



Bulk Recovery Solutions

A.C.N. 148698784

16 Kerr Road
Ingleburn, NSW 2585

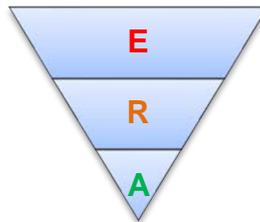
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OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN
BULK RECOVERY SOLUTIONS PTY LTD
16 KERR ROAD INGLEBURN NSW 2565

Prepared for: Bulk Recovery Solutions Pty Ltd
NSW Department of Planning, Industry and Environment

Prepared by: Nicolas Israel, Director

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*We Aim to Excel in all Aspects of Business
We Speak your Environmental Language*

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ABBREVIATIONS & GLOSSARY OF TERMS

AHD	Australian Height Datum
Applicant	Bulk Recovery Solutions Pty Ltd
Appropriate Regulatory Authority (ARA)	Generally, the appropriate regulatory authority is the EPA for licensed premises and local Council for non-licensed premises. There are exceptions to this definition as stated in Clause 6 of the POEO Act.
AQIA	Air Quality Impact Assessment
AS	Australian Standard
AWS	Automatic Weather Station
BCA	Building Code of Australia
Consent	Development Consent SSD 8593
Council	Campbelltown City Council
BRS	Bulk Recovery Solutions Pty Ltd which is the occupier of the premises and operator of the business subject to this plan
Company	Bulk Recovery Solutions Pty Ltd
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEC	NSW Department of the Environment and Conservation
DECC	NSW Department of Environment and Climate Change
Department	NSW Department of Planning, Industry and Environment
DPIE	NSW Department of Planning, Industry and Environment
ENM	Excavated Natural Material
Environment	As defined in the POEO Act, <i>"environment" means components of the earth, including:</i> <ul style="list-style-type: none"> <i>(a) land, air and water, and</i> <i>(b) any layer of the atmosphere, and</i> <i>(c) any organic or inorganic matter and any living organism, and</i> <i>(d) human-made or modified structures and areas,</i> <i>and includes interacting natural ecosystems that include components referred to in paragraphs (a)-(c).</i>
EPA	NSW Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPL	Environment Protection Licence
Harm	As defined in the POEO Act, <i>"harm" to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution.</i>
Immediately	Promptly and without delay
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
Material risk of harm	"Material risk of harm to the environment" is defined under Section 147 of the POEO Act as: <ul style="list-style-type: none"> <i>(a) harm to the environment is material if:</i>

(i) *It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*

(ii) *It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*

(b) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*

mg	Milligram ($g \times 10^{-3}$)
Minister	NSW Minister for Planning and Public Spaces (or delegate)
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Monitoring	Any monitoring required under this consent must be undertaken in accordance with section 9.40 of the EP&A Act
µg	Microgram ($g \times 10^{-6}$)
µm	Micrometre or micron ($metre \times 10^{-6}$)
m³	Cubic metre
NEPC	National Environment Protection Council
NHMRC	National Health and Medical Research Council
NIA	Noise Impact Assessment
NPI	Noise Policy for Industry 2017
Occupier	As defined under the POEO Act, “ <i>occupier</i> ” of premises means the person who has the management or control of the premises.
OEH	Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
OMP	Odour Management Plan
OU	Odour Units; concentration of odorous mixtures in odour units. The number of odour units is the concentration of a sample divided by the odour threshold or the number of dilutions required for the sample to reach the threshold. This threshold is equivalent to when 50% of a testing panel correctly detect an odour
Planning Secretary	Secretary of the Department, or delegate
PM₁₀	Particulate matter less than 10 microns in aerodynamic diameter
PM_{2.5}	Particulate matter less than 2.5 microns in aerodynamic diameter
POEO Act	Protection of the Environment Operation Act 1997
Pollution	As defined under the POEO Act, “ <i>pollution</i> ” means: <ul style="list-style-type: none"> (a) <i>water pollution, or</i> (b) <i>air pollution, or</i> (c) <i>noise pollution, or</i> (d) <i>land pollution.</i>

Pollution Incident	The <i>Environmental Guidelines: Preparation of pollution incident response management plans</i> defines a pollution incident as: “...an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.”
Premises	As defined under the POEO Act, “ <i>premises</i> ” includes: (a) a building or structure, or (b) land or a place (whether enclosed or built on or not), or (c) a mobile plant, vehicle, vessel or aircraft.
Premises	16 Kerr Road, Ingleburn NSW 2565
Prevention of pollution	Use of processes, practices, materials or products that avoid, reduce or control pollution, which may include recycling, treatment, process changes, control mechanisms, efficient use of resources and material substitution. Note: The potential benefits of prevention of pollution include the reduction of adverse environmental impacts, improved efficiency and reduced costs.
Reasonable	Means applying judgement in arriving at a decision, considering mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements
RMS	Roads and Maritime Services
Scheduled activity	"Scheduled activity" means an activity listed in Schedule 1 of the POEO Act. Scheduled activities must be licensed under the POEO Act.
Site	16 Kerr Road, Ingleburn NSW
Spill kit	A set of equipment used to isolate or control an accidental overflow or release of a substance or material.
SSD	State Significant Development
TMP	Traffic Management Plan
TSP	Total Suspended Particulate
tpa	Tonnes per annum
USEPA	United States Environmental Protection Agency
VENM	Virgin Excavated Natural Material
Waste	As defined in the Protection of the Environment Operations Act 1997
WCMR	Waste Contribution Monthly Report
WHO	World Health Organisation

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ATTACHMENTS

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- Attachment 1 – BRS Operational Traffic Management Plan**
 - Attachment 2 – BRS Operational Odour management Plan**
 - Attachment 3 – BRS Operational Waste Management Plan**
 - Attachment 4 – BRS Operational Workplace Inspection Procedure**
 - Attachment 5 – BRS Additional Operational Processes and Procedures**

1. INTRODUCTION

Environmental Risk Assessors Pty Ltd has been commissioned by Bulk Recovery Solutions Pty Ltd (BRS) to prepare an Operational Environmental Management Plan (OEMP) for its proposed Resource Recovery facility at 16 Kerr Road, Ingleburn NSW 2565 (site). The approved processing capacity is 125,000 tonnes per year of liquid waste. The OEMP is required to ensure compliance with specific requirements included in relevant conditions of Development Consent No SSD 8593 (Consent) which was issued by the Department of Planning, Industry and Environment (Department) to BRS on 26 May 2021. However, it was considered appropriate to address other conditions that are associated with the operation stage of the development. The OEMP does not apply to the construction stage of the development. The Consent applies to site located at 16 Kerr Road, Ingleburn within the Campbelltown City Council Local Government Area.

Table 5-2 includes all operational related conditions and where these conditions are addressed in this document.

Table 7-1 includes the operational related management and mitigation measures to be implemented on site.

The approved development is the receiving and processing of 125,000 tonnes per annum (tpa) of liquid waste comprising drilling mud and non-destructive drill mud, cement slurry, concrete washout, oily water (J120), sewage sludge including sewer grit or screenings, stormwater, groundwater (including M250, J100, N160, and F100), industrial wastewater, leachate and firewater (N140).

The approved development provides also for the storage of 5,100 tonnes of liquid waste and liquid waste by-products on site at any one time.

The approved development also includes a weighbridge, upgrade of the stormwater management system, internal storage bays and use of a three-story office.

However, the facility has previous approvals to receive and process smaller quantities of liquid and solid wastes as well as concrete batching.

The facility operates also under the provisions of an Environment Protection Licence No 20797 (EPL) which includes conditions that must be complied with at all times during the operation of the facility.

As a result of the approved development, BRS has applied to the EPA to vary the EPL to reflect the additional approved activities.

Under normal circumstances, developments comprise three stages; demolition, construction and operation. This OEMP applies to the operation stage only.

This OEMP was prepared in context of the following two documents:

- AS/NZS ISO 14001, *Environmental Management Systems – Specifications with guidance for use* and AS/NZS 14004, *General guidelines on principles, systems and supporting techniques*, and
- *Guideline for the Preparation of Environmental Management Plans* published by the Department of Infrastructure, Planning and Natural Resources in 2004.

This OEMP has been prepared in line with the revised Environmental Impact Statement (EIS) prepared by KDC Consultants, Response to Submissions (RTS) and revised RTS as well as other information submitted by the applicant to the Department. The OEMP is also prepared in line with all scientific reports supporting the EIS and their updated revisions as well as the requirements of the development consent SSD 8593.

This OEMP provides the framework so that the operational activities are undertaken mindful of potential environment impacts of activities to minimise potential to cause nuisance and harm to all those potentially affected by the activities to be undertaken on site during the operational stage. The OEMP also serves to ensure that BRS commitments to minimise and reduce potential harm to the environment and human health will be adhered to.

1.1 OBJECTIVES

1.1.1 General

The purpose of this Operational Environmental Management Plan (OEMP) is to provide a reliable framework for the management of all potential environmental impacts that are likely to be caused by the operational activities on the BRS site, while recognising the needs of industry, government and the community, and the need for the site to operate economically and efficiently. This OEMP is designed to document site management practices and procedures that utilise the latest and most practical technologies available to minimise the impact of the operational activities on the environment, residents, and surrounding developments.

This OEMP is being prepared to ensure appropriate management of all potential environmental aspects and impacts that may occur during the operational stage of this project. The OEMP has been developed to consider the management of site-specific environmental impacts, with consideration to its situation and using appropriate and practical management practices during the operational stage. The OEMP may require periodic reviews and revisions in order to respond to changes in best management practices and technology advances.

This OEMP covers the following aspects associated specifically with the approved activities:

- Planning and environmental statutory requirements,
- Site-specific Operational Environmental Management measures and procedures,
- Roles and Responsibilities of management and staff,
- Training of staff and contractors,
- Communications,
- Continued maintenance/minimisation and monitoring of waste management,
- Review and continual improvement,
- Complaint's handling,
- Incident management,
- Non-compliance management,
- Monitoring of environmental aspects, and
- On-going monitoring of OEMP performance, and
- Detailed procedures in a format for hands-on operations.

Commitments have been made by BRS management that the objectives above will be achieved, maintained, and adhered to continuously as part of the operational stage of the development.

1.1.2 Specific Objectives

This OEMP has been prepared consistent with the requirements of the Consent conditions to be submitted for approval by the Planning Secretary as required by the consent granted by the Department. On that basis, the specific objectives are linked directly to the consent conditions relevant to the operational stage of the development. These conditions are listed in **Table 5-2**.

1.2 THE COMPANY

The Company is Bulk Recovery Solutions Pty Ltd (BRS) with an ABN 51 148 898 784. BRS is a family-owned business which has been operating an RRF at the site since 2016. A range of liquid and solid waste types are currently recovered on site, primarily comprising building and demolition waste generated throughout the Sydney region. Customers include, but not limited to:

- Veolia Environmental Solutions
- Sydney Water
- Patriot Environmental
- SureSearch
- Suckers Excavations
- Dig Smart
- Hanson
- Boral
- Holcim
- Weir Minerals
- John Heine & Sons
- Lend Lease
- Borg Civil
- Langford Environmental
- Hancock Excavations
- Warwick Farm Landscape
- Express Waste

BRS currently operate under a development consent granted by Campbelltown City Council (948/2015/DA-I) and an Environmental Protection Licence (EPL 20797) issued by the Environment Protection Authority (EPA). Consent to discharge industrial trade wastewater to the sewer has also been obtained from Sydney Water (Consent Number No 38498).

BRS currently operate an existing Resource Recovery Facility (RRF) from the site which recovers both solid and liquid waste up to 30,000tpa and stores up to 5,000t at any one time.

It is proposed that BRS will continue to operate the RRF with the ability to process a greater quantities and types of liquid waste to meet growing market demand.

The company's details are provided below.

Bulk Recovery Solutions Pty Ltd is an Australian owned and operated family company which was established in 2011.

Physical address: 16 Kerr Road, Ingleburn NSW 2565
Postal address: 16 Kerr Road, Ingleburn NSW 2565

Current contact details are:

Phone: (02) 8717 3366
Fax: N/A
Email: Tim@bulkrecoveryolutions.com

1.3 THE PREMISES

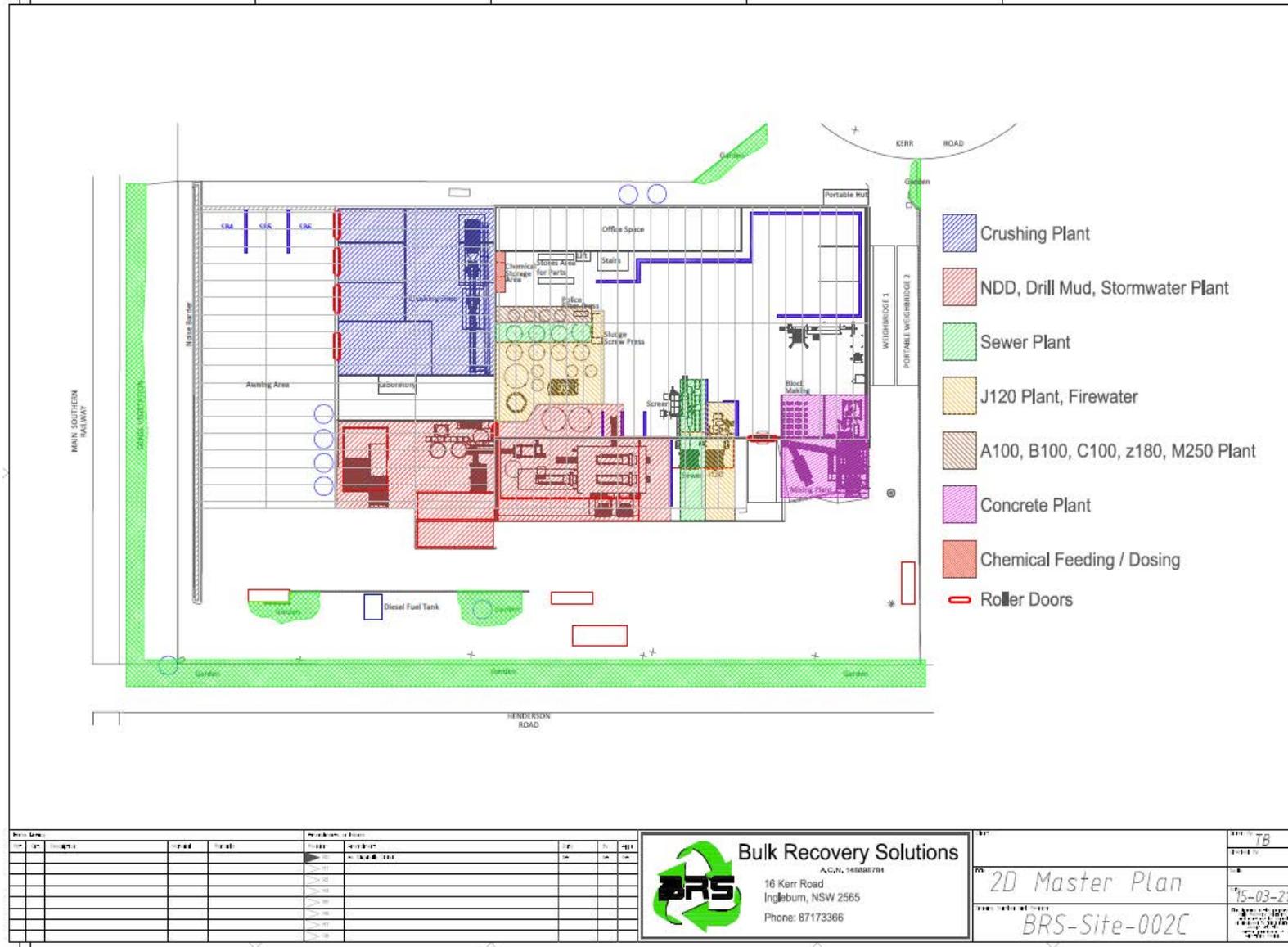
The details of the premises are provided below.

Grid reference: lat = -33.991513 and Long = 150.869747 (middle of site)
lat = -33.991574 and Long = 150.868946 (Street address)
Zone: 56
Elevation: 26-27 m
Local Government Area: Campbelltown City Council
Land Use Zoning: IN1 – General Industrial

Tim Baillie, the managing director of BRS is considered to be an expert in solid and liquid waste processing and treatment. Tim will be applying his expertise in ensuring that the correct materials are used for the specific location of the construction stage.

Figure 1-1 shows a 2D site plan of the premises and **Figure 1-2** shows a 3D site plan of the premises.

Figure 1-1: 2D Site Plan of the Premises



2. DESCRIPTION OF PREMISES AND APPROVED DEVELOPMENT

A brief outline of the subject premises has been provided below.

2.1 DESCRIPTION OF PREMISES AND SURROUNDS

The site is located at 16 Kerr Road, Ingleburn, NSW and is legally described as Lot 16 DP717203. It is located within the Campbelltown local government area (LGA). The site is approximately 1.295 hectares (ha) in area, is rectangular in shape and positioned at the end of the Kerr Road cul-de-sac (**Figure 2-1**). It is zoned IN1 General Industrial under the Campbelltown Local Environmental Plan 2015 (LEP 2015) and located within the Ingleburn Industrial area.

Immediately adjoining the site is Henderson Road to the northeast, a railway line (the Main Southern Railway Line) adjoins to the southeast and industrial premises are constructed on both the southwest and northwest site boundaries. The nearest residential dwelling is 50 metres (m) to the southeast, across the railway line. Bunbury Curran Creek lies approximately 350m to the north of the site and serves as a stormwater outlet for the surrounding area (**Figure 2-2**).

The Ingleburn Industrial area comprises a mix of general industrial uses including warehousing, distribution centres and vehicle repair centres. Neighbouring the site to the south is another RRF known as Campbelltown Recyclers.

To give the reader a better understanding of the location of the site/premises, **Figure 2-1** shows an aerial view of the premises in the local context including the surrounding activities/developments.

Extract from the land zoning map showing the subject premises location is presented in **Figure 2-2**.

The site includes a large 3 story concrete building which currently occupies the site. Included within the building is a warehouse, maintenance/plant room, office space and waste processing area. Concrete hardstand covers the remaining site which provides vehicle access, car parking and stormwater management.

Access to the site is provided via a double driveway at the cul-de-sac head on Kerr Road. The western most driveway provides access to the rear of the building via a security office and weighbridge. The eastern most driveway provides access to the front of the building, office space and staff / visitor car parking.

Figure 2-1: Location of the Premises on Kerr Road



Figure 2-2: Location of the Premises within the Industrial land Zone



Access to the site from the Hume Motorway is via a series of approved b-double routes as shown in **Figure 2-3**. Vehicles travelling north on the Hume Highway, to and from the site, follow Brooks Road, Williamson Road, Henderson Road, Lancaster Street, Aero Road, and Kerr Road. Vehicles travelling south on the Hume Highway to and from the site, are required to travel further south along Williamson Road before accessing the southbound Hume Highway Interchange.

Figure 2-3: Heavy Vehicle Route and Key Intersections



2.2 DESCRIPTION OF APPROVED DEVELOPMENT

BRS currently operate an existing RRF from the site which recovers both solid and liquid waste up to 30,000tpa (11,000tpa of liquid waste and 19,000tpa of solid waste) and stores up to 5,000t at any one time.

The approved development involves the expansion and continued operation of the existing RRF by increasing the receiving and processing of liquid waste to a total of 125,000 tonnes per annum comprising drilling mud and non-destructive drill mud, cement slurry, concrete washout, oily water (J120), sewage sludge including sewer grit or screenings, stormwater, groundwater (including M250, J100, N160, and F100), industrial wastewater, leachate and firewater (N140). The capacity of the existing solid waste component of the facility would be unaffected by the development and the acceptance and processing of up to 19,000 tpa of solid waste would continue in accordance with Council's DA 948/2015/DA-I/B.

The approved development provides also for the storage of 5,100 tonnes of liquid waste and liquid waste by-products on site at any one time.

The approved development also includes a weighbridge, upgrade of the stormwater management system, internal storage bays and use of a three-story office.

The existing operations also have approval to produce up to 50,000 tpa of concrete and 30,000 tpa of concrete masonry products through an onsite concrete batching plant (DA No. 336/2006/DA-DE).

BRS wishes to expand its operations to meet the growing requirement for waste recycling, reusing, and disposal in NSW and to meet demand within its existing customer base.

Greater details of the approved development are included in other sections of this document and **Attachments** including liquid waste processing and storage procedures.

The approved development layout plan is presented in **Figure 2-5** which is extracted from Figure 1 – Appendix 1 of Development Consent SSD8593 dated 26 May 2021.

2.3 POTENTIALLY SENSITIVE RESIDENTIAL RECEPTORS

As previously stated, the premises is located within a mainly industrial area. The activities will be well shielded from the surrounding rural residential environment by the existing built environment such as the topography of the premises, the Southern Railway line, the buildings associated with the adjacent industrial facilities and the landscaping including the large trees and shrubs. In addition, a large noise wall/barrier (approximately 70m long and 6.5m high) is constructed at the eastern side of the site, to provide additional shielding of the activities and to assist further in protecting humans and the environment from any potential impact.

Based on the EPA's document "*NSW DEC (EPA) Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales – August 2005*", the following definition of sensitive receptor is provided: "**Sensitive receptor** A location where people are likely to work or reside; this may include a dwelling, school, hospital, office or public recreational area.". However, as the premises is located within an industrial area where a variety of industrial and commercial activities are undertaken, it was considered appropriate to pay greater attention to the location of the premises relative to the residential zoned areas under Campbelltown Local Environmental Plan 2015.

In any case, based on the technical assessments undertaken during the application process and our inspections of the premises and surrounding environment, the proposed operational activities are unlikely to have any adverse impact on any sensitive residential receptor when appropriate mitigation measures are implemented and maintained, as they will be, at all times. The operational activities are likely to have low impact on the employees working on site. However, again when appropriate mitigation measures are fully implemented, this will neutralise any such impact. Discussions have already commenced to work out a mutually agreed position on the best approach to ensure that the employees are not adversely impacted by any of the operational activities undertaken by BRS and its contractors. The locations of the closest potentially sensitive residential receptors are included in **Figure 2-4**. **Figure 2-4** includes also nearby potentially affected industrial receptors.

Figure 2-4: Closest Potentially Sensitive Residential Receptors



3. HOURS OF OPERATIONAL ACTIVITIES

Under normal circumstances, the hours of operations would depend on certain activities and the relevant industry that generate the various liquid and solid wastes with some periods busier than others.

However, the approved hours of operational activities are presented in **Table 3-1**.

Table 3-1: Hours of Operational Activities

Activity	Day	Time
Liquid and Mud Waste Processing	Monday – Sunday	24 hours
Liquid Waste Deliveries	Monday – Sunday	7 am to 10 pm
Emergency Deliveries	Monday – Sunday	1 per hour 10 pm to 7 am
Transport offsite waste generated during operation	Monday - Friday	7 am to 10 pm

Works outside of the hours identified in **Table 3-1** may be undertaken in the following circumstances:

- (a) works that are inaudible at the nearest sensitive receivers,
- (b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons, or
- (c) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.

It should be noted that operation of the approved development cannot commence until this OEMP (including the TMP, OMP and WMP) is approved by the Planning Secretary.

4. EMPLOYMENT

The operation stage of the approved development is expected to generate employment for 8 additional employees at the subject premises. A small number of delivery vehicles would be required to deliver different stationary and spare parts related items. However, these vehicles will be at the premises for a few minutes only at any one time.

In addition to the above additional employees, it is expected that the facility expansion will create tens of additional truck drivers' jobs for BRS clients.

5. STATUTORY REQUIREMENTS

The statutory requirements relevant to this OEMP are divided into two categories; Planning and Environmental as outlined in this Section. The key NSW statutory requirements pertain to the environmental management of the site are addressed in this section of the OEMP.

It should be noted that BRS currently operate under development consents granted by Campbelltown City Council and an Environment Protection Licence (EPL 20797) issued by the Environment Protection Authority (EPA). Consent to discharge industrial trade wastewater to the sewer has also been obtained from Sydney Water (Consent Number No 38498).

Changes to legislation or regulations during operations would require corresponding changes to the OEMP.

Affected procedures would need to be modified accordingly by BRS management.

It is important for staff and contractors to be aware of the legislative and regulatory requirements related to the operations of the site and their corresponding responsibilities. This section presents a list of relevant environmental legislation and its objectives. In addition, management and staff must be made aware of the requirements and conditions included in the Consent to ensure that they are fully prepared to accept their responsibilities in ensuring that all activities are undertaken with minimal impact on human health and the environment. This will require specific module/s to be developed and included in the Induction Training for new people and in the refresher training of existing people.

5.1 PLANNING

The “*Guideline for the Preparation of Environmental Management Plans*” prepared by the Department of Infrastructure, Planning and Natural Resources provides guidance in preparing Environmental Management Plans (in this case it is a specific Operational Environmental Management Plan (OEMP)) to be submitted to the Department.

The existing RRF and concrete batching plant operate under five (5) consents issued by Campbelltown Council (Council). These consents are summarised in **Table 5-1**. These consents

would be unaffected by the development and the site would continue to operate as approved by those consents, except for the processing of liquid waste.

Table 5-1: Summary of Development Consents issued by Campbelltown Council

DA No.	DA Description	Date Approved
336/2006/DA-DE approved under Order No.10257 of 2006	Construction of a concrete batching plant and factory housing concrete masonry plant. Process up to 30,000 tpa of concrete masonry and 50,000 tpa of concrete batching	9 March 2007
1113/2013/DA-DE (Amendment 1)	Use of premises for the storage, reprocessing and distribution of demolition materials, to process up to 15,000 tpa of waste including concrete, bricks, steel, glass and VENM	3 June 2014
948/2015/DA-I	Use of site as a resource recovery facility. Permit up to 30,000 tpa of concrete washout and processing of 3,000 tpa of solid material with storage of 1,500 t.	23 March 2015
948/2015/DA-I/B (Amendment 1)	Approval to accept up to 30,000 tpa of approved materials, storage up to 5,000 t of approved materials; and 24-hour operation of the mud plant and forklift.	24 January 2017
801/2020/DA-O	Construction of an industrial steel awning	30 November 2020

5.1.1 Development Consent SSD8593

The OEMP is required to ensure compliance with specific requirements included in relevant conditions of Development Consent No SSD 8593 (Consent) which was issued by the Department of Planning, Industry and Environment (Department) to BRS on 26 May 2021. These conditions are listed in **Table 5-2** below.

Table 5-2: Operational Related Conditions – SSD 8593 – Compliance Table

No	Condition	Comments
LIMITS OF CONSENT		
Waste Limits		
A6	The Applicant must not receive or process on the site more than 125,000 tonnes per year of liquid waste comprising drilling mud and non-destructive drill mud, cement slurry, concrete washout, oily water (J120), sewage sludge including sewer grit or screenings, stormwater, groundwater (including M250, J100, N160, and F100), industrial wastewater, leachate and firewater (N140).	Sections 2 & 8 & 9
A7	The total volume of 125,000 tonnes per year of liquid waste, as specified in Condition A6, includes 11,000 tonnes per year of liquid waste permitted to be received or processed under DA 948/2015/DA-I/B (Amendment 1).	Sections 2 & 8 & 9

A8	This consent does not permit the storage of more than 5,100 tonnes of liquid waste and liquid waste by-products on the site at any one time.	Sections 2 & 8 & 9
A9	The Applicant must ensure that only liquid waste by-products are stored in the liquid waste by-products storagebays as shown in Figure 1 in Appendix 1 of this consent	Figure 6-1 Signs posted on storage bays
NOTIFICATION OF COMMENCEMENT		
A10	The date of commencement of each of the following phases of the development must be notified to the Planning Secretary in writing, at least one month before that date, or as otherwise agreed with the Planning Secretary: <ul style="list-style-type: none"> (a) construction; (b) operation; (c) cessation of operations; and (d) decommissioning. 	A notification letter was uploaded to the portal on 23/07/21 advising that operations will commence on 23/08/21
COMPLIANCE		
A20	The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development	Section 13
OPERATION OF PLANT AND EQUIPMENT		
A21	All plant and equipment used on site, or to monitor the performance of the development, must be: <ul style="list-style-type: none"> (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner 	Sections 8 & 9
TRAFFIC AND ACCESS		
Operational Traffic Management Plan		
B1	Prior to the commencement of operation, the Applicant must prepare an Operational Traffic Management Plan (OTMP) for the development to the satisfaction of the Planning Secretary. The OTMP must form part of the OEMP required by condition C2 and must <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced person(s); (b) detail the measures that are to be implemented to ensure road safety and network efficiency during operation; (c) detail the measures that are to be implemented to ensure delivery vehicle arrival times are appropriately staggered, including procedures to manage night-time deliveries; (d) detail heavy vehicle routes, access and parking arrangements and queuing procedures; (e) include a Driver Code of Conduct which details traffic management measures to be implemented during operation to: <ul style="list-style-type: none"> (i) minimise impacts of the development on the local and regional road network; (ii) minimise conflicts with other road users; (iii) minimise road traffic noise; (iv) ensure truck drivers use specified routes and minimise traffic during night-time hours; and (v) manage/control pedestrian movements; and 	Section 6 Attachments 1 & 5

	(f) include a program to monitor the effectiveness of these measures.	
B2	The Applicant must: <ul style="list-style-type: none"> (a) not commence operation until the OTMP required by condition B1 is approved by the Planning Secretary; and (b) implement the most recent version of the OTMP approved by the Planning Secretary for the duration of the development 	Sections 3 & 8
Parking		
B3	The Applicant must provide sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that traffic associated with the development does not utilise public and residential streets or public parking facilities	Section 6 Figure 6-2 Attachments 1 & 5
Operating Conditions		
B4	The Applicant must ensure: <ul style="list-style-type: none"> (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of <i>AS 2890.1:2004 Parking facilities Off-street car parking</i> (Standards Australia, 2004), <i>AS 2890.2:2018 Parking facilities Off-street commercial vehicle facilities</i> (Standards Australia, 2018) and <i>AS 2890.6:2009 Parking facilities Off-street parking for people with disabilities</i> (Standards Australia, 2009) (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines; (c) the development does not result in any vehicles queuing on the public road network; (d) no more than 4 heavy vehicles are located on site at any one time; (e) vehicles over 12.5 m in length do not enter the main building; (f) no more than one vehicle in total under 12.5 m in length must be within the main building at any one time; (g) no more than one heavy vehicle per hour can access the site between 10 pm and 7 am and only during emergencies; (h) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site; (i) all vehicles must enter and exit the site in a forward direction; (j) all vehicles are wholly contained on site before being required to stop; (k) all loading and unloading of materials is carried out on-site; (l) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and (m) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times 	Section 6 & 7 Attachments 1 & 5
AIR QUALITY		
Dust Minimisation		
B5	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent	Sections 5, 6, 7, 8 & 9
Air Quality Discharges		

B7	The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.	Sections 5, 6, 7, 8 & 9
Odour Management		
B8	The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).	Attachment 2 Sections 5, 6, 7, 8 & 9
B9	All fugitive emission points associated with the storage of liquid waste and the dissolved air floatation device (DAF) must be fitted with carbon filters which are fit for purpose and prevent or minimise the emission of odour.	Attachment 2 Sections 7, 8, & 9
B10	The Applicant must ensure all liquid waste is transported to the site in vacuum sealed trucks	Attachment 2 and Sections 7, 8, & 9
Odour Management Plan		
B11	<p>Prior to the commencement of operation of the development, the Applicant must prepare an Odour Management Plan (OMP) to the satisfaction of the Planning Secretary. The OMP must form part of the OEMP required by condition C5. The OMP must</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced person(s) whose appointment has been endorsed by the Planning Secretary; (b) describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators; (c) identify the control measures that will be implemented for each emission source including preventative maintenance to ensure emission control infrastructure is operating efficiently (d) include a carbon breakthrough strategy including proactive and reactive management measures that will be used to ensure pollutant breakthrough from the carbon adsorbent material is prevented or minimised; (e) include proactive and reactive response mechanisms; and (f) nominate the following for each of the proposed controls: <ul style="list-style-type: none"> i) key performance indicator; ii) monitoring method; iii) location, frequency and duration of monitoring; iv) record keeping; v) complaints register; vi) response procedures; vii) performance review; and viii) compliance monitoring 	Attachment 2
B12	<p>The Applicant must:</p> <ul style="list-style-type: none"> (a) not commence operation until the Odour Management Plan required by condition B11 is approved by the Planning Secretary; and (b) implement the most recent version of the Odour Management Plan approved by the Planning Secretary for the duration of the development 	Section 3 Attachment 2
B13	The Applicant must carry out an Odour Audit of the development no later than six months after the commencement of operation of the development. Division	Section 9

