are received • Secure unacceptable or prohibited waste in deposited waste • Assist with clean-up and follow instructions of Site Supervisor in the event of a pollution incident or environmental management issue • Provide recommendations with respect to plant / operations requirements to meet approval conditions • Facilitate and implement environmental management strategies in consultation with Site Supervisor • Maintain and operate plant and equipment in a proper and efficient condition • Liaise with other operations personnel to implement corrective actions in response to complaints • Report any non-conformances, non-compliances and/or incidents to the Site Supervisor
Weighbridge Officer	• Obtain information about the load to be tipped prior to tipping as part of the Waste Monitoring Program. • Preparation of waste management reports. • Overall management and maintenance of weighbridge systems, including rejected loads
Traffic Controller	• Supervise turning movements in/out of the driveway and any potential access conflicts between large trucks • Supervise and direct drivers around and out of the site • Monitor general driver behaviour including any drivers disobeying instructions.

Role (or equivalent)	Responsibility
Contractors	• Completing the site induction • Identifying the environmental risks associated with their activities at the site • Developing mitigating measures to minimise or eliminate the identified environmental risks • Being aware of and following onsite instructions and procedures implemented to minimise or eliminate environmental risks

4.4 Training and Competence

All personnel undertaking work at the Facility will undergo general environmental awareness training and training relevant to their responsibilities under this EMS and the site EPLs.

Records of Project environmental induction and other environmental training will be maintained and readily accessible.

4.4.1 Facility Environmental Induction

All personnel will undertake induction training which will include at a minimum:

- Environmental policy
- Environmental due diligence
- Requirements of this EMS
- Emergency and Pollution Incident Response Management Plan (EPIRMP)
- Relevant sections of the POEO Act & Regulations
- Environment Protection Licences
- Standards for managing construction waste in NSW
- Communications and reporting incidents.

Site personnel will be informed of their individual responsibility to be proactive and report any instances of environmental control measures not operating properly.

All visitors to the Facility must undergo a visitor's induction. All visitors must be accompanied by the Facility personnel at all times (*Bingo Site Inductions (OPL-SEQ012)*).

4.4.2 Ongoing Training

A review of ongoing training requirements will be conducted on an annual basis during the annual review of the EMS and established based on, but not limited to:

- Changes in operation procedures
- Changed in statutory requirements
- Changes in operation plant and equipment.

All workers undertaking any works at the facility must be aware of their environmental responsibilities and will receive induction training to assist them to meet these responsibilities whilst on site and to the extent possible whilst handling waste material.

All workers will receive training as identified in the Training Needs Register and as relevant to their role.

4.4.3 Competency

The Site Operations Manager is responsible for identifying the competency needs for personnel at the Facility. More comprehensive training relevant to their position and / or responsibility will be undertaken by key staff. This training may be provided as "toolbox" training or specific training tailored by management.

Examples include:

- Waste management and requirements of EPL
- Spill response procedure
- Contamination awareness (e.g. asbestos management)
- Environmental monitoring
- Traffic management qualifications.

Training can take various forms, ranging from formal accredited training courses to site specific inductions, daily toolbox talks and meetings. Training is detailed in the training matrix in **Table 4-2** and is delivered in accordance with each level of staff and by the nominated manager as detailed in the table.

Table 4-2: Training Matrix

Staff Position	Training to be provided	Person responsible for ensuring training provided

All workers, and where relevant contractors and subcontractors	• Spill response kits and locations;
	• Chemical storage and other products;
	• Safety Data Sheets (SDS);
	• Emergency evacuation assembly points;
	• EPIRMP;
	• Environmental Impacts Management for:
	  – Non-conforming waste (NCW) and Asbestos;
	  – Noise;
	  – Dust;
	  – Water.
	• Emergency contact services and numbers;
	• External complaints handling;
	• Acceptance of fuel and other deliveries to site, that have environmental risks;
	• Monitoring and recording of off-site disposal of fluids. e.g. waste oils and effluent.
		Site Supervisor
		SQ Manager,
		Site Environmental Officer

Site Supervisor	• Site checking of environmental controls; • Monthly reporting; • Site Environmental auditing; • Compliance with the EPL; • Compliance with the Development Approval; • WHS regulations and practices; • Legislative arrangements and regulations which govern waste disposal, including the Waste Classification Guidelines.	Site Supervisor Site Environmental Officer
Weighbridge operations personnel	• Weighbridge operation; • Waste classification data input to reporting system of wastes.	Site Supervisor Site Environmental Officer

Staff Position	Training to be provided	Person responsible for ensuring training provided
Landfill personnel	• Environmental requirements of the operations of the landfill including compaction of waste and application of daily cover; • Recognition of different types and categories of wastes; • All Landfill staff complete the two-hour asbestos awareness training required by SafeWork NSW; • Operation of landfill equipment.	Site Supervisor Site Environmental Officer
MPC personnel	• Waste categories recognition, management practices and waste management regulations; • Separation of recyclable materials from wastes; • Operation of MCP including dust suppression and operation recycling machines (crushing plant).	Site Supervisor Site Environmental Officer

4.5 Stakeholder Communication

An electronic database of all identified external stakeholders will be maintained on site. This includes but is not limited to:

- Neighbouring Residents
- Community Groups
- Regulatory Bodies
- Aboriginal Groups
- Environmental Groups.

Stakeholders will be provided with regular updates on the operational, environmental and social performance of the Facility, through various communication channels detailed in the *Bingo Consultation and Communication Procedure (SOP-SEQ004).*

4.5.1 Community Consultation

Consultation with the local community will be undertaken in accordance with site Community Consultation Plan which will be reviewed biennially. The site consultation process is supported and facilitated by Bingo head office.

4.5.2 Media Communication

Communication with the media is prohibited without approval from the Managing Director and Chief Executive Officer.

4.5.3 Information Availability

The Facility webpage is as follows:

https://www.bingoindustries.com.au/recycling-centres/recycling-centres-sydney-and-surrounds/eastern-creek

As required under *Schedule 5 Condition 9* of the Project Approval, the following information will be made available, and kept up to date, on the Facility webpage.

- Current statutory approvals
- Approved strategies, environmental management plans or programs required under the Project Approval

- A summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of the Project Approval
- A complaints register, updated on a monthly basis
- Annual Reviews (over the last 5 years)
- Any independent environmental audit and Bingo's response to the recommendations in any audit
- Any other matter required by the Secretary.

4.6 Complaints Management

The following telephone contact line and email is available for receiving public feedback, including complaints.

T: 1300 424 646

E: enquiries@bingoindustries.com.au

https://www.bingoindustries.com.au/contact-us

4.6.1 Recording complaints

Complaints or feedback received from all external sources will be recorded in the Complaints Register. Records of all complaints will be kept for at least four years after the complaint was made.

The Facility utilises Intelex to record complaints. The system notifies relevant staff and management and provides scope to record corrective action or action taken and track progress in relation to these actions.

All public complaints received (either written or verbal) will be documented to record:

- Date and time of the complaint
- Nature and extent of the complaint
- Method by which the complaint was made
- Name and address of the person lodging the complaint
- Details of all related factors including location, dates, frequency, duration, site conditions and effects of the complaint (including operational and meteorological conditions)
- Action taken to address the complaint including follow up contact with the complainant.

All complaints will be acknowledged as soon as practicable following receipt.

4.6.2 Investigating complaints

The complaint will be investigated to determine firstly if it is able to be validated and to determine appropriate corrective / preventive actions if required to be taken to address complaints. The complainant will be informed in writing of the results of the investigation and action to be taken to rectify or address the matter(s) where name and contact details have been provided. Where no action is taken the reasons why are to be recorded.

In the instance where a complaint triggers a requirement to undertake associated monitoring this will be done to identify the cause of the complaint and/or may involve modification of operational techniques to avoid any recurrence or minimise its adverse effects.

4.6.3 Dispute resolution

In the event of a disagreement associated with site operations and a member of the community, Bingo will undertake the necessary liaison and communication to reach a resolution,.

In the event that the complainant is dissatisfied with the actions taken by Bingo a mediation meeting to which the complainant, a Community Consultation representative and an external consultant with expertise in the

area of the complaint will be invited for the purposes of exploring the issues and of mediation and reaching resolution with the complainant.

Should a complaint not be able to be resolved between the complainant and the Facility, a third-party independent mediator may be used to help resolve the dispute.

The matter can be referred by either party to the Secretary for resolution. If the dispute cannot be resolved in 28 days, the Secretary will refer the matter to an Independent Dispute Resolution Process. An indicative independent dispute resolution process is provided in Appendix 5 of the Project Approval.

4.6.4 Reporting complaints

All complaints will be recorded in Intelex as soon as practical, but as a maximum on the next working day.

Bingo will make available a register of complaints on the facility website.

All environmental complaints will be reported in the Annual Review, required under *Schedule 5 Condition 3* of the Project Approval.

4.7 Incident Management and Emergency and Pollution Incident Response

A key objective of this EMS is to identify potential risks, and to develop, and maintain measures to manage them. Notwithstanding this, Bingo recognises that unforeseen incidents can arise.

Bingo operates under an *Emergency and Pollution Incident Response Management Plan (EPIRMP)* whenever a major incident, emergency or crisis could lead to public health, safety or environmental issues. the requirements of the Project Approval in relation to the **Fire and Emergency Management Plan (FEMP**) have been incorporated into the EPRIMP which has been prepared in consultation with external emergency agencies.

Bingo's approach to incident and emergency response management includes:

- **Risk Analysis** – Identification of hazards and risks that could impact the community, environmental and operational implications.
- **Prevention** – Planning and documentation of prevention and mitigation activities for all major hazards, and allocation of responsibility for their implementation.
- **Preparedness** – Development, implementation and review of specific incident management plans and processes to manage identified risks, the training of staff, and establishment of facilities to ensure the company can respond effectively to an incident.
- **Response** – Issue of warnings and establishment of processes for effective notification of incidents, and mobilisation of resources to combat the incident or threat.
- **Recovery** – Return to normal operations, management of debriefs, and implementation of lessons learnt from the response process.

The following priorities are adopted when combating an incident / crisis:

- Protection of human life and welfare
- Protection of the environment
- Protection of Bingo's assets.

Potential threats to the environment or public health that may arise in relation to the operation of the Facility (as presented in **Section 5.1**) include:

- Fire
- Explosion
- Overflow / spillage
- Structural damage

- Power or other utility failure
- Natural disaster
- Surface water contamination
- Traffic accident.

All personnel receive an appropriate level of emergency preparedness and response training. A dedicated emergency response team is present at the Facility, who undergo regular training and operational drills.

A EPIRMP has been developed as required under the EPLs and is located on the Bingo's website. The primary objective of the EPIRMP is to minimise and control the risk of a pollution incident at the Facility, to allow comprehensive and timely communication about a pollution incident to staff at the premises, the EPA, other relevant government agencies and community members who may be affected by the impacts of the pollution incident.

The EPIRMP outlines the following:

- Assessing the significance of the incident
- Notification to relevant authorities (e.g. EPA, NSW Health, SafeWork)
- Communicating with neighbours and the community
- Minimising harm to persons on the premises
- Actions to be taken during or immediately after a pollution incident.

All environmental incidents will be managed in accordance with the flowchart shown in **Figure 4-4**.

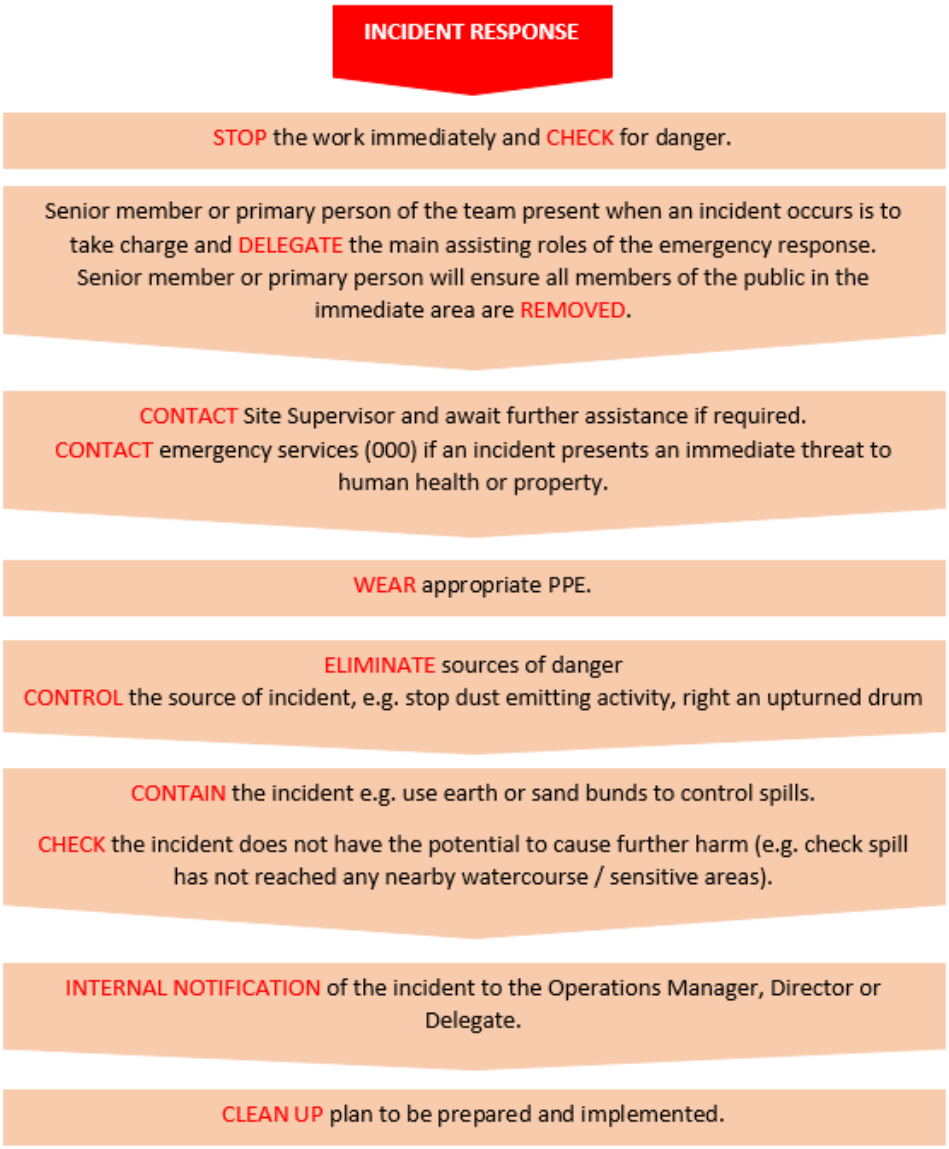


Figure 4-4: Environmental Incident Response Flowchart

4.7.1 Incident Notification Requirements

4.7.1.1 Incident Reporting

Incident notification processes will reflect the extent of the event and the incident classification. Reporting of incidents will be in accordance with the Bingo's *Incident Reporting Investigation and Review Procedure (SOP-SEQ001)*.

This procedure is used for the identification and reporting of hazards and/or incidents that have affected or have the potential to affect the environment or health and safety of a worker, contractor, subcontractor or a visitor to Bingo.

Incidents are logged in Intelex as follows:

- Log incident
- Investigate incident
- Close incident.

The system notifies relevant staff and management and provides scope to record corrective actions or actions taken. It tracks progress in relation to these actions.

Corrective actions will then be implemented to minimise the risk of recurrence of the incident.

Regulatory Authorities will be notified of reportable incidents (See **Section 4.7.1.2**) in accordance with the requirements of *Schedule 5 Condition 5*. Records of incidents will be maintained by Bingo and will include details of which external authority was contacted and what information was provided.

4.7.1.2 Notifiable Incident Classification

Environmental incidents are classified as either notifiable or non-notifiable:

- **Notifiable incidents** are those incidents or potential incident that *cause actual or potential harm* to the health or safety of human beings or to ecosystems that is not trivial, or where results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000.
- **Non-notifiable incidents** are those that *do not trigger the threshold* but have the potential to impact on human health and the environment.

Notifiable incidents could include, but are not limited to the following:

- Inadvertent disposal of or attempted entry to the Facility of unacceptable wastes
- Fires
- Mixing of leachate and surface runoff
- Leachate collection system failure or blockage
- Leachate barrier system failure i.e. groundwater parameters exceeding established environmental trigger levels
- Implementation of water remediation plan
- Detection of surface gases or building above 25% LEL or 1.25% CH4 by volume
- Serious complaints by the general public
- Other potential breaches of environmental regulations under legislation administered by the EPA
- Any proposed changes in the Facility's ownership, occupier or licensee.

4.7.1.3 Incident Notification

If an environmental incident occurs, the Facility workers will immediately notify one or more of the following personnel (refer **Table 4-3** Emergency Contacts):

- Environmental Manager NSW
- Chief Safety, Environmental and Quality Officer.

A decision will then be made concerning notification of the relevant authorities and agencies. including:

- Emergency Services
- Local council (Blacktown City Council) within which jurisdiction the incident has occurred
- NSW Health
- SafeWork NSW
- Any other relevant authorities
- Affected members of the community and stakeholders
- Third Party land holders (where appropriate).

DPIE Notification

If it is determined that the DPIE, requires notification, this will be undertaken in accordance with the requirements of *Schedule 5 Condition 5*. This requires that the Secretary (DPIE) and any other relevant agencies of any incident associated with the project as soon as practicable after the Applicant becomes

aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident.

A register of incidents is maintained in Intelex..

EPA Notification

The EPA will also be notified as per the requirements of the Protection of the Environment Operations Act of any incident that represents a threat or potential threat of material environmental harm or harm to human health Notification will be made via the EPA's 24-hour Pollution Line (131 555) and a written notice will follow within 7 days. Such incidents may include, but are not limited to:

- Fires other than minor fires that are easily and immediately extinguished
- Identification of any failure of an environmental control resulting in emissions and or events affecting operations and the ability to activate environmental controls
- Any other incident or observation that could potentially pose an immediate environmental hazard outside normal operating conditions.

4.7.2 Incident Review

A review of the incident will be undertaken in accordance with *SOP-SEQ001*.

4.7.3 Emergency Contact Details

Emergency contact details are included in **Table 4-3** which will be updated as required.

Table 4-3: Emergency contact details

Contact	Name / Role	Telephone Number
Site Operations Manager	Paul Smyth	0459 555 449 Paul.Smyth@bingoindustries.com.au
GM Resource Recovery NSW	Simon Sherwood	0429 293 909 simon.sherwood@bingoindustries.com.au
NSW Fire and Rescue, Police and Ambulance	All Emergencies	000
NSW EPA Environmental Hotline	Environmental reporting	131 555 or (02) 9995 5555
Workcover NSW	Incident reporting	131 050
NSW Ministry of Health	Public Health Emergencies	(02) 9391 9000
Public Health Unit	NSW Health: Blacktown Hospital Mount Druitt Hospital	 (02) 9881 8000 (All Hours) (02) 9881 1555 (All hours)
Blacktown City Council	Council	(02) 9839 6000 or 1300 133 491
Sydney Water	Water	1300 143 734
Endeavour Energy	Electricity	131 003
Telstra	Telstra Equipment Damage	132 203
Jemena Gas Networks	Gas	131 909
Apa Group	Gas	1800 808 526
AGL Assist	Gas	131245

5 IMPLEMENTATION

This section addresses the key risks and environmental performance issues associated with the operation of the Facility and the environmental controls established to manage the key risks.

5.1 Operational Environmental Impacts

Operational environmental impacts for the Facility were identified and evaluated in the original EIS (ERM, 2008) and have also been reviewed during each subsequent Modification assessment. A summary of the key potential environmental impacts that require management during the operation of the Facility, are listed below and form the basis of the environmental risk for the Facility.

The key operational aspects include:

- Water (including surface water, groundwater and leachate) (**Section 5.3**);
- Air Quality (including odour and greenhouse gas emissions) (**Section 5.4**);
- Noise (**Section 5.5**);
- Traffic and Transport (**Section 5.6**);
- Visual Amenity(**Section 5.7**);
- Ecology / Landscape Management (**Section 5.8**);
- Heritage (**Section 5.9**);
- Waste Management (**Section 5.10**).