	<p>9.4 of Part 9 of the EP&A Act applies to this audit which is for the purpose of odour detection. The audit must:</p> <ul style="list-style-type: none"> (a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning Secretary; (b) audit the development in full operation; (c) include a summary of odour complaints and any actions that were carried out to address the complaints; (d) assess the operation against odour impact predictions in the EIS; (e) review design and management practices in the development against industry best practice for odour management; and (f) include an action plan that identifies and prioritises any odour mitigation measures that may be necessary to reduce odour emissions. <p>Note: <i>The Odour Audit may be prepared so that it addresses the requirements of this consent and the EPL for the development</i></p>													
B14	<p>Within six months of commissioning of the Odour Audit required by condition B13, or as otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the Odour Audit report to the satisfaction of the Planning Secretary, together with the Applicant's response to any recommendations contained in the Odour Audit report</p>	Section 9												
NOISE														
Hours of Work														
B15	<p>The Applicant must comply with the hours detailed in Table 2, unless otherwise agreed in writing by the Planning Secretary.</p> <p style="text-align: center;">Table 2 Hours of Work</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Activity</th> <th style="text-align: center;">Day</th> <th style="text-align: center;">Time</th> </tr> </thead> <tbody> <tr> <td>Liquid and Mud Waste Processing</td> <td>Monday – Sunday</td> <td>24 hours</td> </tr> <tr> <td>Liquid Waste Deliveries</td> <td>Monday – Sunday</td> <td>7 am to 10 pm</td> </tr> <tr> <td>Emergency Deliveries</td> <td>Monday – Sunday</td> <td>1 per hour 10 pm to 7 am</td> </tr> </tbody> </table>	Activity	Day	Time	Liquid and Mud Waste Processing	Monday – Sunday	24 hours	Liquid Waste Deliveries	Monday – Sunday	7 am to 10 pm	Emergency Deliveries	Monday – Sunday	1 per hour 10 pm to 7 am	Section 3
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Emergency Deliveries	Monday – Sunday	1 per hour 10 pm to 7 am												
B16	<p>Works outside of the hours identified in condition B15 may be undertaken in the following circumstances:</p> <ul style="list-style-type: none"> (d) works that are inaudible at the nearest sensitive receivers; (e) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or (f) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm. 	Section 3												
Operating Conditions														
B18	<p>The Applicant must ensure:</p> <ul style="list-style-type: none"> (a) roller doors remain closed, except during vehicles entering and exiting; (b) trucks queuing or waiting on site should shut off their engines whenever possible; and (c) all mobile plant and equipment used on the premises is fitted with broadband reversing alarms 	Sections 6, 7 & 8												

Operational Noise Limits												
B19	<p>The Applicant must ensure that noise generated by operation of the development does not exceed the noise limits in Table 3.</p> <p>Table 3 <i>Noise Limits (dB(A))</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Location</th> <th style="text-align: center;">Day LAeq(15 minute)</th> <th style="text-align: center;">Evening LAeq(15 minute)</th> <th style="text-align: center;">Night LAeq(15 minute)</th> <th style="text-align: center;">NightLAMax</th> </tr> </thead> <tbody> <tr> <td>All residential receivers</td> <td style="text-align: center;">47</td> <td style="text-align: center;">43</td> <td style="text-align: center;">38</td> <td style="text-align: center;">52</td> </tr> </tbody> </table> <p><i>Note</i> <i>Noise generated by the development is to be measured and assessed in accordance with the relevant procedures and exemptions (including certain meteorological conditions and corrections for annoying noise characteristics) of the NSW Noise Policy for Industry and Australian Standard AS 1055:2018 Acoustics – Description and measurement of environmental noise (as may be updated or replaced from time to time)</i></p>	Location	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)	NightLAMax	All residential receivers	47	43	38	52	Section 6
Location	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)	NightLAMax								
All residential receivers	47	43	38	52								
Post-Commissioning Noise Verification Report												
B20	<p>A noise verification report must be prepared by a suitably qualified and experienced acoustic consultant and submitted to the satisfaction of the Planning Secretary within three months of the commencement of operation of the development. The noise verification report must include:</p> <ul style="list-style-type: none"> (a) an analysis of compliance with noise limits specified in condition B19 undertaken in accordance with the <i>NSW Noise Policy for Industry</i> (EPA, 2017) and <i>Australian Standard AS 1055:2018 Acoustics – Description and measurement of environmental noise</i> (Australian Standard 2018); (b) a verification of the performance and effectiveness of applied noise mitigation measures; and (c) identification of additional noise control measures, excluding at-receiver controls, to be implemented to address any exceedances of the limits specified in condition B19 including timing for implementation and details about how their effectiveness is to be measured and reported to the Planning Secretary. 	Section 9										
Discharge Limits												
B24	The development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.	Section 5										
Stormwater Management System												
B25	<p>Within 12 months from the commencement of operation, the Applicant must design, install and operate a stormwater management system for the development. The system must:</p> <ul style="list-style-type: none"> (a) be designed by a suitably qualified and experienced person(s); (b) be generally in accordance with the conceptual design in the EIS as amended by the RTS, Addendum RTS and the Amended Application and supplementary information; (c) be in accordance with applicable Australian Standards; and (d) ensure that the system capacity has been designed in accordance with <i>Australian Rainfall and Runoff</i> (Engineers Australia, 2016) and <i>Managing Urban Stormwater: Council Handbook</i> (EPA, 1997) guidelines. 	Sections 5, 6, 7, & 8										
WASTE MANAGEMENT												
Waste Management Plan												

B26	<p>Prior to the commencement of operation of the development, the Applicant must prepare a Waste Management Plan for the development to the satisfaction of the Planning Secretary. The Waste Management Plan must form part of the OEMP and be prepared in accordance with condition C5. The Plan must:</p> <p>(a) detail the type and quantity of waste to be generated during construction and operation of the development;</p> <p>(b) describe the handling, storage and disposal of all waste streams generated on site, consistent with the <i>Protection of the Environment Operations Act 1997</i>, <i>Protection of the Environment Operations (Waste) Regulation 2014</i> and the <i>Waste Classification Guideline</i> (Environment Protection Authority, 2014);</p> <p>(c) detail the materials to be reused or recycled, either on or off site; and</p> <p>(d) include the Management and Mitigation Measures included in Appendix 2</p>	<p>Sections 3, 5, 6, 7, 8 & 9 Attachment 3</p>
B27	<p>The Applicant must:</p> <p>(a) Not commence operation until the Waste Management Plan is approved by the Planning Secretary;</p> <p>(b) Implement the most recent version of the Waste Management Plan approved by the Planning Secretary.</p>	<p>Section 3 Attachment 3</p>
Waste Monitoring Program		
B28	<p>From the commencement of operation of the development, the Applicant must implement a Waste Monitoring Program for the development. The program must:</p> <p>(a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation;</p> <p>(b) include suitable provision to monitor the:</p> <p>i) quantity, type and source of waste received on site; and</p> <p>ii) quantity, type and quality of the outputs produced on site; and</p> <p>(c) ensure that:</p> <p>i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site; and</p> <p>ii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.</p>	<p>Section 9 Attachment 3</p>
B29	The collection of waste generated during operation of the development must be undertaken between 7 am to 10 pm Monday to Friday.	Section 3
Statutory Requirements		
B30	All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Section 5 Attachment 3
B31	The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of EPA's <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	Section 5 Attachment 3
B32	The Applicant must retain all sampling and waste classification data for the life of the development in accordance with the requirements of EPA.	Section 9 Attachment 3
HAZARDS AND RISK		
B35	<p>The Applicant must store all chemicals, fuels and oils used on-site in accordance with:</p> <p>(a) the requirements of all relevant Australian Standards; and</p>	<p>Sections 5, 6, 7 & 8</p>

	(b) the NSW EPA's <i>Storing and Handling of Liquids: Environmental Protection – Participants Manual</i> if the chemicals are liquids	
B36	In the event of an inconsistency between the requirements of conditions B35(a) and B35(b), the most stringent requirement must prevail to the extent of the inconsistency	Sections 5, 6, 7 & 8
Bunding		
B38	The Applicant must store all chemicals, fuels and oils used on-site in appropriately banded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's <i>Storing and Handling of Liquids: Environmental Protection – Participants Manual</i> (Department of Environment and Climate Change, 2007).	Sections 5, 6, 7 & 8
OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN		
C5	The Applicant must prepare an Operational Environmental Management Plan (OEMP) for the development in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.	This document
C6	As part of the OEMP required under Condition C5 of this consent, the Applicant must include the following: (a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (b) describe the procedures that would be implemented to: (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development; (ii) receive, handle, respond to, and record complaints; (iii) resolve any disputes that may arise; (iv) respond to any non-compliance; (v) respond to emergencies; and (c) include the following environmental management plans: (i) Traffic (see condition B1) (ii) Odour (see condition B11); (iii) Waste (see condition B26).	This document Section 10 Section 11 Section 11 Section 11 Section 11 Section 11 Attachment 1 Attachment 2 Attachment 3
C7	The Applicant must: (a) not commence operation until the OEMP is approved by the Planning Secretary; and (b) operate the development in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	Awaiting approval from the Planning Secretary
REPORTING AND AUDITING		
Incident Notification, Reporting and Response		
C10	The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.	Section 11 Attachment 4
Non-Compliance Notification		
C11	The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-	Section 11 Attachment 4

	compliance.	
C12	A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Section 11 Attachment 4
C13	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance	Section 11 Attachment 4

5.2 ENVIRONMENTAL

All operational related environmental matters are addressed below.

5.2.1 Environment Protection Licence

BRS hold an Environment Protection Licence No 20797 (EPL) which was issued by the EPA on 18 October 2018. The EPL permits the receiving and processing of a total of 30,000 (19,000 of solid waste and 11,000 of liquid waste) tpa of both solid and liquid wastes and the storage of 5,000 (1,900 of solid waste and 3,100 of liquid waste) tonnes at any one time.

The EPL will need to be updated to increase the processing capacity of liquid waste to 125,000 tpa and the storage capacity of liquid waste to 5,100 at any one time.

As a result of the above consent, an application for a licence variation was submitted to the EPA on 19 July 2021 to ensure that the EPL reflects the approved activities in all aspects. The EPA is considering the application in line with the planning requirements including all relevant management plans and construction requirements. When the additional licensing requirements are known, this OEMP will be updated to reflect the additional licensing requirements, if they are different from these included and addressed in this OEMP.

The EPL includes several environmental management, limit, operational, monitoring and reporting conditions that BRS must comply with.

In addition, an Annual Return which includes a Compliance Statement must be submitted to the EPA every 12 months.

5.2.2 Protection of the Environment Operations Act 1997

General

The principal objective of the legislation is to avoid causing environmental harm. Harm is defined in the Act as being:

“harm”, in relation to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution.

“Pollution” means:

- (a) water pollution, or
- (b) air pollution, or
- (c) noise pollution, or
- (d) land pollution

The primary objectives of this Act as applied to the site are:

- (a) to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development,
- (b) to provide increased opportunities for public involvement and participation in environment protection,
- (c) to ensure that the community has access to relevant and meaningful information about pollution,
- (d) to reduce risks to human health and prevent the degradation of the environment by the use of mechanisms that promote the following:
 - pollution prevention and cleaner production,
 - the reduction to harmless levels of the discharge of substances likely to cause harm to the environment,
 - the elimination of harmful wastes,
 - the reduction in the use of materials and the re-use or recycling of materials,
 - the making of progressive environmental improvements, including the reduction of pollution at source,
 - the monitoring and reporting of environmental quality on a regular basis,
- (e) to rationalise, simplify and strengthen the regulatory framework for environment protection,
- (f) to improve the efficiency of administration of the environment protection legislation,
- (g) to assist in the achievement of the objectives of the [Waste Avoidance and Resource Recovery Act 2001](#)

Air Pollution

“Air pollution,” (defined in the Act) means the emission into the air of any air impurity.

While “air impurity” includes smoke, dust (including fly ash), cinders, solid particles of any kind, gases, fumes, mists, odours and radioactive substances

Clause 124 Operation of plant (other than domestic plant)

The occupier of any premises who operates any plant in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused,

Is caused by the occupier’s failure:

- (a) to maintain the plant in an efficient condition, or
- (b) to operate the plant in a proper and efficient manner.

“Offensive odour” means an odour:

(a) *that, by reason of its strength, nature, duration, character or quality, or the time at which it is emitted, or any other circumstances:*

- (i) *is harmful to (or is likely to be harmful) a person who is outside the premises from which it is emitted, or*
- (ii) *interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or*

(b) *that is of a strength, nature, duration, character or quality prescribed by the regulations or that is emitted at a time, or in other circumstances, prescribed by the regulations.*

Water Pollution

“water pollution” or **“pollution of waters”** means:

(a) *placing in or on, or otherwise introducing into or onto, waters (whether through an act or omission) any matter, whether solid, liquid or gaseous, so that the physical, chemical or biological condition of the waters is changed, or*

(b) *placing in or on, or otherwise introducing into or onto, the waters (whether through an act or omission) any refuse, litter, debris or other matter, whether solid or liquid or gaseous, so that the change in the condition of the waters or the refuse, litter, debris or other matter, either alone or together with any other refuse, litter, debris or matter present in the waters makes, or is likely to make, the waters unclean, noxious, poisonous or impure, detrimental to the health, safety, welfare or property of persons, undrinkable for farm animals, poisonous or harmful to aquatic life, animals, birds or fish in or around the waters or unsuitable for use in irrigation, or obstructs or interferes with, or is likely to obstruct or interfere with persons in the exercise or enjoyment of any right in relation to the waters, or*

(c) *placing in or on, or otherwise introducing into or onto, the waters (whether through an act or omission) any matter, whether solid, liquid or gaseous, that is of a prescribed nature, description or class or that does not comply with any standard prescribed in respect of that matter,*

and, without affecting the generality of the foregoing, includes:

(d) *placing any matter (whether solid, liquid or gaseous) in a position where:*

- (i) *it falls, descends, is washed, is blown or percolates, or*
- (ii) *it is likely to fall, descend, be washed, be blown or percolate, into any waters, onto the dry bed of any waters, or into any drain, channel or gutter used or designed to receive or pass rainwater, floodwater or any water that is not polluted, or*

(e) *placing any such matter on the dry bed of any waters, or in any drain, channel or gutter used or designed to receive or pass rainwater, floodwater or any water that is not polluted,*

if the matter would, had it been placed in any waters, have polluted or have been likely to pollute those waters.

“waters” means the whole or any part of:

- (a) any river, stream, lake, lagoon, swamp, wetlands, unconfined surface water, natural or artificial watercourse, dam or tidal waters (including the sea), or
- (b) any water stored in artificial works, any water in water mains, water pipes or water channels, or any underground or artesian water.

Clause 120 relates to the prohibition of pollution of waters:
A person who pollutes any waters is guilty of an offence.

Noise Pollution

“Offensive noise” means noise that by reason of its level, nature, character or quality, or the time at which it is made is harmful to (or likely to be harmful to) a person who is outside the premises or interferes unreasonably with (or is likely to) the comfort or repose of a person outside the premises.

Clause 139 relates to the operation of plants:

The occupier of any premises who operates any plant (other than control equipment) at those premises in such a manner as to cause the emission of noise from those premises is guilty of an offence if the noise so caused, or any part of it, is caused by the occupier’s failure:

- (a) to maintain the plant in an efficient condition, or
- (b) to operate the plant in a proper and efficient manner.

Land Pollution

“land pollution” or **“pollution of land”** means placing in or on, or otherwise introducing into or onto, the land (whether through an act or omission) any matter, whether solid, liquid or gaseous:

- (a) that causes or is likely to cause degradation of the land, resulting in actual or potential harm to the health or safety of human beings, animals or other terrestrial life or ecosystems, or actual or potential loss or property damage, that is not trivial, or
- (b) that is of a prescribed nature, description or class or that does not comply with any standard prescribed in respect of that matter,

but does not include placing in or on, or otherwise introducing into or onto, land any substance excluded from this definition by the regulations.

“land” does not include waters.

Waste Generation and Disposal

Under the POEO Act, “Waste” is defined as:

“waste” (unless specially defined) includes:

- (a) any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or

- (b) any discarded, rejected, unwanted, surplus or abandoned substance, or*
- (c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance, or*
- (d) any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or*
- (e) any substance prescribed by the regulations to be waste*

A substance is not precluded from being waste for the purposes of this Act merely because it is or may be processed, recycled, re-used or recovered.

Management of waste and classification of all wastes generated on site are addressed in different Sections of this OEMP.

Waste needs to be disposed of in a manner which does not cause or likely to cause environmental harm.

All wastes should be stored in an environmentally safe manner and away from any incompatible wastes. BRS Staff are responsible for being aware of the nature and quantity of waste generated at the site.

The following clauses of this Act have most relevance to the BRS site:

Clause 126 Dealing with materials

(1) The occupier of any premises who deals with materials in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure to deal with those materials in a proper and efficient manner.

(2) In this section:

deal with materials means process, handle, move, store or dispose of the materials.

materials include raw materials, materials in the process of manufacture, manufactured materials, by-products or waste materials.

Several incoming and outgoing materials as well as some by-products are highly likely to be certified in accordance with relevant EPA Resource Recovery Orders (RRO). These materials must be used in accordance with the relevant Resource Recovery Exemptions (RRE) on site or off-site.

Clause 143 relates to the unlawful transporting or depositing of waste:

If a person transports waste to a place that cannot lawfully be used as a waste facility for that waste, or causes or permits waste to be so transported:

(a) the person, and

(b) if the person is not the owner of the waste, the owner,

are each guilty of an offence.

Transportation and disposal of waste generated at the site is the responsibility of BRS, regardless of use of a licensed waste contractor.

All waste must be classified in accordance with the *NSW Waste Classification Guidelines – Part 1: Classifying Waste - November 2014*.

5.2.3 Protection of the Environment Operations (Waste) Regulation 2014

The Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation) is administered under the POEO Act 1997. This regulation identifies provisions relating to waste management and disposal.

The Waste Regulation enables resource recovery by allowing exemptions for land application and thermal application of waste-derived material. The Regulation also sets out how waste is to be managed in terms of storage and transportation as well as reporting and record keeping requirements for waste facilities.

The Waste and Environment Levy Operational Guidance Note was developed to assist in guiding occupiers of licensed waste facilities in relation to contributions to be paid for each tonne of waste received at the facility or generated in a particular area under the regulation. The regulation also exempts certain occupiers or types of waste and allows deductions to be claimed in relation to certain types of waste.

Part 3 of this Regulation details the requirements associated with tracking waste. Certain types of waste (listed in Schedule 1 of this regulation) which have the potential to be harmful to the environment are required to be tracked from the source to the waste disposal facility.

Section 48 of this Regulation also states: *“A person who stores waste on premises (whether or not the waste was produced on the premises) must ensure that it is stored in an environmentally safe manner.”*

5.2.4 Waste Avoidance and Resource Recovery Act 2001

This Act relates to the efficient use of resources, resource recovery, including reuse and recycling and continual reduction of the disposal of waste. The Act stipulates the requirements and objectives of Resource NSW, a corporation created under the Act. The Act provides an overview of the guiding principles of waste management.

The primary objectives of the act in relation to BRS' activities are:

- *“to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development;*
- *to provide for the continual reduction in waste generation;*
- *to minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste; and*
- *To establish a hierarchy of resource management options:*
 - ❖ *“avoidance of unnecessary resource consumptions,*
 - ❖ *resource recovery (including reuse, reprocessing, recycling and energy recovery),*
 - ❖ *disposal”.*

This Act is of relevance to the site in relation to segregation of waste streams generated on site and maximising the reuse and recycling of waste materials.

Classification of waste enables the generator to determine the appropriate handling, transport, and disposal requirements if the waste cannot be reused or recycled.

5.2.5 The Work Health and Safety Act 2011

The Work Health and Safety Act 2011 and associated regulation provide amongst other requirements for the storage and handling of dangerous goods.

Should larger quantities of dangerous goods be required to be stored or handled at the site, this legislation would need to be consulted to determine additional requirements. These requirements may include additional assessments as well as notifications to relevant authorities.

5.3 POLICIES AND GUIDELINES

The most waste management relevant policies and guidelines are presented below.

5.3.1 NSW Waste Avoidance and Resource Recovery Strategy 2014-21

The primary goal of this strategy is to enable all of the NSW community to improve environment and community well-being by reducing the environmental impact of waste and using resources more efficiently.

Using resources efficiently and keeping materials circulating in the productive economy can also help to create jobs and grow the NSW economy.

“The Waste Avoidance and Resource Recovery Strategy 2014-2021 (WARR Strategy) is driven by our desire to improve the way we live and make sure that future generations enjoy the same or an improved quality of life. This stretches across all aspects of life and covers environmental, social, and economic areas. The WARR Strategy adopts the principles of ecologically sustainable development as defined in Section 6 of the Protection of the Environment Administration Act 1991.”

In accordance with the Waste Avoidance and Resource Recovery Strategy 2014-21, BRS would participate in waste avoidance and reuse by adopting and implementing the WARR Strategy which focusses on the priorities listed below. In addition, the WARR Strategy 2014–21 is also informed and driven by the waste hierarchy which underpins the objectives of the [Waste Avoidance and Resource Recovery Act 2001](#). The hierarchy of waste management is presented in **Figure 5-1**.

Figure 5-1: Waste Hierarchy

“There are costs associated with managing waste and the waste hierarchy helps to focus attention and efforts where the greatest efficiencies in cost, time and resources can be achieved.

*The waste hierarchy (shown in **Figure 1**) provides guidance on the order of preference of approaches to achieve efficient resource use.”*

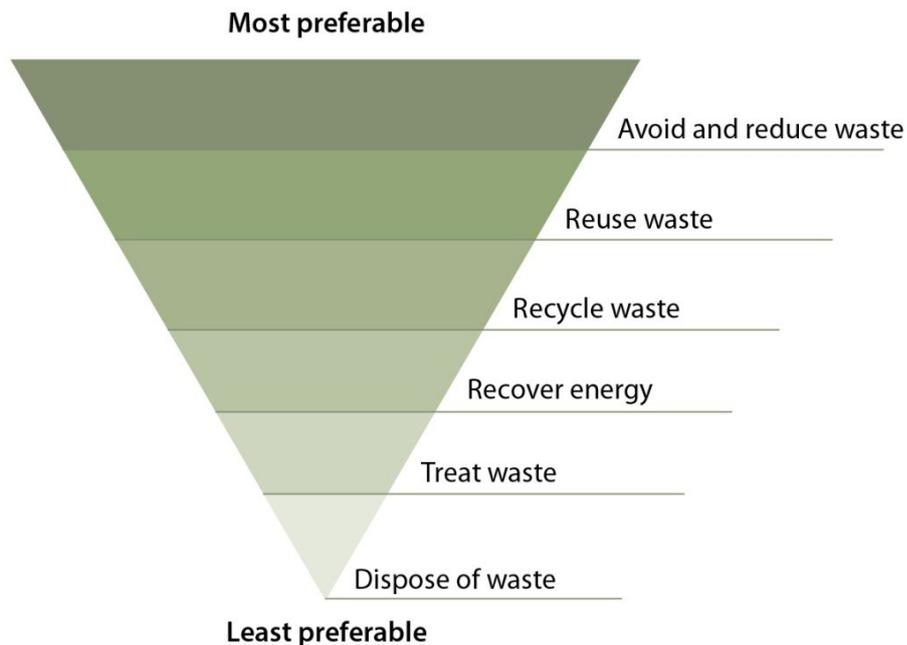


Figure 1: The waste hierarchy

Waste minimisation and resource recovery would be practised as part of BRS commitment to the principles of Ecologically Sustainable Development (ESD) and the Waste Avoidance and Resource Recovery Act. Waste minimisation can benefit the operation of the facility by the following:

- Reducing the cost of the material inputs into the production processes,
- Recycling and reuse of waste materials generated on site,
- Reducing the quantities of waste removed off site, and
- Encouraging material suppliers to take back packaging materials.

The following strategies will surely assist in minimising waste:

- Segregation of Waste Streams and types,
- Housekeeping using workplace inspections to reduce raw material losses, spillages, and overuse,
- Process Improvements & Production Upgrading, and
- Recycling of Waste.

5.3.2 NSW Waste Classification Guidelines 2014

To ensure appropriate waste management and disposal, all waste must be classified according to the NSW Waste Classification Guidelines 2014 (guidelines). In accordance with the guidelines, waste can be classified into 6 different classes. These are:

1. Special waste
2. Liquid waste
3. Hazardous waste
4. Restricted solid waste
5. General solid waste (putrescible)
6. General solid waste (non-putrescible)

Th wastes approved in this Development are all classified as liquid wastes.

Based on the Guidelines, if the waste meets the criteria of a class, it is classified as such and no further assessment for classification is required. Therefore, for the operation stage, all wastes approved by this development are classified as liquid, so no further classification is required for the imported liquid wastes.

6. SUMMARY OF OPERATIONAL ENVIRONMENTAL ASPECTS AND IMPACTS

This Section provides a summary of the potential environmental impacts and aspects associated with the operational activities. The proposed operational activities are undertaken mostly inside the building with the exception of some liquid wastes receipt and processing which is undertaken under the existing awnings. There are no changes to the location of receipt and processing of solid wastes. Overall, the operational activities consist of the receiving, processing and storage of solid and liquid wastes in accordance with existing as well as newly developed and approved processes and procedures. Relevant processes and procedures are presented in **Attachments 2 and 5**.

A summary of the general operational conditions is provided below.

1. internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of *AS 2890.1:2004 Parking facilities Off-street car parking* (Standards Australia, 2004), *AS 2890.2:2018 Parking facilities Off-street commercial vehicle facilities* (Standards Australia, 2018) and *AS 2890.6:2009 Parking facilities Off-street parking for people with disabilities* (Standards Australia, 2009),
2. the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTRROADS guidelines,
3. the development does not result in any vehicles queuing on the public road network,
4. no more than 4 heavy vehicles are located on site at any one time,
5. vehicles over 12.5 m in length do not enter the main building,
6. no more than one vehicle in total under 12.5 m in length must be within the main building at any one time,
7. no more than one heavy vehicle per hour can access the site between 10 pm and 7 am and only during emergencies,
8. heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site,
9. all vehicles must enter and exit the site in a forward direction,
10. all vehicles are wholly contained on site before being required to stop,
11. all loading and unloading of materials are carried out on-site,
12. all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network, and
13. the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times,
14. the roller doors to be fully closed, when the crusher and screens are operational, except during vehicles entering and exiting;
15. trucks queuing or waiting on site should shut off their engines whenever possible; and
16. all mobile plant and equipment used on the premises is fitted with broadband reversing alarms.

The potential impacts of each relevant environmental aspect are presented in this Section.

All management and mitigation measures to be implemented by BRS on site to minimise the impact on human health and the environment are presented in **Table 7-1**.

The locations of approved operational activities are presented in **Figure 6-1** below which is based on the Department's approved development layout plan.

6.1 AIR QUALITY

Air quality is considered one of the most dominant impacts in any resource recovery facility as a result of the activities undertaken on site. The potential impacts are dust from the receipt, processing and storage of solid wastes and odour because of receipt, processing and storage of liquid wastes.

An Air Quality Impact Assessment (AQIA) was prepared by Todoroski Air Sciences for the proposed Resource Recovery facility and a Response to submissions was also provided by the same consultant.

The AQIA demonstrated that the development will comply with current NSW criteria and will have no impact on the potentially sensitive residential receptors provided that the recommended management and mitigation measures are fully implemented at the premises.

Due to the fact that all dust generating activities are undertaken inside the building with very effective mitigation measures, this aspect was considered to have a minimal impact.

However, and based on the potential dust generated during the operational stage, specific mitigation measures will be implemented to minimise the generation of dust.

A comprehensive **Odour Management Plan** is presented in **Attachment 2**.

6.2 NOISE

The noise impact from the operational activities was found to be minimal due to the location of the most dominant noise sources being inside the building, the dense landscaping along the site boundary facing the residential dwelling and the noise barrier (approximately 70m long and 6.5m high) constructed parallel to the eastern boundary of the site.

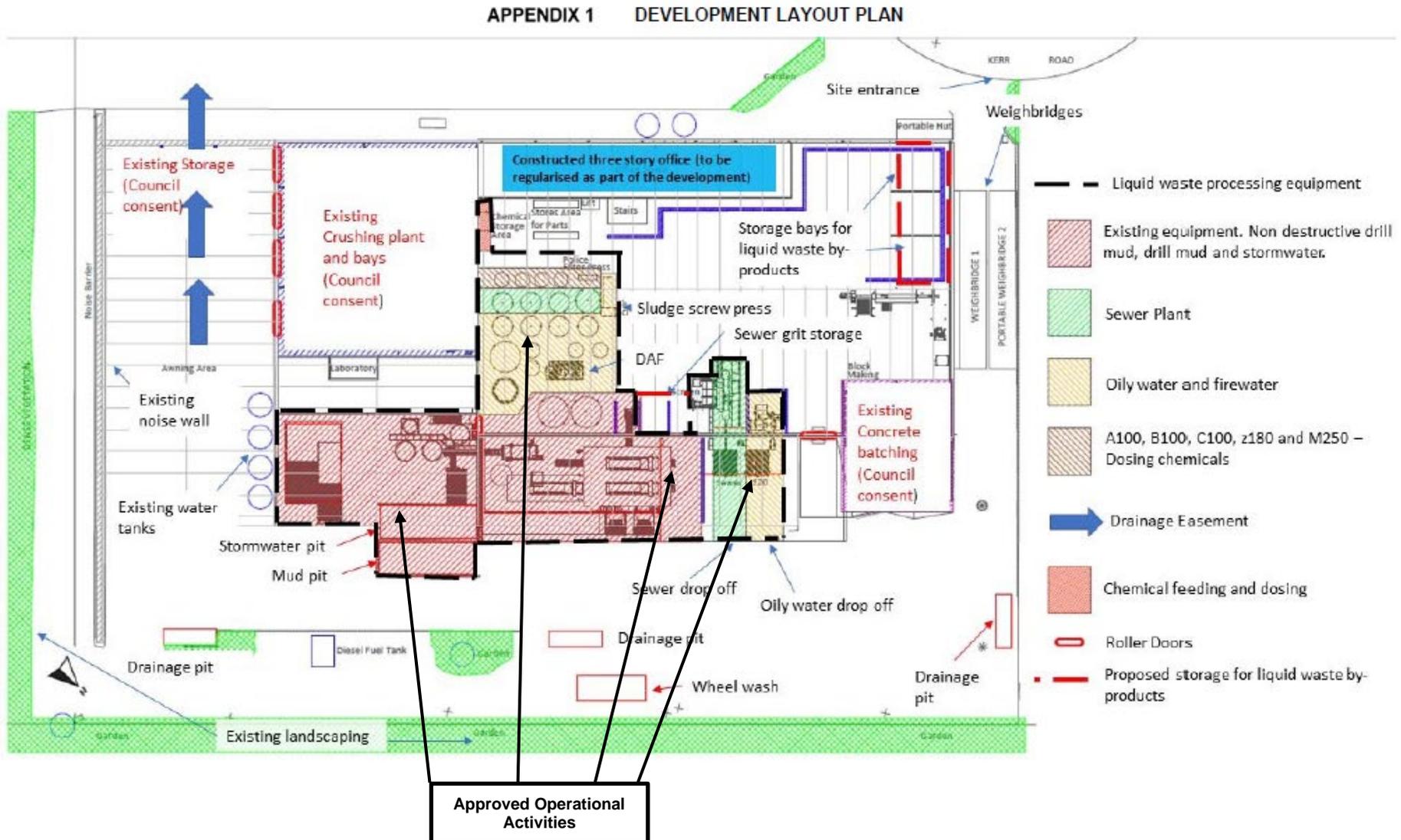
A revised Noise Impact Assessment (NIA) was undertaken by White Noise Pulse Acoustics in March 2021. The NIA confirmed that the development would comply with the noise limit specified by the Department and will have no impact on the potentially sensitive residential receptors provided that the recommended mitigation measures are implemented at the premises. These mitigation measures are presented in **Table 7-1**.

The noise generated from the approved BRS development should not exceed the noise limits specified in **Table 6-1** below.

Table 6-1: Approved Development Noise Limits

Location	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)	Night LAMax
All residential receivers	47	43	38	52

Figure 6-1: Locations of Approved Operational Activities



6.3 WASTE

Waste receipt, processing and storage could have a minimal impact on human health and the environment such as dust, noise, water, non-recyclable waste, recyclable waste and waste by-products.

BRS will not accept any wastes that are not permitted to be accepted on site as listed in the Development Consents and EPL. Any non-permitted wastes will be rejected in accordance with the established rejected load protocol.

BRS management will not receive materials from unknown sources to avoid any potential environmental implications. BRS management will adhere to the EPA's guidelines titled "***DRAFT – Protocol for managing asbestos during resource recovery of construction and demolition waste***" (guidelines). However, these guidelines will be applied to asbestos as well as any other potentially hazardous or special waste.

Furthermore BRS management is committed to comply as far as it is practicable with the EPA's guidelines titled: "Standards for the management of construction waste in NSW".

A comprehensive "**Waste Management Plan**" is presented in **Attachment 3**.

In any case and as a minimum, the comprehensive procedures included in **Attachments 3 and 5** will be adhered to by all employees and contractors.

6.4 CHEMICAL STORAGE

Only relatively small quantities of chemicals and Dangerous Goods will be stored on site. These quantities are below the SEPP 33 screening thresholds.

As part of this Consent, a dedicated area will be constructed in accordance with all current Australian Standards, EPA and SafeWork Australia requirements.

In particular, the following documents will be adhered to as far as it is reasonably practical:

1. Storing and Handling of Liquids: Environmental Protection – Participants Manual (Department of Environment and Climate Change, 2007),
2. Managing risks of storing chemicals in the workplace – Guidance materials – SafeWork Australia
3. AS/NZS 3833:2007 – The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers.

Based on the above, the potential impact from the storage of chemicals is highly likely to be minimal.

6.5 ON-SITE SEWERAGE

We confirm that there will be no mechanical repair workshop operating on the premises as only minor repairs and services will be undertaken on site. Therefore, no wastewater will be generated as a result of those activities.

The wastewater generated on site will be derived from the processing and treatment of liquid wastes which will be discharged to the sewer in accordance with the recently upgraded consent agreement between BRS and Sydney Water.

The only greywater that will be generated from the employees, visitors and part time contractors will be from the kitchen sinks, toilets and showers. This waste is directed to the existing sewerage system as per normal practices.

It is not expected to have any impact, associated with this aspect, on human health or the environment.

6.6 TRAFFIC AND ACCESS

The existing development currently uses a pre-scheduling allocation system to manage the arrival of trucks to minimise queuing on and offsite. Since this system has been demonstrated to be efficient and effective in managing traffic entering and leaving the site as well as truck queuing matters, it will continue to be used for the development conditions.

The site would have up to four queuing locations to accommodate the four different vehicle types including truck and dog vehicles, in case there are any delays in the processing of deliveries or pick-ups. The Applicant also noted that if delays are one hour or less, waiting vehicles can move to these queuing locations. If delays are longer than one hour, deliveries would be stopped or diverted to other facilities that can accept the waste. The TIA concluded the development is unlikely to result in any queuing off-site, provided the abovementioned queuing procedure and booking allocation system is implemented.

The Traffic aspect can be divided into three different categories: external traffic, internal traffic, and parking. These three traffic categories are presented below.

External Traffic

A revised Traffic Impact Assessment report (TIA) for the development was prepared by Intersect Traffic in March 2021 in accordance with the Roads and Maritime Services' (RMS) and Campbelltown City Council requirements.

The TIA took into consideration the worst-case scenarios of traffic generated as a result of the proposed activities. The TIA determined that the extent of the impact of the activities in traffic movements is insignificant compared with existing traffic movements on the roads likely to be used by the trucks entering and leaving the proposed facility.

Internal Traffic

The internal traffic is managed based on the number of vehicles entering and leaving the site in accordance with the already established protocols that are based on several factors such as:

1. All vehicles are pre-scheduled to ensure that there is sufficient space available in the site from all aspects including staff, storage structures, processing capacity and space on site, and

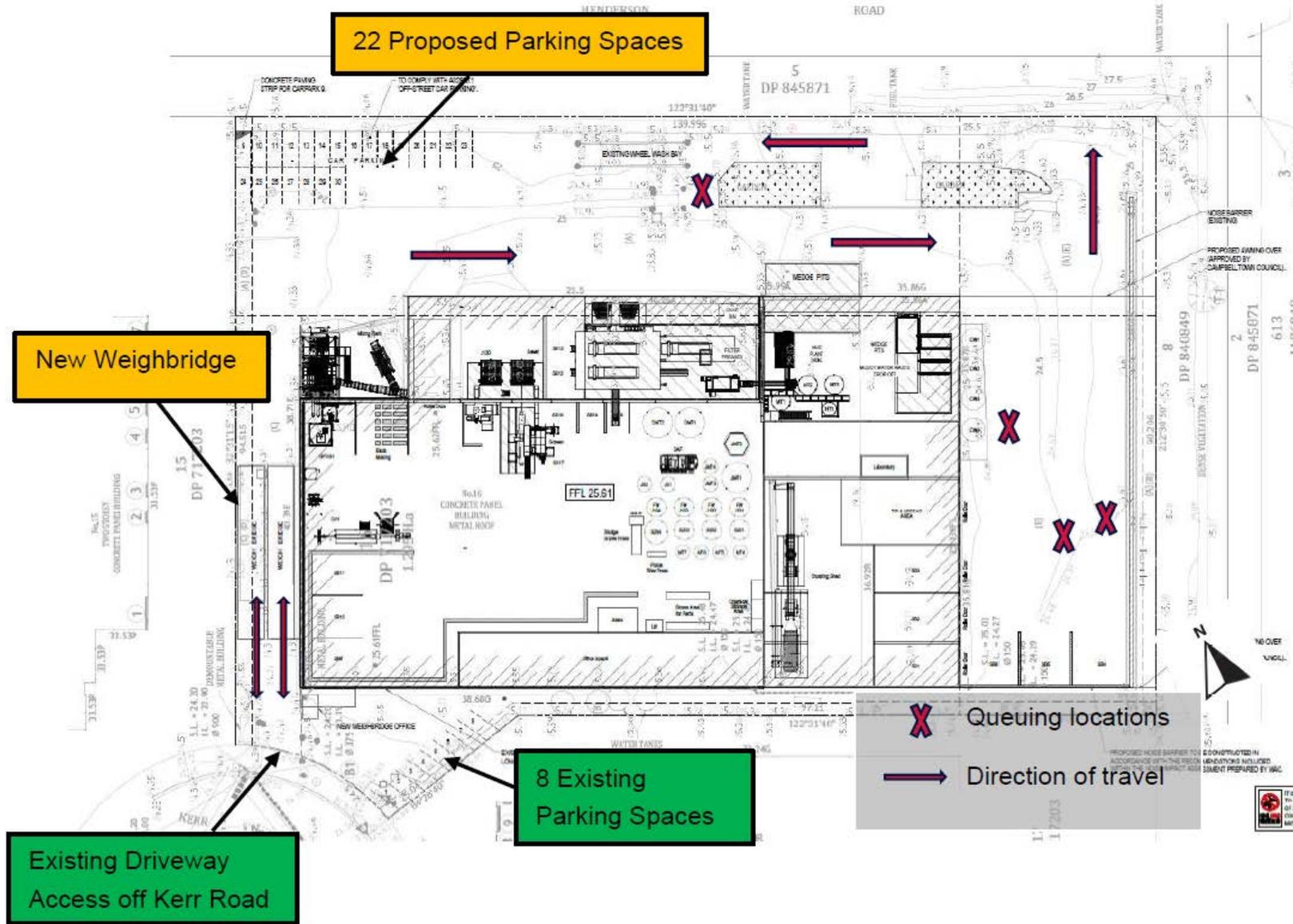
2. The queuing and staking procedure to ensure that no additional vehicles associated with the facility are queuing within or outside the facility that may impede on the internal or external traffic,
3. The traffic related operational requirements, and
4. The swept paths clearance requirements.

Parking

Parking arrangements will be adhered to by all employees, contractors and visitors as there are more than adequate car parking spaces dedicated for that purpose. All car parking spaces are shown in the site layout presented in **Figure 6-2**. These include 8 existing and 22 proposed car spaces. The same figure shows the access to the site from Kerr Road and the queuing locations within the boundaries of the site.

Based on the above, it is expected that the traffic related impact will be minimal. Nevertheless, an “**Operational Traffic Management Plan**” is presented in **Attachment 1**.

Figure 6-2: Locations of Approved Car Spaces



6.7 STORMWATER

A revised Stormwater Management Plan and assessment were undertaken in March 2021 by DRB Consulting Engineers for the proposed Resource Recovery facility.

The calculations for sizing the OSD included in the Stormwater Management Plan were undertaken by using the EPA's approved guidelines. Several recommended management and mitigation measures will be implemented on site to ensure that pollution of water is prevented at all times.

The existing water collection and storage structures as well as the updated stormwater management system are more than capable of containing all waters falling on site without compromising the quality of water leaving the site, if any.

In addition, the proposed additional filtering devices to be installed in all drainage pits will ensure that the water quality is improved.

Monitoring program is also provided to check the effectiveness of the stormwater management system.

6.8 HAZARDS AND RISKS

Under normal circumstances RRF may have the potential to have high operational risks as well as risks to human health and the environment. However, the level of risks depends greatly on the types of materials received on site, the processes, procedures, and the management & mitigation measures implemented on site.

Since the liquid wastes to be received on site are considered hazardous, the risk is reduced significantly especially on the employees. The relatively small quantities of solid waste (Construction and Demolition) are inert, non-putrescible, non-flammable and non-combustible. Therefore, the risk is likely to be very low.

In any case, all employees have been issued with relevant Personal Protective Equipment (PPE) and have been trained on containment and dealing with possible hazards as part of their normal training.

BRS has well established Emergency Management Plan which includes fire extinguishers, reel hoses, two-way radios, spill kits, evacuation plans and procedures starting from different points within and outside the building to ensure that in case of an emergency all employees will have access to all above facilities to stay safe.

6.9 UTILITIES AND SERVICES

All utilities and services have been installed and operating efficiently for many years now. These utilities include plumbing, electricity, gas, phone, internet, potable water, hot water system, air conditioning and heating systems.

The consent agreement between BRS and Sydney Water was recently upgraded to accommodate for the additional quantities of liquid wastes that would generate more wastewater.

6.10 VISUAL IMPACT

Visual impact is likely to be very low as a result of the landscaping, topography and large noise barrier installed between the site and residential sites. Additional visual impacts, if any are addressed by the management and mitigation measures to be implemented on site. More details are provided below.

Landscaping

The dense landscaping established at and adjacent to the northern, north easter and eastern boundary of the site provides great visual shielding for residents located on the opposite site across the railway line.

Lighting

At night times, lighting may cause nuisance to the neighbouring residents if suitable management and mitigation measures are not implemented. One of the most effective measures is to have all lights facing downward in accordance with relevant Australian Standards.

In addition to the above, the large noise barrier which is approximately 70m long and 6.5m high, installed along the eastern boundary facing the residents will prevent any lights to go outside the boundaries of the site in that direction. The landscaping mentioned above will assist also in preventing the light in other directions.

6.11 FIRE ASPECT

This aspect is included in the Hazards and Risk mentioned above.

6.12 PESTS, VERMIN AND PRIORITY WEED MANAGEMENT

Since the facility has been established within the industrial estate for many years and the well-established processes in controlling pest and vermin, there has not been an issue of concern at any time. Similarly, the regular maintenance of the established vegetation within the landscaped area has been proven to be successful in controlling weeds within these areas.

7. MANAGEMENT & MITIGATION MEASURES

This section includes additional information dealing with specific mitigation measures that will be implemented during the operational stage.

7.1 MANAGEMENT & MITIGATION MEASURES

Most mitigation measures for the approved development operation stage were discussed in the EIS, RTS and revised RTS as they are similar to those that will be implemented for the operation stage of the facility which includes the existing approved activities. The following Sections will include relevant information to assist the reader in either referring to the relevant document or to use the information included in this OEMP.

Table 7-1 below presents all management and mitigation measures to be implemented during the operational stage to ensure that the potential impacts on human health and environment are minimised.

Table 7-1: Operational Related Management and Mitigation Measures

Aspect	Management and Mitigation Measures
<p>Water Management</p>	<p>The existing stormwater system and management procedures will be retained for use. These include:</p> <ul style="list-style-type: none"> • Sweeping of internal and external hardstand areas, • Misting Systems, • Grading of operational surfaces to stormwater capture, • Wheel wash, • Existing bunding for fuel and other chemical storage in accordance with AS1940:2004, • Waste processing internal to building or undercover, • Waste storage only in managed areas; and • Stormwater treatment devices including gross pollutant traps, pit inserts, and storm filters. <p>The following systems are to be installed as per the stormwater management plan:</p> <ul style="list-style-type: none"> • Ocean Protect Oceanguard pit inserts will be installed in all surface inlet pits collecting runoff from the pavement areas, • A 20kL above ground rainwater tank collecting 3,036m² roof area will be used for external irrigation, • Implementation of automatic valve on outlet, • Aboveground OSD tanks, and • Where required, bunding and grading to ensure surface water drains away from the areas where waste is stored and processed (internal to building). <p>The site's future EMP which will govern the proposed operations is to include management procedures, a maintenance and cleaning schedule to ensure system devices are regularly cleaned, and spill management procedures for</p>

Aspect	Management and Mitigation Measures
	<p>a range of liquids. The EMP is to include the following management measures:</p> <ul style="list-style-type: none"> • All drainage pits are to be fitted with Ocean Protect Oceanguard pit inserts (or equivalent) to retain coarse sediments and gross pollutants, • On a daily basis and after each significant rainfall event the drainage pits are inspected and retained sediment and other debris removed as appropriate, • Undercover storage areas are to be maintained in as dry condition as possible, • Street sweepers clean the hardstand areas, • All vehicles to go through the wheel wash prior to leaving the site to remove sediment from tyres and underbodies, • A 120kL underground settling tank collecting runoff from 11,784m² of the site. Water captured in this tank will be pumped out and used in the processing operations, including dust suppression. • All overflow from the Harvesting Tank will be filtered through the Oceanguard cartridges before leaving the site. <p>Stormwater System Monitoring</p> <p>The proposed stormwater system is to be monitored to assess effectiveness. The following analytes will form the basis of site monitoring:</p> <ul style="list-style-type: none"> • Total Recoverable Hydrocarbons, • Oil and Grease • Heavy Metals (including Aluminum, Arsenic, Cadmium, Chromium, Copper, Iron, Mercury, Nickel, Lead, Zinc), • Turbidity, • Total Suspended Solids (TSS), • Nutrients (Total Nitrogen and Total Phosphorous), • Chlorophyll, • Bacteria, • Dissolved Oxygen • pH, and • Total Acidity. <p>Water sampling is to be undertaken by trained site staff. All samples collected will be sent to a NATA accredited laboratory for analysis and comparison.</p> <p>The monitoring should be implemented for a minimum of 12 months post commissioning with all results recorded over this time to establish a trend.</p> <p>Should any benchmarks be exceeded in this time, investigations should be undertaken to understand why there has been an exceedance.</p> <p>If required, additional mitigation measures may need to be adopted within the site to ensure exceedance of the benchmark levels does not occur again.</p>
<p>Air Quality</p>	<p>The existing mitigation measures implemented on the site include the following:</p> <ul style="list-style-type: none"> ❖ Engines of on-site vehicles and plant switched off when not in use for extended periods,

Aspect	Management and Mitigation Measures
	<ul style="list-style-type: none"> ❖ Maintain and service vehicles according to manufacturer's specifications, ❖ External areas are to be kept clean, any incidental spills to be cleaned immediately, ❖ Regular sweeping and/or watering of hardstand area, ❖ Automated sprinkler system used in crushing plant. Sprayers are automated based on wind speed measured from the top of the roof, ❖ Manual water sprays and misters over work areas are also used, ❖ Conduct visual checks for dust beyond the boundary, ❖ Material stockpile size maintained appropriately, ❖ Sealed driving surfaces of the site to be cleaned regularly, ❖ Vehicles are to abide by site speed limits at all times while within the boundaries of the site, ❖ Vehicle loads are covered when transporting material on and off-site, ❖ The access driveway to the site is checked regularly, and if any dust, material, or mud found to be tracked onto the public road is cleaned immediately. <p>Based on the recommendations within the AQIA report, the following mitigation measures to be implemented on site:</p> <ul style="list-style-type: none"> ❖ Vehicles and plant are to be fitted with pollution reduction devices where practicable, ❖ All liquid waste storage tanks are sealed and fitted with suitable filters (i.e. carbon) to minimise the emission of odours, ❖ Liquid waste processing to be undertaken in sealed tanks to prevent the release of odour, ❖ Appropriate filters to be installed on the DAF unit to mitigate odour from this process, ❖ Material to be stored inside where possible to prevent wind erosion. <p>Furthermore, the following greenhouse gas mitigation measures will be implemented on the site:</p> <ul style="list-style-type: none"> ❖ Monitor the consumption of fuel and regularly maintain diesel powered equipment to ensure operational efficiency, ❖ Turning diesel equipment off when not in use for extended periods, ❖ Minimise double handling of material and using efficient transport route, ❖ Monitor the total site electricity consumption and investigate avenues to minimise the consumption, ❖ Conduct a review of alternative renewable energy sources, ❖ Provide energy awareness programs for staff and contractors within the site induction process; and <p>Minimise the production of waste generated on-site.</p>
<p>Noise</p>	<p>The most recent Noise Impact Assessment (NIA) undertaken by Pulse White Noise Acoustics (PWNA) and existing operational procedures serve to mitigate against noise impacts on the surrounding environment.</p> <p>Noise levels generated by the site are managed through the following measures:</p> <p>Only the following plant and equipment are to operate at any one time:</p>

Aspect	Management and Mitigation Measures
	<ul style="list-style-type: none"> • Equipment during the day and evening periods is to be limited to the following: <ul style="list-style-type: none"> ▪ 1 x Crushing/screening plant, located indoors ▪ 1 x Excavator, located indoors ▪ 1 x Front end loader, located outdoors in the crushing yard ▪ 2 x Truck and dogs, located outdoors in the main yard ▪ 1 x Concrete batching plant, located indoors ▪ 1 x Slump stand, located indoors ▪ 1x Concrete agitator, located outdoors in the main yard ▪ 1 x Flocculant plant, located undercover outdoors ▪ 2 x Liquid plant, located undercover outdoors ▪ 3 x Vacuum trucks, located outdoors ▪ 1 x Forklift, located outdoors 20% and indoors 80% • Noise generating equipment during the night periods is to be limited to the following: <ul style="list-style-type: none"> ▪ 1 x Concrete batching plant, located indoors ▪ 1 x Slump stand, located indoors ▪ 1 x Concrete agitator, located outdoors in the main yard ▪ 1 x Flocculant plant, located undercover outdoors ▪ 2 x Liquid plant, located undercover outdoors ▪ 1 x Vacuum trucks, located outdoors ▪ 1 x Forklift, located outdoors 20% and indoors 80% • When truck and dogs are being loaded or at a waiting bay, they are to be turned off, • When vacuum waste trucks are being loaded or at a waiting bay, they are to be turned off, • Permanent on-site mobile equipment such as the excavator, front end loader and the forklift are to have a non-tonal reversing alarm, • In the crusher yard, the existing 6.5 wall along the southeast boundary is to be retained. Additionally, an awning is proposed from the top of the noise wall to cover the storage bays and all activities outside the crushing plant. Note that both ends of the covered area are open air and not enclosed. <p>Operational Mitigation Measures</p> <p>Universal work practices that will be applied to the proposal (and all subsequent works) include:</p> <ul style="list-style-type: none"> ➤ Conduct toolbox talks pre-shift to communicate awareness regarding the importance of noise emission management, ➤ ensure site managers periodically check noise emissions at receivers adjacent to noisy activities so that potential problems can be rectified, ➤ UHF radios will be used for communication with no yelling allowed, ➤ no slamming of doors is allowed, ➤ plant will be parked in accessible and where possible shielded locations prior to being used for out of hours work. ➤ minimise the use of reverse alarms, and ➤ management are to communicate to staff and contractors the importance of minimising noise emissions to the community when arriving and leaving site.

Aspect	Management and Mitigation Measures
	<p>Consultation and Notification:</p> <ul style="list-style-type: none"> ➤ maintain good communication between the community and site staff, ➤ appoint a community liaison officer where required to maintain good communications between community and staff. <p>Complaints Handling:</p> <ul style="list-style-type: none"> ➤ provide a readily accessible contact point, of contact or complaints line and give complaints a fair hearing, ➤ have a documented complaints process, including an escalation procedure so that if a complainant is not satisfied there is a clear path to follow, ➤ records of all community complaints will be maintained on an up-to-date complaint register. The records will include: <ul style="list-style-type: none"> - date and time of the complaint, - how the complaint was made (telephone, mail, or email), - any personal details of the complainant that were provided, or if no details are provided, a note to that effect, - the nature of the complaint, - any actions taken by the site supervisor/construction contractor in relation to the complaint, including any follow up contact with the complainant and the timing for implementing action, and - if no action was taken by site supervisor/construction contractor in relation to the complaint, the reason why no action was taken.
<p>Traffic & Transport</p>	<p>The traffic management includes measures for the following:</p> <ul style="list-style-type: none"> ➤ directions and rules for engagement with mobile equipment, ➤ directions for permitted and non-permitted methods of work on and around vehicles, ➤ specifications for safety signs which shall be in place to support site controls, ➤ specifications for PPE that shall be available and used by staff, visitors, and contractors on-site's traffic management map, ➤ a summary of the hazard identification and risk assessment process used, ➤ details of the process used to evaluate controls once they are in place, ➤ update traffic management plan in accordance with expansion, if required. ➤ All heavy vehicles arriving to the site will require scheduling or pre-notification of arrival allowing for management of vehicle load. If the premises is at capacity, vehicles will be advised to delay their journey to the site. If vehicles arrive to site without scheduling and no capacity is available, they will be turned away. ➤ Whilst on site, all vehicles are to abide by the traffic management system and undertake all listed procedures required
<p>Visual Amenity</p>	<p>The site has implemented landscaping within the site to enhance visual amenity. This includes several garden beds and trees. The site is kept clean through routine hardstand cleaning and upkeep of the building and other structures.</p> <p>It is recommended that:</p>

Aspect	Management and Mitigation Measures
	<ul style="list-style-type: none"> • Trees to be planted to create a visual buffer along the south eastern boundary; • The existing established vegetation along Henderson Road and the rail corridor be retained where possible and maintained long term. This will continue to fragment views of the site; and • The built elements of the development be maintained to a high standard, in line with the existing developments within the industrial precinct. <p>With the implementation of the recommended measures, visual amenity should not be negatively impacted</p>
Waste Management	<p>A range of waste management procedures are implemented by the operation including the following:</p> <ul style="list-style-type: none"> • An updated waste material reception procedure has been prepared and implemented to ensure only permitted materials are accepted on site, • Records of acceptance shall be kept on site, • Quality assurance checks of material accepted to the site shall be conducted on a regular basis, • Ensure wastewater systems are maintained in good working order, • All wastes are to be segregated where possible, • All non-recycled wastes to be disposed of in an appropriate manner to appropriately licensed facilities, • All wastes are to be managed in accordance with the waste management plan, and • Waste management plan to be updated to suit proposed expansion
Soils & Contamination	<p>The site is covered in hardstand providing an effective barrier to contamination reaching the natural ground.</p> <p>Water and sediment on the site are directed to the site’s water management system where water is cleaned and reused or directed to sewer and sediment is collected and directed back into the crushing process or re-used on site.</p> <p>To ensure the site’s soil remain contaminant free, the following management procedures are to be undertaken:</p> <p>Physical Controls:</p> <ul style="list-style-type: none"> • Use of filters on stormwater drains, • Use of wheel wash for heavy vehicles, • Separation of waste material using storage bund, • Internal processing of wastes, • Implementation of misting sprays for dust suppression, and • Implementation of filters for liquid waste processing. <p>Procedural Controls:</p> <ul style="list-style-type: none"> • Development and routine updating of management plans, • Routine inspection, maintenance, and cleaning of hardstand area, • Maintenance and efficiency check of water management system,

Aspect	Management and Mitigation Measures
	<ul style="list-style-type: none"> • Implementation of a pollution incident response management plan, • Adoption of best practice operational procedures, • Implementation of a maintenance schedule, and Routine training and reinforcement of correct procedures
Hazard Management	The following hazard management measures are to be implemented on the site: Physical Controls: <ul style="list-style-type: none"> ✓ Separation of processes through site design, ✓ Separation of stockpiles through location and walls, ✓ Implementation of fire management system. ✓ Any hazardous components are design and constructed to comply with relevant standards (e.g. AS1940:2004 The Storage and Handling of Flammable and Combustible Liquids), and ✓ Any dangerous goods are to be stored within the designated chemical storage area as shown in the updated site plans. Procedural Controls: <ul style="list-style-type: none"> ➤ Development and routine updating of management plans, ➤ Implementation of a pollution incident response management plan, ➤ Adoption of best practice operational procedures, ➤ Incoming material verification processes, ➤ Implementation of a maintenance schedule, and Routine training and reinforcement of correct handling, pollution incident, and fire management procedures
Fire Management	The existing building has a fire management system which includes fire sprays, easy and visible fire hoses and extinguishers throughout the site, appropriate training for employees, induction for evacuation and management for all employees and visitors, and regular inspections of fire emergency equipment and systems. To provide compliance with Clause 94 of the EP&A Regulation 2000, the Statutory Compliance Report, an existing small roller door will be placed where a double leaf pedestrian swing door currently exists, thereby complying with BCA Clause D2.19 and it will be fitted with BCA Clause D2.21 compliant lever action door hardware. The fire management system is to be reviewed to ensure compliance with relevant requirements
Community	As part of its social responsibility, BRS posts letters to surrounding residents in the nearby residential area and neighbouring industrial facilities informing them of any updates regarding the operation or any solutions implemented. Contact details will be displayed on the site entry and a complaints register is to be maintained noting the nature of the complaint, time received, action taken, and time the action was taken
General Environmental Management	Once approved, the facility is to operate under a new Environmental Management Plan (EMP) which will provide detail on a range of environmental matters. The document will provide the following detail: <ul style="list-style-type: none"> ❖ Operations description,

Aspect	Management and Mitigation Measures
	<ul style="list-style-type: none"> ❖ Management hierarchy with roles and responsibilities, ❖ Inductions and training regime, ❖ Environmental management procedures and requirements, ❖ Environmental monitoring, risk assessment, and auditing, ❖ Environmental contingencies and corrective actions, ❖ Emergency response procedures and contacts, ❖ Complains handling procedure and register; and ❖ EMP and other environmental documentation review procedure

8. OPERATIONAL ENVIRONMENTAL MANAGEMENT PROCESSES AND PROCEDURES

As previously presented in this report, the potential environmental impacts of the operational activities are very minimal and will be limited to potential dust, noise and stormwater aspects only. Hence, in addition to the management and mitigation measures, amelioration strategies, protocols, regimes and monitoring requirements included in this Operational Environmental Management Plan (OEMP), it is considered appropriate that additional processes and procedures be prepared and implemented by relevant BRS staff. These processes and procedures would form a vital component of the OEMP for the site.

This OEMP, the procedures presented in the attached specialist plans as well as the other Attachments are designed to help staff and contractors carry out activities in the following ways:

- Provide prescriptive procedures where appropriate to minimise potential dust and noise nuisance and/or potential harm to human health and the environment,
- Provide guidelines for staff and contractors to enable them to assess and implement the best strategy to minimise potential dust, noise, and stormwater impacts, and
- Increase operational related environmental awareness for the management, staff, contractors, and visitors to the site.

The procedures included in this OEMP also assist management in the following ways:

- Identify events which have the potential to increase the risk of statutory breaches arising from dust, noise, or stormwater pollution incidents, or to cause significant business interruptions,
- Provide guidelines for minimising the potential for dust, noise, and stormwater impacts, and
- Establish, equip, and train the staff and contractors that management can rely on with the capability of dealing with anticipated events effectively and efficiently.

Several additional Environmental Management Processes and Procedures that are considered appropriate for inclusion in this OEMP are included in **Attachments 4 and 5**. Again, these processes and procedures must be implemented by the management of BRS in addition to the Management & Mitigation presented in **Section 7** to ensure that the impacts or potential impacts on human health and the environment are minimised.

In addition to the above and as required under the POEO Act, BRS has prepared and implemented a Pollution Incident Response Management Plan (PIRMP) to ensure that any pollution related incident is managed promptly and professionally.

9. MONITORING OF ENVIRONMENTAL PERFORMANCE

Based on our extensive experience with environmental assessments of similar operational activities and the environmental assessments undertaken for BRS proposed activities, we believe that the potential of impact on the environment and human health during the operational stage is minimal. We believe that specific monitoring programs are not warranted since most proposed operational activities will be undertaken during normal operational hours and in enclosed spaces. Furthermore, the proposed small number of vehicle movements for the operational stage compared with the current number of vehicles, including a high percentage of heavy vehicles, using the nearby roads will have very little, if any, increase in traffic noise, dust emissions or exhaust gas emissions.

All operational activities will be monitored by implementing several general strategies on the site. These strategies include:

- ❖ Workplace inspections conducted in accordance with the relevant procedure included in **Attachment 4** of this document,
- ❖ On-going program to record any detection of excessive dust emissions, water pollution, noise emissions by staff, visitors, or contractors,
- ❖ On-going program to record any enquiries or requests by authorised officers of Government Departments,
- ❖ On-going program to record any enquiries, complaints or feedback from the community residing or present nearby
- ❖ Regular workplace audits/inspections by BRS delegated employees within the boundaries of the site,
- ❖ Regular walkabouts outside the boundaries of the site by BRS delegated employees,
- ❖ Review the results of any environmental monitoring undertaken as a result of concerns expressed by the community, authorities or others,
- ❖ Regular meetings and informal discussions with staff from both BRS and the contracting companies to gauge whether there are any environmental issues associated with the activities that are of concern to any person, and
- ❖ Review of all enquiries, feedback and complaints received from all stakeholders including staff members and contractors to ensure that any issues arise from the activities that are likely to cause any adverse impact on human health or the environment are dealt with promptly, effectively and efficiently.

We believe that the above strategies are more than adequate to give confidence to all parties that in the case of any breach of any Development Consent condition, environmental legislation requirements or policies/guidelines, the matter will be addressed promptly in an efficient and effective manner.

9.1 MONITORING PROGRAMS

Notwithstanding the generic monitoring strategies implemented on site, specific monitoring programs for specific environmental aspects will also be undertaken as presented below.

Furthermore, additional monitoring programs could be conducted when required following an inquiry, a feedback or a complaint. These could be initiated by BRS staff, contractors, community and/or authorities.

9.1.1 Dust Monitoring Program

BRS management is confident that its activities will easily comply with any relevant consent conditions based on the assessments and observations made during the environmentally orientated inspections undertaken by a highly qualified environmental engineer. The assessments showed that implementing and maintaining the recommended mitigation measures would be sufficient to always comply with all the Department (and EPA) air quality criteria.

All solid waste processing including sorting, crushing, and screening is undertaken inside the building to prevent any dust from migrating outside.

Regular inspections of the waste processing and storage areas as part of the overall inspection program will determine whether visible dust is generated at which time, all management & mitigation measures will be increased and strengthened to prevent dust generation.

The potential dust emission impacts on residential areas within the vicinity of the subject site are insignificant due to the shielding between the site and residential areas, topography of the area, dense landscaping facing the residential dwellings, the noise barrier (70m long and 6.5 m high), and the minimal potential dust emissions from the operational activities beyond the boundaries of the subject site.

9.1.2 Odour Monitoring Program

The Odour Monitoring Program is presented in the Odour Management Plan included in **Attachment 2**.

9.1.3 Noise Monitoring Program

As previously stated, we do not believe that a formal noise monitoring program is warranted but rather similar arrangements with the dust monitoring program are implemented, when required.

The potential noise impacts, because of the operational activities, on residential areas within the vicinity of the subject site are insignificant due to the shielding between the site and residential areas, topography of the area, the dense landscaping along the eastern boundary facing the residents, the noise barrier (70m long and 6.5m high), the awning to be installed above the eastern easement and the noise generated from existing industrial activities and traffic noise nearby.

A Noise Verification Report must be prepared in accordance with Consent Condition B20.

The location/s of additional noise monitoring, if required, should be determined in consultation between Council, the Department, EPA, BRS and the environmental consultant.

9.1.4 Waste Monitoring Program

Monitoring programs for the incoming and outgoing wastes as well as waste recycled and/or used on site will be undertaken in accordance with current approved environmental legislation, policies and guidelines which are presented below. Due to the fact that the BRS facility is already licensed by the EPA, and it is considered as a levied facility, there is a statutory obligation that all loads are monitored on the way in and out. The records required to be collated for each load are very comprehensive and are kept on site to be presented to any EPA authorised officers to see them. Therefore, there is no justifications to prepare a different monitoring program.