Contractors undertaking site activities at the Facility on behalf of Bingo will be required to work under this EMS but may utilise their own business and risk management systems and processes to develop any necessary site-specific safety and environmental management documentation and induction materials.

The developed documentation and materials are required to consider the activity risk assessment, any relevant mitigation measures and any site / task specific risks that may require other or additional mitigation measures and controls to be applied.

5.2 Risk Assessment

Environmental impacts will be controlled to a degree which is commensurate with the level of risk, with greater emphasis on managing impacts that are high risk and are detailed within the management measures of each aspect specific sub-plan.

The Aspects and Impacts will be updated on an annual basis with the review of the EMS, and the ISO certified management system and where additional aspects, impacts or controls are identified during operation of the Facility, audits and reviews or there are changes to specific site conditions.

Risk assessments are required prior to commencing any previously unforeseen activities on the site.

The process of risk assessment is summarised in **Figure 5-1.**

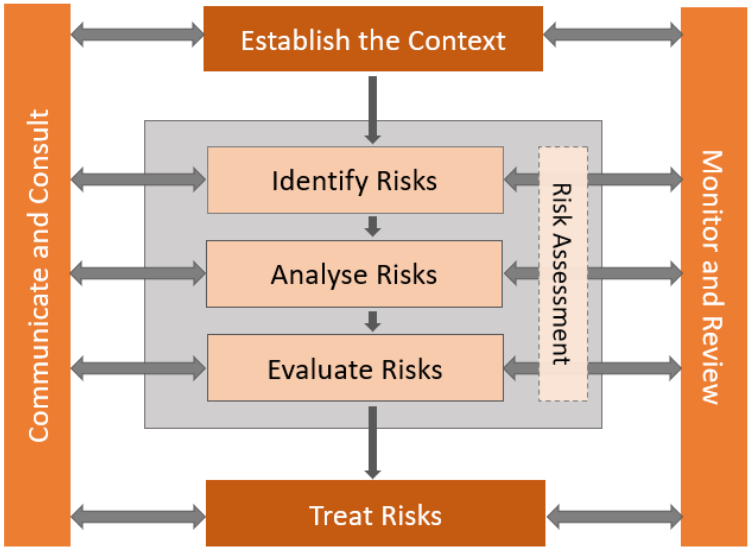


Figure 5-1: Risk Assessment Process

5.3 Soil, Water and Leachate Management

5.3.1 Operational impacts

The principal potential soil and water quality impacts associated with operations of the Facility would arise from:

- Accidental spills or leaks which have the potential to result in contaminants being transported into the surrounding environment
- Accidental release of leachate from the leachate storage tank
- Leachate contaminating groundwater
- Stormwater runoff which has the potential to result in contaminants being transported into the surrounding environment
- Erosion and sedimentation (e.g. berms).

The **Soil, Water and Leachate Management Plan (SWLMP)** provides more details on design, management and monitoring requirements.

5.3.2 Mitigations measures

The Facility has measures in place to manage and mitigate potential impacts to surface water (including flooding), soil and leachate. Although considered less of a risk, measures are also in place to manage potential impacts to groundwater.

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.3.3 Monitoring requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix** C2 – Summary of Monitoring Requirements**.**

Monitoring locations are provided in **Appendix C4** – Monitoring locations**.**

5.3.4 Reporting requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C3** – Summary of Reporting Requirements**.**

5.4 Air Quality

5.4.1 Operational impacts

Dust is the principal air quality impact likely to be associated with operations of the Facility, and can potentially arise during the following activities:

- Handling of waste within the MCP building
- During unloading/loading at the segregated stockpiles
- During unloading/loading of recycled product.

Dust emissions will be controlled through the operation of the dust suppression (misting system) system. Air quality may be impacted by exhaust emissions arising from operation of machinery and trucks.

Further details of dust and air quality management are provided in the **Air Quality, Odour and Greenhouse Management Plan (OAQMP)**.

5.4.2 Mitigations measures

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.4.3 Monitoring requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C2** – Summary of Monitoring Requirements.

Monitoring locations are provided in **Appendix C4** – Monitoring locations**.**

5.4.4 Reporting requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C3** – Summary of Reporting Requirements**.**

5.5 Noise and Vibration

The site is in an industrial and commercial precinct. The closest residential properties are approximately 430 m to the north in Minchinbury on the opposite side of the M4 Western Motorway. Other surrounding land uses are industrial and commercial, with the site directly bounded by industrial properties on the north, east and south.

5.5.1 Representative Background Noise

In 2016, noise measurements were undertaken within in the residential areas of Minchinbury and Erskine Park for another proposed development adjacent to the Facility. These measurements were used for MOD6 environmental assessment (ERM, 2018) as they were relatively recent at the time of preparing the assessment and they also represented receivers potentially affected by noise from the Facility. The overall noise level representing each Industrial Noise Policy (EPA 2000) (INP) assessment period (day/evening/night) are provided in **Table 5-1**.

Table 5-1: Summary of existing and ambient background noise levels (reproduced from ERM, 2018)

Monitoring location	Period [1]	RBL [2] (dB)	Ambient $L_{Aeq, period}$ noise level [3] (dB)
BG1 24 Cobbler Crescent, Minchinbury	Day	43	55
	Evening	48	54
	Night	41	51
BG2 4 Blackbird Glen, Erskine Park	Day	37	53
	Evening	44	57
	Night	35	46

Notes 1: Day: 7 am – 6 pm Monday – Saturday; 8 am – 6 pm Sundays and public holidays; Evening: 6 pm – 10 pm; Night: all remaining periods.

2. Rating background level (RBL) is the overall single figure background level representing each assessment period (day/evening/night) over the whole monitoring period.

3. Represents the energy average noise level over the relevant period.

5.5.2 Noise Impact Assessment

Noise prediction software was used to predict noise impacts at 22 assessment locations (nine within Minchinbury, three in Erskine Park and 10 around the Facility boundary). The software calculated the total noise levels at receptors from the concurrent operation of multiple noise sources using sound power levels for plant and equipment supplied by the Applicant (See **Appendix C4** – Monitoring locations**)**.

Two scenarios were modelled to compare the noise levels from approved, and worst-case proposed operations from a noise perspective for daytime, evening, night-time and morning shoulder periods under calm and prevailing meteorological conditions.

Noise emissions from the MOD6 operations were predicted to comply with the relevant project specific noise level at all assessment locations. The results showed that the main noise source was from truck movements, while the noise contribution of the plant and equipment located in the landfill tipping area was negligible at the nearest assessment locations.

The assessment predicted that the current and future noise levels for MOD6 operations would be significantly less than existing ambient noise levels at the residential assessment locations, as these locations are primarily influenced by road traffic noise from the M4 Western Motorway.

Noise levels from the MOD6 operations are not expected to cause adverse impacts at any of the assessment locations.

5.5.2.1 Sleep disturbance

The L_{Amax} noise levels from the Facility at the nearest residential assessment locations during night were predicted to satisfy the sleep disturbance screening criteria.

The highest predicted external maximum noise level from the Facility is L_{Amax} 53 dB in Minchinbury and L_{Amax} 44 dB in Erskine Park, which is below the noise levels likely to cause sleep disturbance affects.

5.5.2.2 Road traffic noise

Road traffic generated by Facility travels directly between the site and the arterial road network (M4 and M7 motorways) via Kangaroo Avenue, Honeycomb Drive and Wonderland Drive. There are no residential or other noise sensitive assessment locations along any of these roads. The proportion of site traffic on the M4 and M7 were considered inconsequential to average noise levels, therefore no further assessment of road traffic noise was undertaken (ERM, 2018).

5.5.2.3 Cumulative industrial noise

A review of cumulative industrial noise from the Facility together with other industrial noise sources in the vicinity of the Facility was also undertaken. The Facility is not predicted to increase industrial noise levels above the relevant amenity criteria.

5.5.3 Noise limits

The assessment found that operating noise from the Facility during both existing and MOD6 operations satisfies relevant INP project specific noise level for all periods at all assessment locations. The assessment stated that the ambient noise levels, and subsequently the project specific noise level for the assessment location within the Project Approval (as modified to MOD5). Due to this, the noise limits have been increased to align with the project specific noise levels adopted in the noise assessment (ERM, 2018).

To ensure that the noise limits are complied with, works will be undertaken in accordance with this EMS.

Bingo must ensure the noise from the Facility does not exceed the limits shown in **Table 5-2.**

Table 5-2: MP 06_0139 MOD6 noise limits in dB(A)

	Day	Evening	Night			Morning shoulder	
	$L_{Aeq\ (15\ min)}$	$L_{Aeq\ (15\ min)}$	$L_{Aeq\ (15\ min)}$	$L_{Aeq\ (period)}$	$L_{Aeq\ (1\ min)}$	$L_{Aeq\ (15\ min)}$	$L_{Aeq\ (1\ min)}$
1-6 Eber Place Minchinbury	48	47	44	41	53	47	53
2-44 Warbler Street, Erskine Park	42	42	39	NA	44	39	44

Where:

- *Day: 7 am – 6 pm Monday – Saturday; 8 am – 6 pm Sundays and public holidays;*
- *Evening: 6 pm – 10 pm;*
- *Night: all remaining periods.*
- *Morning shoulder: 6 am – 7am Monday to Saturday and 6 am – 8 am Sunday and public holidays.*

5.5.4 Mitigations measures

Noise mitigation measures were incorporated into the Facility design to help ensure community amenity is preserved. This includes:

- Limiting the hours of operation
- Siting of operational areas
- Amenity berms
- Containment of the MPC / WTS areas behind the amenity berms
- Maintenance of plant and equipment in accordance with manufacturers specifications
- The roller doors of MPC2 will remain closed during the hours of 10pm and 5am while not in use
- The roof, doors, and walls of MPC2 will have an acoustic performance of at least Rw 21.

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.5.5 Monitoring requirements

A **Noise Monitoring Program** was prepared in accordance with *Schedule 3 Condition 40* of the Project Approval.

Six monthly monitoring will be undertaken by an appropriately qualified environmental consultant at residential locations to the north and west of the site, in and around McFarlane Drive, and Barossa Drive in Minchinbury and Swamphen Street and Roper Road in Erskine Park.

Noise monitoring will be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Industrial Noise Policy (Schedule 3 Condition 38a* of the Project Approval).

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C2** – Summary of Monitoring Requirements.

The noise monitoring locations are shown in **Appendix C4** – Monitoring locations.

5.5.6 Reporting requirements

Schedule 3 Condition 38b of the Project Approval requires the preparation of a **Post Commissioning Noise Report** to validate the predications of the acoustic report submitted to support the modification request. This Report is required within 6-months of the approval of MOD6 (October 2020).

The report will be prepared by a suitably qualified and experienced person(s), consistent with the technical eligibility criteria for membership to the Association of Australian Acoustical Consultants or the Australian Acoustical Society and will be prepared in consultation with Blacktown City Council.

Actions identified in the post commissioning report to minimise any noise impacts will be implemented within two months after the completion of the post commissioning noise report.

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C3** – Summary of Reporting Requirements**.**

5.6 Access, Traffic and Parking

5.6.1 Access to the Facility

The Facility is located at the end of Honeycomb Drive and adjacent to Kangaroo Avenue, which is a local industrial road based on Blacktown City Council Road Hierarchy Standards. Honeycomb Drive is 15.5 m wide and Kangaroo Avenue is 13.5 m wide, with both roads having kerbside parking. The Facility is accessed via a driveway located on the western side of Kangaroo Avenue, about 130 m north of the Honeycomb Drive intersection.

Honeycomb Drive connects to Wonderland Drive approximately 600 m east of the Facility. Wonderland Drive is an industrial collector/sub-arterial road and is the main thoroughfare through the Eastern Creek precinct. It connects to the major road network at Wallgrove Road (See **Figure 1-1**).

Access to the Facility via Archbold Road is not permitted under *Schedule 3 Condition 42* of the Project Approval.

5.6.2 Vehicle movements

5.6.2.1 Heavy vehicles

The Traffic Impact Assessment (TIA)[3] (EMM, 2017) prepared for the Modification 6 EIS, states that at the maximum approved rate of 2Mtpa of material received, about 450 daily truck loads (i.e. 900 daily truck movements) on an average daily basis throughout the year would be generated.

The Facility generally receives material and dispatches product on weekdays and Saturdays, between 9.00 am and 3.00 pm on weekdays (outside of the peak period on local roads). This is expected to spread throughout the day with the extension in operating hours.

Truck movements in the future may either reduce or increase depending on the volumes of waste generated in Sydney (based on market demand) and depending on proportions of the received waste which are direct-to-landfill and co-mingled waste processed via the MPC. Material exported from the site (e.g. recycled materials produced via the MPC and the Segregated Materials Area (SMA) will also require movement of trucks exporting the material from the Facility.

Bingo's Code of Conduct includes specific requirements for transport operations. Drivers are required to complete training in accordance with the *Chain of Responsibility Management Plan (SOP-SEQ017)* and Driver Training Manual.

The driveway off Kangaroo Avenue is enough to accommodate the queuing of vehicles. As required under *Schedule 3 Condition 48*, of the Project Approval, no vehicles associated with the Facility are permitted to park or queue on the public road network at any time.

[3] EMM, 2017: Traffic Impact Assessment Genesis Xero Waste Facility - Eastern Creek, Modification 6. 9 October 2017 (Appendix F of the 2017 EIS)

In the event that queuing of vehicles becomes an issue, the following controls will be put in place:

- Altering the weighbridge traffic flow to allow more trucks on site (i.e. three weighbridges coming on site and one going off site), and/or
- Diverting traffic to alternate landfill locations operated by Bingo.

5.6.2.2 Light vehicles

Peak inbound car traffic is about 50 cars per hour and is generally between 5.00 am and 7.00 am (before the morning peak hour on local roads). The peak outbound car traffic of about 70 cars generally occurs between 4.00 pm and 5.00 pm, which coincides with the local road afternoon peak period.

The Facility traffic is managed in accordance with the site traffic management plan (See **Figure 5-2**). The site access road speed limit is 40 km/hr, while at other locations around the site, speed limits of 10 km/hr or 20 km/hr speed limits generally apply.

5.6.3 Internal traffic management

The main internal circulation roadways operate with a one-way traffic flow with two-way connectors to/from the drop-off zone and landfill. These routes are provided in **Figure 5-2**.

5.6.4 Car parking

The main staff and visitor car parking area at the facility is located adjacent to the site access road just south east of the refuel area. The car park accommodates 122 parking spaces for the MPC2 and broader Facility parking requirements.

The car park is sealed concrete and is adequate for the maximum numbers of employees (50) and visitors normally present on a typical working day. Three car parking spaces have been provided for disabled drivers, and is clearly marked and signposted. Future growth at the facility will be accompanied by additional car parking spaces as required, with at least 2% of those spaces being allocated for disabled drivers in accordance with CoA 47.

All site paved, trafficable and parking areas complies with Australian Standard (AS2890.1 and/or AS2890.2).

5.6.5 Mitigations measures

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.6.6 Monitoring requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C2** – Summary of Monitoring Requirements.

5.6.7 Reporting requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C3** – Summary of Reporting Requirements**.**

5.7 Visual Amenity

There are no receivers with elevated views of the Facility. The visual character of the locality is variable with the site surrounded by the urban areas of Minchinbury to the north and Erskine Park to the south-west, an industrial development to the south-east, and transport and utilities infrastructure including the M4 Motorway and an associated landscaped buffer adjacent to the north.

Views of the site are generally shielded by the existing Cumberland Plain Woodland along the northern boundary of the site and the 10 m high earthen amenity berms located along the north, south and western boundary of the operations area (See **Appendix A**).

There are some interrupted views of the on-site detention (OSD) basin, and the amenity berms in the north and north-west, and the visual barrier can be sighted from the M4 and from a small number of residences in Minchinbury. However, views from these residences are fully screened by vegetation and the M4 embankments.

Some residences in Erskine Park will have distant obscured views of part of the internal road network through a narrow gap between the west and south berms. Otherwise, there are no views into the operational areas from the west, including from Archbold Road due to shielding by overburden stockpiles and dense Cumberland Plain Woodland vegetation, or from the south due to an intervening east west ridge.

5.7.1 Amenity berms

As required under *Schedule 3 Conditions 53 and 54* of the Project Approval, amenity berms have been constructed and are continuously maintained to a height of no less than 10 m. The existing earth mound resulting from the operation of the quarry and located in the north-east section of quarry void was retained when the Facility was constructed. The amenity berms have been stabilised and are landscaped in a low maintenance regime and similar in in appearance that is consistent with surrounding lands. The external face of amenity berms will also be vegetated.

5.7.1.1 Management and maintenance

Management and maintenance of the berms involves the following:

- Berms will be vegetated and maintained, including management of weeds, in accordance with the LVMP.
- Embankments are stabilised where necessary to prevent soil erosion or soil movement. As a minimum, the stabilisation will occur on slopes more than 1:3.
- Erosion and sedimentation controls (e.g. sediment fences) will be installed and maintained until the erosion has been repaired and stabilised.
- Any incidences of erosion will be rectified promptly and when necessary, an external geotechnical engineer will be engaged to provide expert advice.
- The Site and surrounding areas are inspected on a daily basis in accordance with the weekly roster for the Eastern Creek litter pick up (Appendix C).
- All berms will be maintained at a minimum height of no less than 10 m.
- If any reshaping of the berms is required, this will be undertaken in such a way that the adjoining landowners are not impacted.

More details for berm management and landscaping is included in the **Landscape and Vegetation Management Plan (LVMP)** and a sediment and erosion control plan that is updated routinely as changes to site needs occur.

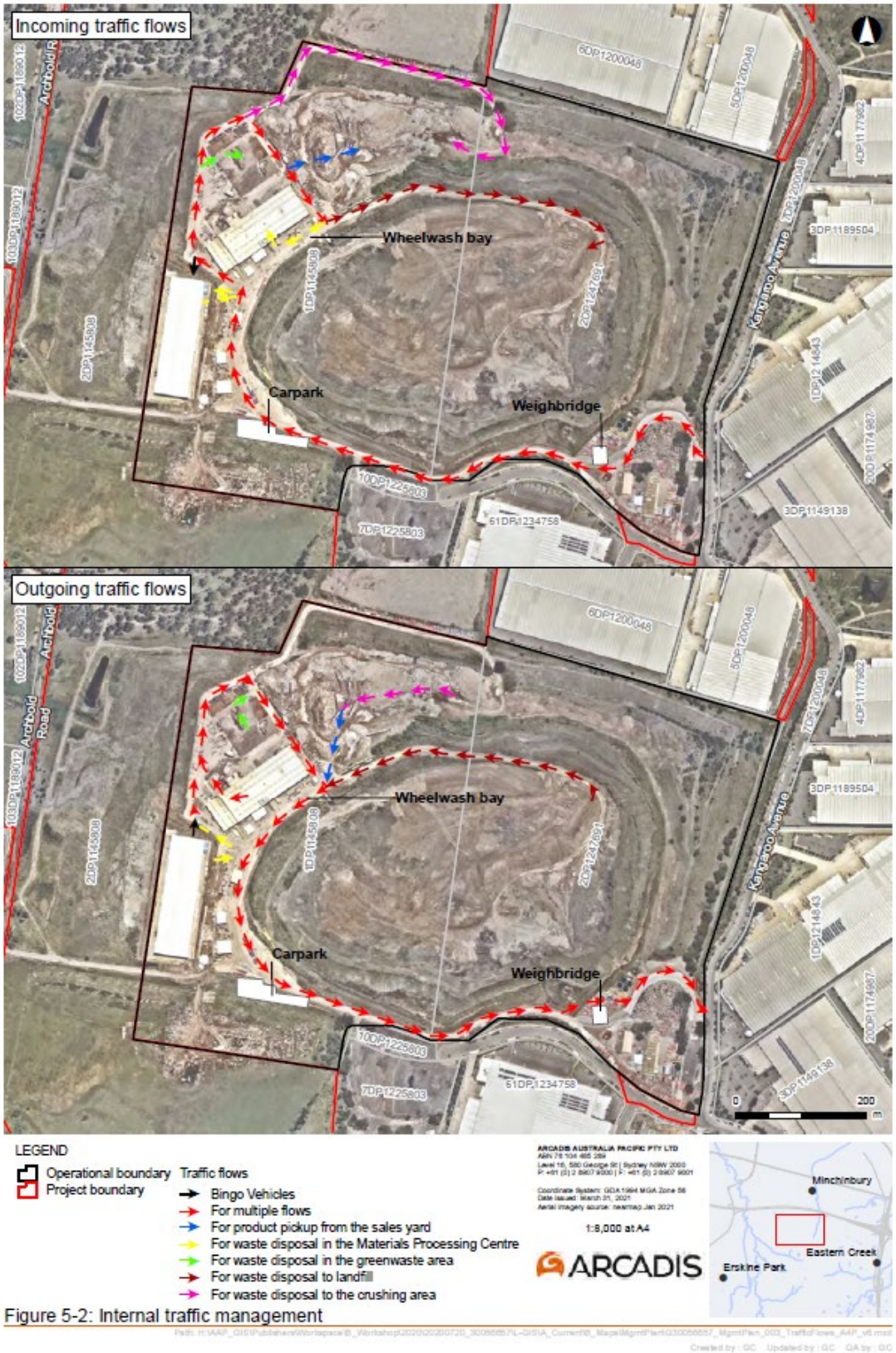


Figure 5-2: Internal traffic management

Figure 5-2: Internal traffic management

5.7.2 Lighting

To ensure that night-time operations are carried out in a safe and efficient manner, site lighting has been installed. There is no lighting of the pit.