9.1.5 Incoming Waste Monitoring Program

BRS Resource Recovery Facility is considered as a levied licensed facility. This means that under current EPA legislation, policies and guidelines, all vehicles entering the BRS site must go over the weighbridge and their records must be kept on site. These records include as a minimum the following:

- a) the date and time on which the vehicle enters the facility,
- b) the date and time on which the vehicle leaves the facility,
- c) the registration number of the vehicle,
- d) the purpose of entry,
- e) the weight of the vehicle,
- f) the amount of any waste delivered, its waste type and (except where the waste is trackable liquid waste) its waste stream,
- g) the amount of any other material delivered and a description of the nature of that other material,
- h) in the case of waste transported to the waste facility from another waste facility—
 - I. the name and address of the other facility, and
 - II. the code or number of any environment protection licence for the other facility,
- i) in the case of an occupier who is required to pay contributions under section 88 of the Act—particulars of where any waste or other material delivered is placed at the facility.

9.1.6 Outgoing Waste Monitoring Program

As previously stated, we do not believe that a different waste monitoring program is warranted but rather similar arrangements with the incoming waste monitoring program are implemented. Similar records to those collated for the incoming wastes must be collated and kept for all outgoing wastes.

9.1.7 Stormwater Monitoring Program

Stormwater monitoring will be undertaken on a monthly basis and after every significant rainfall event. The monitoring must be undertaken for at least 12 months to ensure that a reasonably sound trend can be established.

The proposed stormwater system is to be monitored to assess effectiveness. The following analytes will form the basis of site monitoring:

- Total Recoverable Hydrocarbons,
- Oil and Grease
- Heavy Metals (including Aluminum, Arsenic, Cadmium, Chromium, Copper, Iron, Mercury, Nickel, Lead, Zinc),
- Turbidity,
- Total Suspended Solids (TSS),
- Nutrients (Total Nitrogen and Total Phosphorous),
- Chlorophyll,
- Bacteria,
- Dissolved Oxygen
- pH, and
- Total Acidity.

This monitoring will be reviewed at the end of the 12 months period in consultation with the Department and the EPA. The monitoring frequency will also be reviewed at the same time in light of the monitoring results and trend.

9.1.8 Pests, Vermin and Priority Weed Management

Pests and vermin management are undertaken by professional licensed pest controllers on a regular basis. Based on testimonials from the staff and visitors, there has not been any issues or concerns with any pests or vermin on site. BRS is committed to continue with those effective programs to ensure that pests and vermin continue to be managed and absent from the site as it has been the case for several years now.

Based on the photographic evidence and aerial views, it is clearly evident that the existing vegetation maintenance programs and weed management processes are very effective and efficient in achieving the excellent results seen in the landscaped areas.

10. ROLES AND RESPONSIBILITIES OF RELEVANT EMPLOYEES

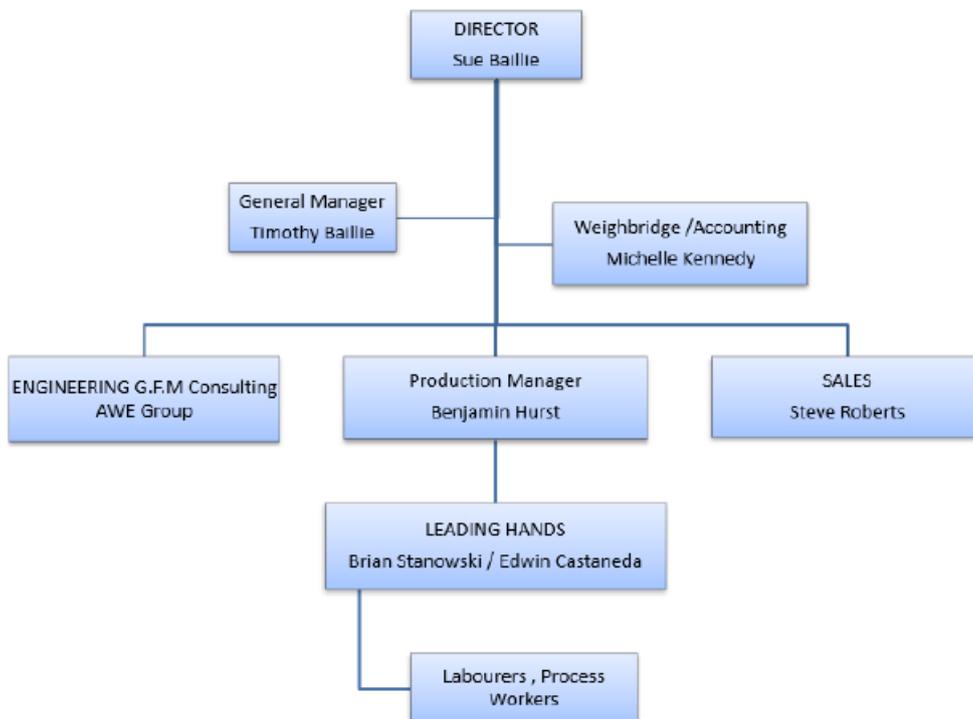
The Site Manager is responsible for the implementation and maintenance of the OEMP throughout the activities to be conducted on site. The Site Manager may delegate the responsibility to other staff members who are appropriately trained to implement and maintain the OEMP.

The current Site Manager’s details are:

Tim Baillie
 Managing Director
 Ph: (02) 8717 3333
 Mobile: 0427 452 029
 16 Kerr Road
 Ingleburn NSW 2565
 Email: tim@bulkrecoveryolutions.com

In addition to the Managing Director, BRS has other employees at different levels who have different roles and responsibilities. The current Organisational Structure of BRS including those employees is presented below in **Figure 10-1**.

Figure 10-1: BRS Current Organisational Structure



The names of other delegated employees, if any, should be included in the relevant section of the OEMP when updated.

Management will need to ensure that those coming onto site have understood the relevance and objectives of the OEMP and will be carrying out their activities in accordance with the OEMP and relevant development consent conditions.

Having the full commitment of contractors and their staff is imperative to achieve the high level of success intended from the use of this OEMP.

Even though the Site Manager has the overall responsibility over all operational activities, he may determine that it will be more appropriate to delegate some roles and responsibilities to other employees, if considered appropriate. **Table 10-1** includes roles and responsibilities of relevant employees and contractors.

Table 10-1: Roles and Responsibilities of Relevant Employees

Role/Position	Responsibility
Director	The director is responsible for steering our organisation to meet our company's business objectives and to achieve promised goals. Ultimately, the Director will be responsible at the end of each day for all undertakings and accepts this
General Manager /Site Manager	This is a day-to-day contact person and will also be accountable to management & customers on all points. Advanced approaches to keep service high, costs low and latest information and reporting to customers. Maintenance of plant and person who makes sure of compliance of facility
Weighbridge/Accounting	This is a day-to-day contact person meeting clients prior to entry of site, inspection of product prior to entering site and is also accountable to management and customers on all points. Advanced approach to keep service level high, costs low and latest information and reporting. One of the key people who make sure compliance of facility
Engineering Consulting, AWE Group G.F.M	Depending upon discipline of trade required Responsible for design overseeing manufacturing process and equipment compliance as well as trouble shooting technical issues that arise
Sales	Depending upon product or service required Sales team is responsible for costings and liaising with Management for projects. Relied upon heavily for functional information. Trained from Head Office with Technical experience. Bring business from external sources
Production Manager	The Production Managers role is to manage all process, service operations, schedules jobs, parts and liaise with customers, management on all aspects of production
Leading Hands	The Leading Hand has advanced knowledge in the process with leadership skills who guide Labourers, technicians
Labourers, Process Workers	Responsible for the day to day running of the business. Also performs a number of duties in support of customers and company's essentials as part of the BRS team
Environmental Manager	Responsible for the following actions: <ul style="list-style-type: none"> • Implement and maintain this OEMP.

Role/Position	Responsibility
	<ul style="list-style-type: none">• Coordinate and authorise environmental work and site level plans.• Coordinate and conduct regular inspections to ensure a high level of environmental performance and compliance with the OEMP.• Provide technical advice regarding environmental obligations, measures, and safeguards.

11. COMMUNITY CONSULTATION AND COMPLAINTS HANDLING PROCEDURES

Due to the nature of the standardised and limited proposed operational activities scheduled to be conducted on site and the minimal potential of pollution generated by these activities, it is highly unlikely that complaints would be received from people located outside the boundaries of the site and that only feedback from people who are either working or inspecting the activities within the boundaries of the site, would be received. This means that only internal communications system would be sufficient, however, BRS management will proactively participate in voluntary and open communications with relevant stakeholders, when required. Stakeholders include community groups, contractors, NSW regulatory authorities and non-regulatory agencies. This is the main reason for establishing both a Feedback Register and a Complaint Register. Both registers will incorporate all related activities during the operational stage of the development.

11.1 COMMUNITY RELATIONS

A procedure has been developed for communicating with the residential community in a manner that highlights the site operator's concern for both their amenity and the local environment. This also ensures that any enquiries or complaints are effectively logged and actioned. This will be established with the Complaints and Feedback Register (included in this plan). A Complaint Hotline number is displayed at the front entrance to the site and several other locations within the site. A Complaint Hotline number is also provided on the front page of BRS Website.

11.2 COMMUNICATIONS WITH REGULATORY AUTHORITIES

Communications with regulatory authorities, such as DPIE, shall occur on an as needs basis for the compliance with consent conditions. All communications with regulatory authorities concerning environmental matters are to be noted and records of any subsequent actions appropriately filed.

A typical method of reporting would be monthly environmental review to include all environmental monitoring for the site during the operational stage. Records and documentation resulting from the implementation of the OEMP, such as inspection forms, records and community complaints should also be included in the monthly reporting.

Site management would also be required to report to regulatory authorities for any additional reporting and/or testing requirements requested. This will be established on an as needs basis, upon issue of a notice or a request.

11.3 INTERNAL COMMUNICATION

The site management is to establish simple yet effective communication channels for an effective implementation of the overall environmental management system. Typical methods of communication that may suit the size of the operation include meetings and notice boards and the use of toolbox sessions which are highly effective. Currently, the site management upholds an existing internal communication strategy, and are also utilising verbal communication as the most effective method, given the size of the site and the proposed operational activities.

Document control and written communication would be necessary when new contractors or employees are trained, or changes are made to the OEMP or any other matters that affect the holistic Environmental Management of the site during the operational stage.

11.4 FEEDBACK AND COMPLAINT REGISTER

The establishment and implementation of a **Feedback and Complaint Register** will be of great assistance to all parties to determine whether the Operational Environmental Management plan and procedures are efficient and effective in minimising the impacts from the operational activities and that the monitoring programs to be implemented on site are sufficient to determine compliances or exceedances.

The Register would be divided into two sections: **the Feedback Section and the Complaints Section.**

The Feedback Register would include the feedback given to BRS management in relation to all operational related matters including positive or negative feedback from staff, guests, and authorised officers from government departments.

The Complaints Register would include the complaints lodged directly or indirectly with BRS management. These complaints could be made by different parties such as nearby residents, people working or are nearby, and Government Departments' employees.

We believe that the above monitoring strategies and the scientifically based monitoring programs that will be undertaken as required will be more than effective and sufficient to identify exceedances of any aspect associated with the activities. These monitoring strategies will guide BRS staff to identify the sources that are likely to cause the exceedances, if any, and to implement additional amelioration strategies and mitigation measures, when required.

Furthermore, and in accordance with current EPA requirements, a complaints hotline is provided in a prominent position on BRS Website as well as at the entry/exit of BRS site.

11.5 NON-COMPLIANCES, CORRECTIVE & PREVENTATIVE ACTIONS

All non-compliances are to be reported to BRS immediately.

Non-compliances, corrective and preventative actions are to be dealt with in accordance with the Corrective and/or Preventative Actions Procedure within the OEMP.

Non-compliances may include:

- Any non-compliance or release of contaminants not in accordance with the conditions of any consent, licence, or approval,
- Any event where environmental harm has been caused or is likely to be caused, or
- Any spills of contaminants.

Any non-compliance must be notified in accordance with consent condition C11 which states: "The **Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance**". This means that as soon as BRS is made aware that there is a non-compliance, BRS personnel must notify the Planning Secretary in writing via the Major Projects website. The notification must be made within seven days. Any non-compliance relevant to environmental aspects and EPL must also be notified to the EPA promptly.

When non-conformity is identified, corrective action to mitigate the environmental impact should be put in place. Further investigation into the cause of the non-conformity would need to be undertaken to determine what preventative measures can be implemented to ensure the non-conformity does not recur.

The notification of non-compliance must include the following information:

- (a) a summary of the incident,
- (b) outcomes of an incident investigation, including identification of the cause of the incident,
- (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, and
- (d) details of any communication with other stakeholders regarding the incident.

A non-compliance notification must:

- a) Identify the development and the application number for it,
- b) Set out the condition of consent that the development is non-compliant with,
- c) The way in which it does not comply and the reasons for the non-compliance (if known), and
- d) What actions have been, or will be, undertaken to address the non-compliance.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

When non-compliance is identified, corrective action to mitigate the environmental impact should be put in place. Further investigation into the cause of the non-compliance would need to be undertaken to determine what preventative measures can be implemented to ensure the non-compliance does not recur.

The issuing of corrective actions shall be initiated by any of the following events, if considered justified:

- ❖ The Department, EPA, Council, Sydney Water or other regulatory agency direction or request,
- ❖ In-house detection of non-compliances, e.g., chemicals found to be stored outside designated areas,
- ❖ Housekeeping inspection verified non-compliance, or
- ❖ Public complaint.

11.6 INCIDENT MANAGEMENT

Environmental incidents include emissions and spillages (gas, liquid or solid) where any of the following apply if:

- There is a possibility of soil and groundwater contamination,
- There is any off-site environmental impact e.g., discharge to stormwater, dust, noise, air emissions,
- The involvement of authorities, media or the community is likely,
- The incident must be reported to the authorities,
- There are actual or potential losses of more than \$10,000 including fines, clean up and prevention (\$10,000 is defined as Material Harm to the Environment according to the POEO Act 1997),
- Any breach of the environmental conditions, including consent, licences, permits and other environmental regulation,
- Any complaints about environmental issues by an external party,
- Any fines and warning notices for consent, permit or licence non-compliance or regulatory breaches,
- Near misses with the potential to cause any of the above.

The Site Manager must be informed of any Environmental Incident as defined above. If the incident presents a material risk of harm, then the Notification of a Pollution Incident Procedure must be followed, and relevant regulatory authorities must be notified immediately. The Pollution Incident Response Management Plan (PIRMP) must be activated as required under the current environmental legislation.

Any incident must be notified to the Planning Secretary in accordance with Consent Condition C10 which states: ***“The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3”.*** This means that as soon as BRS is made aware that an incident occurred, BRS personnel must notify the Planning Secretary in writing via the Major Projects website immediately.

The notification of an incident must include the following:

- (a) identify the development and application number,
- (b) provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident),
- (c) identify how the incident was detected,
- (d) identify when the applicant became aware of the incident,
- (e) identify any actual or potential non-compliance with conditions of consent,
- (f) describe what immediate steps were taken in relation to the incident,
- (g) identify further action(s) that will be taken in relation to the incident, and
- (h) identify a project contact for further communication regarding the incident

Details of the incident must be recorded including:

- staff full name, address and telephone contact details
- date, time and duration of the incident
- the type of pollutant or a description of the incident

- discharge or emission location of the incident
- the extent or size of the area where the pollution is occurring
- anything else that is relevant to the incident

Records of the incident must be maintained on file and may be required to be provided to regulatory authorities.

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, BRS must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.

The Incident Report must include:

- (a) a summary of the incident,
- (b) outcomes of an incident investigation, including identification of the cause of the incident,
- (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, and
- (d) details of any communication with other stakeholders regarding the incident.

In addition to the comprehensive and well-established processes and procedures targeted at preventing and minimizing incidents, BRS has installed several spill kits at strategic locations throughout the facility. The locations of these spill kits are provided in **Figure 11-1** below.

Another incident management procedure to prevent and mitigate any incident is the Pollution Incident Response Management Plan (PIRMP) which is a statutory requirement for all licensed facilities under the POEO Act 1997. A comprehensive PIRMP has been prepared and it is activated and tested at least once every 12 months period. When considered necessary, the PIRMP is also reviewed and updated in accordance with the POEO Act provisions.

The PIRMP includes comprehensive procedures to deal with incidents occurring on site. It includes also proactive, preventive, and reactive processes that are implemented on site to minimise the potential of impact on human health and the environment. It includes communication and notification procedures and strategies to ensure that all stakeholders are notified of any incident that occurs on site. Depending on the magnitude of the incident, the stakeholders could include neighbouring tenants/landlords, Council, EPA, the Department, Fire Brigade, police, etc...

Incident reporting to the EPA is also a mandatory requirement under current environmental legislation.

12. REVIEW OF THE OEMP AND CONTINUAL IMPROVEMENT

This section provides information associated with the review and continual improvement of the OEMP during the operational stage of the development.

12.1 REVIEW OF THE OEMP

The OEMP should be reviewed by the Site Manager or another delegated employee who is trained appropriately to be able to undertake this task effectively and efficiently. The review should be conducted in consultation with the site supervisors as well as the contractors undertaking specific jobs to ensure that it accurately reflects the operational activities when the review is conducted. The review should also be undertaken in consultation with the Department to ensure that the OEMP continues to meet the Development Consent requirements and the Department expectations.

The review of the OEMP should be conducted as follows:

- At least once every two (2) years during the operation stage
- When it is considered necessary depending on certain changes such as changes in staffing arrangements that are relevant to the OEMP and changes in waste suppliers that may have an impact on operational activities that may have the potential to impact on the OEMP, or
- When requested by an Authority.

When a decision is made to review the OEMP for any reason, the Planning Secretary must be notified in writing of the review. The revised OEMP must be submitted to the Planning Secretary for approval within six (6) weeks of the review. BRS must use the most recent version of the OEMP approved by Planning Secretary.

12.2 CONTINUAL IMPROVEMENT

Continual improvement of the OEMP will be achieved by the continual evaluation of Operational Environmental Management performance against environmental legislation, policies, statutory instruments and objectives for the purpose of identifying any opportunities for improvement.

The continual improvement process could occur at any time depending on certain circumstances such as changes in activities and/or staff changes.

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

13. TRAINING

BRS recognises that training and awareness are an integral part of the implementation of this Operational Environmental Management Plan.

BRS management would provide appropriate training to the Site Manager, if it is considered necessary, as it will all depend on his previous experiences with similar duties. The training would include the implementation and maintenance of the OEMP to ensure that the Site Manager is competent and confident in carrying out the duties and responsibilities associated with the OEMP.

In addition, the training would include a session on undertaking prompt action to manage the daily activities in the case that a feedback was provided, an enquiry was made, or a complaint was received. The prompt action is required to ensure that any potential impact on human health or the environment is minimised.

It is essential that the site management thoroughly understands the contents of this OEMP and be competent in the objectives, consent conditions, applicable legislation, the environmental aspects and impacts of all operational activities and the procedures.

Therefore, site management will determine the level of competency necessary for staff and contractors coming to site to ensure their environmental objectives and statutory responsibilities are met.

Training will need to be assessed on a periodic basis for staff while contractors would be assessed on a job-by-job basis. All relevant procedures should be discussed until a level of understanding has been reached and a degree of competency has been demonstrated by the staff member or contractor involved to the site operator's satisfaction.

Shortfalls could be addressed by specific on-site training. Updates and reviews should also be conducted in the case of complaints or after any changes in the OEMP, in particular, a change in management, procedures, site operations or legislation.

It should be noted that most current BRS employees have undertaken work-related training at different levels and different aspects depending on their roles and responsibilities.

In addition, five (5) employees have completed an "Asbestos Awareness Training" to ensure that they are able to identify and manage asbestos if it is received unexpectedly.

14. LIMITATIONS

Our services for this report are carried out in accordance with our current professional standards for the preparation of Operational Environmental Management Plans. No guarantees are either expressed or implied.

This Operational Environmental Management Plan has been prepared solely for the use of Bulk Recovery Solutions Pty Ltd (BRS), as per our agreement for providing environmental services. Only BRS is entitled to rely upon the information provided in this report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

Although all due care has been taken in the preparation of this report, no warranty is given, nor liability accepted (except what otherwise is required by law) in relation to any of the information contained within this document. We accept no responsibility for the accuracy of any data or information provided to us by BRS for the purposes of preparing this report.

Any opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal advice.

15. REFERENCES

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16. Managing risks of storing chemicals in the workplace – Guidance materials – SafeWork Australia
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18. NSW Waste Classification Guidelines – Part 1: Classifying Waste 2014
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20. Campbelltown Local Environmental Plan 2015

21. Campbelltown Development Control Plan 2015
22. AS 2890.1:2004 Parking facilities Off-street car parking(Standards Australia, 2004),
23. AS 2890.2:2018 Parking facilities Off-street commercial vehicle facilities (Standards Australia, 2018)
24. AS 2890.6.2009 Parking facilities Off-street parking for people with disabilities (Standards Australia, 2009)

ATTACHMENTS

Attachment 1 – BRS SSD8593 OEMP – Traffic Management Plan



TRAFFIC MANAGEMENT PLAN AND DRIVER CODE OF CONDUCT

**RESOURCE RECOVERY FACILITY
16 KERR ROAD, INGLEBURN**

PREPARED FOR: BULK RECOVERY SOLUTIONS PTY LTD

JULY 2021

REF: - 21/095

**TRAFFIC MANAGEMENT PLAN AND DRIVER CODE OF CONDUCT
RESOURCE RECOVERY FACILITY
16 KERR ROAD, INGLEBURN NSW
BULK RECOVERY SOLUTIONS PTY LTD**

Intersect Traffic Pty Ltd (ABN: 43 112 606 952)

Address:

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East Maitland NSW 2323

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QUALITY ASSURANCE

This document has been prepared, checked and released in accordance with the

Quality Control Standards established by Intersect Traffic Pty Ltd.

Issue	Date	Description	By
A	15/06/21	Draft	JG
B	12/07/21	Edit	JG
C	12/07/21	Final Proof	JG
D	12/07/21	Approved	JG
E	03/09/21	Address RFI / Approved	JG

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Date 2nd September 2021.

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DECLARATION

I, the undersigned, hereby agree to abide by Bulk Recovery Solutions Pty Ltd Truck Driver Code of Conduct under Section 2.0 of this Traffic Management Plan for the transportation of waste products to and from their resource recovery facility at 16 Kerr Road, Ingleburn from their origin and to their final destination/s in a safe manner. I have read and understand the requirements outlined in the attached document and will, to the best of my ability, comply and assist with their implementation, requirements, and ongoing administration.

The subject document to which this declaration relates is attached as part of the overall document and signing of this declaration confirms that the signee has read and understood the entire document:

TRUCK DRIVER

Full Name: _____

Organisation: _____

Signature: _____

Date: _____

BULK RECOVERY SOLUTIONS PTY LTD

Company Witness: _____

Date: _____



1.0 TRANSPORT MANAGEMENT PLAN AND TRUCK DRIVER CODE OF PRACTICE

1.1 Introduction

Schedule 2 Part B1 of Section 4.38 Project Approval under the Environmental Planning and Assessment Act 1979 for A Resource Recovery Facility on Lot 16 DP 717203, 16 Kerr Road, Ingleburn requires the operator Bulk Recovery Solutions Pty Ltd to complete and implement an Operational Traffic Management Plan and Driver Code of Conduct.

Operational Traffic Management Plan

B1. Prior to the commencement of operation, the Applicant must prepare an Operational Traffic Management Plan (OTMP) for the development to the satisfaction of the Planning Secretary. The OTMP must form part of the OEMP required by condition C2 and must.

- (a) be prepared by a suitably qualified and experienced person(s).*
- (b) detail the measures that are to be implemented to ensure road safety and network efficiency during operation.*
- (c) detail the measures that are to be implemented to ensure delivery vehicle arrival times are appropriately staggered, including procedures to manage night-time deliveries.*
- (d) detail heavy vehicle routes, access and parking arrangements and queuing procedures.*

- (e) include a Driver Code of Conduct which details traffic management measures to be implemented during operation to:
- (i) minimise impacts of the development on the local and regional road network.
 - (ii) minimise conflicts with other road users.
 - (iii) minimise road traffic noise.
 - (iv) ensure truck drivers use specified routes and minimise traffic during night-time hours; and
 - (v) manage/control pedestrian movements; and
- (f) include a program to monitor the effectiveness of these measures.

This document seeks to satisfy this condition of approval. The purpose of this document is to minimise the impacts of the heavy vehicle traffic associated with the Ingleburn resource recovery facility on the community as well as to manage the movement of heavy vehicles on the local and state road network using best industry practice.

The final document is to be to the satisfaction of the Planning Secretary of the NSW Department of Planning, Industry and Environment (DPIE).

(Conditions of Consent: Schedule 2_ Part B1_” Operational Traffic Management Plan”)

Table 1 shows where the condition has been addressed within this document.

Table 1: Operational Traffic Related Conditions – Compliance Table

No	Condition	Comments
TRAFFIC AND ACCESS		
Operational Traffic Management Plan		
B1	<p>Prior to the commencement of operation, the Applicant must prepare an Operational Traffic Management Plan (OTMP) for the development to the satisfaction of the Planning Secretary. The OTMP must form part of the OEMP required by condition C2 and must</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced person(s); (b) detail the measures that are to be implemented to ensure road safety and network efficiency during operation; (c) detail the measures that are to be implemented to ensure delivery vehicle arrival times are appropriately staggered, including procedures to manage night-time deliveries; (d) detail heavy vehicle routes, access and parking arrangements and queuing procedures; (e) include a Driver Code of Conduct which details traffic management measures to be implemented during operation to: <ul style="list-style-type: none"> (i) minimise impacts of the development on the local and regional road network; (ii) minimise conflicts with other road users; (iii) minimise road traffic noise; (iv) ensure truck drivers use specified routes and minimise traffic during night-time hours; and (v) manage/control pedestrian movements; and 	<p>I am a qualified and experienced Traffic Engineer</p> <p>Section 3</p> <p>Section 1</p> <p>Section 1</p> <p>Section 1 & Figure 2</p> <p>Section 2</p> <p>Section 3</p>

	(f) include a program to monitor the effectiveness of these measures.	
B2	The Applicant must: (a) not commence operation until the OTMP required by condition B1 is approved by the Planning Secretary; and (b) implement the most recent version of the OTMP approved by the Planning Secretary for the duration of the development	Operations will commence only after this OTMP is approved by DPIE. BRS will implement the most recent OTMP version
Parking		
B3	The Applicant must provide sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that traffic associated with the development does not utilise public and residential streets or public parking facilities	Section 1 and Figure 3

1.2 Site Location

Kerr Road is an industrial standard cul-de-sac within the Ingleburn Industrial area located approximately 1.2 km east of the Hume Motorway and 9 km north-east of the Campbelltown CBD area. Access to and from the Hume Highway for origin / destinations to the north is via Brooks Road, Williamson Road, Henderson Road, Lancaster Street and Aero Road to Kerr Road while access for origins to the south would be via Campbelltown Road, Williamson Road, Henderson Road, Lancaster Street and Aero Road to Kerr Road. **Figure 1** below shows the site location in context with the road network and other land uses.

The surrounding area is made up of industrial standard roads with kerb and gutter and longitudinal drainage constructed to a suitable standard for heavy vehicle use. High standard intersection control in the form of roundabout controls all the existing intersections on the likely haulage routes to the site except at the Aero Road / Kerr Road intersection which is a give way-controlled priority T-intersection.

1.3 Transport Limitations

The purpose of the proposed development is to store, process and treat liquid and solid wastes in an environmentally friendly manner and requires transportation of waste to the site and product from the site using various sized heavy vehicles. Bulk Recovery Solutions Pty Ltd shall not permit to transport to the site anything that is contradictory to the conditions of consent listed below:

A6. The Applicant must not receive or process on the site more than 125,000 tonnes per year of liquid waste comprising drilling mud, oily water (J120), sewer grit or screenings, stormwater, groundwater, industrial wastewater, leachate, and firewater (N140).

A7. The total volume of 125,000 tonnes per year of liquid waste as specified in Condition A6, includes 11,000 tonnes of liquid waste permitted to be received or processed under DA 948/2015/DA-I/B (Amendment 1).

A8. This consent does not permit the storage of more than 5,100 tonnes of liquid waste and liquid waste by-products at any one time.

A9. The Applicant must ensure that only liquid waste by-products are stored in the liquid waste by-products storage bays as shown in Figure 1 in Appendix 1 of this consent.

(Conditions of Consent: Schedule 2_ Part A6 to A9_ " Waste Limits")



Figure 1 – Site Location Plan

1.4 Transportation Route & Destinations

(Condition of Consent: Schedule 2_Part B1 (d) _ (" Heavy Vehicle routes")

The transportation route for deliveries and product has been determined as the classified road network to the site Hume Motorway, Campbelltown Road as well as Brooks Road, Williamson Road. Henderson Road, Lancaster Street, Aero Road and Kerr Road. All these roads have been assessed as suitable for heavy vehicle traffic.

Access to the site is provided via a double driveway at the cul-de-sac head on Kerr Road. The western most driveway provides access to the rear of the building via a security office and weighbridge. The eastern most driveway provides access to the front of the building, office space and staff / visitor car parking.

Access to the site from the Hume Motorway is via a series of approved b-double routes as shown in **Figure 2**. Vehicles travelling north on the Hume Highway, to and from the site, follow Brooks Road, Williamson Road, Henderson Road, Lancaster Street, Aero Road, and Kerr Road. Vehicles travelling

south on the Hume Highway to and from the site, are required to travel further south along Williamson Road before accessing the southbound Hume Highway Interchange.



Figure 2: Heavy Vehicle Routes and Key Intersections

As these are all public roads the road authority being either Campbelltown City Council or Transport for NSW will be responsible for maintenance of the haulage routes.

1.5 General traffic related conditions

A summary of the general operational conditions is provided below.

1. internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of AS 2890.1:2004 *Parking facilities Off-street car parking* (Standards Australia, 2004), AS 2890.2:2018 *Parking facilities Off-street commercial vehicle facilities* (Standards Australia, 2018) and AS 2890.6.2009 *Parking facilities Off-street parking for people with disabilities* (Standards Australia, 2009),
2. the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines,
3. the development does not result in any vehicles queuing on the public road network,
4. no more than 4 heavy vehicles are located on site at any one time,
5. vehicles over 12.5 m in length do not enter the main building,
6. no more than one vehicle in total under 12.5 m in length must be within the main building at any one time,
7. no more than one heavy vehicle per hour can access the site between 10 pm and 7 am and only during emergencies,
8. heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site,
9. all vehicles must enter and exit the site in a forward direction,
10. all vehicles are wholly contained on site before being required to stop,

11. all loading and unloading of materials are carried out on-site,
12. all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network, and
13. the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times,
14. the roller doors to be fully closed, when the crusher and screens are operational, except during vehicles entering and exiting,
15. trucks queuing or waiting on site should shut off their engines whenever possible; and
16. all mobile plant and equipment used on the premises are fitted with broadband reversing alarms.

1.6 Monitoring of Transport Products

(Condition of Consent: Schedule 2_Part C19 _ (" Access to Information"))

In compliance with the conditions of consent Bulk Recovery Solutions shall:

- (a) keep accurate records of:
 - the amount of materials and type of waste transported to the site (monthly and annually).
 - all laden truck movements (i.e. delivery of waste and dispatch of trucks carrying product) from the site (hourly, daily, weekly, monthly and annually); and
- (b) publish these records on its website on a quarterly basis.

1.7 Vehicle Arrival and Departure – Queueing

(Condition of Consent: Schedule 2_Part B1 (c) _ (" Vehicle arrival and departure management"))

External Traffic

A revised Traffic Impact Assessment report (TIA) for the development was prepared by Intersect Traffic in March 2021 in accordance with the Roads and Maritime Services' (RMS) and Campbelltown City Council requirements.

The TIA took into consideration the worst-case scenarios of traffic generated as a result of the proposed activities. The TIA determined that the extent of the impact of the activities in traffic movements is insignificant compared with existing traffic movements on the roads likely to be used by the trucks entering and leaving the proposed facility.

The existing development currently uses a pre-scheduling allocation system to manage the arrival of trucks to minimise queuing on and offsite. Since this system has been demonstrated to be efficient and effective in managing traffic entering and leaving the site as well as truck queuing matters, it will continue to be used for the development conditions.

The site would have up to four queuing locations to accommodate the four different vehicle types including truck and dog vehicles, in case there are any delays in the processing of deliveries or pick-ups. The Applicant also noted that if delays are one hour or less, waiting vehicles can move to these queuing locations. If delays are longer than one hour, deliveries would be stopped or diverted to other facilities that can accept the waste.

Internal Traffic

The internal traffic is managed based on the number of vehicles entering and leaving the site in accordance with the already established protocols that are based on several factors such as:

1. All vehicles are pre-scheduled to ensure that there is sufficient space available in the site from all aspects including staff, storage structures, processing capacity and space on site, and
2. The queuing and staking procedure to ensure that no additional vehicles associated with the facility are queuing within or outside the facility that may impede on the internal or external traffic,
3. The traffic related operational requirements, and
4. The swept paths clearance requirements.

Night-time (between 10.00pm – 7.00am) vehicles are limited to 1 per hour.

Whilst on site, all vehicles must abide by the traffic management system and undertake all listed procedures required. Some of these requirements involve compliance with the one-way directions and speed limit.

Parking arrangements must be adhered to by all employees, contractors and visitors as there are more than adequate car parking spaces dedicated for that purpose. There are 8 existing car parking spaces. An additional 22 car spaces will be established and made available for employees, contractors and visitors. All car parking spaces are shown in the approved development plan presented in **Figure 3**. Similarly, all trucks that are likely to be required to queue on site must queue in the designed queuing locations as shown in **Figure 3**

1.8 Objectives

The objectives of this Transport Management Plan are to:

- a) ensure compliance with the conditions included under Schedule 2 of the Department of Planning, Industry and Environment consent conditions with respect to traffic and transport matters.
- b) encourage compliance and acceptance of the Truck Driver Code of Practice by all heavy vehicle drivers using the Resource Recovery Facility (RRF).
- c) minimise traffic and transport impacts of the facility on the community.
- d) foster an understanding and awareness within the company of community expectations and legislative requirements;
- e) protect and enhance public safety through compliance with relevant road rules;
- f) increase Work health and safety (WH&S) understanding in relation to fatigue, vehicle operation in public areas and obligation to the general public.

2.0 TRUCK DRIVER CODE OF CONDUCT

(Schedule 2: Part B1 of the Project Approval_ the Proponent shall prepare an Operational Transport Management Plan for the project to the satisfaction of the Director-General. This plan must: include a drivers' code of conduct for the project.

2.1 General Requirements

Heavy vehicle drivers hauling to and from the Bulk Recovery Solutions resource recovery facility in Kerr Road, Ingleburn (Ingleburn RRF) must:

- i) Have undertaken a site induction carried out by an approved member of the Ingleburn RRF staff or suitably qualified person under the direction of the Ingleburn RRF management.
- ii) Hold a valid driver's licence for the class of vehicle that they operate;
- iii) Operate the vehicle in a safe manner within and external to the Ingleburn RRF site.
- iv) Comply with the direction of authorised site personnel when within the site;
- v) Comply with the Road Transport Act 2013 and its associated regulations in regard to drug use and alcohol consumption; and
- vi) Comply with the Australian Road Rules external to the site.

2.2 Heavy Vehicle Speed

Increased speed means not only an increased risk of crashing but also increased severity if a crash occurs. A study undertaken for the Australian Transport Safety Bureau found that travelling 10 km/h faster than the average traffic speed can more than double the risk of involvement in a casualty crash. (Source Transport for NSW (TfNSW)).

There are two types of speeding:

- i) Where a heavy vehicle travels faster than the posted speed limit; and
- ii) Where a driver travels within the speed limit but because of road conditions (e.g. fog or rain) this speed is inappropriate. (Source TfNSW).

Drivers and truck operators are to be aware of the “*Three Strikes Scheme*” introduced by the TfNSW which applies to all vehicles over 4.5 tonnes. When a heavy vehicle is detected travelling at 15 km/h or more over the posted or relevant heavy vehicle speed limit by a mobile Police unit or fixed speed camera, TfNSW will record a strike against that vehicle. If three strikes are recorded within a three-year period, TfNSW will act to suspend the registration of that vehicle (up to three months).

More information is available from the TfNSW RMS website on www.transport.nsw.gov.au

Vehicle speed on public roads is enforced by the NSW Police Service. Vehicle speed on internal roads is enforced by BRS Management.

The speed limit within the Ingleburn RRF is 20 km/h and within the immediate local road network is 50 km/h which is to be strictly maintained.

Drivers are to observe the posted speed limits, with speed adjusted appropriately to suit the road environment and prevailing weather conditions, to comply with the Australian Road Rules. The vehicle speed must be appropriate to ensure the safe movements of the vehicle based on the vehicle configuration.

2.3 Heavy Vehicles Driver Fatigue

Fatigue is one of the biggest causes of crashes for heavy vehicle drivers. The Heavy Vehicle Driver Fatigue Reform was therefore developed by the National Transport Commission (NTC) and approved by Ministers from all States and Territories in February 2007.

The heavy vehicle driver fatigue law commenced in NSW on 28 September 2008 and applies to trucks and truck combinations over 12 tonne Gross Vehicle Mass (GVM) (however there are Ministerial Exemption Notices that can apply).

Under the law, industry has the choice of operating under three fatigue management schemes:

- i) Standard Hours of Operation
- ii) Basic Fatigue Management (BFM)
- iii) Advanced Fatigue Management (AFM)

All heavy vehicle drivers operating out of the Ingleburn RRF are to be aware of their adopted fatigue management scheme and operate within its requirements.

2.4 Heavy Vehicle Compression Braking

Compression braking by heavy vehicles is a source of irritation to the community generating many complaints especially at night when many residents are especially sensitive to noise.

In some instances compression braking is required for safety reasons however when passing through or adjacent to residential areas a reduction in the speed of the vehicle is recommended to reduce the instances and severity of compression braking.

Drivers are requested to limit the noise created in the Ingleburn Industrial area as much as possible.

Brakes must be applied so as not to create excessive noise that could disturb local residents where possible. Compression braking within or adjacent to residential areas should only be used if required for safety reasons.

2.5 Heavy Vehicle Noise

Some sections of the Ingleburn RRF operate 24 hours a day which means that noise from passing heavy vehicles will impact on residents during the sensitive night period when background noise is likely to be lower and noise may travel further than during the day. This also means that access to the site is available without trucks standing waiting for gates to open, however there may be instances where access through the weigh bridge is not available due to unforeseen circumstances. If this period is substantial and during the night, heavy vehicles within the site driveway are to wait for access to the weighbridge with their engines switched off.

To reduce the impact of vehicle noise during night periods if access to the site weighbridge is not available heavy vehicles waiting within the property for the weighbridge to re-open are to wait with their engines switched off.

2.6 Load Covering

Loose material on the road surface has the potential to cause road crashes and vehicle damage. Uncovered loads represent the greatest risk to loose material on the road.

All loaded trucks arriving at or departing from the site are required to have an effective cover over their load for the duration of the trip. The load cover may be removed upon arrival at the delivery site.

All care is to be taken to ensure that all loose debris from the vehicle body and wheels is removed prior to leaving the site.

Drivers must ensure that when travelling to and from the site that the tailgate is locked.

2.7 Vehicle Departure and Arrival

Heavy vehicles travelling in close proximity on public roads can be of concern to light vehicle drivers as well as increasing noise through or adjacent to residential areas. To alleviate public concern and increase road safety, heavy vehicles leaving the site should be separated by adequate intervals in accordance with the revised Traffic Impact Assessment prepared by Intersect Traffic.

To alleviate public concern and increase road safety heavy vehicles leaving the site should be separated by an adequate interval.

All vehicles arriving to the site are pre-booked either via the weighbridge operator or BRS Operations Centre.

Drivers are not to queue their vehicles on Kerr Road. If on arriving to the site, they are not able to enter the property they must proceed to a suitable truck parking area and await advice from site management that the Ingleburn RRF has capacity to accept their load.

2.8 Breakdowns and Incidents

In the case of a breakdown the vehicle must be towed to the nearest breakdown point as soon as possible. All breakdowns must be reported to the TfNSW TMC (Transport Management Centre) on 131700 and the vehicle protected in accordance with the Heavy Vehicle Drivers handbook.

To ensure that traffic impacts are minimised in the event of an incident, rapid response from the haulage company is required. In order to ensure rapid response to incidents drivers must contact the TfNSW TMC on 131700, their transport manager and the Ingleburn RRF manager as soon as the stranded vehicle and load is safely secured.

If there is a product spill while loading/unloading or en route the driver must:

- i) Immediately warn persons in the area who may be at risk;
- ii) Inform their transport manager. If this involves a vehicle owned or contracted by Bulk Recovery Solutions, the transport manager must be immediately informed so that emergency services can be contacted, and a cleanup initiated.
- iii) All spills must be adequately cleaned up and waste disposed of in an acceptable and environmental manner;
- iv) Put out warning triangles where it is safe to do so.

2.9 Pedestrians & Cyclists

While operating on the local road network interaction with pedestrians / cyclists should be anticipated. Drivers are to ensure that when passing pedestrians / cyclists a safe separation distance exists between trucks and pedestrian / cyclists as well as a reduction in speed if appropriate. In regard to cyclists a minimum separation of 1 metre is required.

Pedestrians / cyclists could be present on adjacent roads and heavy vehicle drivers are required to be alert to their presence.

2.10 Contact Numbers

- | | | |
|------|---|----------------|
| i) | TfNSW Transport Management Centre | 131700 |
| ii) | Campbelltown City Council | (02) 4645 4000 |
| iii) | 24 Hour Emergency | 1800 882 478 |
| iv) | Ingleburn RRF Management | 1300 044 044 |
| v) | NSW Police Service (Macquarie Fields LAC) | (02) 9605 0499 |
| vi) | Ingleburn RRF Transport Manager | 1300 044 044 |

(To be supplied by driver if separate company)

3.0 COMPLIANCE MEASURES & MONITORING

(Condition of Consent: Schedule 3_Part 33 _ Traffic Management Plan)

3.1 Commencement of Operational Transport Management Plan & Driver Code of Conduct

It is proposed that this Operational Transport Management Plan and Driver Code of Conduct will be initiated when the project becomes operational and reviewed after 12 months of operation.

The document is to be signed by individual drivers and a Bulk Recovery Solutions Pty Ltd authorised representative at the time when heavy vehicle haulage drivers attend their site induction or shortly thereafter.

3.2 Compliance Measures

To assist in the orderly resolution of complaints site management will keep a register itemising all reported incidents relating to complaints in regard to heavy vehicle driver conduct external to the BRS site.

The incident register is to include (where possible):

- i) Date;
- ii) Location(s);
- iii) The driver / heavy vehicle details;
- iv) Contact details of the person lodging the complaint;
- v) What / when actions were taken to resolve the issue; and
- vi) The reply to the person / organisation that made the complaint.

The incident register is to be audited at three monthly intervals, by site management, and made available, upon request, to an authorised officer of DPIE.

3.3 Monitoring Measures

In addition to the register, site management will undertake formal observations of compliance at three monthly intervals and will document and undertake any remedial actions with employees, heavy vehicle drivers or haulage companies that may be necessary as a result of these observations.

3.4 Traffic Related Management and Mitigation Measures

The traffic related management and mitigation measures must be implemented on site to ensure that any findings and recommendations made in the TIA are complied with. The measures will assist BRS to comply fully the development consent conditions and minimise the impact on all neighboring properties as well as the local community.

The traffic related management and mitigation measures are presented in **Table 2**.

Table 2: Traffic Related Management and Mitigation Measures

Aspect	Management and Mitigation Measures
<p>Traffic & Transport</p>	<ul style="list-style-type: none"> ➤ directions and rules for engagement with mobile equipment, ➤ directions for permitted and non-permitted methods of work on and around vehicles, ➤ specifications for safety signs which shall be in place to support site controls, ➤ specifications for PPE that shall be available and used by staff, visitors, and contractors on-site’s traffic management map, ➤ a summary of the hazard identification and risk assessment process used, ➤ details of the process used to evaluate controls once they are in place, ➤ update traffic management plan in accordance with expansion, if required. ➤ All heavy vehicles arriving to the site will require scheduling or pre- notification of arrival allowing for management of vehicle load. If the premises is at capacity, vehicles will be advised to delay their journey to the site. If vehicles arrive to site without scheduling and no capacity is available, they will be turned away. ➤ Whilst on site, all vehicles are to abide by the traffic management system and undertake all listed procedures required

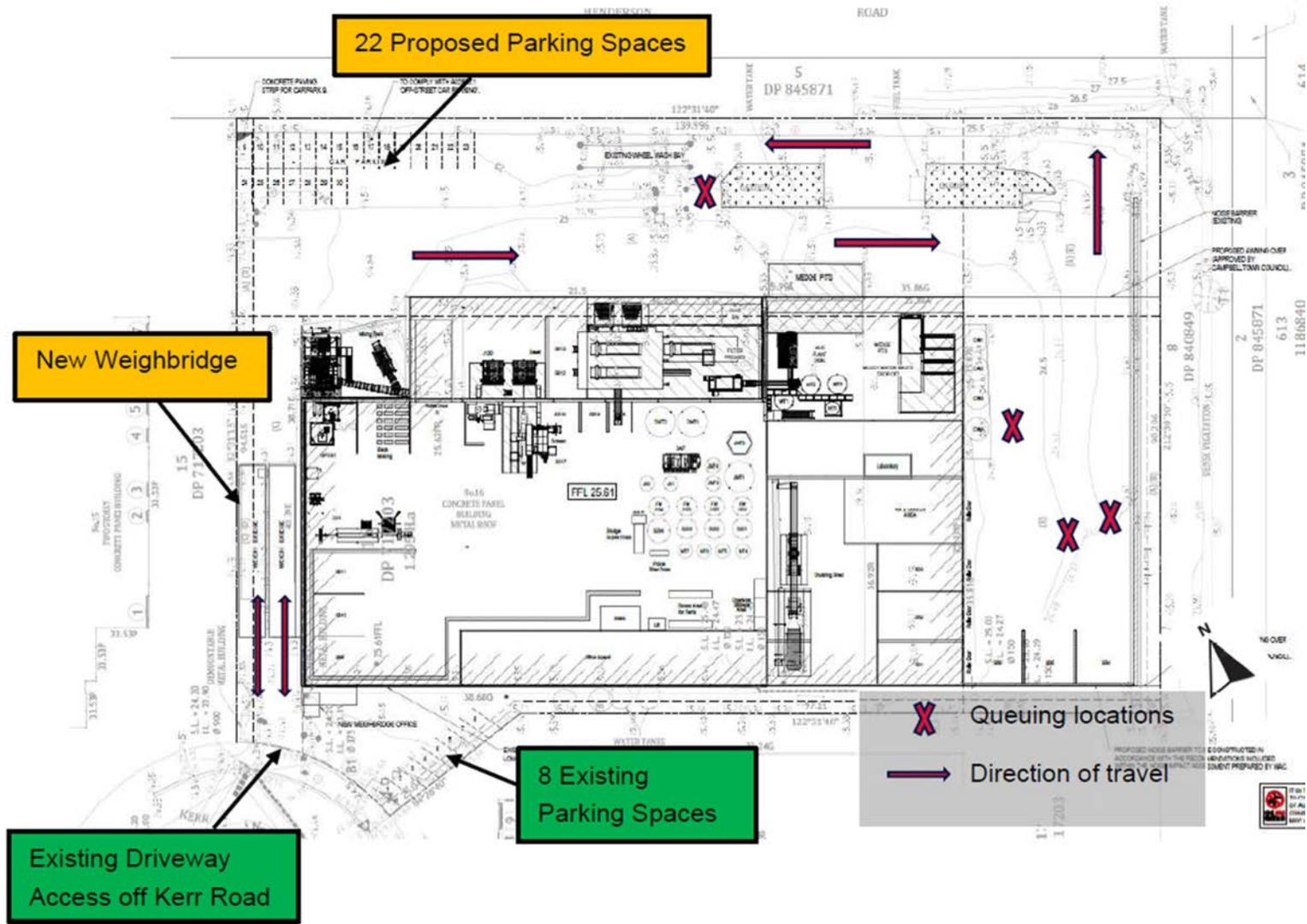


Figure 3: Locations of Approved Car Spaces and Trucks Queuing Locations

Attachment 2 – BRS SSD8593 OEMP – Odour Management Plan

northstar

AIR QUALITY



This document has been prepared on behalf of **Bulk Recovery Solutions Pty Ltd** by:

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Odour Management Plan- Liquid Waste Treatment Facility

16 Kerr Road, Ingleburn, NSW

Addressee(s): Bulk Recovery Solutions Pty Ltd

Report Reference: 21.1124.FR1V1

Date: 28 June 2021

Status: Final

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LEGISLATION, REGULATION AND GUIDANCE	Final	Northstar Air Quality	MD	MD
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Report Status

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Based upon the above, the specific reference for this version of the report is:				21.1124.FR1V1

Final Authority

This report must be regarded as draft and without prejudice until the above study components have been each marked as final, and the document has been signed and dated below.



Martin Doyle

28th June 2021

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1. INTRODUCTION

Bulk Recovery Solutions Pty Ltd (BRS) gained Development Consent from the NSW Department of Planning, Industry & Environment (DPIE) on 26 May 2021 for State Significant Development (SSD) 8593. SSD 8593 is associated with the expansion and continued operation of the Ingleburn Resource Recovery Facility (RRF) located at 16 Kerr Road, Ingleburn, NSW, occupying Lot 16 of Deposited Plan (DP) 717203 (the Site). Through SSD 9583, BRS sought an increase in the throughput capacity of liquid waste at the RRF from 11 000 tonnes per annum (tpa) to 125 000 tpa (the Project).

Northstar Air Quality Pty Ltd (Northstar) has been commissioned by BRS to prepare an Odour Management Plan (OMP) to satisfy Conditions B8, B9, B10, and B11 of the Development Consent for SSD 8593. The OMP forms part of the Operational Environmental Management Plan (OEMP) as required by Condition C5 of the Development Consent.

This OMP has been prepared in accordance with the requirements of the Development Consent, and with due reference to the following regulations and guidance documents:

- *Protection of the Environment (Operations) Act 1997;*
- NSW DEC (2006) Technical framework: Assessment and management of odour from stationary sources in NSW; and
- NSW DEC (2006) Technical notes: Assessment and management of odour from stationary sources in NSW.

The current Development Consent was supported by an Air Quality Impact Assessment (AQIA) performed by Todoroski Air Sciences (TAS) (Todoroski Air Sciences, 2018). Following review by NSW Environment Protection Authority (EPA) and DPIE, additional information and clarification regarding the management of odour at the Site was requested, and subsequently provided by TAS in a Response to Submissions (Todoroski Air Sciences, 2019).

1.1. Development Consent Requirements

The Development Consent conditions related to odour management are presented in **Table 1**, including the sections of this OMP where they are addressed.

Development Consent conditions B12, B13, and B14 relate to commencement of operations and an odour audit which are not covered by this OMP.

Table 1 Development Consent Requirements

Condition	Requirement	Addressed
Odour Management		
B8	The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).	This OMP
B9	All fugitive emission points associated with the storage of liquid waste and the dissolved air flotation device (DAF) must be fitted with carbon filters which are fit for purposes and prevent or minimise the emission of odour.	Section 3.3
B10	The Applicant must ensure all liquid waste is transported to site in vacuum sealed trucks.	Section 3.3
Odour Management Plan		
B11	Prior to the commencement of operation of the development, the Applicant must prepare an Odour Management Plan (OMP) to the satisfaction of the Planning Secretary. The OMP must form part of the OEMP required by condition C5. The OMP must	N/A
	a) be prepared by a suitable qualified and experienced person(s) whose appointment has been endorsed by the Planning Secretary;	Section 1
	b) describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators;	Section 3.5
	c) identify the controls measures that will be implemented for each emission source including preventative maintenance to ensure emission control infrastructure is operating efficiently;	Section 3.3
	d) include a carbon breakthrough strategy;	Section 3.4
	e) include proactive and reactive response mechanisms; and	Section 3.12
	f) nominate the following for each of the proposed controls:	Section 3.5
	i. key performance indicator;	Section 3.11
	ii. monitoring method;	Section 3.8
	iii. location, frequency and duration of monitoring;	Section 3.9
	iv. record keeping;	Section 3.10
	v. complaints register;	
	vi. response procedures;	
	vii. performance review; and	
	viii. compliance monitoring.	

1.2. Authorship

This OMP has been prepared by Northstar, a specialist air quality consultancy.

Northstar consultants all have tertiary qualifications in relevant environmental areas and are Certified Air Quality Professionals (CAQP) as issued by CASANZ. All reports are subject to internal QA/QC procedures prior to issue.

2. LEGISLATION, REGULATION AND GUIDANCE

Impacts from odorous air contaminants are often nuisance-related rather than health-related. Odour performance goals guide decisions on odour management but are generally not intended to achieve “no odour”, but manage odour impacts to an acceptable level.

2.1. Definitions of Odour

The detectability of an odour is a sensory property that refers to the theoretical minimum concentration that produces an olfactory response or sensation. This point is called the odour detection threshold (ODT) and defines one odour unit (OU). An odour goal of less than 1 OU would (by definition) result in no odour impact being detectable in laboratory conditions. In practice, the character of an odour can only be judged by the receiver’s reaction to it, and preferably only compared to another odour under similar social and regional conditions.

Based on the literature available, the level at which an odour is perceived to be a nuisance can range from 2 OU to 10 OU (or greater) depending on a combination of the following factors:

- **Odour quality:** whether an odour results from a pure compound or from a mixture of compounds. Pure compounds tend to have a higher threshold (lower offensiveness) than a mixture of compounds.
- **Population sensitivity:** any given population contains individuals with a range of sensitivities to odour. The larger a population, the greater the number of sensitive individuals it contains.
- **Background level:** whether a given odour source, because of its location, is likely to contribute to a cumulative odour impact. In areas with more closely-located sources it may be necessary to apply a lower threshold to prevent offensive odour.
- **Public expectation:** whether a given community is tolerant of a particular type of odour and does not find it offensive, even at relatively high concentrations. For example, background agricultural odours may not be considered offensive until a higher threshold is reached than for odours from a landfill facility.
- **Source characteristics:** whether the odour is emitted from a stack (point source) or from an area (diffuse source). Generally, the components of point source emissions can be identified and treated more easily using control equipment than diffuse sources. Point sources tend to be located in urban areas, while diffuse sources are more prevalent in rural locations.
- **Health effects:** whether a particular odour is likely to be associated with adverse health effects. In general, odours from agricultural activities are less likely to present a health risk than emissions from industrial facilities, for example.

2.2. Regulation of Odour

Odour assessment criteria adopted in the performance of the AQIA for SSD 8593 (not represented in this OMP) are a design tool rather than a regulatory tool. They allow determination of whether modelled impacts of odour may meet criteria at surrounding sensitive receivers. Following approval of a project, the benchmark for operational facilities is not the odour impact assessment criteria, but whether the emission of odour is 'offensive', or being prevented or minimised using best management practices.

The *Protection of the Environment (Operations) Act 1997* (POEO) is applicable to scheduled activities in NSW and emphasises the importance of preventing 'offensive odour'. Chapter 5, Part 5.4, Section 129 provides the requirements for the control of emissions of odour from licenced activities. The operations at the Proposal site would be scheduled activities under the POEO Regulations, and the principles contained within the POEO framework are applicable.

For reference, "offensive odour" is defined within the POEO Act as:

an odour:

- (a) *that, by reason of its strength, nature, duration, character or quality, or the time at which it is emitted, or any other circumstances:*
 - (i) *is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or*
 - (ii) *interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or*
- (b) *that is of a strength, nature, duration, character or quality prescribed by the regulations or that is emitted at a time, or in other circumstances, prescribed by the regulations.*

This OMP aims to ensure that offensive odour is appropriately controlled in accordance with the POEO Act.

3. ODOUR MANAGEMENT PLAN

3.1. Process Description

A detailed description of the Project is not presented within this OMP, although those activities with the potential to emit odour are discussed in some detail to allow the approach to odour management to be appropriately outlined.

The Project will accept the following liquid waste types:

- Drilling mud and non-destructive drilling mud;
- Cement slurry;
- Concrete washout;
- Oily water (J120);
- Sewage sludge including sewer grit or screenings;
- Stormwater;
- Groundwater (including M250, J100, N160, and F100);
- Industrial wastewater;
- Leachate; and
- Firewater (N140).

Liquid wastes are transported to Site in vacuum-sealed trucks, which are pumped directly into sealed storage tanks located within the building enclosure for processing. All sealed storage tanks are fitted with carbon filters to treat any air ventilated through working losses when filling the tanks. These filters also manage any breathing losses, should they occur.

Wastes with a solid component are passed through screens to remove both large and fine solid materials prior to further treatment which may include addition of coagulants, flocculants, or processing through filter press or screw press.

Processing of liquid wastes includes dissolved air flotation (DAF), biological treatment, sludge thickening and dewatering. Chemical addition and pH correction also occurs, depending on the waste to be treated.

The ventilation extraction system for the DAF includes a hooded ventilation system discharging through carbon filters to mitigate odour from this process.

The sludge material resulting from the processing of liquid wastes is collected and encapsulated in concrete to minimise the generation of odour from this source, or mixed with less odorous materials to reduce and manage its odour generation potential by dilution.

3.2. Potential Emission Sources

Based on the above brief description, emissions of odour have the potential to be emitted from the following processes performed at the Site, should they not be managed appropriately:

- Delivery of liquid wastes to site.
- Transfer of liquid wastes from delivery vehicles to storage vessels.
- Transfer of liquid wastes containing solids (drilling mud and muddy waters) to collection pit.
- Transfer of liquid wastes from storage to processing equipment.
- Liquid wastes processing.
- Storage of processed liquids.
- Storage of processed solids.
- Removal of treated liquid from site.
- Removal of solid wastes from site.

3.3. Odour Mitigation Measures

As required by the Development Consent, the OMP is required to identify the controls measures that will be implemented for each identified emission source including preventative maintenance to ensure emission control infrastructure is operating efficiently.

Control measures have been identified through review of the AQIA, Response to Submissions, and those committed to by BRS.

The Site Manager will be responsible for the implementation of the measures outlined within this OMP. Preventative maintenance associated with all tanks, pipes, processing equipment, and carbon filters used at the Site for the purposes of day-to-day operations will also be the responsibility of the Site Manager. Such preventative maintenance will include, but not be limited to:

- Daily visual inspections of all tanks, fittings and pipework to ensure that no leakages are present.
- Annual pressure testing of all tanks, fittings and pipework to ensure ongoing integrity.
- Regular maintenance of all processing equipment, in accordance with manufacturers recommendations.
- Inspection and replacement of carbon filters used on storage and processing tanks, and the DAF plant (also refer **Section 3.4**).

Table 2 Odour mitigation measures implemented at the Site

Identifier	Activity	Potential for odour emissions	Proposed management measure
OMP 1.1	Delivery of liquid wastes to site	Emissions from open trucks	All materials to be delivered to site in vacuum sealed trucks
OMP 1.2			Only one liquid waste truck will operate in the main building at any one time
OMP 2.1	Transfer of liquid wastes from delivery vehicles to storage vessels	Spillage between delivery and storage tanks	All liquid materials to be transferred using pipes
OMP 2.2		Overflow of tanks, loss of containment	All tanks and stored chemicals will be appropriately bunded
OMP 2.3		Overflow of tanks, loss of containment	Spill kits, including booms and adsorbents, to be provided at transfer location
OMP 3.1	Transfer of liquid wastes containing solids (drilling mud and muddy waters) to collection pit	Emissions from collection pit	Keep door of building closed when possible
OMP 3.2			Spill kits, including booms and adsorbents, to be provided at transfer location
OMP 4.1	Transfer of liquid wastes from storage to processing equipment	Spillage between storage and processing tanks	All liquid materials to be transferred using pipes
OMP 4.2			Spill kits, including booms and adsorbents, to be provided at transfer location
OMP 5.1	Liquid wastes processing	Emissions during waste processing, agitation, flocculation and coagulation	Liquid waste processing to be performed in sealed tanks to prevent odour emissions
OMP 5.2			Carbon filters to be installed on DAF to mitigate odour

Identifier	Activity	Potential for odour emissions	Proposed management measure
OMP 6	Storage of raw and processed liquids	Emissions from storage tanks	All tanks sealed with carbon filters to remove odour from working and breathing losses
OMP 7.1	Storage of processed solids	Emissions from odorous solids	Identified odorous materials to be blended with other materials to minimise odour
OMP 7.2			Sludge material to be processed and encapsulated in concrete as soon as practicable
OMP 8	Removal of treated liquid from site	Emissions from treated liquids	Treated liquid discharged to sewer under commercial discharge licence
OMP 9	Removal of solid wastes from site	Emissions from removed solids	Removal of residuals from liquid waste processing (using 20 t trucks) would occur during day and evening time periods only

3.4. Carbon Breakthrough Strategy

The carbon filtration units used at the Site will be employed in two ways:

- Located on sealed tanks to mitigate odour resulting from breathing and working losses; and
- Installed on the hood over the Dissolved Air Flotation (DAF) unit.

Given that the filters associated with the sealed tanks will not be subject to a significant rate of airflow, as air would passively move across the face of the filter, these will be replaced on a bi-monthly basis initially, with that frequency to be extended or reduced as required, based on performance.

The performance will be assessed through daily visual inspection to observe any visual signs of filter saturation or blockage deforming the filter media and breakthrough involving physical failure of the filter media. These observations would form part of the daily odour inspection, as described in **Section 3.11.1**.

It is recommended that odour observations are made daily to determine the filter performance over time and recorded on a daily inspection log to record those inspections and assist in determining typical filter longevity *prior to* reduced performance or failure.

If the visual and odour inspections are insufficient at identifying reduced performance before failure, it would be recommended to fit a simple differential pressure gauge across the filter media to monitor filter performance and change the filter before differential pressure exceeds 85 % of the failure point and record daily pressure readings on the inspection log.

The carbon filters associated with the DAF unit will be placed within the extraction hood and would therefore be subject to an increased airflow compared to the tank filters. It is recommended that a parallel daily inspection procedure is followed and recorded in a similar manner to that described above.

For all carbon filters, it is recommended that sufficient spare supplies are maintained to negate operation with under-performing filters, and to accommodate filter failure through unforeseen manufacturing defect.

3.5. Key Performance Indicators

The key objectives of this OMP are to prevent, minimise and/or control the impacts of the Project on local air quality. To achieve these objectives, management measures have been outlined in **Section 3.3**. The success of the management measures will be determined through compliance with Key Performance Indicators (KPIs) as summarised in **Table 3**.

Table 3 KPIs associated with the performance of the operation

Measure	Target	Timeframe	Responsibility	Documentation
Meeting relevant air quality criteria	Comply with requirements of Development Consent and POEO Act (see Section 2)	At all times	Site Manager	Environmental inspection checklist
Complaints regarding odour	Zero complaints. Any complaints would be investigated (see Section 3.8)	At all times	Site Manager	Complaints register
Offensive odour emissions	Any offensive odour emissions investigated immediately. Review controls applied and increase controls or modify activities	At all times	Site Manager	Environmental inspection checklist Site Manager's daily checklist

3.6. Roles and Responsibilities

The appropriate implementation of this OMP will be the responsibility of the Site Manager. This responsibility includes monitoring the OMP's effectiveness and rectifying any deficiencies in the OMP.

All employees must comply with the terms and conditions of the OMP and adopt the specified procedures for management of odour nuisance impacts, including corrective actions.

It will be the responsibility of the Site Manager to perform checks at the commencement of each working day to ensure that all odour control measures are in good working order. A record will be kept of the daily checks performed, and the records retained for inspection by Council and EPA upon request.

This OMP is a live document that will be reviewed upon commissioning, and on an annual basis thereafter, as a minimum, to ensure that it remains relevant to Site operations and to determine whether improvements can be implemented.

3.7. Training

All Site personnel (permanent or contractor) will undergo training to enable the identification of the potential sources of odour at the Site and the operating procedures and management strategies which are in place to minimise the emission of odour from those sources. The training will ensure that all employees understand the importance of odour control and are aware of all measures in place to minimise odour emissions.

Records will be kept of the training provided to all Site personnel.

3.8. Complaints Handling Procedure

BRS will operate a telephone complaints line during its operating hours with the number publicly notified via the BRS website.

BRS will keep a record of any complaint made to the Site or any employee or any agent of the Site in relation to odour from the Site. A Complaint Register will be maintained on the company website and will be produced to any authorised officer of the Council or EPA if requested. Records of individual complaints will include the following information, as a minimum:

- Date and time of complaint.
- Method by which the complaint was made.
- Personal details of the complainant (if provided).
- Nature of the complaint.
- The details of an initial response to the complaint.
- Action taken by BRS and any follow up actions.
- If no action was taken, the reason why no action was taken.

A copy of an Odour Complaint Record is provided in **Appendix A** of this OMP and may be used or adapted for use as required.

Weather conditions corresponding to the time of the complaint will also be noted in the logbook for assessment purposes.