Lighting that may be visible from off-site are located at the following places:

- MPC/WTS facility and processing/ stockpiling areas;
- Along internal access roads
- From vehicle headlights
- Other infrastructure zones frequented by staff including car parks, workshop, administration offices and weighbridges.

All lighting on the site (including security lighting) complies with Australian Standards[4] and are mounted, screened and directed in a way that nuisance lighting to surrounding properties or the public road network is minimised.

In general, light spill beyond the main operational area of the site will be restricted by screening features including the berms and overburden stockpiles, and by distance.

5.7.3 Mitigation measures

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.8 Flora and fauna

The majority of the Facility is located on land that was previously cleared and contained open grassland dominated by weed species. Large areas of the site were highly disturbed by quarrying and bulk earthworks and all original vegetation has been removed from the quarry and overburden stockpiles.

5.8.1 Flora

Natural vegetation on the site is restricted to a few small disturbed woodland remnants, located along the western site boundary and in the south-eastern, north-eastern and north-western corners of the site.(See **Appendix A**). The dominant vegetation community is Shale Plains Woodland, identified as being representative of Cumberland Plain Woodland (CPW), which is listed as a critically Endangered Ecological Community (EEC) under Schedule 2 of the *Biodiversity Conservation Act 2016*[5] and the Commonwealth *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*.

The original project proposed to remove 2.83 ha of CPW, while retaining a further 8.3 ha of CPW within a conservation area in the north-western portion of the site. Following the assessment of significance, the design of the project was adjusted to ensure that no vegetation required removal from the site, resulting in an improved ecological outcome.

No threatened flora species were recorded on the site during field surveys.

Database searches identified a number of flora species listed under the EPBC Act and the now repealed TSC Act[5] as occurring within the local area. Assessments of significance for those species considered to have potential habitat within the site concluded that the Facility was unlikely to significantly impact these species.

[4] AS 4282(INT) - Control of Obtrusive Effects of Outdoor Lighting
[5] The *Threatened Species Conservation Act (TSC) 1995* was repealed by the Biodiversity Conservation Act in 2016.

5.8.2 Fauna

Several shells belonging to the endangered Cumberland Plain Large Land Snail were identified on the north-western portion of the site within the CPW remnant. As none of this vegetation was being removed, it was concluded that the Facility was unlikely to have a significant impact on this species.

Database searches identified several species listed under the EPBC Act and the now repealed TSC Act[5] as occurring within the local area. Assessments of significance concluded that the Facility was unlikely to have a significant impact on those species with potential habitat on the site.

5.8.3 Mitigation measures

Although it is considered unlikely that there will be direct impacts to flora and fauna, a number of mitigation measures, to minimise indirect impacts to flora and fauna are provided.

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.9 Aboriginal Heritage

The recommendations made by McDonald (2005) within the Heritage Conservation Strategy have been adopted by Blacktown City Council as part of the Eastern Creek Precinct Plan. The Conservation Strategy did not identify any items of historical heritage significance at or adjacent to the site.

Most of the Facility was constructed within areas assessed as having low archaeological potential and the design of the Facility avoided the designated conservation area and therefore impacts to areas of medium archaeological sensitivity were minimised.

An **Aboriginal Heritage Management Plan (AHMP)** has been prepared for the Facility in accordance *Schedule 3 Condition 61* of the Project Approval.

5.9.1 Mitigation measures

Operation of the Facility generally avoids impacts to Aboriginal items, however in the event that previously unrecorded relics are encountered during any activity on the Site, works will cease immediately at that location and Heritage NSW will be notified and advice sought as to the appropriate course of action. Bingo will be guided on the salvage and long-term management of salvaged object.

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.10 Waste Management

The principal potential waste quality impacts associated with operations of the Facility would arise from:

- Not achieving resource recovery targets under the WARR Act
- Handling large quantities of waste with the potential to generate dust
- Disruption to waste operations and waste storage on site
- Release of leachate from waste to stormwater may cause pollution of surface water
- Receipt of non-conforming waste in contravention with the EPL.

To ensure suitable control are addressed during the operation, management strategies for waste management have been detailed in the **Waste Management Plan**.

5.10.1 Mitigations measures

A summary of all mitigation measures associated with the Facility are provided in **Appendix C1** – Summary of Mitigation Measures**.**

5.10.2 Monitoring requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C2** – Summary of Monitoring Requirements.

5.10.3 Reporting requirements

A summary of all monitoring requirements associated with the Facility are provided in **Appendix C3** – Summary of Reporting Requirements**.**

6 MONITORING AND REVIEW

6.1 Records and Document Management

A register of the records and documentation related to environmental management requirements will be maintained.

All procedures and plans are subject to document controls and records management procedures *Document Control and Records Management Procedure (SOP-SEQ008)* in accordance with the company's SEQ document control system and certified Work Health and Safety, Environmental Management and Quality Management systems.

Procedures are made available in Bingo's intranet site and in the Templates Folder.

Records include training records, monitoring data, complaints and environmental incident reports, relevant licences, certifications, non-complying waste reports and any other documents specific to the site of which some are retained on site such as the rejected loads register, and the remainder are retained by Bingo support teams at head office.

Bingo maintains the following Registers:

- Complaints
- Site Induction
- Training.

6.2 Monitoring and Inspections

Regular monitoring will be undertaken to monitor the performance of the environmental aspects outlined in **Section 5.** Monitoring will be through a series of formal and informal inspections and monitoring of specific environmental aspects (e.g. noise, surface water quality) at regular intervals.

A summary of all inspection and monitoring requirements for the Facility is provided in **Appendix C2** – Summary of Monitoring Requirements.

6.2.1 Inspections

Regular environmental inspections of the Facility's operations are undertaken by the Site Environmental Officer, Site Operations Manager, and other managerial staff in accordance with the requirements of the EPL13426, EPL20121 and the Project Approval.

- Daily environment inspections are to be undertaken by the Site Operations Manager (or delegate) and the inspection results recorded in Fast Fields;
- Other routine inspections are also recorded in Fast Fields by the Site Operations Manager or his/her delegate.

Any non-conformances/non-compliances are recorded on the inspection form and the cause investigated by the Site Operations Manager or the SEQ team. Corrective and/or preventative action will be recommended by the person undertaking the inspection and the effectiveness of the corrective and/or preventative action assessed at the next Site inspection.

The Site Operations Manager reports any significant non-conformances arising from site inspections to the SEQ Team.

These non-conformances, non-compliance and corrective actions will be managed in accordance with the process described in **Section 6.3.**

6.2.2 Monitoring

Monitoring (sampling) is undertaken in accordance with the Environmental Monitoring Programme and individual environmental management sub-plans.

All monitoring is undertaken using standard monitoring techniques and calibrated equipment operated by trained personnel. Analysis of samples will be undertaken in accordance with the requirements of the EPL13426, EPL20121 and the Project Approval.

All monitoring (sampling) results will be filed by the Site Operations Manager or the Site Environmental Officer and maintained by Bingo for five years.

Monitoring locations are provided in **Appendix C4** – Monitoring locations**.**

6.3 Non-Conformance, Non-Compliances and Corrective Actions

6.3.1 Non-Conformances

Non-conformances are observations or actions that do not comply with the EMS and the EPIRMP but are not considered to be a non-compliance with the relevant Development Approval. Where a non-conformance is also considered to represent a non-compliance, it will be recorded as an incident in Intelex.

It is the responsibility of all personnel to report non-conformances to the Site Supervisor and / or Site Environmental Officer, who will investigate non-conformances, log corrective actions, and delegate responsibility for corrective actions within assigned timeframes.

All non-conformances will be recorded in a computer-based incident recording and reporting system - Intelex. Non-conformances, corrective actions, responsibilities, planned and actual completions dates and details of reporting to Regulatory Agencies and the community where appropriate will be tracked by this system.

Investigation of non-compliance will be undertaken to determine:

- Where applicable, immediate actions to fix the problem in the short-term
- Investigate the root cause of the problem. For example, management system, human factors / behaviour, working environment, and training
- Corrective actions to eliminate root cause
- Action(s) undertaken to verify the effectiveness of corrective actions.

6.3.2 Non-Compliances

A non-compliance is an occurrence, set of circumstances, or development that results in non-compliance or is non-compliant with the Development Approval and its modifications, but is not considered an incident. Incident response, classification and notification requirements are outlined in this EMS.

Suspected non-compliance with the Development Approval can be identified by anyone and will be reported to the Site Supervisor and / or Environmental Manager NSW.

Non-compliance with the Development Approval will be recorded and addressed by logging the issue in a computer-based incident recording and reporting system. Non-compliances, corrective actions, responsibilities, planned and actual completions dates and details of reporting to Regulatory Agencies and the community where appropriate will be tracked by this system.

Investigation of non-compliance will be undertaken to determine:

- Where applicable, immediate actions to fix the problem in the short-term
- Investigate the root cause of the problem. For example, management system, human factors / behaviour, working environment, and training
- Corrective actions to eliminate root cause
- Action(s) undertaken to verify the effectiveness of corrective actions.

Reporting of non-compliances will be undertaken in accordance with **Section 4.7.1**. of this EMS.

6.4 Auditing

6.4.1 Internal Auditing

Internal audits will be undertaken to assess the effectiveness of environmental controls and compliance with this Plan and other relevant guidelines. The following elements may be included in the audit of the overall EMS:

- Compliance with statutory obligations
- Compliance with standards, guidelines, specifications and contract conditions
- Compliance with the EMS and EPIRMP
- Adequacy of monitoring and operational reports
- Completion of environmental actions
- Adequacy of environmental training records
- Adequacy of environmental records, checklists and document management systems
- Preparation of environmental reports
- Recording and completion of corrective actions following environmental incidents and complaint
- Achievement of environmental performance objectives, and
- Implementation of actions from previous audits.

Audits will be undertaken by suitably qualified and experienced Bingo Environmental Manager and in accordance with an audit schedule.

6.4.2 Independent Environmental Audit

Independent external audits will be undertaken to assess the effectiveness of environmental controls and compliance with the Project Approval and any other relevant approvals and the SEQ Management System policies and procedures.

The Independent Environmental Audit (IEA) of the Facility will be commissioned, and paid for, by Bingo. *Schedule 5 Condition 7* of the Project Approval outlines the IEA requirements.

An IEA was required within 6 months of the commencement of operation (around 2011) and must be undertaken every 2 years thereafter unless the Planning Secretary directs otherwise.

The IEA will be conducted by a suitably qualified, experienced and independent team of experts (including an odour expert), whose appointment has been endorsed by the Planning Secretary. The audit will include the following:

- Consultation with the relevant agencies
- A full odour audit of the project, taking into consideration the relevant technical guidelines and any odour complaints made since the previous audit
- An assessment of the environmental performance of the project and whether it is complying with the approval and any relevant EPL
- A review of the adequacy of strategies, plans or programs required under these approvals.

Where appropriate, measures or actions to improve the environmental performance of the project will be recommended. A copy of the audit report, together with its response to any recommendations contained in the audit report must be submitted to the Planning Secretary within 6 weeks of the completing of the audit.

6.5 Reporting

Compliance reporting is required to produce systematic, comprehensive and informative reports on the environmental performance of Facility operations and in line with relevant legislative requirements.

The regular reporting requirements for the Facility are summarised in **Appendix C3** – Summary of Reporting Requirements**.** Reporting parameters, such as frequency of reporting and items to be included in the report, are also provided in this table.

Some specific reporting requirements are detailed below.

6.5.1 Waste Reporting

Waste facilities that are licensed under the POEO Act and are required to pay the waste levy must submit the following reports to the NSW EPA:

- Waste contribution monthly report (WCMR) to report on all waste received and waste sent for recycling to pay the waste contribution under Section 88 of the POEO Act
- Landfill facility information certificate (LFIC) and volumetric survey report.

Certain wastes (above 10 tonnes) and transported from a metro levy area transported out of NSW must also be reported to the EPA.

This reporting can be completed online via the EPA's Waste and Resource Reporting Portal[6] (WARRP).

More details of the Landfill facility information certificate (LFIC) and volumetric survey report is provided in the **Landfill Plan.**

6.5.2 Annual Review

Schedule 5 Condition 3 outlines the requirements for the Annual Review. The annual review was required by the end of December 2010 and annually thereafter and will include a review of environmental performance of the project to the satisfaction of the Secretary.

The review must:

(a) describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year;

(b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the

- *the relevant statutory requirements, limits or performance measures/criteria;*
- *the monitoring results of previous years; and*
- *the relevant predictions in the EA;*

(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;

(d) identify any trends in the monitoring data over the life of the project;

(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and

(f) describe what measure will be implemented over the next year to improve the environmental performance of the project.

[6] https://www.epa.nsw.gov.au/your-environment/waste/waste-facilities/waste-reporting/waste-and-resource-reporting-portal

6.5.3 EPL Annual return documents

Clause R1.1 of the EPLs require that the licensee complete and supply to the EPA an Annual Return in the approved form. This form comprises of the following components:

1. a Statement of Compliance
2. a Monitoring and Complaints Summary
3. a Statement of Compliance - Licence Conditions
4. a Statement of Compliance - Load based Fee
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA[7] or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

6.6 Review and Continuous Improvement

6.6.1 EMS Review

The EMS will be reviewed at least annually, to review the adequacy of the environmental and sustainability controls, procedures, objectives and targets within the EMS. This will enable the Bingo management team to determine whether the controls are still applicable to the activities being undertaken and to track progress against the objectives and targets.

The review will consider as a minimum:

- Reviewing the results of audits, including the Independent Environmental Audit
- Evaluation of the system, which improvements and corrective actions will be sought
- Evaluation of the operation of the EMS and the EPIRMP.

The review will be documented and changes to the plan made by the Environmental Manger NSW.

Continual improvement of the EMS will be achieved by identifying improvement opportunities through the continual evaluation of environmental management performance against environmental policies, objectives and targets. As incidents, non-conformances and non-compliances occur, the continual improvement process will:

- Determine the root cause or causes
- Develop and implement a plan of corrective and preventative action, and
- Verify the effectiveness of the corrective and preventative actions.

Outcomes of these reviews shall be documented and retained for the duration of the Development.

6.6.2 Contingency Operational Measures

Operations of the Facility have the potential to be disrupted by various internal and external factors. Some disruptions may be planned, such as scheduled maintenance work, while other disruptions may occur without notice. Potential sources of disruption to the operation of the site and contingency measures are provided in the supporting environmental management plans.

[7] https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/econnect-epa

6.6.3 Revisions

In accordance with *Schedule 5 Conditions 4 'Revision of Strategies, Plans and Programs'*, the Facility strategies, plans and programs will be reviewed within three months of the submission of an:

(a) the submission of an Annual Review under *Condition 3 of Schedule 5* (**Section 6.5.1**)

(b) the submission of an incident report under *Condition 5 of Schedule 5* (**Section 4.7.1.1**)

(c) the submission of an Independent Environmental Audit under *Condition 7 of Schedule 5* (**Section 6.4.2**)

(d) the approval of any modification of the conditions of this approval

(e) the issue of a direction of the Planning Secretary under *Condition 4 of Schedule 2*

(f) the completion of the site-wide air quality audit under *Condition 37a of Schedule 3.*

The Department must be notified in writing that a review is being carried out.

Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

The plans and must be revised to the satisfaction of the Planning Secretary

7 RELEVANT DOCUMENTATION

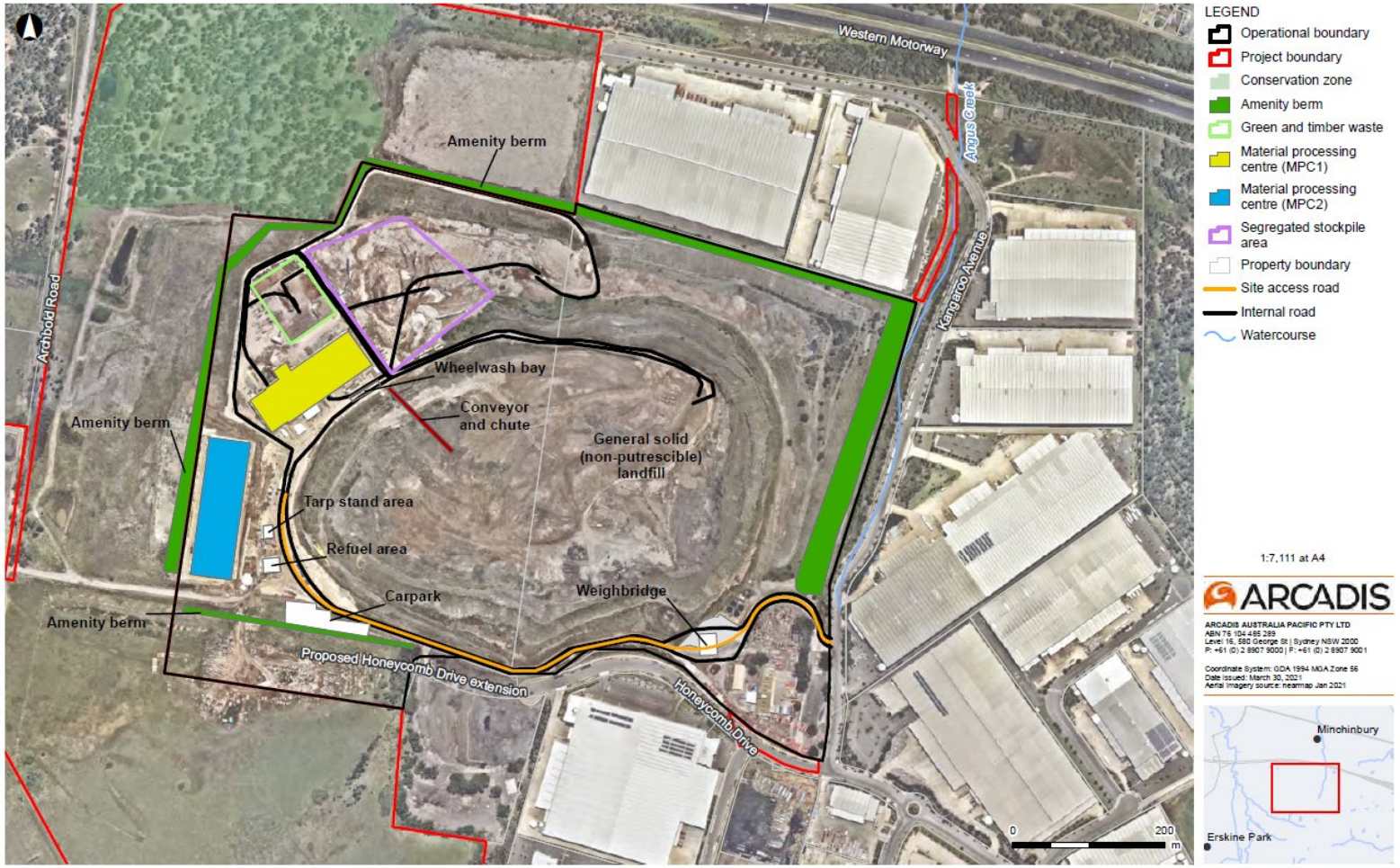
The following are the key operating procedures and checklists relevant to the Facility Operation:

Table 7-1: Key operating procedures and checklists

Document name
Registers
Aspects and Impacts Register
Incident Register
Complaints Register
Records Management Register
Reject Load Register
Training Needs Register
Standard Operating Procedures
SOP-BDR018 Rejecting Loads of Non-Complying and Prohibited Materials
SOP-COM021 Transport and Disposal of Trackable / Reportable Waste
SOP-SEQ001 Incident Reporting Investigation and Review Procedure
SOP-SEQ002 Procedure for the Identification and Management of Risk
SOP-SEQ003 Induction, Competence, Training and Awareness Procedure
SOP-SEQ004 Consultation and Communication
SOP-SEQ005 Monitoring and Measurement Procedure
SOP-SEQ008 Document Control and Records Management Procedure
SOP-SEQ017 Asset Management Procedure
SOP-SEQ019 Classification and Acceptance of Non-Trackable Waste
SOP-SEQ020 Transport and Disposal of Non-Trackable Waste
SOP-SEQ021 Transport and Disposal of Trackable or Reportable Waste
SOP-SEQ022 Spill and Leak Management and Control
SOP-SEQ023 Measuring Customer Satisfaction
SOP-SEQ024 Process Control-Control of Nonconformities-Isolation and Recall Procedure
SOP-SEQ025 Corrective and Preventative Actions Procedure
SOP-SEQ027 Classification and Acceptance of Trackable Reportable Waste
SOP-YA001 Tipping Loading at Recycling Centres
SOP-YA003 Asbestos at Recycling Centres
SOP-YA005 Overweight Load Procedure
SOP-YA006 Procedure for Converting Waste to Tonnes when Weighbridge Not Operational
SOP-YA007 Management of Outbound Materials for Disposal Recycling or Reuse
SOP-YA008 Weighbridge Operation and Maintenance
SOP-YA012 Stockpile Management Process
SOP-YA015 ENM Sampling
SOP-YA017 Visual Inspection and Management of Non-Conforming Waste

Document name
SOP-YA018 Rejecting Loads of Non-complying Waste Prohibited Materials
SOP-YA019 Sampling Protocol – Soils
SOP-YA021 Mobile Plant Operations
SOP-YA025 Housekeeping Standards
OPLs
OPL-COM013 Storing Dangerous Goods
OPL-YA003 Bingo Site Inductions
OPL-YA023 Environmental Management at Bingo Sites
OPL-YA026 ENM Sampling
OPL-YA027 Controlling Noise Emissions
OPL-YA029 Storage of Hazardous Chemicals – Waste
OPL-YA030 Storage of Hazardous Chemicals – Special Waste (including Asbestos and Tyres)
OPL-YA043 Incident response for Sites
OPL-YA044 Bingo Basics
Forms
SF0301 Incident and Accident Form
SF055 Reject Load Certificate Form
SF106 Notification of Non-complying Waste and Reload/Rejected Load Form

APPENDIX A Site Layout Plan



LEGEND

- Operational boundary
- Project boundary
- Conservation zone
- Amenity berm
- Green and timber waste
- Material processing centre (MPC1)
- Material processing centre (MPC2)
- Segregated stockpile area
- Property boundary
- Site access road
- Internal road
- Watercourse

1:7,111 at A4

ARCADIS

ARCADIS AUSTRALIA PACIFIC PTY LTD
ABN 76 104 485 289
Level 16, 580 George St | Sydney NSW 2000
P: +61 (0) 2 8907 9000 | F: +61 (0) 2 8907 9001

Coordinate System: GDA 1994 MGA Zone 56
Date Issued: March 30, 2021
Aerial Imagery source: nearmap Jan 2021

Appendix A - Site Layout

Date: 30/03/2021 Path: H:\AAP_GIS\Publishers\Workspace\B_Workshop\2020\20200720_30056657\L-GIS\A_Current\B_Maps\MgmtPlan\G30056657_MgmtPlan_002_SiteLayout_A4L_v5.mxd
Created by : GC Updated by : GC QA by : RB

APPENDIX B Legislation Register

Legislation	Description	Applicability
Commonwealth		
Environment Protection and Biodiversity (EPBC) Act 1999	The EPBC Act requires the approval of the Commonwealth Minister for the Environment for actions that may have a significant impact on matters of national environmental significance. The EPBC Act also requires Commonwealth approval for certain actions on Commonwealth land. Matters of national environmental significance under the Act include: • world heritage properties; • natural heritage places; • Ramsar wetlands of international importance; • threatened species or ecological communities listed in the EPBC Act; • migratory species listed in the EPBC Act; • Commonwealth marine environments; and • nuclear actions.	A search of the Department of Environment and Heritage (DEH) Protected Matters database confirmed that the site is not a world heritage property or a natural heritage place, does not comprise a Ramsar wetland of international importance or a Commonwealth marine environment and does not include nuclear actions. An assessment of the potential impact on threatened species, endangered ecological communities and migratory species listed under the EPBC Act with potential to occur in the locality concluded that no significant impact is likely and a referral to the Commonwealth Minister for the Environment was not required for this Project.
National Greenhouse and Energy (NGER) Act 2007	The National Greenhouse and Energy Reporting (NGER) scheme, established by the NGER Act, is a single national framework for reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information specified under NGER legislation. The objectives of the NGER scheme are to: • inform government policy • inform the Australian public • help meet Australia's international reporting obligations • assist Commonwealth, state and territory government programmes and activities, and • avoid duplication of similar reporting requirements in the states and territories.	Bingo / DADI have obligations to report greenhouse gas emissions, energy production, energy consumption at the Facility
State legislation		
Environmental Planning and Assessment (EP&A) Act 1979	The EP&A Act provides the statutory framework for assessment of the Facility and any modifications required. • Part 4, Division 4.7: Relates to the approval pathway for State Significant Developments (SSD). In particular, Section 4.38 provides consent for the Facility as SSD (and thus approval conditions relating to operation). • Section 4.55: Modification of approvals • Division 9.2: Investigative powers of Investigation Officers • Schedule 5 Development control order: Orders that may be given from the Minister or Secretary (i.e. stop work and compliance orders).	The existing facility, including recycling centre/s and landfill were granted approval by the then Minister for Planning under Section 75J of the *EP&A Act* on 22 November 2009 (MP 06_0139). Since this time, six modifications have been approved which have facilitated a number of changes to the layout and operation of the Facility.

Legislation	Description	Applicability
Protection of the Environment Operations (POEO) Act 1997	The POEO Act is the principal NSW environmental protection legislation and is administered by the EPA. The POEO Act provides an integrated system of licensing for polluting industries. Schedule 1 of the POEO Act identifies types of development that require an Environment Protection Licence (EPL) for polluting industries and land uses. Schedule 1 of the POEO Act identifies licensing requirements for the following activities: • Crushing, grinding or separating works • Waste facilities	The Facility has been issued two EPLs based on the scheduled activities **EPL 13426: Landfill** • Waste disposal by application to land (any capacity) • Waste storage - other types of waste (Any other types of waste stored) **EPL 20121: Resource recovery** • Compositing (> 5,000-50,000 T annual capacity to receive organics) • Recovery of general waste (Any general waste recovered) • Waste storage- other types of waste (Any other types of waste restored)
Biodiversity Conservation (BC) Act 2016	The purpose of this Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. The BC supersedes Parts 7-9 of the *National Parks and Wildlife (NPW) Act 1974* • Part 2: Outlines requirements relating to the protection of animals and plants • Part 7: Outlines biodiversity assessment and approvals under Planning Act Section 98 (relating to the harm of protected fauna and threatened species) and Part 8A (relating to threatened species, populations and ecological communities) were applicable. Parts 7-9 of the Act have been repealed.	The original EA identified the site as being highly disturbed and the majority of native vegetation has been removed, with the exception of 8.3 ha of a community representative of Cumberland Plain Woodland (CPW) EEC in the north-west. Most of this area was retained (2.8 ha were removed as part of the original project) and is being managed as a conservation area. The vegetation contained habitat for many bird species, arboreal mammals and the threatened Grey-headed Flying-fox (*Pteropus poliocephalus*). Discarded shells of the threatened Cumberland Plain Land Snail (*Meridolum corneovirens*) were discovered in the CPW and there was suitable habitat for ten threatened species, though none of these were observed onsite. No threatened flora was observed onsite, though there was suitable habitat for five threatened species.
Contaminated Land Management Act (CLM) 1997	The principal object of the CLM Act is to establish a process for investigating and, where appropriate, remediating land that the EPA considers to be contaminated significantly enough to require regulation. The Act outlines investigative processes for land contamination should it occur on the premises.	The original EA stated that no notices or orders to investigate or remediate contamination have been issued for the site under the CLM Act DADI maintains two pollution incident response management plans (PIRMP), one for each of the EPLs that apply to the landfill and resource recovery operations.
Environmentally Hazardous Chemicals (EHC) Act 1985	The EHC Act is the primary legislation for specifically regulating environmentally hazardous chemicals throughout their life cycle. The Act sets out requirements for chemical control orders (CCOs), technology assessments, and licencing	Scheduled Chemical Wastes will not be allowed into the MPC or the landfill site. Scheduled chemical wastes are controlled by the *Scheduled Chemical Wastes Chemical Control Order (2004)* under the EHC Act.

Legislation	Description	Applicability
Heritage Act 1977	Section 146 of the Act relates to the notification of impacts and heritage finds to the Heritage Council of NSW	As above. An Aboriginal Heritage Management Plan has been prepared to minimise the potential impact on items of Aboriginal Heritage. This includes notification requirements in the event that items of Aboriginal Heritage are uncovered. The original EA stated that are no items on the National Heritage List, Commonwealth Heritage List or the Register of the National Estate near the site. The Blacktown LEP (1988) (still current at the time of the original EA) and the NSW Heritage Office's State Heritage Inventory showed five heritage items in Minchinbury and Eastern Creek, with the nearest item 400 m to the north-east of the site. No heritage items were identified at or adjacent to the site.
National Parks and Wildlife (NPW) Act 1974	Part 6 of the Act relates to Aboriginal objects and places. Aboriginal Heritage sites are managed under this Act by the Heritage division of DPIE Environment, Energy and Science (EES). Unexpected finds of heritage require stop work proceedings and approval to be sought from the Heritage Division of EES to disturb site.	The original EA stated that two isolated finds and one open scatter comprising three artefacts were previously recorded at the site. The open scatter was recorded in a highly disturbed area with low archaeological potential. The isolated finds were on the boundary between a highly disturbed area with low archaeological potential and a mostly undisturbed area with high archaeological potential. The public significance of these sites was judged to be low given their poor surface manifestations. An Aboriginal Heritage Management Plan has been prepared to minimise the potential impact on items of Aboriginal Heritage
Roads Act 1993	The objects of the Act are to: • Set out the access rights to public roads • Establish procedures for opening and closing public roads • Provide for the classification of roads.	The Act outlines required road access and safety for the public in relation to vehicle movements travelling to and from the Facility as part of operations.
Rural Fires Act 1997	The objects of this Act are to provide: • for the prevention, mitigation and suppression of bush and other fires in local government areas (or parts of areas) and other parts of the State constituted as rural fire districts, and • for the co-ordination of bushfire fighting and bush fire prevention throughout the State, and • for the protection of persons from injury or death, and property from damage, arising from fires, and • for the protection of infrastructure and environmental, economic, cultural, agricultural and community assets from damage arising from fires, and • for the protection of the environment by requiring certain activities to be carried out having regard to the principles of ecologically sustainable development.	The original EA stated that vegetation adjacent to the site posed a low to moderate risk to Facility structures and recommended that asset protection zones be provided to distance the buildings from the hazardous vegetation. Bingo / DADI have an Emergency Response Plan to manage the risk of bushfire and fire at the Facility.

Legislation	Description	Applicability
Sydney Water (SW) Act 1994	The SW Act provides a framework for granting operating licences for constructing, managing and maintaining systems or services, including the disposing of commercial and industrial wastewater.	Trade Wastewater Consent has been obtained from the Sydney Water Corporation permitting the disposal of leachate to the sewer (Consent to Discharge; Consent NO:35580, 2018).
Waste and Resource Recovery (WARR) Act 2001	The WARR Act sets the strategic direction for waste management and resource recovery in NSW. Among the main objectives of the WARR Act are: (b) to ensure that resource management options are considered in accordance with the following hierarchical order: (i) avoidance of unnecessary resource consumption, (ii) resource recovery (including reuse, reprocessing, recycling and energy recovery), or (iii) disposal.	The operations of the Facility are consistent with the objectives of the WARR Act, allowing for increased opportunities of resource recovery from B&D and C&I wastes. The Facility also provides a site for disposal of waste, which is the final waste management option in the waste hierarchy, and which is preferably only used for material that cannot be recycled such as asbestos waste.
Water Management Act 2000 (WMA)	The WMA aims to facilitate the sustainable and efficient use of water in such a way that benefits the environment and communities. The WMA provides for the preparation of water management plans that outline arrangements for water sharing, water source protection and drainage management.	The Act outlines the requirement of the Facility to practice safe water management practices to ensure polluted waters, should they occur on the premises, are contained and properly managed.
Work Health and Safety Act 2011 (WHS Act)	The main object of the WHS Act is to provide for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces. The Act requires that workers and other persons should be given the highest level of protection against harm to their health, safety and welfare from hazards and risks arising from work or from specified types of substances or plant as is reasonably practicable.	Bingo has developed and implemented an integrated SEQ Management System (Occupational Health, Safety, Environment and Quality Management Systems) to assist in meeting the corporate objective of its waste operations through sustainable development. The SEQ Management System has certification to AS/NZ4801 Occupational Health and Safety Management Systems.
Environmental Planning Instruments		
SEPP[8] *(Western Sydney Employment Area) 2009* *(SEPP WSEA)*	The SEPP WSEA 2009 provides land use zones for areas of Eastern Creek, Erskine Park and Horsley Park. According to Schedule 1 (additional permitted uses of the SEPP), the consent authority may consent to development for the purposes of a waste facility for general solid waste (non-putrescible) at the lots subject to this EA. This SEPP repealed SEPP No 59 – Central Western Sydney Economic and Employment Area.	The Eastern Creek Precinct Plan was prepared by Blacktown LGA and was approved in March 2004 (stages 1 and 2) and December 2005 (stage 3) and is listed in Clause 19 (3) (b). This SEPP applies to the Facility. The Facility is consistent with the Schedule 1 (additional permitted uses of the SEPP) of the SEPP WSEA as project approval was granted for a waste facility at the site.

[8] SEPP – State Environmental Planning Policy

Legislation	Description	Applicability
SEPP No. 33 – Hazardous and Offensive Development	SEPP 33 ensures that the consent authority has sufficient information to assess if a development is hazardous or offensive and to impose conditions to reduce the impact. • **Offensive development:** Is a development that could emit a polluting discharge without the implementation of management measures. • **Hazardous development:** Is a development which would pose a significant risk to human health, property or the environment in a locality without the implementation of management measures.	**Offensive development:** The original EA stated that the Facility could be considered to be a 'potentially offensive' industry under SEPP 33 as it has the potential to emit polluting discharges. However, the potential impacts identified in the technical assessments can be managed in accordance with an EPL. **Hazardous development:** The Facility is not considered to be a *'potentially hazardous'* industry as it does not exceed the SEPP No. 33 threshold limits for volumes of Class 3 (diesel) dangerous goods stored on-site or vehicle movements to be generated for transportation of dangerous goods. The Facility is approved to store diesel, which is classified as a C1 – class 3 hazardous good but is not classified in the Dangerous Goods Code.

APPENDIX C Summary of Measures, Monitoring and Reporting Requirements

Table C1: Relationship between Environmental Goals and Landfill Benchmark Techniques

Environmental Goals and Objectives	Applicable Benchmark Techniques[9] (Benchmark No.)
WATER POLLUTION ❑ Preventing water pollution by leachate ❑ Detecting water pollution ❑ Remediating water pollution	❑ Leachate barrier system (1) ❑ Leachate collection system (2) ❑ Surface water controls (3) ❑ Groundwater monitoring network (4) ❑ Groundwater monitoring program (5) ❑ Surface water monitoring program (7) ❑ Leachate monitoring program (8) ❑ Water contamination remediation plan (9)
AIR POLLUTION ❑ Preventing and Controlling dust emissions ❑ Preventing landfill gas emissions ❑ Detecting and remediating landfill gas emissions ❑ Avoidance of Fire ❑ Management of Fire	❑ Landfill gas containment system (10) ❑ Fire prevention (12) ❑ Surface gas emission monitoring (17) ❑ Gas accumulation monitoring (18) ❑ Dust controls (34) ❑ Fire Fighting Capacity (38)
LAND MANAGEMENT & CONSERVATION ❑ Assuring quality of design, construction and operation ❑ Assuring quality of incoming waste ❑ Recording of wastes received ❑ Minimising landfill space used ❑ Maximisation of recycling	❑ Assurance of construction and materials quality (20) ❑ Screening of wastes received (21) ❑ Measurement of waste quantities received (22) ❑ Recording of the quantities, types and sources of wastes received (23) ❑ Compaction of waste (24) ❑ Recycling (25) ❑ Filling plan (27)
HAZARDS AND LOSS OF AMENITY ❑ Preventing unauthorised entry ❑ Preventing degradation of local amenity ❑ Preventing noise pollution ❑ Adequate fire-fighting capacity ❑ Adequate staffing and training	❑ Security of site (30) ❑ Litter control (31) ❑ Cleaning of vehicles (32) ❑ Covering of waste (33) ❑ Dust controls (34) ❑ Pest, vermin and noxious weed controls (35) ❑ Odour controls (36) ❑ Noise control (37) ❑ Fire Fighting capacity (38) ❑ Staffing and training requirements (39)

[9] Environmental Guidelines: Solid Waste Landfills (DECCW, 1996): Benchmark Techniques Number

C1 – Summary of Mitigation Measures

#	Mitigation Measures	Timing	Responsibility	Reference
General Environmental Mitigation Measures				
G1	All complaints will be managed in accordance with the Bingo / site Complaints Management System	Prior to operation and ongoing	Site Supervisor Environmental Manger NSW	MP_06_0139 MOD6 Sch3 C37
G2	A complaints hotline for the Facility is maintained	Prior to operation and ongoing	Site Supervisor Environmental Manger NSW	MP_06_0139 MOD6 Sch5 C9
G3	The Facility's website will be maintained to provide the wider community with access to the Facility's monitoring results, details of current activities, policies, Management Plans and monitoring programs and any other information in relation to the Site operation that may be considered of interest to the community.	Prior to operation and ongoing	Site Supervisor Environmental Manger NSW	MP_06_0139 MOD6 Sch5 C9
Soil, Water and Leachate Mitigation Measures				
SW-1	**Erosion and sediment control:** All stormwater from all areas of the premises which has the potential to mobilise sediments and other material is to be controlled and diverted through appropriate erosion and sediment control/pollution control measures and sedimentation ponds. Erosion and sediment controls will include management for spills from drainage lines, sediment traps, check dams, erosions control, bunds infiltration areas, sediment fences, filters and all other erosion and sediment control devices.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	MP_06_0139 MOD6 Sch3 C23, C24
SW-2	Any new earthworks (movement of berms, cutting into pit) will be undertaken in accordance with the erosion and sediment control measures outlined in the Managing Urban Stormwater: Soils and construction - Volume 1 "the Blue Book".	Ongoing throughout operation	Site Supervisor Site Environmental Officer	MP_06_0139 MOD6 Sch3 C23, C24
SW-3	All erosion control structures should be inspected regularly and after any significant rainfall and repaired as necessary.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	MP_06_0139 MOD6 Sch3 C23, C24
SW-4	**Maintenance of stormwater treatment features:** All stormwater and stormwater treatment devices (including drainage systems, sumps and traps) must be regularly maintained. Sediment ponds, OSD basins and gross pollutant traps must be cleaned and maintained in a manner that ensures they retain an appropriate freeboard, using depth indicators, to minimise the potential for any turbid discharge. This includes removing sediment build up, removal of waste oils/sludge and weed removal which would be disposed of at appropriately licensed facilities. The structural integrity of all features will also be maintained	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 20121, EPL 13426