For any complaint received relating to odour emission from the Site, the following measures will be taken:

- The Site Operations Manager or Site Environmental Officer will review and follow up all the complaints within one business day of receiving the complaint;
- Fill out the appropriate Odour Complaint Record sheet,
- Perform a site inspection, noting all odour producing activities taking place and the mitigation methods being used. If the complaint was related to an event in the recent past, if possible, note any odour producing activities that were underway at that time and initiate any remedial action necessary;
- As soon as possible, visit the area from where the complaint originated to ascertain if the issue persists;
- It is important to verify if another source of odour other than the activities of the Site is causing the complaint and collect appropriate evidence of this (photos and/or videos as appropriate);
- Once investigations have been completed, contact the complainant to explain any problems found and remedial actions taken; and
- If necessary, update any relevant procedures to prevent any recurrence of problems and record any remedial action taken.

3.9. Non-Compliance Response Procedure

In the event that the procedure in **Section 3.8** indicates that Site operations may have contributed to odour experienced off-site, the following actions will be taken:

- The event will be investigated to determine possible emission sources including investigation into the prevailing wind conditions experienced at the time of the possible exceedance and the operations being performed on site at that time to identify the possible source of the odour;
- Where the source is identified as the Site, operational activities will be altered until a favourable outcome can be achieved (e.g. reduction in hourly receipt and processing rate, increased rate of holding tank emptying, increased rate of removal of waste materials [dependent on the findings of the investigation]);
- Perform site boundary odour surveys (downwind, twice per day until four successive downwind observations indicate 'no discernible odour' at the boundary, resulting from Site operations) to ensure that the additional implemented controls are sufficient to mitigate the impact;
- Note all details of complaint, response and resolution to include within the Annual Return; and
- Any non-compliance with the Development Consent will be reported to NSW EPA and DPIE.

3.10. Performance Review

A review of environmental performance of the Site is to be completed each year. In relation to odour, an audit will be performed by an independent party to assess compliance with the measures outlined within this OMP.

The findings of the independent audit may trigger a review and update to this OMP.

3.11. Odour Monitoring Procedures

Sampling and testing for odours shall be performed to ensure compliance to the site environmental management plan and will be monitored in the site workplace inspection, HSE committee meetings and regular site walk throughs and inspections and including external site visits from regulatory bodies as appropriate. This monitoring would be performed for an initial period of 12 months, after which time the results will be reviewed to determine whether the frequency should be increased or decreased.

The monitoring and maintenance plan includes a number of visual inspections, data sets to be recorded and basic tests of operating equipment on a set plan of varying frequency. Fugitive odour sources that could result in a negative impact will be identified, recorded and escalated to the Maintenance Manager through routine process and equipment checks during an Operators shift.

Compliance of this OMP with the consent conditions and any other relevant requirements will be measured according to the following performance indicators:

- The frequency and nature of complaints reported to BRS in relation to odour at the Site; and,
- Compliance with this OMP, as indicated by the independent odour audit, performed under Condition B13.

3.11.1. Daily Odour Inspections

Daily site inspections will be undertaken in order to identify and mitigate offensive odours from the Site before the odours can lead to exceedances of the adopted criteria. These will be undertaken by trained operational staff, with verified odour sensitivity who will typically be personnel not normally exposed to the interior of the BRS building.

A register with the following information must be completed:

- Time and date of the inspection;
- Weather conditions at the time of the inspection;
- Any unusual activities occurring on site with potential for offensive odour generation;
- The status of the treatment system (e.g. DAF on/off);
- Visual and odour inspection of the carbon filters on the storage tanks and DAF extraction unit(s) (see **Section 3.4**);
- Any odours observed, including the character, location and strength; and
- Any sources of the odours identified during the walk over.

The findings of the daily odour inspections will be reviewed after three months from commissioning to assess whether the frequency of the inspections should be altered to optimise value. In addition to the daily odour inspection, all employees will be reminded on a regular basis to report any perceived offensive odour around the plant immediately to the Site Manager. Any offensive odours identified through the daily inspections that are confirmed to originate from the Site will be investigated and mitigated in accordance with this OMP.

3.11.2. Monthly Odour Surveys

To confirm the site is operating in compliance with the adopted criteria, monthly odour surveys will be undertaken. These surveys will be undertaken by an independent contractor. The purpose of these surveys is to provide independent observational data to understand the odour impacts of the Site operations as well as other odour sources within the surrounding area.

The results of the monthly odour surveys will be reviewed after three months from commissioning to assess whether the frequency of the surveys should be changed to quarterly or other frequency.

3.12. Proactive and Reactive Response Procedure

The Site Manager will be responsible for the performance of daily odour inspections as described in **Section 3.11.1** to ensure that operations are relocated, modified and/or halted as required to ensure adverse air quality impacts are not realised at off-site sensitive receptor locations. The Site Manager will assess the results of the daily odour inspections, monthly odour surveys and odour audit, to verify the successful implementation of this plan.

3.13. Continual Improvement

In order to address Condition B13 of the Development Consent (Odour Audit), BRS will engage a suitably qualified expert to complete an odour audit within 6 months of commencement of operation. The odour audit will be carried out when large amounts of liquid waste are present on the Site.

Condition B13 of the Development Consent states that the audit must:

- a. be carried out by a suitably qualified, experienced and independent person (s), whose appointment has been endorsed by the Secretary;
- b. audit the development in full operation;
- c. include a summary of odour complaints and any actions that were carried out to address the complaints;
- d. assess the operation against odour impacts predictions in the EIS;
- e. review design and management practices in the development against industry best practice for odour management; and
- f. include an action plan that identifies and prioritises additional any odour mitigation measures that may be necessary to reduce odour emissions.

APPENDIX A: ODOUR COMPLAINT RECORD

Odour Complaint Record



Complainant Contact Details			
Date and time complaint received			
Contact details for complainant			
Complaint Details			
Date and time start	/ /	:	am pm
Date and time stop	/ /	:	am pm
Location(s) of the odour			
Description of the odour			
Persistence <i>see note 1</i>	<input type="checkbox"/> Constant <input type="checkbox"/> Intermittent		
Intensity <i>see note 2</i> <input type="checkbox"/> generally <input type="checkbox"/> at its worst	<input type="checkbox"/> 6 extremely strong	<input type="checkbox"/> 4 strong	<input type="checkbox"/> 2 weak
	<input type="checkbox"/> 5 very strong	<input type="checkbox"/> 3 distinct	<input type="checkbox"/> 1 very weak
Prevailing weather conditions at the time of the odour complaint			
General description (dry, rain, windy, still etc)			
Temperature			
General wind direction <i>see note 3</i>			
General wind strength <i>see note 4</i>			
Operational details, actions, resolution			
Operations during odour complaint			
Identified causes			
Actions taken			
Cause resolved	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Follow up required	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Complainant informed of outcome	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Signed			
Date	/ /		

Odour Complaint Record

Notes

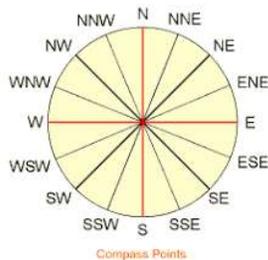
1. Persistence. Please record the descriptor that best describes the extent of the odour observation:

- Constantly: odour was observed virtually constantly between the stated start and stop times
- Intermittently: odour was observed intermittently between the stated start and stop times

2. Odour Intensity. Using the scale below, estimate how intense the odour was generally or at its worst (as appropriate)

6	Extremely strong: Overpowering odour triggering a physical reaction (i.e. gagging, eyes watering etc.) or an involuntary action (i.e. turning away from odour, covering nose etc.).	3	Distinct: Mid way between a weak and strong odour, this is a clearly defined odour, immediately recognisable and tolerable.
5	Very strong: A strong odour that may initiate an involuntary action that you subsequently control. Odour is barely tolerable and exposure is uncomfortable	2	Weak: This is a clearly defined odour (i.e. without uncertainty/guessing), immediately recognisable but not yet strong enough to be considered distinct and readily tolerable.
4	Strong: A clearly defined odour that is immediately recognisable and is tolerable but mildly uncomfortable.	1	Very weak: A very faint odour. The VDI definition of a very weak odour requires the odour to be clearly defined without uncertainty or guessing involved.

3. Wind Direction.



4. Wind Strength

0	Calm	Calm. Smoke rises vertically
1	Light air	Wind motion visible on smoke
2	Light breeze	Wind felt on exposed skin. Leaves rustle.
3	Gentle breeze	Leaves and smaller twigs in constant motion
4	Moderate breeze	Dust and loose paper raised. Small branches move
5	Fresh breeze	Moderate branches move. Small trees begin to sway.
6	Strong breeze	Large branches in motion. Overhead wires whistle. Umbrella use is difficult. Empty rubbish bins tip.
7+	Near gale	Wind effects greater than above

Attachment 3 – BRS SSD8593 OEMP – Waste Management Plan



Bulk Recovery Solutions

A.C.N. 148898754

16 Kerr Road
Ingleburn, NSW 2565

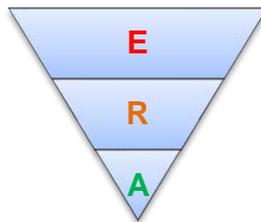
Phone: 87173366

WASTE MANAGEMENT PLAN BULK RECOVERY SOLUTIONS PTY LTD 16 KERR ROAD INGLEBURN NSW 2565

Prepared for: Bulk Recovery Solutions Pty Ltd
NSW Department of Planning, Industry and Environment

Prepared by: Nicolas Israel, Director

Report No: BRS SSD8593 Waste Management Plan Rev02.docx
Report Date: September 2021
Release Date: 12 September 2021



*We Aim to Excel in all Aspects of Business
We Speak your Environmental Language*

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ABBREVIATIONS & GLOSSARY OF TERMS

Applicant	Bulk Recovery Solutions Pty Ltd
AS	Australian Standard
AWS	Automatic Weather Station
BCA	Building Code of Australia
BRS	Bulk Recovery Solutions Pty Ltd
Consent	Development Consent SSD 8593
CEMP	Construction Environmental Management Plan
Council	Campbelltown City Council
DEC	NSW Department of the Environment and Conservation
DECC	NSW Department of Environment and Climate Change
Department	NSW Department of Planning, Industry and Environment
DPIE	NSW Department of Planning, Industry and Environment
ENM	Excavated Natural Material
EPA	NSW Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
NPW Act	NSW National Parks and Wildlife Act 1974
NSW	New South Wales
Minister	NSW Minister for Planning and Public Spaces (or delegate)
Non-compliance	An occurrence, set of circumstance or development that is a breach of the Consent
OEH	Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
Planning Secretary	Secretary of the Department of Planning, Industry and Environment
POEO Act	Protection of the Environment Operations Act 1997
Reasonable	Means applying judgement in arriving at a decision, taking into account mit benefits, costs of mitigation versus benefits provided, community views, an nature and extent of potential improvements
RRF	Resource Recovery Facility
SEPP	State Environmental Planning Policy
Site	16 Kerr Road, Ingleburn NSW 2565
SSD	State Significant Development
tpa	Tonnes Per Annum
VENM	Virgin Excavated Natural Material
Waste	As defined in the Protection of the Environment Operations Act 1997
WMP	Waste Management Plan

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ATTACHMENTS

Attachment 1 – BRS Waste Related Workplace Inspection Procedure
Attachment 2 – BRS Waste Related Processes and Procedures

1. INTRODUCTION

Environmental Risk Assessors Pty Ltd has been commissioned by Bulk Recovery Solutions Pty Ltd (BRS) to prepare a Waste Management Plan (WMP) for its proposed Resource Recovery facility at 16 Kerr Road, Ingleburn NSW 2565. The approved processing capacity is 125,000 tonnes per year of liquid waste. The WMP is required to ensure compliance with specific requirements included in relevant conditions of Development Consent No SSD 8593 (Consent) which was issued by the Department of Planning, Industry and Environment (Department) to BRS on 26 May 2021. However, it was considered appropriate to address other conditions that are associated with the operation stage of the development. The WMP will form part of the Operational Environmental Management Plan (OEMP), but it will include components for both construction and operation stages. The Consent applies to site located at 16 Kerr Road, Ingleburn within the Campbelltown City Council Local Government Area.

Table 1-1 includes all waste related conditions and where these conditions are addressed in this document.

Table 5-1 includes the waste related management and mitigation measures to be implemented on site.

The approved development is the receiving and processing of 125,000 tonnes per annum (tpa) of liquid waste comprising drilling mud and non-destructive drill mud, cement slurry, concrete washout, oily water (J120), sewage sludge including sewer grit or screenings, stormwater, groundwater (including M250, J100, N160, and F100), industrial wastewater, leachate and firewater (N140).

The approved development provides also for the storage of 5,100 tonnes of liquid waste and liquid waste by-products on site at any one time.

The approved development also includes a weighbridge, upgrade of the stormwater management system, internal storage bays and use of a three-story office.

However, the facility has previous approvals to receive and process smaller quantities of liquid and solid wastes as well as concrete batching.

The facility operates also under the provisions of an Environment Protection Licence No 20797 (EPL) which includes conditions that must be complied with at all times during the operation of the facility.

As a result of the approved development, BRS has applied to the EPA to vary the EPL to reflect the additional approved activities.

Under normal circumstances, developments comprise two stages; construction and operation. This WMP applies to both stages as required by the Consent conditions.

This WMP was prepared in context of the following two documents:

- AS/NZS ISO 14001, *Environmental Management Systems – Specifications with guidance for use* and AS/NZS 14004, *General guidelines on principles, systems and supporting techniques*, and

- *Guideline for the Preparation of Environmental Management Plans* published by the Department of Infrastructure, Planning and Natural Resources in 2004.

This WMP has been developed in line with the revised Environmental Impact Statement (EIS) prepared by KDC Consultants, Response to Submissions (RTS) and revised RTS as well as other information submitted by the applicant to the Department. The WMP is also prepared in line with all scientific reports supporting the EIS and their updated revisions as well as the requirements of the development consent SSD 8593.

This WMP provides the framework so that the activities are undertaken mindful of potential environment impacts of activities to minimise potential to cause nuisance and harm to all those potentially affected by BRS activities. The WMP also serves to ensure that BRS commitments to minimise and reduce potential harm to the environment and human health will be adhered to.

1.1 OBJECTIVES

1.1.1 General

The purpose of this Waste Management Plan (WMP) is to provide a reliable framework for the reduction of waste generation, and the effective and efficient management of such waste within the site, while recognising the needs of industry, government, the community, and the need for the site to operate economically and efficiently. This WMP is designed to document site management practices and procedures that utilise the latest and most practical technologies available to minimise the impact of this facility on the environment, local residents and surrounding developments.

This WMP is being prepared to ensure appropriate management of waste aspects on site and to reduce their impacts on human health and the environment. The WMP has been developed to consider the management of waste impacts specific to the site, with consideration to its particular situation and using appropriate and practical management practices. The WMP will require periodic reviews and revisions to respond to changes in best management practice and technology in the industry and changes in the built and natural environment surrounding the site.

This WMP covers the following aspects associated specifically with site operations:

- Planning and environmental statutory requirements,
- Site-specific Waste Management Plan objectives,
- Responsibilities of management and staff,
- Training of staff and contractors,
- Communications,
- Continued maintenance/minimisation and monitoring of waste management,
- Review and continual improvement,
- Complaint's handling,
- Incident management,
- Non-compliance management,
- Monitoring of waste, and
- Detailed procedures in a format for hands-on operations.

Commitments have been made by BRS management that the objectives above will be achieved, maintained, and adhered to continuously as part of the operation stage of the development.

1.1.2 Specific Objectives

This WMP has been prepared to form part of the OEMP which aims to obtain approval from the Planning Secretary as required by the consent granted by the Department. On that basis, the specific objectives are linked directly to the consent conditions relevant to the waste management aspects of the development. The waste related consent conditions are listed in **Table 4-1**.

1.2 THE COMPANY

The Company is Bulk Recovery Solutions Pty Ltd (BRS) with an ABN 51 148 898 784. BRS is a family-owned business which has been operating an RRF at the site since 2016. A range of liquid and solid waste types are currently recovered on site, primarily comprising building and demolition waste generated throughout the Sydney region. Customers include, but not limited to:

- Veolia Environmental Solutions
- Sydney Water
- Patriot Environmental
- SureSearch
- Suckers Excavations
- Dig Smart
- Hanson
- Boral
- Holcim
- Weir Minerals
- John Heine & Sons
- Lend Lease
- Borg Civil
- Langford Environmental
- Hancock Excavations
- Warwick Farm Landscape
- Express Waste

BRS currently operate an existing Resource Recovery Facility (RRF) from the site which recovers both solid and liquid waste up to 30,000tpa and stores up to 5,000t at any one time.

It is proposed that BRS will continue to operate the RRF with the ability to process a greater quantities and types of liquid waste to meet growing market demand.

The company's details are provided below.

Bulk Recovery Solutions Pty Ltd is an Australian owned and operated family company which was established in 2011.

Physical address: 16 Kerr Road, Ingleburn NSW 2565

Postal address: 16 Kerr Road, Ingleburn NSW 2565
Current applicant contact details are:
Phone: (02) 8717 3366
Fax: N/A
Email: Tim@bulkrecoveryolutions.com

The details of the premises are provided below.

Grid reference: lat = -33.991513 and Long = 150.869747 (middle of site)
lat = -33.991574 and Long = 150.868946 (Street address)

Zone: 56
Elevation: 26-27 m
Local Government Area: Campbelltown City Council
Land Use Zoning: IN1 – General Industrial

Tim Baillie, the managing director of BRS is considered to be an expert in solid and liquid waste processing and treatment. Tim will be applying his expertise in ensuring that the correct processes and procedures are implemented for the specific types and streams of wastes.

2. PREMISES AND PROPOSAL DESCRIPTION

A brief outline of the subject premises has been provided below.

2.1 DESCRIPTION OF PREMISES AND SURROUNDS

The site is located at 16 Kerr Road, Ingleburn, NSW and is legally described as Lot 16 DP717203. It is located within the Campbelltown local government area (LGA). The site is approximately 1.295 hectares (ha) in area, is rectangular in shape and positioned at the end of the Kerr Road cul-de-sac (**Figure 2-1**). It is zoned IN1 General Industrial under the Campbelltown Local Environmental Plan 2015 (LEP 2015) and located within the Ingleburn Industrial area.

Immediately adjoining the site is Henderson Road to the northeast, a railway line (the Main Southern Railway Line) adjoins to the southeast and industrial premises are constructed on both the southwest and northwest site boundaries. The nearest residential dwelling is 50 metres (m) to the southeast, across the railway line. Bunbury Curran Creek lies approximately 350m to the north of the site and serves as a stormwater outlet for the surrounding area (**Figure 2-2**).

The Ingleburn Industrial area comprises a mix of general industrial uses including warehousing, distribution centres and vehicle repair centres. Neighbouring the site to the south is another RRF known as Campbelltown Recyclers.

To give the reader a better understanding of the location of the site/premises, **Figure 2-1** shows an aerial view of the premises in the local context including the surrounding activities/developments.

Extract from the land zoning map showing the subject premises location is presented in **Figure 2-2**.

The site includes a large 3 story concrete building which currently occupies the site. Included within the building is a warehouse, maintenance/plant room, office space and waste processing area. Concrete hardstand covers the remaining site which provides vehicle access, car parking and stormwater management.

Access to the site is provided via a double driveway at the cul-de-sac head on Kerr Road. The western most driveway provides access to the rear of the building via a security office and weighbridge. The eastern most driveway provides access to the front of the building, office space and staff / visitor car parking.

Figure 2-1: Location of the Premises on Kerr Road



Figure 2-2: Location of the Premises within the Industrial land Zone



The approved development layout plan is presented in **Figure 2-3** which is extracted from Figure 1 – Appendix 1 of Development Consent SSD8593 dated 26 May 2021.

3. HOURS OF OPERATIONAL ACTIVITIES

Under normal circumstances, the hours of operations would depend on certain activities and the relevant industry that generate the various liquid wastes with some periods busier than others. The approved hours of operational activities are:

Activity	Day	Time
Liquid and Mud Waste Processing	Monday – Sunday	24 hours
Liquid Waste Deliveries	Monday – Sunday	7 am to 10 pm
Emergency Deliveries	Monday – Sunday	1 per hour 10 pm to 7 am
Waste generated during operation	Monday - Friday	7 am to 10 pm

It should be noted that operation of the approved development cannot commence until this WMP is approved by the Planning Secretary.

4. STATUTORY REQUIREMENTS

The statutory requirements relevant to this WMP are divided into two categories; Planning and Environmental as outlined in this Section. The key NSW statutory requirements pertain to the environmental management of the site are addressed in this section of the WMP.

It should be noted that BRS currently operate under a development consent granted by Campbelltown City Council (948/2015/DA-I) and an Environment Protection Licence (EPL 20797) issued by the Environment Protection Authority (EPA). Consent to discharge industrial trade wastewater to the sewer has also been obtained from Sydney Water (Consent Number No 38498).

Changes to legislation or regulations during operations would require a corresponding change to the WMP.

Affected procedures would need to be modified accordingly by BRS management.

It is important for staff and contractors to be aware of the legislative and regulatory requirements related to the operations of the site and their corresponding responsibilities. This section presents a list of relevant environmental legislation and its objectives.

4.1 PLANNING

The “*Guideline for the Preparation of Environmental Management Plans*” prepared by the Department of Infrastructure, Planning and Natural Resources provides guidance in preparing Environmental Management Plans (in this case it is a specific Waste Management Plan) to be submitted to the Department.

4.1.1 Development Consent

The WMP is required to ensure compliance with specific requirements included in relevant conditions of Development Consent No SSD 8593 (Consent) which was issued by the Department of Planning, Industry and Environment (Department) to BRS on 26 May 2021. These conditions are listed in **Table 4-1** below.

Table 4-1: Waste Related Conditions – SSD 8593 – Compliance Table

No	Condition	Comments
LIMITS OF CONSENT		
Waste Limits		
A6	The Applicant must not receive or process on the site more than 125,000 tonnes per year of liquid waste comprising drilling mud and non-destructive drill mud, cement slurry, concrete washout, oily water (J120), sewage sludge including sewer grit or screenings, stormwater, groundwater (including M250, J100, N160, and F100), industrial wastewater, leachate and firewater (N140).	Section 5
A7	The total volume of 125,000 tonnes per year of liquid waste, as specified in Condition A6, includes 11,000 tonne per year of liquid waste permitted to be received or processed under DA 948/2015/DA-I/B (Amendment 1).	Section 5

A8	This consent does not permit the storage of more than 5,100 tonnes of liquid waste and liquid waste by-products on the site at any one time.	Section 5
A9	The Applicant must ensure that only liquid waste by-products are stored in the liquid waste by-products storage bays as shown in Figure 1 in Appendix 1 of this consent	Section 5 and Figure 5-2
WASTE MANAGEMENT Waste Management Plan		
B26	<p>Prior to the commencement of operation of the development, the Applicant must prepare a Waste Management Plan for the development to the satisfaction of the Planning Secretary. The Waste Management Plan must form part of the OEMP and be prepared in accordance with condition C5. The Plan must:</p> <p>(a) detail the type and quantity of waste to be generated during construction and operation of the development;</p> <p>(b) describe the handling, storage and disposal of all waste streams generated on site, consistent with the <i>Protection of the Environment Operations Act 1997</i>, <i>Protection of the Environment Operations (Waste) Regulation 2014</i> and the <i>Waste Classification Guideline</i> (Environment Protection Authority, 2014);</p> <p>(c) detail the materials to be reused or recycled, either on or off site; and</p> <p>(d) include the Management and Mitigation Measures included in Appendix 2</p>	<p>(a) Section 5 & Tables 5-1, 5-2 and 5-3</p> <p>(b) Section 5 & Attachment 2</p> <p>(c) Table 5-3 & Section 5</p> <p>(d) Table 6-1 in Section 6</p>
B27	<p>The Applicant must:</p> <p>(a) Not commence operation until the Waste Management Plan is approved by the Planning Secretary;</p> <p>(b) Implement the most recent version of the Waste Management Plan approved by the Planning Secretary.</p>	Sections 3 & 11
Waste Monitoring Program		
B28	<p>From the commencement of operation of the development, the Applicant must implement a Waste Monitoring Program for the development. The program must:</p> <p>(a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation;</p> <p>(b) include suitable provision to monitor the:</p> <p>i) quantity, type and source of waste received on site; and</p> <p>ii) quantity, type and quality of the outputs produced on site; and</p> <p>(c) ensure that:</p> <p>i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site; and</p> <p>ii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.</p>	Section 6
B29	The collection of waste generated during operation of the development must be undertaken between 7 am to 10 pm Monday to Friday.	Section 3
Statutory Requirements		
B30	All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Sections 5

B31	The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of EPA's <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	Sections 4 & 5
B32	The Applicant must retain all sampling and waste classification data for the life of the development in accordance with the requirements of EPA.	Sections 4 & 5

4.2 ENVIRONMENTAL

All waste related environmental matters area addressed below.

4.2.1 Environment Protection Licence

BRs hold an Environment Protection Licence No 20797 (EPL) which was issued by the EPA on 18 October 2018. As a result of the above consent, an application for a licence variation was submitted to the EPA on 19 July 2021 to ensure that the EPL reflects the approved activities in all aspects. The EPA is considering the application in line with the planning requirements including all relevant management plans and construction requirements. When the additional licensing requirements are known, this WMP will be updated to reflect the additional licensing requirements, if they are different from these included and addressed in this WMP.

4.2.2 Protection of the Environment Operations Act 1997

Under the POEO Act, "Waste" is defined as:

"waste" (unless specially defined) includes:

- (a) any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or
- (b) any discarded, rejected, unwanted, surplus or abandoned substance, or
- (c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance, or
- (d) any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or
- (e) any substance prescribed by the regulations to be waste

A substance is not precluded from being waste for the purposes of this Act merely because it is or may be processed, recycled, re-used or recovered.

Management of waste and classification of all wastes generated on site are addressed in different Sections of this WMP.

Waste needs to be disposed of in a manner which does not cause or likely to cause environmental harm.

All wastes should be stored in an environmentally safe manner and away from any incompatible wastes. BRS Staff are responsible for being aware of the nature and quantity of waste generated at the site.

The following clauses of this Act have most relevance to the BRS site:

Clause 126 Dealing with materials

(1) The occupier of any premises who deals with materials in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure to deal with those materials in a proper and efficient manner.

(2) In this section:

deal with materials means process, handle, move, store or dispose of the materials.

materials include raw materials, materials in the process of manufacture, manufactured materials, by-products or waste materials.

Several incoming and outgoing materials as well as some by-products are highly likely to be certified in accordance with relevant EPA Resource Recovery Orders (RRO). These materials must be used in accordance with the relevant Resource Recovery Exemptions (RRE) on site or off-site.

Clause 143 relates to the unlawful transporting or depositing of waste:

If a person transports waste to a place that cannot lawfully be used as a waste facility for that waste, or causes or permits waste to be so transported:

(a) the person, and

(b) if the person is not the owner of the waste, the owner,

are each guilty of an offence.

Transportation and disposal of waste generated at the site is the responsibility of BRS, regardless of use of a licensed waste contractor.

All waste must be classified in accordance with the NSW Waste Classification Guidelines – Part 1: Classifying Waste - November 2014.

4.2.3 Protection of the Environment Operations (Waste) Regulation 2014

The Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation) is administered under the POEO Act 1997. This regulation identifies provisions relating to waste management and disposal.

The Waste Regulation enables resource recovery by allowing exemptions for land application and thermal application of waste-derived material. The Regulation also sets out how waste is to be managed in terms of storage and transportation as well as reporting and record keeping requirements for waste facilities.

The Waste and Environment Levy Operational Guidance Note was developed to assist in guiding occupiers of licensed waste facilities in relation to contributions to be paid for each tonne of waste received at the facility or generated in a particular area under the regulation. The regulation also

exempts certain occupiers or types of waste and allows deductions to be claimed in relation to certain types of waste.

Part 3 of this Regulation details the requirements associated with tracking waste. Certain types of waste (listed in Schedule 1 of this regulation) which have the potential to be harmful to the environment are required to be tracked from the source to the waste disposal facility.

Section 48 of this Regulation also states: *“A person who stores waste on premises (whether or not the waste was produced on the premises) must ensure that it is stored in an environmentally safe manner.”*

4.2.4 Waste Avoidance and Resource Recovery Act 2001

This Act relates to the efficient use of resources, resource recovery, including reuse and recycling and continual reduction of the disposal of waste. The Act stipulates the requirements and objectives of Resource NSW, a corporation created under the Act. The Act provides an overview of the guiding principles of waste management.

The primary objectives of the act in relation to BRS' activities are:

- *“to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development;*
- *to provide for the continual reduction in waste generation;*
- *to minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste; and*
- *To establish a hierarchy of resource management options:*
 - ❖ *“avoidance of unnecessary resource consumptions,*
 - ❖ *resource recovery (including reuse, reprocessing, recycling and energy recovery),*
 - ❖ *disposal”.*

This Act is of relevance to the site in relation to segregation of waste streams generated on site and maximising the reuse and recycling of waste materials.

Classification of waste enables the generator to determine the appropriate handling, transport, and disposal requirements if the waste cannot be reused or recycled.

4.3 POLICIES AND GUIDELINES

The most waste management relevant policies and guidelines are presented below.

4.3.1 NSW Waste Avoidance and Resource Recovery Strategy 2014-21

The primary goal of this strategy is to enable all of the NSW community to improve environment and community well-being by reducing the environmental impact of waste and using resources more efficiently.

Using resources efficiently and keeping materials circulating in the productive economy can also help to create jobs and grow the NSW economy.

“The Waste Avoidance and Resource Recovery Strategy 2014-2021 (WARR Strategy) is driven by our desire to improve the way we live and make sure that future generations enjoy the same or

an improved quality of life. This stretches across all aspects of life and covers environmental, social, and economic areas. The WARR Strategy adopts the principles of ecologically sustainable development as defined in Section 6 of the Protection of the Environment Administration Act 1991.”

In accordance with the Waste Avoidance and Resource Recovery Strategy 2014-21, BRS would participate in waste avoidance and reuse by adopting and implementing the WARR Strategy which focusses on the priorities listed below. In addition, the WARR Strategy 2014–21 is also informed and driven by the waste hierarchy which underpins the objectives of the [Waste Avoidance and Resource Recovery Act 2001](#). The hierarchy of waste management is presented in **Figure 4-1**.

Figure 4-1: Waste Hierarchy

“There are costs associated with managing waste and the waste hierarchy helps to focus attention and efforts where the greatest efficiencies in cost, time and resources can be achieved.

*The waste hierarchy (shown in **Figure 1**) provides guidance on the order of preference of approaches to achieve efficient resource use.”*

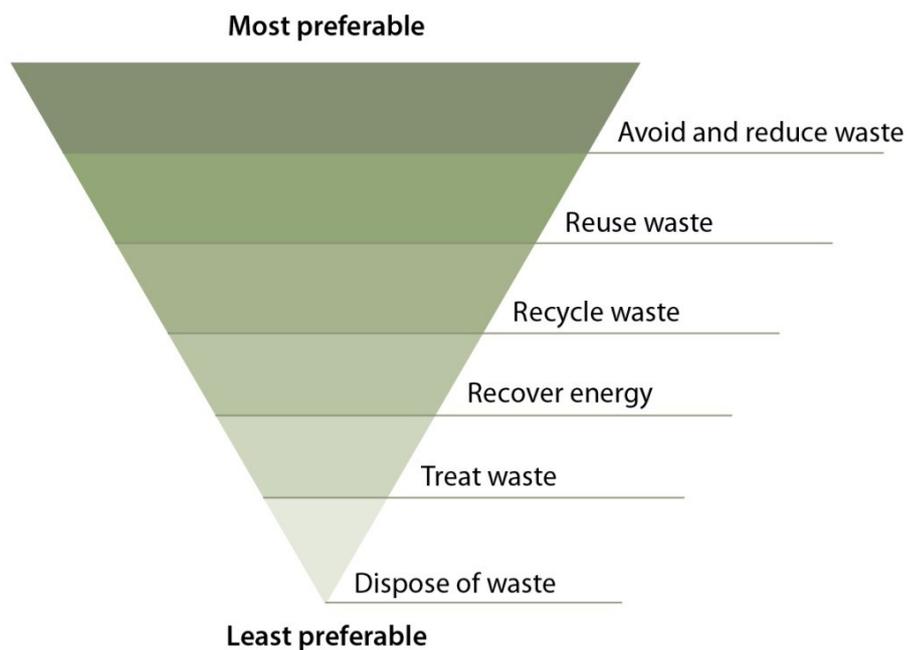


Figure 1: The waste hierarchy

Waste minimisation and resource recovery would be practised as part of BRS commitment to the principles of Ecologically Sustainable Development (ESD) and the Waste Avoidance and Resource Recovery Act. Waste minimisation can benefit the operation of the facility by the following:

- Reducing the cost of the material inputs into the production processes,
- Recycling and reuse of waste materials generated on site,
- Reducing the quantities of waste removed off site, and
- Encouraging material suppliers to take back packaging materials.

The following strategies will surely assist in minimising waste:

- Segregation of Waste Streams and types,
- Housekeeping using workplace inspections to reduce raw material losses, spillages, and overuse,
- Process Improvements & Production Upgrading, and
- Recycling of Waste.

4.3.2 NSW Waste Classification Guidelines 2014

To ensure appropriate waste management and disposal, all waste must be classified according to the NSW Waste Classification Guidelines 2014 (guidelines). In accordance with the guidelines, waste can be classified into 6 different classes. These are:

1. Special waste
2. Liquid waste
3. Hazardous waste
4. Restricted solid waste
5. General solid waste (putrescible)
6. General solid waste (non-putrescible)

The wastes approved in this Development are all classified as liquid wastes.

Based on the Guidelines, if the waste meets the criteria of a class, it is classified as such and no further assessment for classification is required. Therefore, for the operation stage, all wastes approved by this development are classified as liquid, so no further classification is required for the imported liquid wastes.

5. WASTE MANAGEMENT

The waste that is likely to be generated on site could be divided into two categories; **Construction Waste** and **Operational Waste**.

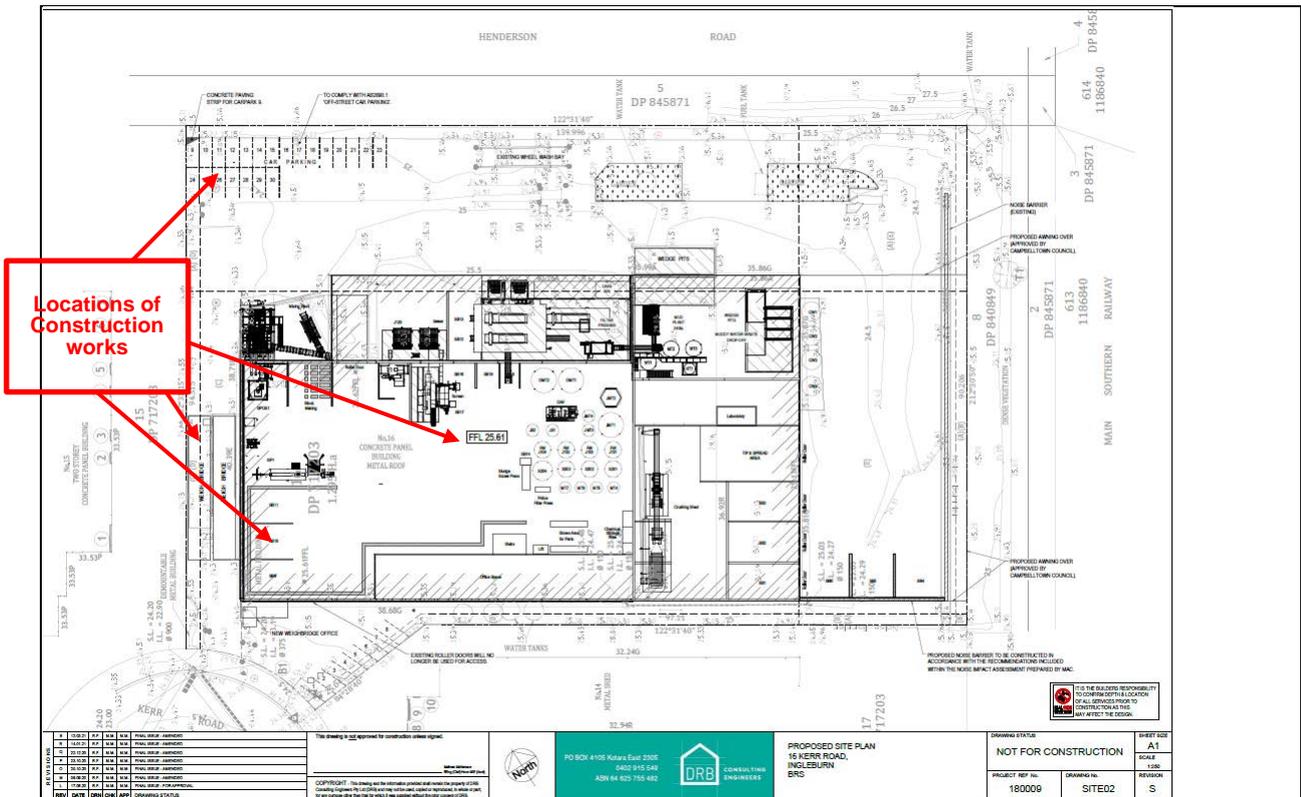
5.1 CONSTRUCTION WASTE

The proposed construction activities are mostly inside the building with the exception to the stormwater upgrading which will be undertaken in the north-western corner of the site and the weighbridge. Overall, the construction activities inside the building are mostly installation of tanks, pumps, valves, filters, pits and storage bays. The construction activities also include excavation. There is no demolition of any existing structures.

If required, only VENM materials, ENM materials or materials that comply with an existing Resource Recovery Order will be used in the construction of the required structures. However, for the hardstand areas, finished products such as sand, recovered aggregate and concrete will be used.

The proposed construction areas are presented in **Figure 5-1** below.

Figure 5-1: Locations of Construction Areas



Waste management during the construction stage is as important as during the operation stage due to the fact that a few contractors will be on site for short periods of time and are likely to leave behind some waste. Therefore, it is of utmost importance that waste management be included in the induction sessions of all contractors and employees to prevent residual waste from being left

on the site at the end of their contract. The waste management processes and strategies outlined below and presented in the Construction Environmental Management Plan (CEMP) should be adhered to during the construction stage.

The premises management will not receive construction related materials from unknown sources to avoid any potential environmental implications. The premises management will adhere to the EPA's guidelines titled "***DRAFT – Protocol for managing asbestos during resource recovery of construction and demolition waste***" (guidelines). However, these guidelines will be applied to asbestos as well as any other potentially hazardous or special waste.

In any case and as a minimum, the comprehensive procedures included in the "***Unexpected Finds Protocol***" provided in Attachment 4 of the CEMP will be adhered to by all employees and contractors to ensure that non-permitted materials are not received on site during the construction stage.

Since the construction activities would generate only waste that is mostly recyclable, it has been determined that construction wastes would be recycled and/or re-used on site, if appropriate or removed for off-site recycling as soon as it is practical and safe to do so.

The issue of construction waste management is addressed in the CEMP in more details.

Table 5-1 includes the list of and estimate of the construction wastes that are likely to be generated keeping in mind that most, if not all these wastes will be recycled or reused on site.

Table 5-1: List and Estimated Quantities of Construction Wastes

Waste Type	Estimated Quantity (Tonnes)	Management
Soil	260	Recycled and/or reused on site
Garden Organics	Nil	Not applicable
Bricks	Nil	Not applicable
Concrete	40	Recycled and/or reused on site
Timber	0.5	Recycled and/or reused of site
Plasterboard	Nil	Not applicable
Metals	10	Recycled and/or reused of site
Packaging (paper, cardboard, etc..)	0.2	Recycled and/or reused of site
Hazardous Material, e.g., asbestos	Nil	Not applicable

5.2 OPERATIONAL WASTE

As it was identified during the preparation of the EIS, RTS and supporting documents, the following two main operations waste streams would be generated at the BRS site. Since this is a resource recovery facility, no disposal activities will be undertaken. All materials transported off site whether recyclable or not they will be transported to lawfully approved sites that can accept these materials.

1. **Office & domestic waste** which includes a small quantity of waste that is classified as General Solid Waste (putrescible) but mostly it is classified as General Solid Waste (non-putrescible), and
2. **Process waste** which is generated mainly from the treatment process. This waste would generate mostly recyclable material contained in the incoming liquid and solid waste streams.

Waste would be separated into non-recyclable and recyclable waste by placing them into designated waste bins. **It should be noted that no hazardous waste material is or likely to be generated at the BRS site.**

5.2.1 Office and Domestic Waste Management

The main type of office waste is waste paper, comprising general office paper, photocopy paper, office stationery and paper from other sources. Other office waste includes cardboard/packaging, and toner/printer cartridges from printers, photocopiers and facsimile machines. The quantity of waste generated will be minimal and the majority of this waste stream will be recycled.

Domestic waste includes food scrapes, tissues, paper towels, toilet papers, aluminium cans, glass bottles, plastic and paper containers and putrescibles waste. Domestic waste will be generated by employees and contractors while onsite. Domestic waste will be recycled where practical or otherwise disposed of offsite by a licensed contractor.

Recycling bins are located on site to store any recyclable material. Site management would arrange for any recyclable waste to be sent to the appropriate recycling facility. Any office and domestic waste that cannot otherwise be recycled would be disposed of into the general waste bins located on site. Quantities of such waste are difficult to estimate and would be dependent on the materials brought to the site and the consumption of such materials

Table 5-2 includes the office and domestic wastes that can or cannot be recycled. Paper and cardboard products that are listed in the “**RECYCLE**” column of this table are to be placed in the designated office bins and those listed in the “**DO NOT RECYCLE**” column are to go into normal rubbish bins.

Table 5-2: Office and Domestic Waste

RECYCLE	DO NOT RECYCLE
All office papers	Carbon Paper
Fax and photocopy paper	Thermal Fax Paper
Photocopy paper wrappers and boxes	Paper towels
Paper Binder Dividers	Facial Tissues
Envelopes	Waxed paper (lunch wrappers)
Manilla Folders	Tissue Paper
Phone Books	Metal and Plastic Report Binders
Shredded paper	
Newspapers, Magazines, Brochures	
Cardboard Boxes (collapse first)	
Cardboard Milk Cartons (rinsed)	

5.2.2 Process Waste Management

The approved operational activities will mostly be undertaken inside the buildings or under the existing approved awnings. Overall, the operational activities inside the buildings are:

1. Receiving of liquid waste, processing it and storing the processed liquid waste and its by-products,
2. Receiving of solid waste, processing it and storing the processed solid waste and its by-products.

The solid waste receipt procedure has been developed in accordance with the *Standards for managing construction waste in NSW (EPA, 2018)*, however this procedure is proposed to be applied to all solid wastes received.

BRS will ensure that staff are adequately trained in procedure and skilled in waste inspection. Waste records are kept verifying incoming and outgoing loads movements.

In the event that non-conforming products or materials are brought onto the site, the materials will be quarantined and either returned to the supplier or disposed of at an appropriately licenced facility. A record of all rejected loads is recorded in the Rejected Load Register and reported to the EPA.

Greater details of the liquid and solid waste processing were presented in the EIS and other supporting documents that were submitted to the Department during the assessments process. The inclusion of those documents in this WMP are considered unnecessary. However, simplified relevant waste processes are provided in this Section and others are included in **Attachment 2**.

Based on the Waste Classification Guidelines, if the waste meets the criteria of a class, it is classified as such and no further assessment for classification is required. Therefore, for the operation stage, all wastes approved by this development are classified as liquid, so no further classification is required for the imported liquid wastes.

The development approves the receiving and processing on site of a total of 125,000 tonnes per year of liquid waste comprising drilling mud and non-destructive drill mud, cement slurry, concrete washout, oily water (J120), sewage sludge including sewer grit or screenings, stormwater, groundwater (including M250, J100, N160, and F100), industrial wastewater, leachate and firewater (N140). The total volume of 125,000 tonnes per year of liquid waste, includes 11,000 tonne per year of liquid waste permitted to be received or processed under DA 948/2015/DA-I/B. Furthermore, the development approved the storage of a total of 5,100 tonnes of liquid waste and liquid waste by-products on site at any one time.

These requirements will also be included as conditions in the EPL to ensure consistency with the approved development.

Notwithstanding the above, the solid and liquid wastes previously approved by Council and the EPA will continue to be imported and processed in accordance with the requirements of the relevant Development Consent and EPL. The additional approved liquid wastes will be received, processed, stored, recycled, reused, and disposed in accordance with the documentation submitted with the

amended Development Application approved by the Department on 26 May 2021. The disposal of treated liquid waste will be either off site or through the sewer after treatment except for clean water which would be reused on site for dust suppression, in the concrete blocks/batching plant. Details of the waste quantities, processes and procedures are included in **Attachment 2**.

All wastes generated from the processing of incoming waste will be classified in accordance with the waste guidelines and other relevant policies such as Resource Recovery Orders so they can be reused on site or off site in accordance with the relevant Resource Recovery Exemptions.

5.2.3 Description of Liquid Waste Processing

The development would primarily treat three types of liquid waste products: Oily Water, Sewer Waste and Drilling Mud. The processing of these liquid wastes is described below. The waste from the different treatment processes would not be mixed due to contamination risks. The specific liquid waste treatment process would be determined by the waste type. Furthermore, all treated liquid wastes will be stored in dedicated storage tanks and their solid by-products will also be stored in dedicated storage bays as shown in **Figure 5-3**. It should be noted that all sealed tanks whether they are used for storage, treatment, mixing, etc.... will have carbon filters installed to minimise odour emissions from these liquid wastes. In addition, the Dissolved Air Flotation tanks is also served with a carbon filter to reduce odour emissions.

5.2.4 Oily Water Processing

The oily water process includes treatment of oily waters (J120), waste oil / hydrocarbons, industrial wastewater, leachate, firewater, and groundwater (including surface active agents, waste mineral oils, polymerized wastes, dyes, pigments, and paints). The oily water process generally consists of the steps outlined below and shown in **Figure 5-2**.

- vacuum trucks arrive via the weighbridge where details are recorded and waste sampled (if waste is not already classified) to ensure the waste is sent to the correct plant and follow the correct process,
- the vacuum truck discharges through a filter into a holding tank,
- the holding tank acts as a buffer tank as well as a recirculation tank for the whole plant. Liquid waste comes back to this point if it does not meet discharge or re-use requirements,
- waste is then pumped to a pre-conditioning tank where a chemical dosing system adds the required chemicals for pH adjustment or to aid the separation of solids,
- the water component of the waste is piped to the Dissolved Air Flotation tank/device (DAF) which is used to further separate solids from the liquid wastes by introducing air to assist in the floatation of solids,
- the DAF breaks the waste down to three main components: clean treated water (to be polished), sludge and floated effluent,
- the sludge and floated effluent component from the pre-conditioning tanks and the DAF process is then mixed with additives to form a spadable product which is tested then sent to a suitably licensed facility that is permitted to accept such product,
- the water component from the DAF is sent to an oily water separator which separates oil from the waste. The oil is sold to oil refining/recycling companies for further processing into products such as engine oil,

- finally, clean processed water is held in storage tanks where it is tested to determine if it can be beneficially reused or sent to Sydney Water as Trade Waste. If not, the water is polished through a police press and then tested again before reuse or disposal.

5.2.5 Sewer Waste Processing

The majority of sewer waste (non-putrescible solids in water) would be from Sydney Water. The treatment process primarily involves screening of the suspended solids through a multi-level screen to separate solids and liquids. A carbon filter system would be used for the filtering and cleaning of air during filling and emptying of the tanks. The sewer waste process generally consists of the following steps:

- vacuum trucks arrive via the weighbridge where details are recorded,
- the truck drives to the sewer pump out area where it reverses in and connects via a flexible hose,
- the solid waste (both > 8mm and <8mm) is separated from the liquid wastes via augers,
- the heavier wastes (typically rags, rocks and sticks) are sent to landfill while the smaller fraction, typically sand, is reused if testing deems it is suitable,
- the liquid component of the sewer waste is stored and released to sewer once tested,
- lastly, trucks are cleaned, and the washout water is treated to separate solids and liquids via a trommel, augers and screens. Solid waste from this process is tested and used as above.

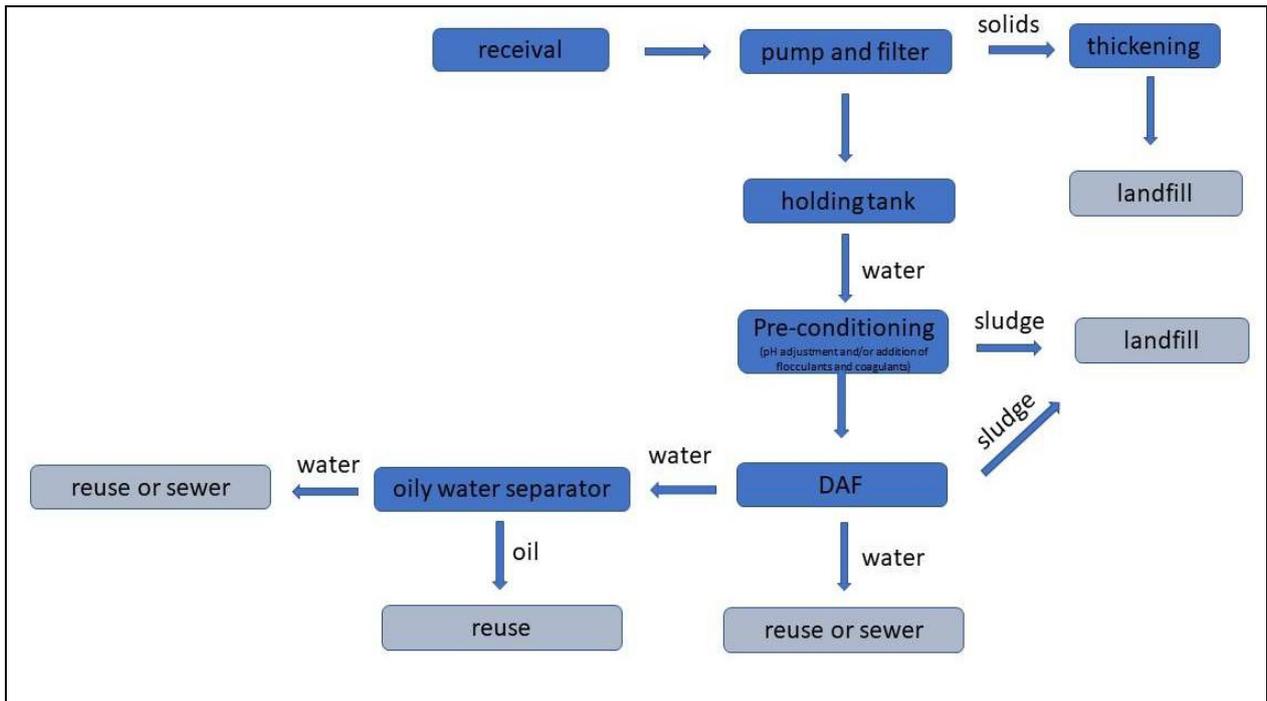
5.2.6 Drilling Mud Processing

Drilling mud and concrete slurry would pass through a number of processes to remove the coarse and fine sediments from the water. The drilling mud/concrete slurry process generally consists of the following steps:

- vacuum trucks arrive via the weighbridge where details are recorded,
- the drill mud/concrete slurry is then passed through screens to separate debris and large solids,
- coagulants/flocculants are added to the liquid waste to separate coarse sediments,
- the sludge is passed through a screw filter press,
- treated water, is reused onsite or discharged via an additional secondary press to the sewer system,

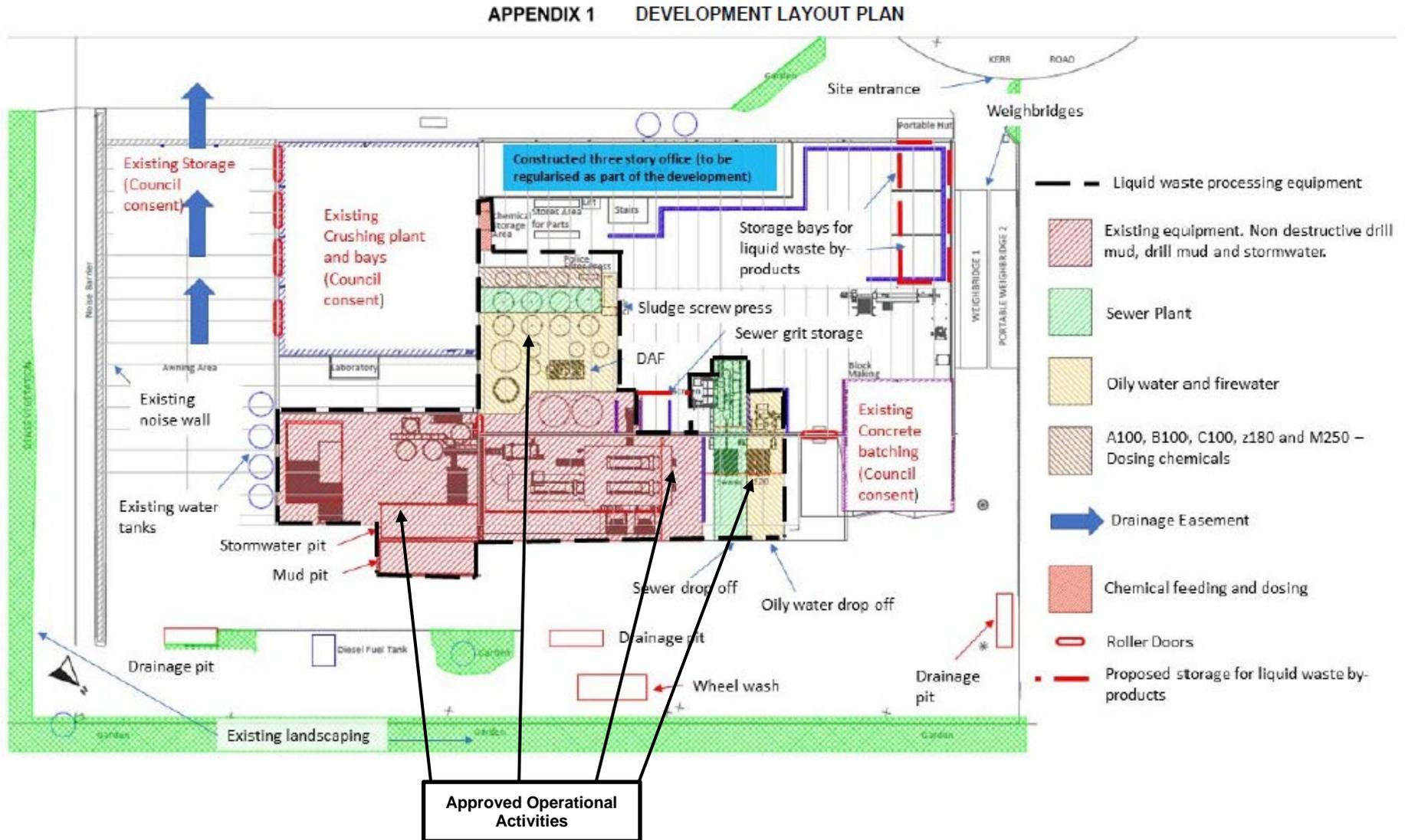
Filter cakes (compacted fines) would be produced from the screw press and, where suitable, this recovered material would be mixed and blended onsite for reuse and resold, for example as engineering fill and for landscaping supplies, but only after they are tested in accordance with current EPA guidelines. However, if the material is not suitable for reuse due to not compliance with EPA guidelines, it would be disposed to landfill at an appropriately licensed facility.

Figure 5-2: Oily Water Processing



The locations of approved operational activities are presented in **Figure 5-3** below which is based on the Department’s approved development layout plan. The approved plan also shows the locations of the bays that will be used for the storage of liquid waste by-products.

Figure 5-3: Locations of Approved Operational Activities



In accordance with current environmental legislation, policies and guidelines as well the EPL conditions, BRS is obliged to comply with the following aspects:

- a) Keep records of all incoming and outgoing waste loads,
- b) Prepare and submit to the EPA a Waste Contribution Monthly Report (WCMR) every month. This report includes the types and quantities of all incoming and outgoing wastes as well as the quantity of waste remaining on site. The quantity of waste remaining on site must not exceed the authorised amount of waste stored at any one time. This amount will be 5,100 tonnes of liquid and liquid by-products and 1,900 tonnes of solid wastes,
- c) Prepare and submit an Annual Return every 12 months,
- d) Undertake any monitoring and reporting required in accordance with the EPL and any other relevant legislation.

The records of all sampling, analysis, records required under both the Consent and EPL will be kept in a prominent position including the website as well as on site so they can be made available to any authorised officer who wishes to see them. These records must be kept for as long as the EPA specifies in BRS EPL 20797.

Table 5-3 includes the estimated quantities of incoming wastes, outgoing wastes and wastes that are reused or recycled on site in addition to the wastes discharged to sewer in accordance with Sydney Water Consent agreement.

Table 5-3: Types and Quantities of Wastes

Liquid Waste Stream	Estimated quantity per annum @ 125,000 tpa processing capacity	Estimated Percentage @ 125,000 tpa processing capacity	IN/OUT
Drilling Mud	17,500	14%	IN
NDD	56,250	45%	IN
Stormwater	11,250	9%	IN
Concrete slurry	6,250	5%	IN
Oily water	6,250	5%	IN
Industrial wastewater	5,000	4%	IN
Sewage sludge	5,000	4%	IN
Groundwater	5,000	4%	IN
Leachate	3,750	3%	IN
Firewater	8,750	7%	IN
Discharge to sewer	15,500	12.4%	OUT
Water reuse on site	90,000	72%	OUT
Concrete block (part of)	15,000	12%	OUT
Transported off site as solids	4,500	3.6%	OUT
TOTAL Input	125,000	100%	
TOTAL Output	125,000	100%	

5.2.7 On-Site Sewerage Management

The only greywater that will be generated during the operation stage from employees, visitors and contractors will mostly be from the kitchen sinks, the toilets and showers. This waste is directed to the existing sewerage system as per normal existing practices.

6. MANAGEMENT & MITIGATION MEASURES AND WASTE MONITORING

This section includes additional information dealing with specific waste management and mitigation measures that will be implemented during both the construction and operation stages.

6.1 MANAGEMENT & MITIGATION MEASURES

Most mitigation measures for the construction stage were discussed in the EIS, RTS and revised RTS as they are similar to those that will be implemented for the operation stage of the facility. The following Sections will include relevant information to assist the reader in either referring to the relevant document or to use the information included in this WMP.

Table 6-1 below presents all waste related management and mitigation measures to be implemented on site to ensure that the potential impacts on human health and environment are minimised.

Table 6-1: Waste Related Management and Mitigation Measures

Aspect	Management & Mitigation Measures
Waste Management	<p>A range of waste management procedures are implemented by the operation including the following:</p> <ul style="list-style-type: none"> • An updated waste material reception procedure has been prepared and implemented to ensure only permitted materials are accepted on site, • Records of acceptance shall be kept on site, • Quality assurance checks of material accepted to the site shall be conducted on a regular basis, • Ensure wastewater systems are maintained in good working order, • All wastes are to be segregated where possible, • All non-recycled wastes to be disposed of in an appropriate manner to appropriately licensed facilities, • All wastes are to be managed in accordance with the waste management plan, and • Waste management plan to be updated to suit proposed expansion.
Community	<p>As part of its social responsibility, BRS posts letters to surrounding residents in the nearby residential area and neighbouring industrial facilities informing them of any updates regarding the operation or any solutions implemented.</p> <p>Contact details will be displayed on the site entry and a complaints register is to be maintained noting the nature of the complaint, time received, action taken, and time the action was taken.</p>

General Environmental Management	<p>Once approved, the facility is to operate under a new Environmental Management Plan (EMP) which will provide detail on a range of environmental matters. The document will provide the following detail:</p> <ul style="list-style-type: none"> ❖ Operations description, ❖ Management hierarchy with roles and responsibilities, ❖ Inductions and training regime, ❖ Environmental management procedures and requirements, ❖ Environmental monitoring, risk assessment, and auditing, ❖ Environmental contingencies and corrective actions, ❖ Emergency response procedures and contacts, ❖ Complaints handling procedure and register; and ❖ EMP and other environmental documentation review procedure
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6.2 MONITORING PROGRAMS

Based on our extensive experience with environmental assessments of similar operational activities and the environmental assessments undertaken for BRS proposed activities, we believe that the potential of impact on the environment and human health during the operation stage is minimal. We believe that specific monitoring programs are not warranted since most proposed operational activities will be undertaken during normal operational hours and in enclosed areas (i.e., inside the building or under the awnings). Furthermore, the proposed increase in the number of vehicle movements for the operation stage compared with the current number of vehicles, including a high percentage of heavy vehicles, using the nearby roads will have very little, if any, increase in traffic noise, dust emissions or exhaust gas emissions.

Notwithstanding the above, monitoring programs for the incoming and outgoing wastes as well as waste recycled and/or used on site will be undertaken in accordance with current approved environmental legislation, policies and guidelines which are presented below. Due to the fact that the BRS facility is already licensed by the EPA, and it is considered as a levied facility, there is a statutory obligation that all loads are monitored on the way in and out. The records required to be collated for each load are very comprehensive and are kept on site to be presented to any EPA authorised officers to see them. Therefore, there is no justifications to prepare a different monitoring program.

6.2.1 Incoming Waste Monitoring Program

BRS Resource Recovery Facility is considered as a levied licensed facility. This means that under current EPA legislation, policies and guidelines, all vehicles entering the BRS site must go over the weighbridge and their records must be kept on site. These records include as a minimum the following:

- a) the date and time on which the vehicle enters the facility,
- b) the date and time on which the vehicle leaves the facility,
- c) the registration number of the vehicle,
- d) the purpose of entry,
- e) the weight of the vehicle,

- f) the amount of any waste delivered, its waste type and (except where the waste is trackable liquid waste) its waste stream,
- g) the amount of any other material delivered and a description of the nature of that other material,
- h) in the case of waste transported to the waste facility from another waste facility—
 - I. the name and address of the other facility, and
 - II. the code or number of any environment protection licence for the other facility,
- i) in the case of an occupier who is required to pay contributions under section 88 of the Act—particulars of where any waste or other material delivered is placed at the facility.

6.2.2 Outgoing Waste Monitoring Program

As previously stated, we do not believe that a different waste monitoring program is warranted but rather similar arrangements with the incoming waste monitoring program are implemented. Similar records to those collated for the incoming wastes must be collated and kept for all outgoing wastes.

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7. WASTE MANAGEMENT PRACTICES AND PROCEDURES

As previously presented in this report, the potential environmental impacts of the operational activities are very minimal and will be limited to potential dust, noise and stormwater aspects only. Hence, in addition to the waste related management and mitigation measures, amelioration strategies, protocols, regimes, staff training, and monitoring requirements included in this WMP, it is considered appropriate that one (1) additional procedure be prepared and implemented by relevant BRS staff. This procedure would form a vital component of the Waste Management Plan (WMP) for the site.

This WMP and the procedures it contains are designed to help staff and contractors carry out waste related activities in the following ways:

- Provide prescriptive procedures where appropriate to minimise potential dust and noise nuisance and/or potential harm to human health and the environment,
- Provide guidelines for staff and contractors to enable them to assess and implement the best strategy to minimise potential dust, noise, and stormwater impacts, and
- Increase waste related environmental awareness for the management, staff, contractors, and visitors to the site.

The procedures included in this WMP also assist management in the following ways:

- Identify events which have the potential to increase the risk of statutory breaches arising from dust, noise, or stormwater pollution incidents, or to cause significant business interruptions,
- Provide guidelines for minimising the potential for dust, noise, and stormwater impacts, and
- Establish, equip, and train the staff and contractors that management can rely on with the capability of dealing with anticipated events effectively and efficiently.

The additional Management Procedure that is considered appropriate for inclusion in this WMP is “**Workplace Inspection Procedure**” which is included in **Attachment 1**.

8. MONITORING OF ENVIRONMENTAL PERFORMANCE OF WASTE RELATED ACTIVITIES

All waste related activities will be monitored by implementing several strategies on the site. These strategies include:

- ❖ Workplace inspections conducted in accordance with the relevant procedure included in **Attachment 1** of this document,
- ❖ On-going program to record any detection of excessive dust emissions, water pollution, noise emissions by staff, visitors, or contractors because of waste related activities,
- ❖ On-going program to record any enquiries or requests by authorised officers of Government Departments,
- ❖ On-going program to record any enquiries, complaints or feedback from the community residing or present nearby,
- ❖ Regular workplace audits/inspections by BRS delegated employees within the boundaries of the site,
- ❖ Regular walkabouts outside the boundaries of the site by BRS delegated employees,
- ❖ Review the results of any environmental monitoring undertaken as a result of concerns expressed by the community, authorities or others,
- ❖ Regular meetings and informal discussions with staff from both BRS and the contracting companies to gauge whether there are any environmental issues associated with the activities that are of concern to any person, and
- ❖ Review of all enquiries, feedback and complaints received from all stakeholders including staff members and contactors to ensure that any issues arise from the activities that are likely to cause any adverse impact on human health or the environment are dealt with promptly, effectively and efficiently.