#	Mitigation Measures	Timing	Responsibility	Reference
SW-5	**Surface water diversions:** Surface water flows must be diverted away from any area where waste is being landfilled and managed using channels, dams and drains to dissipate the potential erosive effect of stormwater.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 13426
SW-6	**Materials storage:** All refuelling facilities and storage of chemicals, fuels and oils used on site will be in an appropriately designed above ground, impervious, bunded area that is designed to prevent entry of these chemicals into stormwater. It should be of capacity which can contain 110 percent of the largest container contained within the bund.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	MP_06_0139 MOD6 Sch3 C20
SW-7	**Spills:** Accidental spills will be contained, in the first instance, by bunding and grading to sumps with backup containment created by the main storage basins. Spill kits will be available on-site and staff will be trained in their use to contain spills and prevent them from entering the stormwater drainage system. Runoff from areas where spills can occur will not be discharged off-site without treatment.	In response to spills	Site Supervisor Site Environmental Officer	Best practice
SW-8	**Monitoring:** Ongoing surface water monitoring is required at the monitoring point locations and at the frequency specified in the EPLs. For each monitoring point, the concentration of pollutants measured must not exceed the limits specified in the EPL. If pollutant exceedances are recorded these must be treated as an incident and reported appropriately according to the requirements of the EPLs.	Quarterly, after discharge and after rainfall events as per EPL schedule in Appendix C2	Site Supervisor Site Environmental Officer	MP_06_0139 MOD6 Sch3 C27
SW-9	Rainfall at the premises must be measured and recorded in millimetres per 24-hour period, at the same time each day.	Daily	Site Supervisor Site Environmental Officer	EPL 20121, EPL 13426
SW-10	**Discharge:** No water is to be discharged which has not been tested for the pollutants, has been found to not exceed the concentration limits or has been treated appropriately. All discharge of wastewater, including treated wastewater will be to sewer, in accordance with a Trade Waste Agreement with Sydney Water.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	MP_06_0139 MOD6 Sch3 C18
L-01	**Leachate classification:** Water which contacts waste, other than virgin excavated natural material, must be managed as leachate. Leachate must only be disposed of by disposal to sewer via a trade waste agreement or at a facility licensed to accept such waste.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 20121, EPL 13426
L-02	**Leachate storage and use:** Untreated leachate must not be used for irrigation or dust control	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 20121, EPL 13426
L-03	Leachate must not be permitted to pool in any areas other than those designed for leachate storage.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 20121

#	Mitigation Measures	Timing	Responsibility	Reference
L-04	Leachate storage tanks must be protected by bunding that is impervious and has sufficient capacity to contain 110% of the of the largest vessel; and will contain all pressurised leaks or spills.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 20121, EPL 13426
L-05	**Managing leachate levels in the pit** Leachate levels within the landfill must be kept within RL 25m AHD and maintained at least 5m below the minimum elevation of the waste surface. The height of the leachate relative to AHD, at monitoring points 31 and 32 must be monitored and recorded weekly	Ongoing throughout operation Weekly height recording	Site Supervisor Site Environmental Officer	EPL 13426
L-06	**Maintenance of leachate collection system:** All structural components of the leachate collection system are to be regularly monitored and maintained. Yearly inspections for clogging should be undertaken. Visual inspections should also occur following significant rainfall events.	Quarterly for the first 18 months of operation and then every 6 months throughout the life of the facility	Site Supervisor Site Environmental Officer	MP_06_0139 MOD6 Sch3 C27
L-07	**Monitoring:** Ongoing leachate monitoring is required at the monitoring point location and at the frequency specified in the EPL.	Quarterly or yearly as per the time frame in the EPL, summarised in Appendix C2	Site Supervisor Site Environmental Officer	EPL 13426
GW-01	Landfilling of waste and leachate levels must be managed to ensure the groundwater gradient directs groundwater flows inwards towards the landfill void.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 13426
GW-02	The licensee will manage any groundwater extracted from groundwater interception system in accordance with the report titled "Genesis Landfill Facility - Proposed Groundwater Sump" (Ref:BJ07/LT264 Rev B) by IGGC and dated 9 October 2012.	Ongoing throughout operation	Site Supervisor Site Environmental Officer	EPL 13426
GW-03	**Monitoring:** Ongoing groundwater level and quality monitoring is required at the monitoring point locations and at the frequency specified in the EPLs. For each monitoring point, the concentration of pollutants measured must not exceed the limits specified in the EPL. If pollutant exceedances are recorded these must be treated as an incident and reported appropriately according to the requirements of the EPLs.	Monthly, quarterly or yearly as per schedule in the time frame in the EPL.	Site Supervisor Environmental Manger NSW	MP_06_0139 MOD6 Sch3 C27
GW-04	If increased drawdown is detected in the groundwater bores, the cause will be investigated by an appropriately qualified hydrogeologist and relevant management measures implemented.	Ongoing throughout operation	Environmental Manger NSW Qualified hydrogeologist	MP_06_0139 MOD6 Sch3 C27

#	Mitigation Measures	Timing	Responsibility	Reference
Air Quality, Odour and Greenhouse Gas Mitigation Measures				
AQ1	Enclosure of material handling and processing and storage within the MPC shed.	During operation	Site Supervisor	Air Quality, Odour and Greenhouse Gas Management Plan (AQMP)
AQ2	Misting sprays operated within the shed to dampen material as it is sorted and before being loaded to the hopper.	During operation	Site Supervisor	AQMP
AQ3	Loads are inspected prior to unloading and water sprays are used on dusty loads	During Operation	Site Supervisor	AQMP
AQ4	The majority of travel routes onsite are sealed (exceptions are the haul route into the pit and within the segregated materials area).	Ongoing	Site Supervisor	AQMP
AQ5	Water sprays on the mobile crusher and shredder.	During operation	Site Supervisor	AQMP
AQ6	Fixed water sprays on product storage areas.	During operation	Site Supervisor	AQMP
AQ7	Water carts operating on unsealed haul road into the pit, within the landfill and on the paved roads as needed.	During operation	Site Supervisor	AQMP
AQ8	Speed limit of 25 km $\cdot hr^{-1}$ for site access road, and 10 km $\cdot hr^{-1}$ for all internal roads.	During operation	Site Supervisor	AQMP
AQ9	Water cannon/attachment to water cart operating within the pit.	During operation	Site Supervisor	AQMP
AQ10	Established earth bund along the northern boundary of the pit.	Prior to operation and ongoing	Site Supervisor	AQMP
AQ11	Vacuum sweeping operating on roads.	During Operation	Site Supervisor	AQMP
AQ12	Operation of a chute to transport waste into the pit to minimise vehicle kilometres travelled.	During operation	Site Supervisor	AQMP
AQ13	Modification of activities in windy conditions.	During operation	Site Supervisor	AQMP
AQ14	Minimise drop heights of materials.	During operation	Site Supervisor	AQMP
AQ15	Cleaning spills of materials immediately.	During operation	Site Supervisor	AQMP
AQ16	Daily cover of the active tipping face.	During operation	Site Supervisor	AQMP
AQ17	Immediate burial of odorous or offensive wastes.	During Operation	Site Supervisor	AQMP
AQ18	Intermediate covering with 150 mm of virgin excavated natural material (VENM) or other approved alternative cover.	During operation	Site Supervisor	AQMP

#	Mitigation Measures	Timing	Responsibility	Reference
AQ19	Interim capping as agreed by EPA.	During operation	Site Supervisor	AQMP
AQ20	Ensure fittings on leachate risers and pipework is airtight.	Prior to operation and ongoing	Site Supervisor	AQMP
AQ21	Treat leachate stored in sump.	During operation	Site Supervisor	AQMP
AQ22	Ensure that emission controls on operational vehicles are acceptable.	Prior to operation and ongoing	Site Supervisor	AQMP
AQ23	Ensure that waste loads are covered until waste removal.	During operation	Site Supervisor	AQMP
AQ24	Inspection of waste loads to ensure that unacceptable/excluded wastes do not enter the site.	During operation	Site Supervisor	AQMP
AQ25	Procedures to handle complaints.	Prior to operation and ongoing	Site Supervisor	AQMP
AQ26	All vehicles are checked for mud and soil on tyres prior to leaving site and where mud or soil is detected on the entrance road (i.e. “track out”), staff will be deployed to sweep the road.	Prior to operations and ongoing	Site Supervisor	AQMP
AQ27	Additional dust monitoring.	Prior to operations and ongoing	Site Supervisor	AQMP
AQ28	Application of chemical suppressants.	If required	Site Supervisor	AQMP
Noise Mitigation Measures				
NV1	Operation of the site will be undertaken in accordance with the approved operating hours detailed in the Conditions of Consent (as modified by MOD6)	During operation and all waste deliveries and removals	Site Supervisor	MP_06_0139 MOD6 Sch3 C39 EIS (2008) – Section 10.5
NV2	Within two months after the completion of the post commissioning noise report required under Condition 38b of Schedule 3, the Applicant must submit to the satisfaction of the Planning Secretary verification that any actions identified in the post commissioning report have been implemented.	Post construction	Site Supervisor	MP_06_0139 MOD6 Sch3 C38B
NV3	Management of the impervious barriers north, north-west, west and south of the site which are maintained at a height of 10 m.	Construction and operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C53 and Sch3 C54
NV4	All on-site, fixed and mobile diesel-powered plant, excluding road vehicles, are to be correctly fitted and maintained in accordance with the manufacturer’s specifications. Particular attention is to be given to engine exhaust systems and the care and maintenance of mufflers.	Construction and operation	Site Supervisor	EIS (2008) – Section 10.5

#	Mitigation Measures	Timing	Responsibility	Reference
NV5	Noise management measures will be implemented immediately (if required) by the issue of work directions or changes to operational procedures depending upon the nature or extent of the measures taken.	Construction and operation	Site Supervisor	Bingo Procedures
NV6	Non-compliance with the noise limits will be reported promptly and corrective action taken to mitigate any impacts.	Construction and operation	Site Supervisor	Bingo Procedures
NV7	If fixed machinery is identified as being a source that exceeds noise trigger values the use of the machinery will cease until noise attenuation measures are implemented.	Construction and operation	Site Supervisor	Bingo Procedures
NV8	If the noise source is a point source such as an engine or motor then the engine or motor will be housed in a suitably noise insulated cowling hood or structure.	Construction and operation	Site Supervisor	Bingo Procedures
NV9	Noise emissions are minimised by taking all necessary precautions to reduce noise of operations.	Construction and operation	Site Supervisor	Bingo Procedures
NV10	Reduction in vehicle speeds to 15 km/hour on site roads and provision of speed humps and road signs to enforce speed restrictions	Construction and operation	Site Supervisor	Bingo Procedures
NV11	Monitoring of noise at prescribed locations will be undertaken on a six-monthly basis as required	Construction and operation	Site Supervisor Specialist noise Consultant Environmental Manger NSW	MP_06_0139 MOD6 Sch3 C38 EPL 13426: Landfill EPL 20121: Resource and Recovery
NV12	If noise complaints or noise exceedances are observed, determine, mitigate or remove the source of the excess noise such that repeat monitoring shows that the noise exceedance is no longer present.	Construction and operation	Site Supervisor Specialist noise Consultant Environmental Manger NSW	EIS (2008) – Chapter 10.5
NV13	No rock breaking to occur except at lower levels on the Site or behind earthen bunds to act as noise baffles	Construction and operation	Site Supervisor	EIS (2008) – Chapter 10.5
NV14	Trucks entering the Site are reported if excessively noisy. Trucks will be requested not to rev engines excessively or use air brakes unless necessary for safety reasons	Construction and operation	Site Supervisor	EIS (2008) – Chapter 10.5
NV15	If the noise source is reversing beepers or alarms on moveable plant or trucks, then for those vehicles and plant on Site measures will be taken to adjust the tone and where appropriate reduce the volume of those appropriately so as to remove the potential for noise disturbance..	Construction and operation	Site Supervisor	EIS (2008) – Chapter 10.5
NV16	Works will be temporarily ceased until wind conditions are favourable	Construction and operation	Site Supervisor	EIS (2008) – Chapter 10.5

#	Mitigation Measures	Timing	Responsibility	Reference
NV17	Response to any noise complaints received from the community. Noise measurements will be undertaken in accordance with the EPA's Noise Industrial Policy (2000) and Assessing Vibration – A Technical Guideline (2006).	Construction and operation	Site Supervisor	EIS (2008) – Chapter 10.5
NV18	In the event that any of the assessment criteria outlined in **Table 5-2** is exceeded, an investigation into the source of the noise will be undertaken to determine whether the source of noise is related to the operation of the Facility.	Construction and operation	Site Supervisor	EIS (2008) – Chapter 10.5
NV19	The roller doors of MPC2 will remain closed during the hours of 10pm and 5am while not in use.	Operation	Site Supervisor	MP_06_0139 MOD8 Sch3 C39e
NV20	The roof, doors and walls of MPC2 will have an acoustic performance of at least Rw 21			MP_06_0139 MOD8 Sch3 C39f
Traffic and Access Mitigation Measures				
TA1	There is no access to or from the facility from Archbold Road;	Construction and operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C42
TA2	Access to the Facility is via Old Wallgrove Road or Wonderland Drive, via the public Precinct Plan Road network, wherever a public road is available.	Construction and operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C43
TA3	No vehicles associated with the Facility are permitted to park or queue on the public road network at any time.	Construction and operation	Site Supervisor Traffic Controller	MP_06_0139 MOD6 Sch3 C48
TA4	All vehicles accessing this site will follow the current Traffic Management Plan (**Figure 5-2**),	Construction and operation	Site Supervisor Traffic Controller	EIS (2008) – Appendix G, Section 5.2
TA5	All staff on site will be trained and regularly updated on the Traffic Management Plan	Construction and operation	Site Supervisor Traffic Controller	EIS (2008) – Appendix G, Section 5.2
TA6	All operations are clearly identified by signage which are maintained in a clearly visible and readable state	Construction and operation	Site Supervisor Traffic Controller	EIS (2008) – Appendix G, Section 5.2
TA7	All vehicles accessing the site will adhere to the signposted speed restrictions (40km/h on the access road and 10km/h or 20km/h) and directional one-way signage	Construction and operation	Site Supervisor	EIS (2008) – Appendix G, Section 5.2
TA8	All drivers will be appropriately licensed to operate or drive the vehicles or machinery	Construction and operation	Site Supervisor	EIS (2008) – Appendix G, Section 5.2
TA9	All drivers will abide by the Transport Code of Conduct	Construction and operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C51

#	Mitigation Measures	Timing	Responsibility	Reference
TA10	Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.	Construction and operation	Site Supervisor Traffic Controller	EIS (2008) – Section 6.2.2
TA11	Waste only to be unloaded in the designated areas as directed by staff	Construction and operation	Site Supervisor Traffic Controller	EIS (2008) – Appendix G, Section 5.2
TA12	Sealed roads will be swept by a sweeper on a regular basis.	Construction and operation	Site Supervisor	EIS (2008) – Appendix G, Section 5.2
Visual Mitigation Measures				
V1	All lights on the Facility will be mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Construction and operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C52 EIS (2008) – Chapter 12.5
V2	External lighting was designed to relevant Australian Standards, including AS4282-1977 '*Control of Obtrusive Effects of Outdoor Lighting*' and AS1158 '*Lighting for Roads and Public Places*'.	Construction and operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C52 EIS (2008) – Chapter 12.5
V3	Amenity berms will be maintained at a height no less than 10 m.	Construction and operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C553
V4	Material stockpiles, waste, plant, equipment and vehicle parking will be restricted to designated areas, including during construction.	Construction and operation	Site Supervisor	EIS (2008) – Chapter 12.5
V5	Building heights of the workshop and administration building will not exceed the height of the amenity berms and any trees planted on top.	Construction and operation	Site Supervisor	EIS (2008) – Chapter 12.5
V6	Buildings will be constructed using muted colours.	Construction and operation	Site Supervisor	EIS (2008) – Chapter 12.5
V7	Where possible, highly reflective materials/ colours will not to be used on the site, unless necessary for safety reasons	Construction and operation	Site Supervisor	EIS (2008) – Chapter 12.5
Flora and Fauna Mitigation Measures				
FF1	Hollow-bearing trees will not be removed from the site unless there is a safety imperative that has been determined by a qualified arborist.	Construction and operation	Site Supervisor	EIS (2008) – Chapter 13.5
FF2	If a hollow-bearing tree is to be removed, it must be felled in the presence of and under the advice of a suitably qualified and experienced zoologist or animal handler to minimise harm to any fauna that may use the hollow.	Construction and operation	Site Supervisor	EIS (2008) – Chapter 13.5

#	Mitigation Measures	Timing	Responsibility	Reference
FF3	Artificial nest boxes should be installed in retained mature trees to mitigate their removal and enhance the habitat for microchiropteran bats and other hollow dwellers (the number of nest boxes installed should equal the number of hollows that are removed, and boxes are to be installed prior to any trees being removed)	Construction and operation	Site Supervisor	EIS (2008) – Chapter 13.5
FF4	During and after construction works, appropriate silt traps will be used to ensure that there is no siltation of downslope environments	Construction and operation	Site Supervisor	EIS (2008) – Chapter 13.5
FF5	The vegetated berm surrounding the development should have breaks in the plantings of at least 20 m wide. To minimise and manage the bushfire risk they may pose to adjacent developed areas, these breaks should be located at intervals so that no continuous area of vegetation is greater than 1 ha.	Construction and operation	Site Supervisor	EIS (2008) – Chapter 13.5
Aboriginal Heritage Mitigation Measures				
AH1	**Unexpected finds:** In the event that previously unrecorded Aboriginal objects are encountered during any activity at the Facility, works will cease immediately at that location and DPIE ESS will be notified and advice sought as to the appropriate course of action. Bingo will be guided by DPIE ESS on the salvage and long-term management of salvaged object.	Construction and operation	Site Operations Manager Site Environmental Officer Environmental Manager NSW	MP_06_0139 MOD6 Sch3 C61 Section 2.5 of McDonald (2009)
AH2	**High sensitivity areas** • The areas identified as High Sensitivity in McDonald 2005 (i.e. Zone 1 (Conservations Areas) will not be disturbed. • The conservation area is fenced off and access to the area is restricted	Construction and operation	Site Operations Manager Site Environmental Officer	MP_06_0139 MOD6 Sch3 C60 Section 2.5 of McDonald (2009)
AH3	**Education** • All personnel undertaking work at the Facility will undergo general environmental awareness training and training relevant to their responsibilities under the Facility EMS [DOC NO]. • All site personnel and contractors undertaking works in Zone 1 and Zone 2 will be required to undertake more detailed awareness training on what heritage items to look for and the process to follow for unexpected finds will be provided. • This training will occur in the form of a toolbox talk or pre-start meetings.	Construction and operation	Site Operations Manager Site Environmental Officer	MP_06_0139 MOD6 Sch3 C61 Section 2.5 of McDonald (2009)

#	Mitigation Measures	Timing	Responsibility	Reference
AH4	**Cultural heritage** • Cultural features will be conserved and managed in accordance with their assessed significance. • Aboriginal custodians will be consulted and involved in all aspects of management of Aboriginal sites, places and values • Bingo will contact the nominated RAP following a number of possible triggers. See Section 4.6 for more details.	Construction and operation	Site Operations Manager Site Environmental Officer	MP_06_0139 MOD6 Sch3 C61 Section 2.5 of McDonald (2009)
AH5	**Conservation areas** • Disturbance will be minimised, and the areas well maintained. • Access will be restricted and managed appropriately. • The conservation area is fenced off and access is restricted • Trail bike usage in the Areas has been stopped.	Construction and operation	Site Operations Manager Site Environmental Officer	MP_06_0139 MOD6 Sch3 C61 Section 2.5 of McDonald (2009)
AH6	**Control of exotic fauna** • The impact of pest animals on the Conservation Area will be minimised. • Domesticated and other exotic animals will be managed with appropriate control methods. Rabbit populations will be controlled to minimise damage to archaeological deposits caused by burrowing.	Construction and operation	Site Operations Manager Site Environmental Officer	Section 2.5 of McDonald (2009) Landscaping and Vegetation Management Plan (LVMP Measure #LM20 to LM28) LVMP Section 4.4
AH7	**Control of exotic and non-indigenous flora** • The impact of exotic and non-indigenous plant species on native flora will be minimised. • The use of herbicide is permitted, but the removal of plants by the digging out of roots or any activity which would impact on the ground surface will be avoided. • Use of machinery and excavation of topsoil will be avoided. • The Conservation Areas will be assessed frequently for weed invasion and any outbreaks will be treated. • Monthly photo audits will be conducted on Site. • Blackberries will be removed with a combination of herbicides and hand clearance.	Construction and operation	Site Operations Manager Site Environmental Officer	Section 2.5 of McDonald (2009) LVMP Measure #LM16 to LM19)

#	Mitigation Measures	Timing	Responsibility	Reference
AH8	**Restoration of vegetation** • Areas will be restored with native vegetation that has a structure and species diversity appropriate to the State Environmental Planning Policy (Western Sydney Employment Area) 2009 (SEPP WSEA) lands. • Natural regeneration is the preferred method of restoration.	Construction and operation	Site Operations Manager Site Environmental Officer	Section 2.5 of McDonald (2009) LVMP Measure #LM01 to LM07)
AH9	**Management within Zone 2** • Zone 2 has been mainly left to revegetate, until future development takes place. • Prior to any work commencing within Zone 2, further assessment by an Archaeologist, in consultation with the RAP, will be undertaken. • The AHMP will be updated prior to the commencement of works to ensure that all mitigation measures recommended by the Archaeologist and RAP • All works within Zone 2 shall be monitored by the DADEC Site Environmental Manager . • In the event that previously unrecorded Aboriginal objects are encountered during any activity within Zone 2, works will cease immediately at that location and the Unexpected Finds Protocol described in Appendix C, must be followed.	Prior to works within Zone 2	Site Operations Manager Site Environmental Officer	Section 2.5 of McDonald (2009)
Waste Mitigation Measures				
WM1	The Facility will only receive waste permitted by Schedule 3 Condition 1 under MP_06_0139 (as modified) and EPL 13426 and EPL 20121 (See **Section 2.3, Table 2-2**)	Construction and operation	Site Supervisor Environmental Manger NSW	MP_06_0139 MOD6 Sch3 C1 EPL 13426 EPL 20121
WM2	All relevant personnel will be appropriately inducted and trained in waste management	Operation	Site Supervisor Environmental Manger NSW	EIS (2008) – Chapter 16 Bingo Basics
WM3	All vehicles will be weighed at the weighbridge and the total weight of the waste on arrival will be recorded by the Weighbridge Officer. An appropriately trained Weighbridge Officer or Yard Operator will also conduct a preliminary inspection of the waste at the weighbridge to determine the presence of non-acceptable waste.	Operation	Site Supervisor Weighbridge Officer	EIS (2008) – Chapter 16 Bingo Procedures *Weighbridge Operation and Maintenance (SOP-YA008)*
WM4	Non-acceptable waste identified at the weighbridge, will be rejected and details of the rejection recorded on the reject form. • Date and time non-permitted waste was found • Registration details of vehicle that transported waste to the premises • Type of waste • Approximate quantity of waste in tonnes or other unit of measurement	Operation	Site Supervisor Weighbridge Officer	EIS (2008) – Chapter 16 Bingo Procedures *Rejecting Loads of Non-Complying and Prohibited Materials (SOP-YA018)*

#	Mitigation Measures	Timing	Responsibility	Reference
	• Date the non-permitted waste was removed from the premises • Registration details of the vehicle that transported waste away from the premises • Name and address of lawful waste facility that receives the non-permitted waste.			*Reject Load Certificate (SF055)*
WM5	All waste received at the premises will be unloaded at the designated area (e.g. MPC, designated stockpile area, PSE etc).	Operation	Site Supervisor Traffic controller	EIS (2008) – Chapter 16
WM6	All waste received at the premises will be assessed and classified against the NSW EPA's Waste Classification Guidelines.	Operation	Site Supervisor Weighbridge Officer	EIS (2008) – Chapter 16
WM7	The Facility will retain records of information collected for waste not permitted on the premises for at least four (4) years.	Operation	Site Supervisor Environmental Manager NSW	EIS (2008) – Chapter 16
WM8	The Facility will maintain all records undertaken under the Waste Monitoring Program for a period of at least four (4) years in a legible form.	Operation	Site Supervisor Environmental Manager NSW	EIS (2008) – Chapter 16
WM9	Stockpiles on the premises will be stored separately by type (i.e. green and timber waste, concrete, brick, ceramics and demolition material and VENM and soils).	Operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C1 Bingo Procedures *Stockpile Management Process (SOP-YA012)*
WM10	All stockpiles will be maintained to a level below the height of the amenity berms (<10 m)	Operation	Site Supervisor	MP_06_0139 MOD6 Sch3 C55
WM11	No burning of any waste will occur on the premises	Operation	Site Supervisor	EIS (2008) – Chapter 16
WM12	The Facility will be regularly maintained through cleaning such as sweeping, washing or vacuuming, and stockpile sizes will be minimised where possible.	Operation	Site Supervisor	EIS (2008) – Chapter 16
WM13	All waste transported from the Facility must consist solely of an individual listed waste type or waste meeting the requirements of a Resource Recovery Order (RRO) or the recovered fine specifications. An exception is applied to waste that has been rejected from the Facility.	Operation	Site Supervisor Environmental Manager NSW	EIS (2008) – Chapter 16
WM14	Any waste transported from the Facility for the purposes of disposal will be located only to facilities that can lawfully accept the classified waste.	Operation	Site Supervisor Environmental Manager NSW	EIS (2008) – Chapter 16

#	Mitigation Measures	Timing	Responsibility	Reference
WM15	Monitoring of waste will be undertaken in accordance with the Waste Monitoring Program.	Operation	Site Supervisor Environmental Manager NSW	EIS (2008) – Chapter 16
WM16	The Facility will report waste materials received each month as part of the Waste Contribution Monthly Report to the NSW EPA using the EPAs online Waste and Resource Reporting Portal reporting system.	Operation	Site Supervisor Environmental Manager NSW	EPL 13426 EPL 20121
Landscape and vegetation mitigation measures				
LV1	All berms will be maintained at a minimum height of no less than 10 metres. If any reshaping is required, this will be undertaken in a that that does not impact adjoining landowners.	Operation	Site supervisor	MP_06_0139 MOD6 Sch3 C54(d)(e)
LV2	Any ongoing landscaping planting will use local native species	Operation	Environmental Manager	LVMP
LV3	Any future landscaping planting will follow correct planting methodologies and installation procedures	Operation	Environmental Manager	MP_06_0139 MOD6 Sch3 C54(c)
LV4	Watering of plants to be undertaken as necessary to ensure healthy growth. Application of water will occur through water tanker, hose or handheld can depending on the location and terrain. Avoid watering in the middle of the day to minimise evaporation.	Fortnightly	Certified contractor	LVMP
LV5	Plants are to be fertilised at a frequency in accordance with manufacturer's directions	3 monthly intervals unless otherwise specified by manufacturer	Certified contractor	LVMP
LV6	Fortnightly inspections will consider the effectiveness of plantings and be used to identify any rectification required to ensure ongoing health of the plants.	Fortnightly	Environmental Manager	LVMP
LV7	Any failed plants shall be replaced within two weeks of observation.	Operation	Certified contractor	LVMP
LV8	No vegetation or trees are to be damaged or removed from the conservation area or the riparian habitat area except for approved weed removal.	Operation	Environmental Manager	MP_06_0139 MOD6 Sch 3 C59(d) C57
LV9	Inspect, maintain and repair any damage to the existing fences around the conservation area and riparian habitat	6 monthly intervals during operation	Environmental Manager	MP_06_0139 MOD6 Sch 3 C59(d) C57
LV10	Inspect and remove weeds from the conservation area and riparian habitat	6 monthly intervals during operation	Certified contractor	MP_06_0139 MOD6 Sch 3 C59(d) C57
LV11	Monitor transects and photo points taking notes on quality of the vegetation, presence of weeds and other notes	6 monthly intervals during operation	Ecologist	MP_06_0139 MOD6 Sch3 C59(c)(d) C5

#	Mitigation Measures	Timing	Responsibility	Reference
LV12	Check perimeter of conservation area and riparian habitat for evidence of rubbish and vegetative waste dumping. Remove waste or notify Blacktown Council for removal	6 monthly intervals during operation	Environmental Manager	MP_06_0139 MOD6 Sch3 C57
LV13	Stockpiled materials are not to be located in close proximity to the EECs, riparian habitat or any individual native trees on site.	Operation	Site supervisor	LVMP SWLMP
LV14	Check the perimeter of the for evidence of weed incursion and control any weeds.	6 monthly intervals during operation	Environmental Manager	MP_06_0139 MOD6 Sch3 C57
LV15	Riparian monitoring should also be undertaken to check water quality, maintain silt fences and inspect creek beds for evidence of scour and erosion. These should be treated in accordance with the Erosion and Sediment Control Plan (ESCP).	In accordance with the ESCP	Environmental Manager	MP_06_0139 MOD6 Sch 3 C59(c)(d) C57 SWLMP
LV16	Ongoing weed monitoring is to be undertaken to manage and supress those species which pose a potential threat to natural areas and to determine the success of weed control measures.	Fortnightly inspections	Environmental Manager	MP_06_0139 MOD6 Sch3 C14(a)
LV17	When undertaking regular monitoring inspections at photo point locations weed observations should be recorded.	6 monthly intervals during operation	Ecologist	MP_06_0139 MOD6 Sch3 C14(a)
LV18	Priority weeds should be removed from both the conservation area and riparian habitat as well as from the rest of the site area.	Fortnightly inspections	Environmental Manager	MP_06_0139 MOD6 Sch3 C14(a)
LV19	Property boundary is to be inspected to monitor for unauthorised dumping of vegetation waste which could contain weed materials and pose a biosecurity risk.	Fortnightly inspections	Environmental Manager	MP_06_0139 MOD6 Sch3 C14(a) & (c)
LV20	Ensure that pest species, vermin, birds and insects are controlled through maintaining the site in a generally clean and tidy manner. Waste stockpiles are to be covered at the end of each day or in the case of potentially odorous or offensive wastes immediately following disposal at the tipping face.	Daily	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) C59(d)
LV21	Waste will be continually compacted to prevent access by vermin	Daily	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) C59(d)
LV22	If birds are observed as a problem (greater than 100 at any one time during operating hours), bird scares will be installed	As observed	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) C59(d)
LV23	If rats are observed, rat bait will be laid as appropriate	As observed	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) Sch3 C59(d)
LV24	Spraying with biodegradable pesticide to reduce insect infestations may also be required with relevant approvals.	As required	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) Sch3 C59(d)

#	Mitigation Measures	Timing	Responsibility	Reference
LV25	Areas of standing water, where mosquitoes may breed, must be eliminated unless they constitute an operational facility such as a leachate collection facility, sediment basin or clean water runoff holding facility.	Operation	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) C59(d) SWLMP
LV26	Proper fencing and closure of gates will ensure there is no unauthorised dumping of wastes on the site which could attract vermin.	Operation	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) Sch3 C59(d)
LV27	Inspect property for potential European Rabbit and European Fox scats and shelter habitats (burrows) and employ control techniques as required.	As observed	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) Sch3 C59(d)
LV28	Property boundary is to be inspected to monitor for unauthorised rubbish dumping which could attract pest species	Fortnightly inspections	Site supervisor	MP_06_0139 MOD6 Sch3 C14(a) & (b) Sch3 C59(d)

C2 – Summary of Monitoring Requirements

ID	Limits/ Performance indicator	Activity	Resources	Responsibility	Frequency
Soil, Water and Leachate Monitoring					
1	Stormwater pollution	Weekly site inspections	Site Supervisor observation Stop Work Report Form	Site Supervisor	Daily issues recorded in Site Supervisor Checklist
2	EPL 13426: Landfill	Surface water quality monitoring	Sampling equipment Water consultant (if required) and Nata Laboratory Sampling / monitoring results	Site Supervisor	Quarterly
3	EPL 13426: Landfill	Surface water overflow	Sampling equipment Water consultant (if required) and Nata Laboratory Sampling / monitoring results	Site Supervisor	
4	EPL 13426: Landfill	Groundwater monitoring	Sampling equipment Water consultant (if required) and Nata Laboratory Sampling / monitoring results	Site Supervisor	
5	EPL 13426: Landfill	Leachate quality monitoring	Sampling equipment Water consultant (if required) and Nata Laboratory Sampling / monitoring results	Site Supervisor	
6	SWLMP	Wet weather inspection and maintenance and after every > 25 mm rainfall event within 24 hrs	Yard and Plant Operators	Site Supervisor	After the rain event
7	SWLMP	Monthly inspection / maintenance	Yard and Plant Operators Observation	Site Supervisor	Monthly
Air Quality, Odour and Greenhouse Gas monitoring					
1	Visual Dust Emission	Daily site inspections and immediate surrounds	Site Supervisor observation Stop Work Report Form	Site Supervisor	Daily

ID	Limits/ Performance indicator	Activity	Resources	Responsibility	Frequency
2	Odour (onsite storage no more than 35m^3)	Green Waste Storage Check	Yard and Plant Operators observation	Site Supervisor	Daily
3	Odour	Daily site inspections and immediate surrounds	Site Supervisor observation	Site Supervisor	Daily
Noise monitoring					
1	As provided by *Schedule 3 Condition 38* and **Table 5-2** in the EMS	Monitoring at residential locations to the north and west of the site, in and around McFarlane Drive, and Barossa Drive in Minchinbury and Swamphen Street and Roper Road in Erskine Park	Suitably qualified acoustic consultant Monitoring Results	Environmental Manager NSW	Six-monthly
2	EPL 13426: Landfill P1.3, L4	Noise monitoring at nearest	Suitably qualified acoustic consultant Monitoring Results	Environmental Manager NSW	As required
3	EPL 20121: Resource and Recovery P1.3, L4	Noise monitoring at nearest	Suitably qualified acoustic consultant Monitoring Results	Environmental Manager NSW	As required
4	As provided by Schedule 3 Condition 38 and **Table 5-2** in the EMS	To respond to complaints	Suitably qualified acoustic consultant Monitoring Results	Environmental Manager NSW	As required
Traffic and Access monitoring					
1	Driver Code of Conduct	Drivers behaviours (under the influence of drugs or alcohol), appropriate licences, speeding, wearing appropriate PPE	Traffic Controller observation Site Supervisor observation Stop Work Report Form	Safety and Quality Manager NSW	Notable bad behaviour by a driver
2	Visual monitoring of all traffic movements	Trucks arriving and leaving site Trucks moving around the site	Traffic Controller observation Site Supervisor observation Stop Work Report Form	Site Supervisor	All vehicle movements
Visual Monitoring					
1	Visual inspection of amenity berms and general site	Plantings, erosion and sediment control and litter	Site Supervisor observation	Site Supervisor	Daily

ID	Limits/ Performance indicator	Activity	Resources	Responsibility	Frequency
Flora and fauna monitoring					
1	NA				
Heritage monitoring					
1	Ensuring conservation site is secure	Inspection of the security fences and gates	Site Supervisor observation	Site Supervisor	Daily
2	Cultural monitoring	Photo audits to ensure integrity is maintained	Site Supervisor observation	Site Supervisor	Monthly
Waste Mitigation Measures					
1	**EPL 13426: Landfill** No more than 700,000 tonnes of non-putrescible waste per calendar year	Monitor and record waste received	Weighbridge Officer records	Weighbridge Officer	Daily
2	Volumetric survey report	Landfill facility information certificate (LFIC) and volumetric survey report	Survey consultant	Site Supervisor Environmental Manger NSW	June and December each year
3	Approval Conditions	Maximum Stockpile Volume Inspection	Yard and Plant Operators observation Weighbridge Officer records	Site Supervisor	Daily
4	**EPL 20121** Waste Contribution Monthly Report (WCMR)	Monitor and record waste received	EPA's online Waste and Resource Reporting Portal (WARRP)	Site Supervisor / Environmental Manager NSW	Monthly
5	**Garden waste** No more than 20,000 tonnes may be stored at the premises at any one time	Monitor and record waste received	Yard and Plant Operators observation Weighbridge Officer records	Site Supervisor	Daily
6	**Waste tyres** No more than 50 tonnes permitted to be stockpiled on site at any one time	Monitor and record waste received	Yard and Plant Operators observation Weighbridge Officer records	Site Supervisor	Daily

ID	Limits/ Performance indicator	Activity	Resources	Responsibility	Frequency
7	**Soils** To meet CT1 thresholds for General Solid Waste in Table 1 of the Waste Classification Guidelines	Monitor and record waste received Soil classification	Weighbridge Officer records Waste Classification Reports Soil classification records	Site Supervisor	Daily
8	**General solid waste (non-putrescible**) Limited to bricks, concrete, metal, glass, plastic and sandstone or a combination of the above.	Monitor and record waste received	Yard and Plant Operators observation Weighbridge Officer records	Site Supervisor	Daily
9	**Individual wood waste stockpiles (processed and unprocessed)** < 2000 tonnes.	Monitor and record waste received	Yard and Plant Operators observation Weighbridge Officer records	Site Supervisor	Daily
10	**Waste permitted** <667,000 tonnes at any one time.	Resource recovery Waste storage	Yard and Plant Operators observation Weighbridge Officer records	Site Supervisor	Daily
Landscape and Vegetation Management					
1	Visual inspection of conservation area and riparian habitat	Transect and photo monitoring	Observations and photographs at photo monitoring points and transects	Certified ecologist	Every 6 months
2	Site operations area free of weed invasion	Fortnightly inspections	Inspection observations LVMP photographs of noxious weeds	Site operations manager	Fortnightly
3	Conservation area and riparian habitat free of weed invasion	Ecologist inspections	Inspection observations	Certified ecologist	Every 6 months
4	Fence line is intact	Inspections of fence lines and gates	Inspection observations	Site environmental officer	Every 6 months
5	Landscape planting is maintained and functions to stabilise berms, road verges and around OSD basins	Landscape planting, watering and maintenance	Maintenance schedules	Certified contractor	Fortnightly
6	Riparian habitat is stable and not impacted by erosion or sedimentation	Inspections of riparian habitat	Inspection observations	Site environmental officer	In accordance with the SWLMP

C3 – Summary of Reporting Requirements

Item	Reporting Requirements	Frequency	Reporting Agency	Responsibility
Project Approval (MP_06_0139 as modified)				
Schedule 5 Condition 3	Annual Review	Annually for the calendar year (January to December)	DPIE Compliance	Environmental Manger NSW
Schedule 5 Condition 5	Detailed Incident Report	Within 7 days of the date of a (reportable) incident, a detailed report of the incident will be provided to the Secretary and relevant agencies	DPIE Compliance	Environmental Manger NSW Site Manager
Schedule 5 Condition 8	Independent Environmental Audit Report	Within 6 weeks of completing an independent audit (as required by Schedule 5 Condition 7) or as otherwise agreed by the Secretary. Independent audits are required every two years.	DPIE Compliance	Environmental Manger NSW
Schedule 3 Condition 38b	Post Commissioning Noise Report	Within 6 months of the approval of MP_06_0139 as modified (approved 29 April 2020)	DPIE Compliance	Environmental Manger NSW
EPL 13426: Landfill				
R1	Annual Return	Supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date'). The reporting relates to the period of 12 months after the issue of the licence, and each subsequent period of 12 months. **The anniversary date is 02 March**	EPA	Environmental Manger NSW Site Manager
R2	Written Incident Report	Notifications must be made by telephoning the Environment Line service on 131 555. The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	EPA	Environmental Manger NSW Site Manager
EPL 20121: Resource recovery				
R1	Annual Return	Supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date'). The reporting relates to the period of 12 months after the issue of the licence, and each subsequent period of 12 months. **The anniversary date is 08 June**	EPA	Environmental Manger NSW Site Manager

Item	Reporting Requirements	Frequency	Reporting Agency	Responsibility
R2	Written Incident Report	Notifications must be made by telephoning the Environment Line service on 131 555. The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	EPA	Environmental Manger NSW Site Manager
POEO Act				
Section 88	Monthly Waste Reports.	Monthly Completed online via the EPA's Waste and Resource Reporting Portal (WARRP)	EPA	Environmental Manger NSW Site Manager
Section 88	Volumetric Survey Report	Every 6 months in June and December (Unless the EPA agrees to an alternate time frame)	EPA	Environmental Manger NSW Site Manager

C4 – Monitoring locations

Noise Monitoring

Water Monitoring

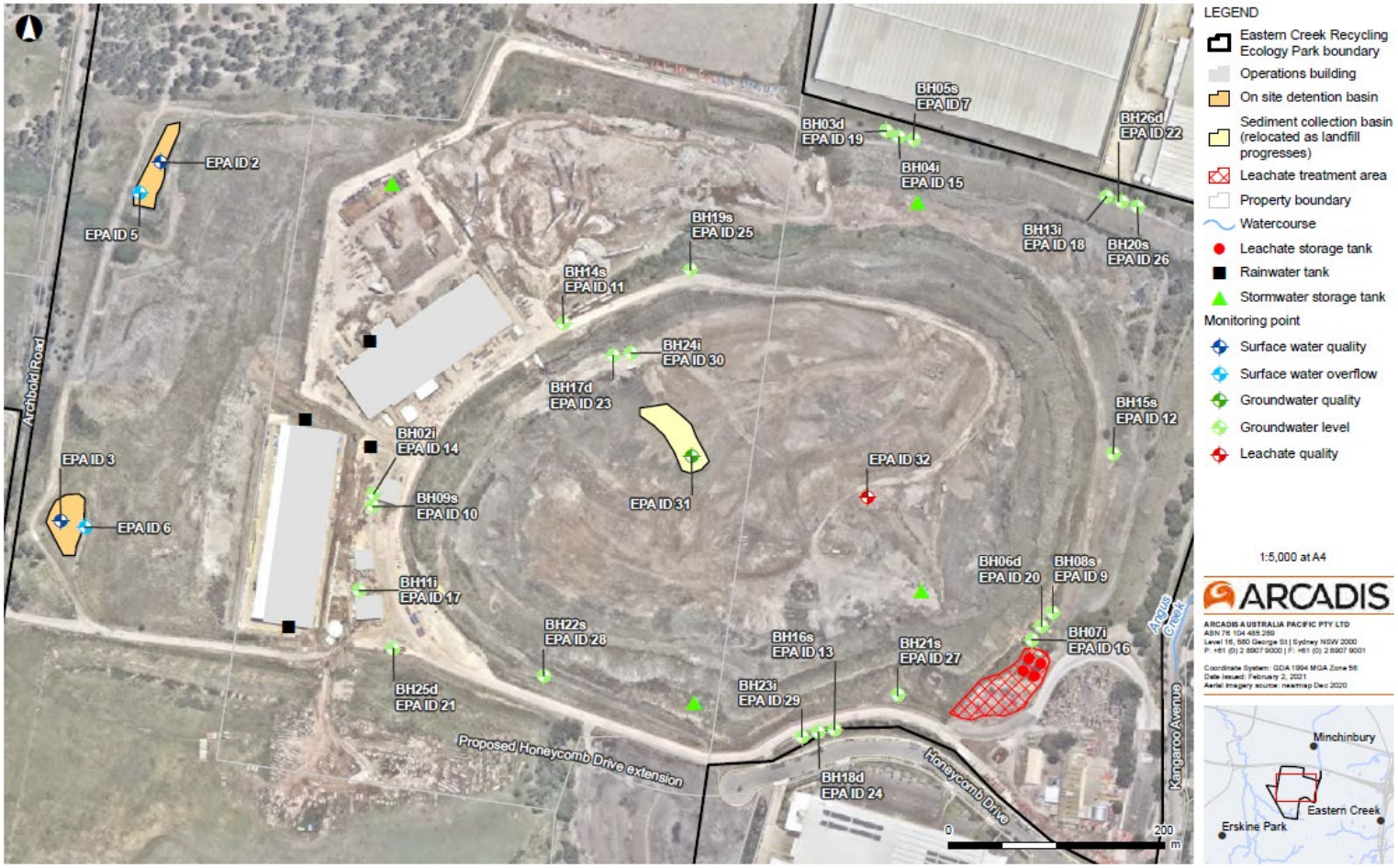


Figure 4-1: Soil, water and leachate management features

Landscape and vegetation monitoring locations

Figure 2-2: Landscape and vegetation management features

Air quality monitoring

APPENDIX D Approval Conditions Compliance

Mod 1	Mod 4
Mod 2	Mod 5
L&E Court	Mod 6
Mod 3	Mod 8

SCHEDULE 2 - ADMINSTRATIVE CONDITIONS
SCHEDULE 3 - SPECIFIC ENVIRONMENTAL CONDITIONS
SCHEDULE 4 REHABILITATION AND CLOSURE
SCHEDULE 5 ENVIRONMENTAL MANAGEMENT

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	1		**Waste**	
3	1		**Limits on Input**	
3	1	a	landfill more than 1 tonnes of non-putrescible waste per calendar year (excluding residual waste from the Materials Processing Centre and Pre-Sort Enclosure);	EMS Section 2.3, Table 2-2
3	1	b	receive or landfill putrescible waste on site;	EMS Section 2.4
3	1	c	stockpile more than 50 tonnes of tyres on site at any one time;	EMS Section 2.3 Table 2-2
3	1	d	stockpile more than 20,000 tonnes of green waste on site at any one time;	EMS Section 2.3 Table 2-2
3	1	e	receive waste on site that is contaminated by chemicals and/ or pathogens that will not be rendered harmless by the process or that may constitute a health or environmental risk, including clinical and related waste and diseased carcasses; and	EMS Section 2.4
3	1	f	receive waste on site containing contaminants classified as hazardous waste, restricted waste (other than asbestos) or liquid waste under the POEO Act	EMS Section 2.4
3	2		**Waste Acceptance and Screening**	
3	2	a	The Applicant must implement suitable procedures to: • ensure that the site does not accept wastes that are prohibited; and • screen incoming waste loads;	EMS Section 2.4
3	2	b	install suitable signs at the entry to the site, indicating the types of waste that are permitted to be accepted and those wastes that are prohibited; and	EMS Section 2.4
3	2	c	ensure that: • all waste sludges and wastes that are controlled under a tracking system have all the appropriate documentation prior to acceptance at the site; • staff receive adequate training in order to be able to recognise and handle hazardous or other unapproved wastes; and • Procedures and training requirements are integrated into the *Environmental Management Strategy* for the Project (See Schedule 5 condition 1).	EMS Section 2.4 (waste sources) EMS Section 4.4 (training) EMS Section 4 (Environmental Management System)

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	3	a	The Applicant must: implement procedures to identify and handle asbestos waste. These procedures should be in accordance with National Occupational Health and Commission (Safe Work Australia's) Code of Practice & Guidance Notes for the Management & Control of Asbestos in Workplaces, relative guidelines and legislation from Workcover NSW and the POEO Regulation; and	EMS Section 2.4.3 Table 2-3 Section 2.4.5 Also throughout the Waste Monitoring Program and Asbestos Management Procedures
3	3	b	integrate these procedures into the *Environmental Management Strategy* for the Project (See Schedule 5 condition 1).	EMS Section 4.1 (SEQ Management System) Section 4.4 Section 3.5 of the Waste Monitoring Program
3	3A		The Applicant must ensure that at no time is asbestos waste (as defined in the POEO Act) permitted to be placed in the conveyor/chute system for conveyance to the base of the landfill.	Landfill Environmental Management Plan (LMP) and conveyor chute management plan/procedure
3	4		**Limits on Outputs**	
3	4	a	Except for the following, the Applicant must dispose of all outputs produced from the waste processing and/or resource recovery facility on site to the landfill: Recyclables extracted and delivered off-site for resource recovery purposes;	EMS Section 2 Waste Monitoring Program
3	4	b	Putrescible waste extracted from the input waste stream and lawfully disposed of off-site;	EMS Section 2 Waste Monitoring Program
3	4	c	Restricted waste and hazardous waste extracted from the input waste stream and lawfully disposed of off-site; and	EMS Section 2 Waste Monitoring Program
3	4	d	Output waste derived materials approved for use under the Protection of the Environment Operations Act, 1997 and Regulation.	EMS Section 2 Waste Monitoring Program
3	5		**Monitoring**	
3	5	a	Within 12 months of the commencement of operations, the Applicant must prepare and implement a Waste Monitoring Program for the Project. This Program must: be prepared in consultation with EPA;	EMS Section 2 Waste Monitoring Program
3	5	b	be prepared to the satisfaction of the Planning Secretary; and	EMS Section 2 Waste Monitoring Program
3	5	c	include a suitable program to monitor the: • quantity, type and source of waste received on site; and	EMS Section 2 Waste Monitoring Program

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
			• quantity, type and quality of the outputs produced by the site.	
3	6		**LANDFILL CONSTRUCTION AND OPERATION**	
3	8	a	The Applicant must prepare and implement a **Landfill Plan** for the Project to manage the disposal of material into the void to ensure a suitable level of compaction occurs. The Plan must: be to the satisfaction of the Planning Secretary;	Landfill Environmental Management Plan (LMP)
3	8	b	be submitted within 12 months of commencing operations;	LMP
3	8	c	*be submitted every 3 years during the life of the operation* (coinciding with the independent environmental audit required at Schedule 4, condition 4); and	LMP
3	8	d	be submitted 12 months prior to the closure of the landfill;	LMP
3	8	e	be conducted by a suitably qualified, experienced, and independent engineer (or other relevant expert) whose appointment has been endorsed by the Planning Secretary;	LMP
3	8	f	detail the proposed disposal methodology to achieve a suitable level of compaction;	LMP
3	8	g	include a criteria or level of compaction target for the landfill, with the view to types of uses post-land filling of the void;	LMP
3	8	h	outline a process to monitor the performance of the disposal methodology, compaction and settling rates; and	LMP
3	8	i	contingency measures should the rates not be achieved; and	LMP
3	8	j	procedures for reporting the components of this Plan.	LMP
3	9	a	The Applicant must: minimise the exposed or cleared areas at the landfill;	LMP
3	9	b	fill the landfill cell in a systematic manner in accordance with the Landfill Plan in Schedule 3 condition 8, that maximises compaction rates;	LMP
3	9	c	cover all exposed landfilled waste with at least 150mm of VENM (or a suitable alternative) at the end of daily waste disposal and compaction activities or with intermediate cover comprising at least a 300mm thick layer of VENM if the resultant covered surface is to be left exposed for more than 90 days.	LMP
3	12		**Windrow Management**	
3	12	a	The Applicant must manage windrow composting operations in accordance with: AS 4454-2003: Composts, Soil Conditioners and Mulches, Appendix N;	EMS Section 2 Waste Monitoring Program
3	12	b	Best practice guidelines for Composting Systems;	EMS Section 2 Waste Monitoring Program
3	12	c	the most protective level of measures set out in the *Environmental Guidelines for Composting & Related Organics Processing Facilities*; or	EMS Section 2 Waste Monitoring Program
3	12	d	other practices approved by the EPA/EPA	EMS Section 2 Waste Monitoring Program

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	13		**Litter Control**	
3	13	a	The Applicant must: Implement suitable measures to prevent the unnecessary proliferation of litter both on and off site; and	Appendix C EMS Section 5.7.1.1 Landscape and Vegetation Management Plan (LVMP)
3	13	b	Inspect and clear the site and surrounding area, of litter on a daily basis.	Appendix C EMS Section 5.7.1.1 LVMP
3	14		**Pest, Vermin, Feral Animal & Noxious Weed Management**	
3	14	a	The Applicant must: Implement suitable measures to manage pests, vermin, feral animals and declared noxious weeds on site and identify those measures in the Environmental Management Strategy for the Project (See Schedule 5 condition 1)	LVMP
3	14	b	Inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin, feral animals or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in the surrounding area; and	LVMP
3	14	c	Perform ongoing monitoring of weed infestation on and adjoining the site.	LVMP
3			**Security, Hazards & Risks**	
3	15	a	The Applicant must: prevent unauthorised entry to the site; and	EMS Section 2.13 (Security and Fencing)
3	15	b	install and maintain a perimeter stock fence and lockable security gates on site.	EMS Section 2.13 (Security and Fencing)
3	16	a	The Applicant must: Prepare an **Emergency & Fire Response Plan** for the site to the satisfaction of NSW Fire Brigade, which should include but not be limited to mitigation measures, and include the number of days material can be stored on site, prior to construction commencing and the plan being implemented;	Emergency and Fire Response Plan (EFRP)
3	16	b	implement suitable measures to minimise the risk of fire on site	EFRP
3	16	c	extinguish any fires on site promptly	EFRP
3	16	d	maintain adequate fire-fighting capacity on site: and	EFRP
3	16	e	detail emergency evacuation procedures	EFRP
3	16A	a	The Applicant must prepare detailed design plans for the conveyor/chute system. These plans must: be prepared by a suitably qualified engineer in consultation with the EPA;	LMP and conveyor chute management plan/procedure

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	16A	b	be submitted to the Planning Secretary for approval prior to the commencement of construction;	LMP and conveyor chute management plan/procedure
3	16A	c	include the dimensions and gradients of the conveyor and chute;	LMP and conveyor chute management plan/procedure
3	16A	d	include a fully enclosed conveyor/chute system;	LMP and conveyor chute management plan/procedure
3	16A	e	include a waste drop height of no more than 3 metres between the end of the sock and the base of the quarry;	LMP and conveyor chute management plan/procedure
3	16A	e	incorporate fine mist sprays at the discharge end of the chute to minimise dust; and	LMP and conveyor chute management plan/procedure
3	16A	g	incorporate maintenance access points.	LMP and conveyor chute management plan/procedure
3	16B	a	The Applicant must prepare a **Conveyor and Chute System Maintenance and Management Plan**. The Plan must: be submitted to the Planning Secretary for approval prior to the commencement of operation;	LMP and conveyor chute management plan/procedure
3	16B	b	include a maintenance schedule;	LMP and conveyor chute management plan/procedure
3	16B	c	detail contingency measures in the event that the system breaks down, or is not coping with the intended quantities of waste; and	LMP and conveyor chute management plan/procedure
3	16B	d	detail contingency measures to remove asbestos waste from the system should it be detected.	LMP and conveyor chute management plan/procedure
3	17		**SOIL, WATER AND LEACHATE MANAGEMENT**	
3	17		**Discharge Limits**	
3	17		Except as may be expressly provided in an EPL for the project, the Applicant must comply with Section 120 of the POEO Act.	EMS Section 3.2.1 Soil, Water and Leachate Management Plan (SWLMP)
3	18		Except as may be expressly provided in an EPL for the project, the Applicant must discharge wastewater, including treated wastewater, to sewer, in accordance with a Trade Waste Agreement with Sydney Water	EMS Section 3.2.1 SWLMP Section 4.2.2 and Section 6.3
3	20		**Bunding**	
3	20		The Applicant must store all chemicals, fuels and oils used on site in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund. These bunds must be designed and installed in accordance with the requirements of all relevant Australian Standards, and/or EPA's Storing and Handling Liquids: Environmental Protection manual.	EMS Section 2.11 (Dangerous Goods Storage and Refuelling)

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	21		**Soil, Water and Leachate Management Plan**	
3	21	a	The Applicant must prepare and implement a **Soil, Water and Leachate Management Plan** for the site to the satisfaction of the Planning Secretary. This plan must: be submitted to the Planning Secretary for approval prior to construction;	SWLMP
3	21	b	be prepared by a suitably qualified and experienced expert	SWLMP Section 1.5
3	21	c	be prepared in consultation with the EPA and Council; and	SWLMP Section 1.4
3	21	d	include: • a site water balance; • an erosion and sediment control plan; • a stormwater management scheme; • a surface water, groundwater and leachate monitoring program; and • a surface water, groundwater and leachate response plan.	SWLMP Section 4 SWLMP Section 5.3 SWLMP Appendix D SWLMP Table 10-1 SWLMP Section 9 and 10.5
3	22	a	The site water balance must: include details of all water extracted, transferred, used and/or discharged by the development;	SWLMP Section 4
3	22	b	identify the source of all water collected or stored on the site, including rainfall, stormwater and groundwater;	SWLMP Section 4
3	22	c	describe the measures that would be implemented to minimise water use on site.	SWLMP Section 4
3	23	a	The erosion and sediment control plan must: be consistent with the requirements in the latest version of Managing Urban Stormwater: Soils and Construction (Landcom,2004);	SWLMP Section 4
3	23	b	identify the activities on site that could cause soil erosion and generate sediment; and	SWLMP Section 4
3	23	c	describe what measures would be implemented to: • minimise soil erosion and the transport of sediment to downstream waters, including the location, function and capacity of any erosion and sediment control structures; and • maintain these structures over time.	SWLMP Section 4
3	24	a	The stormwater management scheme must: be consistent with the guidance in the latest version of *Managing Urban Stormwater: Council Handbook (DEC);* and	SWLMP
3	24	b	include the detailed plans for the **proposed surface water management system.**	SWLMP
3	25A	a	Within 3 months of the approval of Mod 8, the Applicant must prepare an **Interim Stormwater Management Plan** for the Materials Processing Centre 2, car park and weighbridges, to the satisfaction of the Planning Secretary. The plan must: be prepared in consultation with Council and the EPA;	Interim Stormwater Management Plan (ISWMP) (prepared by at&l)
3	25A	b	include details and specifications for the detention basins in Catchment G (as shown in Proposed Future Stormwater Management Plan, Drawing No. SKC077, Issue P6, dated 26 October 2015; and letter from Genesis Xero Waste to Blacktown City Council, dated 4 November 2015); and	ISWMP
3	25A	c	satisfy the requirements of Council's Engineering Guide for Development (2005) and Blacktown Development Control Plan 2015.	ISWMP

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	26		Deleted	
3	27	a	The surface water, groundwater, and leachate monitoring program must: be generally consistent with the guidance in benchmark techniques 4, 5, 6, 7 and 8 of Appendix A of the EPA's Environmental Guidelines for Solid Waste Landfills (1996, or the relevant sections of the latest version of the guideline); and	SWLMP
3	27	b	include: • baseline data; • details of the proposed monitoring network; and • the parameters for testing and respective trigger levels for action under the surface water, groundwater and leachate response plan (see below).	SWLMP
3	28	a	The surface water, groundwater and leachate response plan must: include a protocol for the investigation, notification and mitigation of any exceedances of the respective trigger levels; and	SWLMP
3	28	b	describe the array of measures that could be implemented to respond to any surface or groundwater contamination that may be caused by the development.	SWLMP
3	29		**AIR, ODOUR AND GREENHOUSE GAS**	
3	29		**Air Quality Impact Assessment Criteria**	
3	29		The Applicant must ensure that dust generated by the development does not cause additional exceedances of the criteria listed in Tables 1 to 3 at any residence on, or on more than 25 percent of, any privately owned land. • Table 1: Long term impact assessment criteria for particulate matter .... • Table 2: Short term impact assessment criteria for particulate matter.... • Table 3: Long term impact assessment criteria for deposited dust .... *Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS/NZS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method*	Air Quality, Odour and Greenhouse Gas Management Plan (AQMP)
3	30		**Offensive Odour**	
3	30		The Applicant must not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.	AQMP
3	31		If the Independent Environmental Audit (see Condition 7 of Schedule 5) recommends that the green waste area (see plan in Appendix 1) be enclosed to reduce the odour impacts of the project, then the Applicant must enclose the area to the satisfaction of the Planning Secretary within the timeframe specified by the Planning Secretary.	AQMP
3	31a		The Applicant must ensure that each green waste bay has an individual cover and aerobic equipment fitted to reduce odour and the generation of leachate.	AQMP
3	32		**Dust**	
3	32		The Applicant must implement all reasonable and feasible measures to minimise the dust generated by the project.	AQMP
3	33		The Applicant must seal all internal haul roads within the operational area of the project (see Operational Area at Appendix 3), with the exception of haul roads within the quarry void itself.	AQMP

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	34	a	Prior to the commencement of operations, the Applicant must ensure that water sprays or appropriate dust suppression measures identified in the EA are implemented within the site to provide effective dust suppression to all dust generating activities, including but not limited to dust generated by: crushing, screening and/or sorting operations;	AQMP
3	34	b	vehicles moving on unpaved surfaces; and	AQMP
3	34	c	the unloading of dry waste material.	AQMP
3	35	a	During construction, the Applicant must ensure that: all trucks entering or leaving the site with loads have their loads covered; and	AQMP
3	35	b	the trucks associated with the project do not track dirt onto the public road network.	AQMP
3	36		**Greenhouse Gas Emissions**	
3	36	a	The Applicant must implement all reasonable and feasible measures to minimise: energy use on site; and	AQMP
3	36	b	the scope 1, 2 and 3 greenhouse gas emissions produced on site, to the satisfaction of the Planning Secretary.	AQMP
3	37		**Air Quality, Odour and Greenhouse Gas Management Plan**	
3	37		The Applicant must prepare and implement an **Air Quality, Odour and Greenhouse Gas Management Plan** for the project to the satisfaction of the Planning Secretary. This plan must:	AQMP
3	37	a	be prepared in consultation with the EPA and by a suitably qualified, experienced and independent **expert whose appointment has been endorsed by the Planning Secretary;**	AQMP
3	37	b	include an air quality and odour monitoring program, which details: • the location, frequency and duration of monitoring which adequately represents the sensitive receptors; • the provision for real-time boundary particulate matter monitoring; and • key performance indicators for monitoring;	AQMP
3	37	c	include an air quality and odour mitigation strategy which: • details proactive measures to minimise odour and air quality impacts; • identifies real-time boundary monitoring trigger levels for remedial action; • details the remedial action that will be taken if trigger levels are exceeded;	AQMP
3	37	d	include a program for monitoring subsurface gas, surface gas emission, and gas accumulation which: • is in general accordance with the guidance in sections 15-18 of Appendix A of the DEC's Environmental Guidelines for Solid Waste Landfills; and • includes a protocol for remediating uncontrolled landfill gas emissions;	AQMP
3	37	e	describe protocols for record keeping and compliance reporting; and	AQMP
3	37	f	describe protocols for the review and revision of the plan to ensure any controls remain effective over time.	AQMP

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	37A		Within six months of the approval of 06 0139 MOD 6, and every two years thereafter, the Applicant must prepare a site-wide air quality audit to the satisfaction of the Planning Secretary. The audit must	AQMP
3	37A	a	be undertaken by suitably qualified, experienced and independent expert;	AQMP
3	37A	b	be prepared in consultation with the EPA;	AQMP
3	37A	c	audit all aspects of the project with the potential to generate air emissions;	AQMP
3	37A	d	assess the current operation against the air quality impact predictions in the AQIA (Ramboll Australia Pty Ltd, dated August 2018);	AQMP
3	37A	e	review and benchmark on-site mitigation measures, management practices and operations against best practice for air quality management and opportunities for continuous improvement;	AQMP
3	37A	f	compare any emissions with relevant limits contained in conditions to this approval;	AQMP
3	37A	g	where any limits are exceeded or it is identified that current mitigation measures or management practices are not consistent with best practice, the air quality audit must identify additional mitigation measures to prevent and minimise emissions as far as practical. This includes consideration of: i. Sealing pans of or all site haul roads, ii. installation and/or upgrade of conveyors and associated dust suppression systems, iii. non-road diesel equipment and diesel combustion emission controls, iv. additional reactive management measures including but not limited to temporarily ceasing or altering operations or site practices; and v. the measures detailed within the AQIA (Ramboll Australia Pty Ltd, dated August 2018).	AQMP
3	37A	h	specify a timeframe for when any mitigation measures identified in sub-clause (g) will be implemented; and	AQMP
3	38		**NOISE**	
3	38		**Noise Impact Assessment Criteria**	
3	38	nil	The Applicant must ensure that noise from the project does not exceed the noise limits in Table 4. Table 4: Noise Impact Assessment Criteria…	EMS Section 5.5 EMS Section 5.5.3 Table 5-2
3	38A	nil	Noise generated by the project is to be measured in accordance with the relevant requirements and exemption (including meteorological conditions of the NSW Industrial Noise Policy)	EMS Section 5.5.5
3	38B	nil	Within six months of the approval of 06 0139 MOD 6, the Applicant must prepare a post commissioning noise report to validate the predictions of the acoustic reports submitted to support the modification request, to the satisfaction of the Planning Secretary. The report must:	EMS Section 5.5.6
3	38B	a	be undertaken by a suitably qualified and experienced person(s), consistent with the technical eligibility criteria for membership to the Association of Australian Acoustical Consultants or the Australian Acoustical Society;	EMS Section 5.5.6
3	38B	b	be prepared in consultation with Blacktown City Council;	EMS Section 5.5.6
3	38B	c	review on-site noise management measures;	EMS Section 5.5.6
3	38B	d	compare the noise emissions of the project with the noise limits specified in Condition 38 of Schedule 3 and the EPLs; and	EMS Section 5.5.6

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	38B	e	include an action plan to mitigate impacts should the report find actual noise impacts exceed the predicted noise impacts and the noise limits set under Condition 38 of Schedule 3 and the EPLs.	EMS Section 5.5.6
3	38C		Within two months after the completion of the post commissioning noise report required under Condition 38b of Schedule 3, the Applicant must submit to the satisfaction of the Planning Secretary verification that any actions identified in the post commissioning report have been implemented.	EMS Section 5.5.6
3	39		Hours of Operation The Applicant must comply with the restrictions in Table 5.	EMS Section 2.2 Table 2-1
3	39D		Prior to the commencement of earthworks for the Materials Processing Centre 2, the Applicant must install a temporary, non-earthen noise barrier on top of the quarry spoil pile which is sufficient in height to shield engine, excavation and truck loading noise associated with excavating the spoil pile. The barrier must remain in place until the spoil pile provides sufficient noise shielding to the west and it must be removed prior to the issue of an Occupation Certificate for the Materials Processing Centre 2 enclosure. The barrier must not be comprised of shipping containers.	TBC
3	39E		The Applicant must ensure the roller doors of the Materials Processing Centre 2 remain closed during the hours of 10pm and 5am while not in use.	EMS Section 5.5.4
3	39F		The Applicant must ensure the roof, doors and walls of the Materials Processing Centre 2 has an acoustic performance of at least Rw 21 and any ventilation system installed does not compromise the performance of the enclosure.	EMS Section 5.5.4
3	40		**Monitoring**	
3	40		The Applicant must prepare and implement a Noise Monitoring Program for the development, in consultation with EPA, and to the satisfaction of the Planning Secretary. This program must be submitted to the Planning Secretary for approval prior to commencement of operations, and include a noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval.	EMS Section 5.5.5
3	41		**METROLOGICAL MONITORING**	
3	41		For the life of the Project, the Applicant must ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the latest version of Approved Methods for Sampling of Air Pollutants in New South Wales guideline	AQMP
3	42		**TRAFFIC, TRANSPORT & ACCESS**	
3	42		**Access** Access to the Project from Archbold Road is not permitted.	EMS Section 5.6.1
3	43		Access to the Project must be via Old Wallgrove Road or Wonderland Drive, via the public Precinct Plan Road network, wherever a public road is available.	EMS Section 5.6.1
3	47	a	**Internal Roads and Parking** The Applicant must: ensure that all internal site paved, trafficable or parking areas on site complies with AS2890.1 and/or AS2890.2 or their latest versions; and	EMS Section 5.6.3

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	47	b	construct at least 50 parking spaces for employees and visitors with at least 2% of those spaces provided for disabled drivers, clearly marked and signposted.	EMS Section 5.6.3
3	47A		Deleted	NA
3	48		The Applicant must ensure that vehicles associated with the project do not park or queue on the public road network at any time.	EMS Section 5.6.2.1
3	51		**Transport Code of Conduct**	
3	51	a	The Applicant must prepare and implement a **Transport Code of Conduct** for the development to the satisfaction of the Planning Secretary. This protocol must: be submitted to the Planning Secretary for approval prior to the commencement of operations	EMS Section 5.6.2.1
3	51	b	be prepared in consultation with the RTA and Blacktown Council; and	
3	51	c	describe the measures that would be implemented to: • minimise the impacts of the development on the local and regional road network, including traffic noise.	EMS Section 5.5.2.2
3	52		**VISUAL AMENITY**	
3	52		**Lighting**	
3	52	a	The Applicant must ensure that the lighting associated with the project: complies with the latest version of AS 4282(INT) - Control of Obtrusive Effects of Outdoor Lighting; and	EMS Section 5.7
3	52	b	is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	EMS Section 5.7.2
3	53		**Amenity Berms**	
3	53	nil	The Applicant must prepare design details for the visual screens, impervious barriers and amenity berms being implemented for the facility, having regard to adjoining landowners. This design detail must be submitted to the Planning Secretary for approval prior to the commencement of construction or regrading of the amenity berms, visual screens or impervious barriers.	EMS Section 5.7.1
3	54	a	Prior to the commencement of operations, the Applicant must: construct and maintain, for the duration of the operations, amenity berms, impervious barriers and visual screens around the perimeter of the operational area (as detailed in the EA , the site plan at Appendix 1 and Schedule 3, Condition 53 above);	EMS Section 5.7.1
3	54	b	retain the existing amenity berm to the north east of the quarry void at the perimeter;	EMS Section 5.7.1
3	54	c	vegetate the berms in accordance with the Landscape and Vegetation Management Plan at Schedule 3, condition 59;	EMS Section 5.7.1
3	54	d	maintain the height of the amenity berms at no less than 10 metres; and	EMS Section 5.7.1
3	54	e	conduct all earth works required to reshape the amenity berms on site, without impacting on adjoining landowners.	EMS Section 5.7.1
3	55		No stockpile on site should exceed the height of the berms, impervious barriers or visual screens.	EMS Section 2.6 (Segregated stockpiles)

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	56		**Signage and Fencing**	
3	56	a	The Applicant must not install any signage or fencing on site without the written approval of the Planning Secretary. In seeking this approval, the Applicant must: submit detailed plans of the proposed signage or fencing, which have been prepared in consultation with Council; and	EMS Section 2.12 (Security and Fencing)
3	56	b	demonstrate that the proposed signage or fencing is consistent with the relevant requirements from Council.	EMS Section 2.12 (Security and Fencing)
3	57		**FLORA AND FAUNA MANAGEMENT**	
3	57		The Applicant must not disturb those areas identified as Conservation Areas in the Precinct Plan and identified and mapped in the EA.	LVMP EMS Section 2.1 (Facility overview) EMS Section 2.12.3 (Conservation area)
3	58		The Applicant must comply with Clean up notices issued by the Environment Protection Authority to the Applicant in relation to creek rehabilitation and reinstatement work within Lot 2 DP 262213.	LVMP
3	59		**Landscape and Vegetation Management Plan**	
3	59	a	The Applicant must prepare and implement a **Landscape and Vegetation Management Plan** for the project to the satisfaction of the Planning Secretary. This plan must: be prepared in consultation with NOW and Council and be submitted to the Planning Secretary for approval within 3 months of this approval;	LVMP
3	59	b	be prepared in accordance with NOW's Guidelines for Controlled Activities – Vegetation Management Plans; and	LVMP
3	59	c	include: • a Landscape Plan for the project, which identifies screen plantings to minimise visual impacts, particularly on the amenity berms; • detailed plans and procedures to: – restore and maintain the waterways and riparian zones of the Ropes Creek Tributary on the site; – manage weeds in the vicinity of the riparian zones; – integrate works into the proposed landscaping for the rest of the site; – manage impacts on fauna; and – monitor the performance of the proposed restoration works.	LVMP
3	59	d	Provide details on how those areas identified as Conservation Areas in the Precinct Plan must be actively managed for conservation purposes including; - improving the quality of the vegetation in these areas - measure to control pests vermin, and noxious weeds; and - measures to control access.	LVMP EMS Section 2.12.3 (Conservation area)

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
3	60		**HERITAGE**	
3	60		The Applicant must not disturb those areas identified as High Sensitivity in McDonald 2005.	EMS Section 5.9 (Heritage) Aboriginal Heritage Management Plan (AHMP)
3	61		**Aboriginal Heritage Management Plan**	
3	61	a	The Applicant must prepare and implement an **Aboriginal Heritage Management Plan**, in consultation with the OEH (now EES), and to the satisfaction of the Planning Secretary. The Plan must: be submitted to the Planning Secretary for approval prior to the commencement of construction;	AHMP
3	61	b	be prepared by a suitably qualified archaeologist;	AHMP
3	61	c	be consistent with the management principles defined in McDonald 2005;	AHMP
3	61	d	include a strategy for the salvage and long-term management of salvaged objects;	AHMP
3	61	e	include procedures for topsoil stripping and sub-surface excavation works in areas of moderate sensitivity and supervision by a qualified archaeologist;	AHMP
3	61	f	identify procedures to be followed should previously unidentified objects be uncovered or additional impacts to sites be identified;	AHMP
3	61	g	measures to protect Aboriginal heritage values of those areas marked high sensitivity in McDonald 2005; and	AHMP
3	61	h	include a procedure for continued consultation with Aboriginal stakeholders.	AHMP
4	1		**Final Landform**	
4	1		The final landform for the landfill must generally be in accordance with the plan at Appendix 4. All earth works required to reach this final landform must be conducted on site, without impacting on adjoining landowners.	LMP
			ENVIRONMENTAL MANAGEMENT	
5	1		**Environmental Management Strategy**	
5	1	a	The Applicant must prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Planning Secretary. The Strategy must: be submitted to the Planning Secretary for approval prior to the commencement of construction;	EMS Section 1.5
5	1	b	provide the strategic framework for environmental management of the project;	EMS Section 4
5	1	c	identify the statutory approvals that apply to the project;	EMS Section 3
5	1	d	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;	EMS Table 4-1
5	1	e	describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project;	EMS Section 4 EMS Section 6.4 EMS Section 4.7

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
			• respond to any non-compliance; and • respond to emergencies;	
5	1	f	include: • copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and • a clear plan depicting all the monitoring currently being carried out within the project area.	EMS Section 1.3 Relevant Appendix
5	2		**Management Plan Requirements**	
5	2	a	The Applicant must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: detailed baseline data;	EMS Section 2 (Facility Overview) EMS Section 5 (Implementation)
5	2	b	a description of: • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;	EMS Section 3 EMS Table 3-2 EMS Table 3-3
5	2	c	a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria	Appendix C
5	2	d	a program to monitor and report on the: • impacts and environmental performance of the project; • effectiveness of any management measures (see c above);	Appendix C
5	2	e	a contingency plan to manage any unpredicted impacts and their consequences;	EMS Section 6.6.2
5	2	f	a program to investigate and implement ways to improve the environmental performance of the project over time;	EMS Section 6.6
5	2	g	a protocol for managing and reporting any: • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and	EMS Section 4.6 EMS Section 4.7 EMS Section 6.3
5	2	h	a protocol for periodic review of the plan.	EMS Section 6.6
5	3		**Annual Review**	
5	3	a	By the end of December 2010, and annually thereafter, the Applicant must review the environmental performance of the project to the satisfaction of the Planning Secretary. This review must: describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year	EMS Section 6.5.2
5	3	b	include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the	EMS Section 6.5.2

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
			• the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EA;	
5	3	c	identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	EMS Section 6.5.2
5	3	d	identify any trends in the monitoring data over the life of the project;	EMS Section 6.5.2
5	3	c	identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and	EMS Section 6.5.2
5	3	d	describe what measure will be implemented over the next year to improve the environmental performance of the project.	EMS Section 6.5.2
5	4		**Revision of Strategies, Plans & Programs**	
5	4		Within 3 months of the submission of an:	EMS Section 6.6.3
5	4		(a) the submission of an annual audit under Condition 3 of Schedule 5; (b) the submission of an incident report under Condition 5 of Schedule 5; (c) the submission of an Independent Environmental Audit under Condition 7 of Schedule 5; (d) the approval of any modification of the conditions of this approval; (e) the issue of a direction of the Planning Secretary under Condition 4 of Schedule 2; or (f) the completion of the site-wide air quality audit under Condition 37a of Schedule 3,	EMS Section 6.6.3
5	4		the strategies, plans and programs required under this approval must be reviewed, and the Department must be notified in writing that a review is being carried out	EMS Section 6.6.3
5	4A		If necessary to either improve the environmental performance of the project, cater for a modification or comply with a direction, the strategies, plans and programs required under this approval must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review. *Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.* t.	EMS Section 6.6.3
5	5		**REPORTING**	
5	5		**Incident** The Applicant must notify the Planning Secretary and any other relevant agencies of any incident associated with the project as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant must provide the Planning Secretary and any relevant agencies with a detailed report on the incident.	EMS Section 4.7.2 (Incident Notifications Requirements)
5	6		**Regular** The Applicant must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval, and to the satisfaction of the Planning Secretary.	EMS Section 4.5.3

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
5	7		**INDEPENDENT ENVIRONMENTAL AUDIT**	
5	7	a	Within 6 months of the commencement of operation, and every 2 years thereafter, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: be conducted by suitably qualified, experienced and independent team of experts (including an odour expert), whose appointment has been endorsed by the Planning Secretary;	EMS Section 6.4.2 (Independent Environmental Audit)
5	7	b	include consultation with the relevant agencies;	EMS Section 6.4.2 (Independent Environmental Audit)
5	7	c	include a full odour audit of the project, taking into consideration the relevant technical guidelines and any odour complaints made since the previous audit;	EMS Section 6.4.2 (Independent Environmental Audit) AQMP
5	7	d	assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL (including any assessment, plan or program required under these approvals);	EMS Section 6.4.2 (Independent Environmental Audit)
5	7	e	review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate; and	EMS Section 6.4.2 (Independent Environmental Audit)
5	7	f	recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.	EMS Section 6.4.2 (Independent Environmental Audit)
5	7		*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Planning Secretary.*	EMS Section 6.4.2 (Independent Environmental Audit)
5	8		Within 6 weeks of the completing of this audit, or as otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary, together with its response to any recommendations contained in the audit report.	EMS Section 6.4.2 (Independent Environmental Audit)
5	9		**ACCESS TO INFORMATION**	
5	9	a	From the end of 2009, the Applicant must make the following information publicly available on its website: a copy of all current statutory approvals;	EMS Section 4.5.3 (Information Availability)
5	9	b	a copy of the current environmental management strategy and associated plans and programs;	EMS Section 4.5.3 (Information Availability)
5	9	c	a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;	EMS Section 4.5.3 (Information Availability)
5	9	d	a complaints register, which is to be updated on a monthly basis;	EMS Section 4.5.3 (Information Availability)

Schedule	CoA #	Sub ref	Development Consent Conditions	Where Addressed
5	9	e	a copy of any Annual Reviews (over the last 5 years);	EMS Section 4.5.3 (Information Availability)
5	9	f	a copy of any Independent Environmental Audit, and the Applicants response to the recommendations in any audit; and	EMS Section 4.5.3 (Information Availability)
5	9	g	any other matter required by the Planning Secretary.	EMS Section 4.5.3 (Information Availability)

APPENDIX E Landfill Plan

APPENDIX F Soil, Water and Leachate Management Plan

APPENDIX G Air Quality, Odour and Greenhouse Gas Management Plan

APPENDIX H Landscape and Vegetation Management Plan

APPENDIX I Aboriginal Heritage Management Plan

APPENDIX J Code of Conduct