We believe that the above strategies are more than adequate to give confidence to all parties that in the case of any breach of any Development Consent condition, environmental legislation requirements or policies/guidelines, the matter will be addressed promptly in an efficient and effective manner.

8.1 SCIENTIFIC METHODOLOGIES

As previously stated, based on the comprehensive EIS, RTS and revised RTS as well as this WMP for the development, it was clearly demonstrated that the proposed activities could be undertaken with nil adverse impact on human health or the environment provided that the proposed and approved management and mitigation measures are implemented on site. These measures and strategies are addressed in this document.

8.2 FEEDBACK AND COMPLAINT REGISTER

The establishment and implementation of a **Feedback and Complaint Register** will be of great assistance to all parties to determine whether the Waste Management plan and procedures are efficient and effective in minimising the impacts from the waste related activities and that the monitoring programs to be implemented on site are sufficient to determine compliances or exceedances.

The Register would be divided into two sections: **the Feedback Section and the Complaints Section.**

The Feedback Register would include the feedback given to BRS management in relation to all waste related matters including positive or negative feedback from staff, guests, and authorised officers from government departments.

The Complaints Register would include the complaints lodged directly or indirectly with BRS management. These complaints could be made by different parties such as nearby residents, people working or are nearby, and Government Departments' employees.

We believe that the above monitoring strategies and the scientifically based monitoring programs that will be undertaken, as required, will be more than effective and sufficient to identify exceedances of any aspect associated with the activities. These monitoring strategies will guide BRS staff to identify the sources that are likely to cause the exceedances, if any, and to implement additional management and mitigation measures, when required.

8.3 NON-COMPLIANCES, CORRECTIVE & PREVENTATIVE ACTIONS

All non-compliances are to be reported to BRS management immediately.

Non-compliances, corrective and preventative actions are to be dealt with in accordance with the Corrective and/or Preventative Actions Procedure within the WMP.

Non-compliances may include:

- Any non-compliance or release of contaminants not in accordance with the conditions of any consent, licence, or approval,
- Any event where environmental harm has been caused or is likely to be caused, or
- Any spills of contaminants.

Any non-compliance must be notified in accordance with consent condition C11 which states: "The ***Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance***". This means that as soon as BRS is made aware that there is a non-compliance, BRS personnel must notify the Planning Secretary in writing via the Major Projects website. Any non-compliance relevant to environmental aspects and EPL must also be notified to the EPA promptly. The notification must be made within seven days.

The notification of non-compliance must include the following information:

- (a) a summary of the incident,
- (b) outcomes of an incident investigation, including identification of the cause of the incident,
- (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, and
- (d) details of any communication with other stakeholders regarding the incident.

A non-compliance notification must:

- a) Identify the development and the application number for it,
- b) Set out the condition of consent that the development is non-compliant with,

- c) The way in which it does not comply and the reasons for the non-compliance (if known), and
- d) What actions have been, or will be, undertaken to address the non-compliance.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

When non-compliance is identified, corrective action to mitigate the environmental impact should be put in place. Further investigation into the cause of the non-compliance would need to be undertaken to determine what preventative measures can be implemented to ensure the non-compliance does not recur.

The issuing of corrective actions shall be initiated by any of the following events, if considered justified:

- ❖ The Department, EPA, Council, Sydney Water or other regulatory agency direction or request,
- ❖ In-house detection of non-compliances, e.g., chemicals found to be stored outside designated areas,
- ❖ Housekeeping inspection verified non-compliances, or
- ❖ Public complaint.

8.4 INCIDENT MANAGEMENT

Environmental incidents include emissions and spillages (gas, liquid or solid) where any of the following apply if:

- There is a possibility of soil and groundwater contamination,
- There is any off-site environmental impact e.g., discharge to stormwater, dust, noise, air emissions,
- The involvement of authorities, media or the community is likely,
- The incident must be reported to the authorities,
- There are actual or potential losses of more than \$10,000 including fines, clean up and prevention (\$10,000 is defined as Material Harm to the Environment according to the POEO Act 1997),
- Any breach of the environmental conditions, including consent, licences, permits and other environmental legislation,
- Any complaints about environmental issues by an external party,
- Any fines and warning notices for consent, permit or licence non-compliance or regulatory breaches,
- Near misses with the potential to cause any of the above.

The Site Manager must be informed of any Environmental Incident as defined above. If the incident presents a material risk of harm, then the Notification of a Pollution Incident Procedure must be followed, and relevant regulatory authorities must be notified immediately. The Pollution Incident Response Management Plan (PIRMP) must be activated as required under the current environmental legislation.

Specifically, any waste related incident must be notified to the Planning Secretary in accordance with Consent Condition 10 which states: ***“The Planning Secretary must be notified in writing via the***

Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3". This means that as soon as BRS is made aware that an incident occurred, BRS personnel must notify the Planning Secretary in writing via the Major Projects website immediately.

The notification of an incident must include the following:

- (a) identify the development and application number,
- (b) provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident),
- (c) identify how the incident was detected,
- (d) identify when the applicant became aware of the incident,
- (e) identify any actual or potential non-compliance with conditions of consent,
- (f) describe what immediate steps were taken in relation to the incident,
- (g) identify further action(s) that will be taken in relation to the incident, and
- (h) identify a project contact for further communication regarding the incident

Details of the incident must be recorded including:

- staff full name, address and telephone contact details,
- date, time and duration of the incident,
- the type of pollutant or a description of the incident,
- discharge or emission location of the incident,
- the extent or size of the area where the pollution is occurring,
- anything else that is relevant to the incident.

Records of the incident must be maintained on file and may be required to be provided to regulatory authorities.

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, BRS must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.

The Incident Report must include:

- (a) a summary of the incident,
- (b) outcomes of an incident investigation, including identification of the cause of the incident,
- (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, and
- (d) details of any communication with other stakeholders regarding the incident.

9. ROLES AND RESPONSIBILITIES OF RELEVANT EMPLOYEES

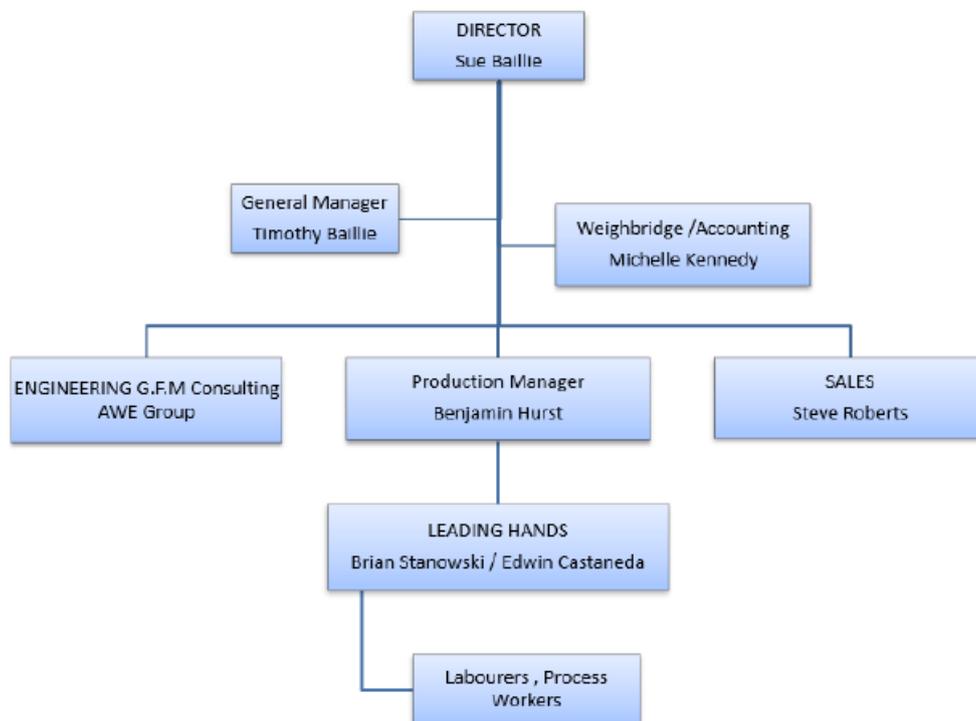
The Site Manager is responsible for the implementation and maintenance of the WMP throughout the activities to be conducted on site. The Site Manager may delegate the responsibility to other staff members who are appropriately trained to implement and maintain the WMP.

The current Site Manager’s details are:

Tim Baillie
 Managing Director
 Ph: (02) 8717 3333
 Mobile: 0427 452 029
 16 Kerr Road
 Ingleburn NSW 2565
 Email: tim@bulkrecoverysolutions.com

In addition to the Managing Director, BRS has other employees at different levels who have different roles and responsibilities. The current Organisational Structure of BRS including those employees is presented below in **Figure 9-1**.

Figure 9-1: BRS Current Organisational Structure



The names of other delegated employees, if any, should be included in the relevant section of the WMP (and OEMP) when updated.

Management will need to ensure that those coming onto site have understood the relevance and objectives of the WMP and will be carrying out their activities in accordance with the WMP and relevant development consent conditions.

Having the full commitment of contractors and their staff is imperative to achieve the high level of success intended from the use of this WMP.

Even though the Site Manager has the overall responsibility over all operational activities, he may determine that it will be more appropriate to delegate some roles and responsibilities to other employees, if considered appropriate. **Table 9-1** includes roles and responsibilities of relevant employees and contractors.

Table 9-1: Roles and Responsibilities of BRS Management and Employees

Role/Position	Responsibility
Director	The director is responsible for steering our organisation to meet our company's business objectives and to achieve promised goals. Ultimately, the Director will be responsible at the end of each day for all undertakings and accepts this
General Manager /Site Manager	This is a day-to-day contact person and will also be accountable to management & customers on all points. Advanced approaches to keep service high, costs low and latest information and reporting to customers. Maintenance of plant and person who makes sure of compliance of facility
Weighbridge/Accounting	This is a day-to-day contact person meeting clients prior to entry of site, inspection of product prior to entering site and is also accountable to management and customers on all points. Advanced approach to keep service level high, costs low and latest information and reporting. One of the key people who make sure compliance of facility
Engineering Consulting, AWE Group G.F.M	Depending upon discipline of trade required Responsible for design overseeing manufacturing process and equipment compliance as well as trouble shooting technical issues that arise
Sales	Depending upon product or service required Sales team is responsible for costings and liaising with Management for projects. Relied upon heavily for functional information. Trained from Head Office with Technical experience. Bring business from external sources
Production Manager	The Production Managers role is to manage all process, service operations, schedules jobs, parts and liaise with customers, management on all aspects of production
Leading Hands	The Leading Hand has advanced knowledge in the process with leadership skills who guide Labourers, technicians
Labourers, Process Workers	Responsible for the day to day running of the business. Also performs a number of duties in support of customers and company's essentials as part of the BRS team
Environmental Manager	Responsible for the following actions:

Role/Position	Responsibility
	<ul style="list-style-type: none"> • Implement and maintain this WMP. • Coordinate and authorise environmental work and site level plans. • Coordinate and conduct regular inspections to ensure a high level of environmental performance and compliance with the WMP. • Provide technical advice regarding environmental obligations, measures, and safeguards.

10. COMMUNITY CONSULTATION AND COMPLAINTS HANDLING PROCEDURES

Due to the nature of the standardised proposed waste related activities scheduled to be conducted on site and the minimal potential of pollution generated by these activities, it is highly unlikely that complaints would be received from people located outside the boundaries of the site and that only feedback from people who are either working or inspecting the activities within the boundaries of the site, would be received. This means that only internal communications system would be sufficient, however, BRS management will proactively participate in voluntary and open communications with relevant stakeholders, when required. Stakeholders include community groups, contractors, NSW regulatory authorities and non-regulatory agencies. This is the main reason for establishing both a Feedback Register and a Complaint Register. Both registers will incorporate all related activities during the operation stage of the development.

10.1 COMMUNITY RELATIONS

A procedure has been developed for communicating with the residential community in a manner that highlights the site operator's concern for both their amenity and the local environment. This also ensures that any enquiries or complaints are effectively logged and actioned. This will be established with the Complaints and Feedback Register (included in this plan). A Complaint Hotline number is displayed at the front entrance to the site and several other locations within the site. A Complaint Hotline number is also provided on the front page of BRS Website.

10.2 COMMUNICATIONS WITH REGULATORY AUTHORITIES

Communications with regulatory authorities, such as DPIE, EPA and Council shall occur on an as needs basis for the compliance with consent conditions and any other statutory instruments. All communications with regulatory authorities concerning environmental matters are to be noted and records of any subsequent actions appropriately filed.

A typical method of reporting would be monthly environmental reviews to include all environmental monitoring for the site during the operation stage. Records and documentation resulting from the implementation of the WMP, such as inspection forms, records and community complaints should also be included in the monthly reporting.

Site management would also be required to report to regulatory authorities for any additional reporting and/or testing requirements requested. This will be established on an as needs basis, upon issue of a notice or a request.

10.3 INTERNAL COMMUNICATION

The site management is to establish simple yet effective communication channels for an effective implementation of the overall environmental management system. Typical methods of communication that may suit the size of the operation include meetings and notice boards and the use of toolbox sessions which are highly effective. Currently, the site management upholds an

existing internal communication strategy, and are also utilising verbal communication as the most effective method, given the size of the site and the proposed operational activities.

Document control and written communication would be necessary when new contractors or employees are trained, or changes are made to the WMP or any other matters that affect the holistic Environmental Management of the site during the operation stage.

11. REVIEW OF THE WMP AND CONTINUAL IMPROVEMENT

This section provides information associated with the review and continual improvement of the WMP during the operation stage of the development.

11.1 REVIEW OF THE WMP

The WMP should be reviewed by the Site Manager or another delegated employee who is trained appropriately to be able to undertake this task effectively and efficiently. The review should be conducted in consultation with the site supervisors as well as the contractors undertaking specific jobs to ensure that it accurately reflects the waste related activities when the review is conducted. The review should also be undertaken in consultation with the Department and the EPA, where relevant, to ensure that the WMP continues to meet the Development Consent requirements and the Department expectations.

The review of the WMP should be conducted as follows:

- At least once every year during the operation stage
- When it is considered necessary depending on certain changes such as changes in staffing arrangements that are relevant to the WMP, changes in waste suppliers that may have an impact on waste generating materials received on site and/or changes in waste related activities that may have the potential to impact on the WMP, or
- When requested by an Authority.

The revised WMP will be submitted to the Department for approval. BRS will implement the most recent version of the WMP approved by the Planning Secretary.

11.2 CONTINUAL IMPROVEMENT

Continual improvement of the WMP will be achieved by the continual evaluation of Operational Waste Environmental Management performance against environmental legislation, policies, statutory instruments and objectives for the purpose of identifying any opportunities for improvement.

The continual improvement process could occur at any time depending on certain circumstances such as changes in activities and/or staff arrangements.

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

12. TRAINING

BRS recognises that training and awareness are an integral part of the implementation of this Waste Management Plan.

BRS management would provide appropriate training to the Site Manager, if it is considered necessary, as it will all depend on his previous experiences with similar duties. The training would include the implementation and maintenance of the WMP to ensure that the Site Manager is competent and confident in carrying out the duties and responsibilities associated with the WMP.

In addition, the training would include a session on undertaking prompt action to manage the daily activities in the case that feedback was provided, an enquiry was made, or a complaint was received. The prompt action is required to ensure that any potential impact on human health or the environment is minimised.

It is essential that the site management thoroughly understands the contents of this WMP and be competent in the objectives, consent conditions, applicable legislation, the environmental aspects and impacts of all waste related activities and the procedures.

Therefore, site management will determine the level of competency necessary for staff and contractors coming to site to ensure their environmental objectives and statutory responsibilities are met.

Training will need to be assessed on a periodic basis for staff while contractors would be assessed on a job-by-job basis. All relevant procedures should be discussed until a level of understanding has been reached and a degree of competency has been demonstrated by the staff member or contractor involved to the site operator's satisfaction.

Shortfalls could be addressed by specific on-site training. Updates and reviews should also be conducted in the case of complaints or after any changes in the WMP such as a change in management, procedures, site operations or legislation.

It should be noted that most current BRS employees have undertaken work-related training at different levels and different aspects depending on their roles and responsibilities.

In addition, five (5) employees have completed an Asbestos Awareness Training" to ensure that they are able to identify and manage asbestos if it is received unexpectedly.

13. LIMITATIONS

Our services for this report are carried out in accordance with our current professional standards for the preparation of Waste Management Plans. No guarantees are either expressed or implied.

This Waste Management Plan has been prepared solely for the use of Bulk Recovery Solutions Pty Ltd (BRS), as per our agreement for providing environmental services. Only BRS is entitled to rely upon the information provided in this report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

Although all due care has been taken in the preparation of this report, no warranty is given, nor liability accepted (except what otherwise is required by law) in relation to any of the information contained within this document. We accept no responsibility for the accuracy of any data or information provided to us by BRS for the purposes of preparing this report.

Any opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal advice.

14. REFERENCES

1. Protection of the Environment Operations Act 1997
2. Protection of the Environment Operations (General) Regulation 2009
3. Protection of the Environment Operations (Waste) Regulation 2014
4. Environmental Planning & Assessment Act 1979
5. Environmental Planning and Assessment Regulation 2000
6. Waste Avoidance and Resource Recovery Act, 2001
7. NSW Waste Avoidance and Resource Recovery Strategy 2014-2021
8. Environmentally Hazardous Chemicals Act, 1985
9. NSW Waste Classification Guidelines – Part 1: Classifying Waste 2014
10. NSW Waste Levy Guidelines – December 2018
11. Campbelltown Local Environmental Plan 2015
12. Campbelltown Development Control Plan 2015
13. Guideline for the Preparation of Environmental Management Plans published by the Department of Infrastructure, Planning and Natural Resources in 2004.

ATTACHMENTS

Attachment 1 – BRS Waste Related Workplace Inspection Procedure

BRS Waste Related Workplace Inspection Procedure

PROCEDURE NO. 211603.4

DATE: 01/08/2021

PREPARED BY: Environmental Risk Assessors Pty Ltd REVISION NO:1

SUBJECT: Waste Related Workplace Inspection Procedure

1. PURPOSE

The purpose of this procedure is to set out the process relating to Workplace Inspections of Bulk Recovery Solutions Pty Ltd Resource Recovery facility in relation to the operational waste related activities.

2. RESPONSIBILITIES

- Site Manager
- All staff and contractors of BRS
- Environmental Manager

3. REFERENCES

- Protection of the Environment Operations Act 1997 and Subordinate Regulations
- Environmental Planning and Assessment Act 1979 and Subordinate Regulations

4. DEFINITIONS

Workplace Inspections

Inspections conducted by the Site Manager, a delegated BRS employee or Environmental Manager using the environmental checklist provided to assess the housekeeping standards of the facility to ensure compliance with relevant Development Consent conditions and relevant legislation.

Environmental Harm

Any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution. (Ref: POEO Act).

Due Diligence

The systematic identification of the environmental risks and liabilities associated with the organisation's waste related activities.

5. PROCEDURE

- A sample Workplace Inspection Checklist is provided below to be completed and recorded **on a fortnightly basis**. This information is used to check compliance and ensure due diligence. It is also used to determine whether action must be taken to rectify any waste related activities that

have arisen and may have the potential to cause harm to the environment or human health. This checklist must be updated to correctly reflect specific site requirements when operational activities are modified.

- The Site Manager is responsible for ensuring that any actions required are implemented. The appropriate column of the checklist to indicate that these actions have been adequately undertaken is also the responsibility of the Site Manager or delegate/s.
- The Workplace Inspection must cover all active working areas including:
 - ▶ The incoming material loading, unloading, stockpiling and storage areas inside and outside the buildings,
 - ▶ External areas including car parking areas, roadways, stormwater drains and boundaries,
 - ▶ All management and mitigation measures implemented on site during the operation stage,
 - ▶ Waste storage areas, and
 - ▶ Office areas and amenities, if different from existing ones.
- The Workplace Inspection Checklist must be updated as required. Site management may prefer to update the checklist, so it is more specific to each area.

6. **RECORDS**

All records of Workplace Inspections and any corrective actions (if required) must be maintained at for at least six (6) years.

SUBJECT: WASTE RELATED WORKPLACE INSPECTION CHECKLIST

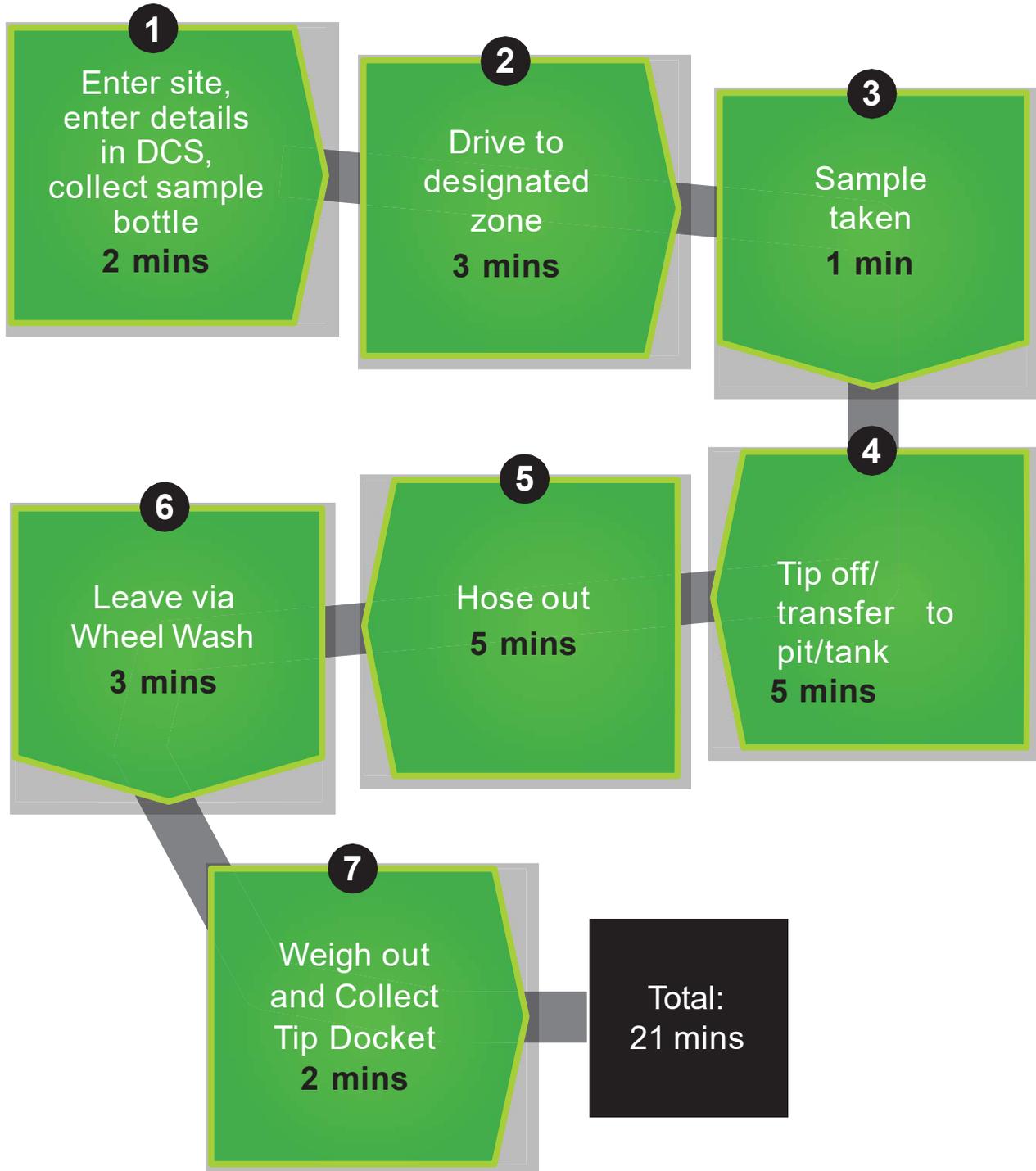
Area: _____		Date: _____	
ITEM CHECKED	YES	NO	DETAILS
Are all staff trained in the activities' management awareness?			
Is there any excessive or unusual dust present?			
Is all waste stored appropriately to minimise harm to human health or the environment?			
Are all erosion and sediment controls in place and well maintained?			
Are all areas well managed to prevent the generation of dust?			
Is any environmental documentation missing from display – signage, policy, emergency plan, MSDS register etc.?			
Is any firefighting equipment missing, blocked from easy access or not been serviced in the past 6 months?			
Are safety signs visible and in good condition?			
Are any containers or items not in the correct location?			
Do the active working areas appear to be well managed and in normal working order?			
Inspect all management and mitigation measures implemented on site during the operation stage			

Attachment 2 – BRS Waste Related Processes and Procedures



TIPPING PROCEDURE STORMWATER / GROUNDWATER

Classification report required prior to tipping.



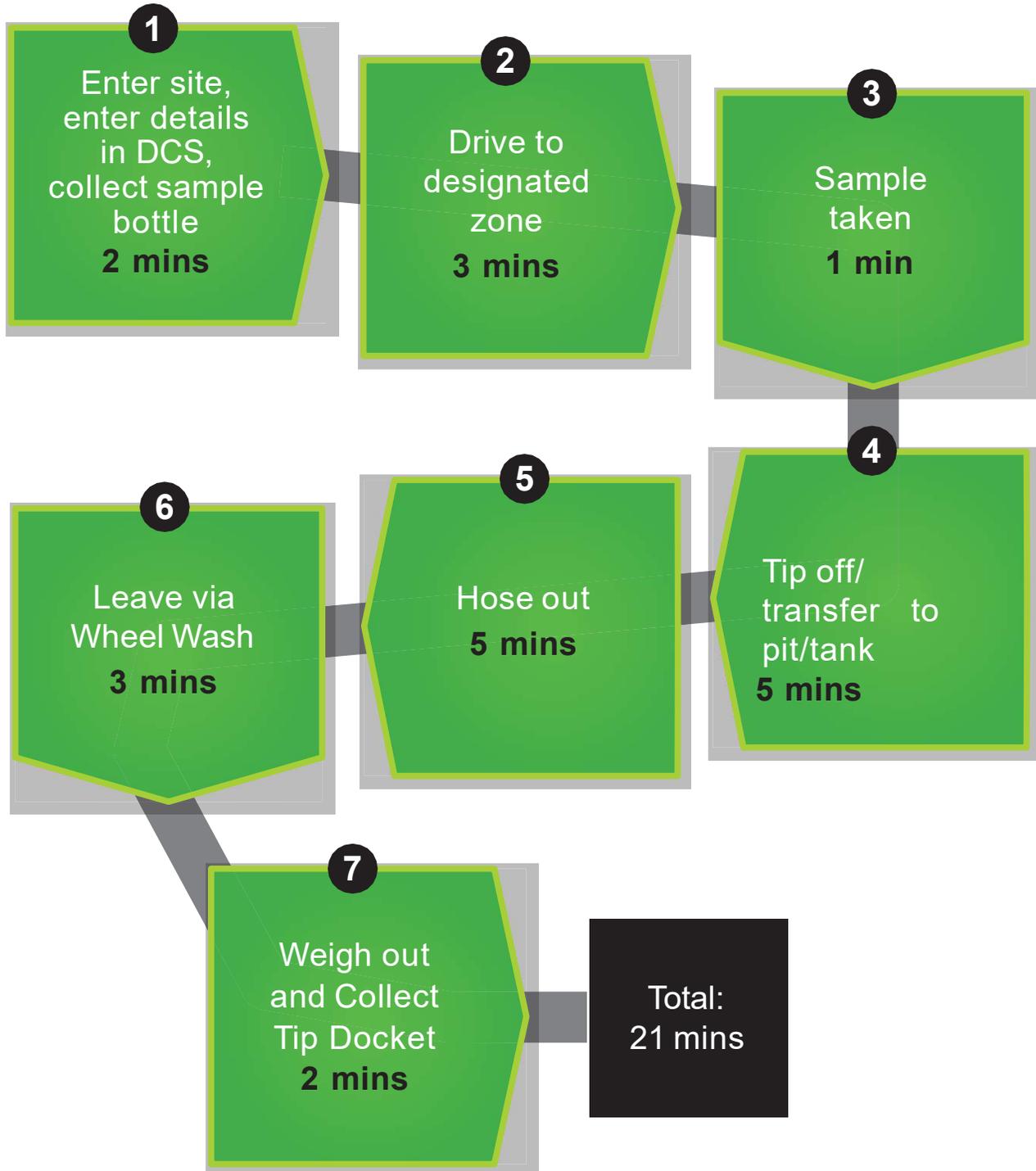
This is based on 10 tonne Vac Truck loads for Liquids.
20 Tonne Tankers will take approximately 26-27 minutes.



TIPPING PROCEDURE

DRILL MUD / NDD / CEMENT SLURRY

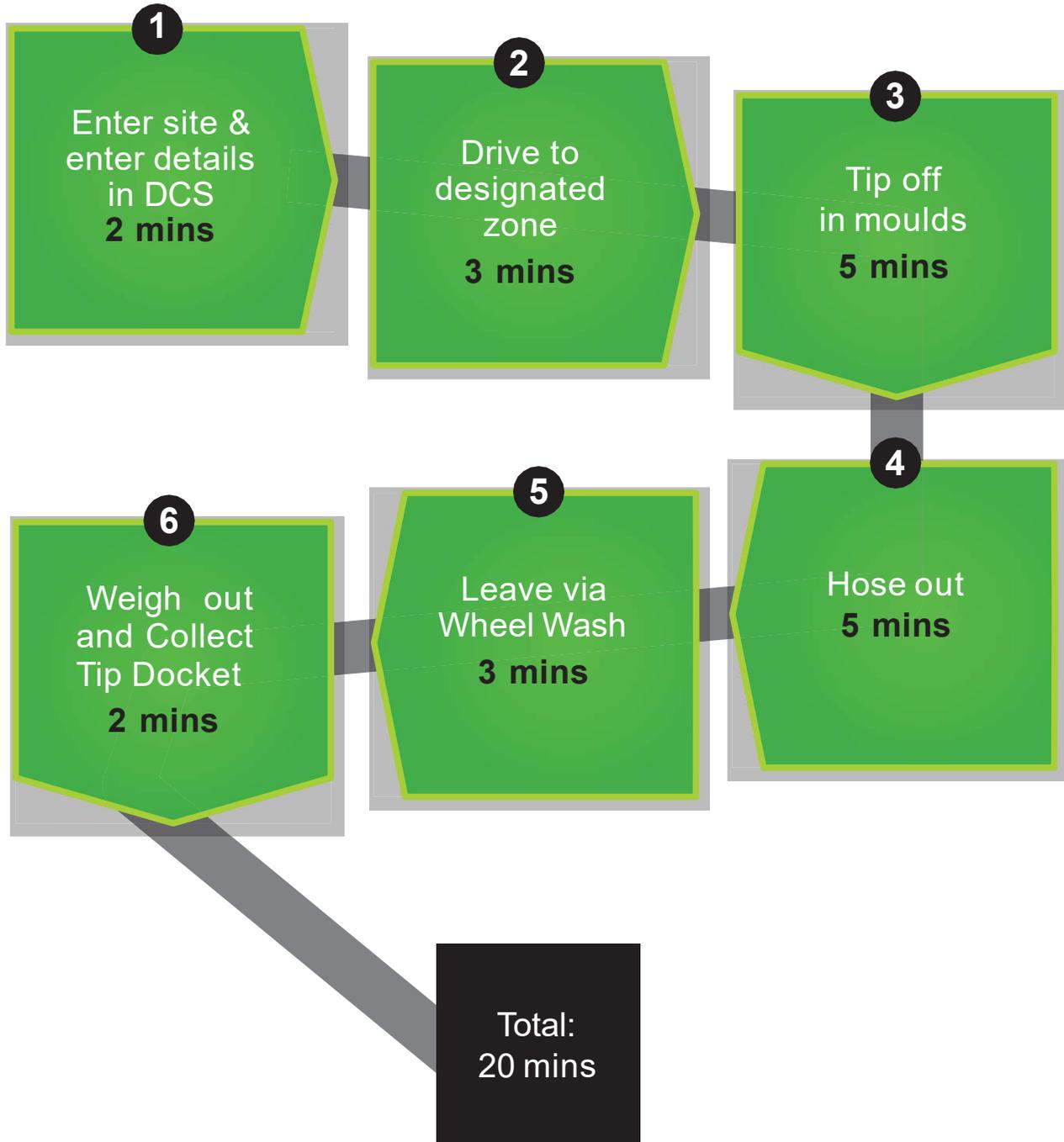
Classification report required prior to tipping.



This is based on 10 tonne Vac Truck loads for Liquids.
20 Tonne Tankers will take approximately 26-27 minutes.



TIPPING PROCEDURE CEMENT AGITATOR TRUCKS

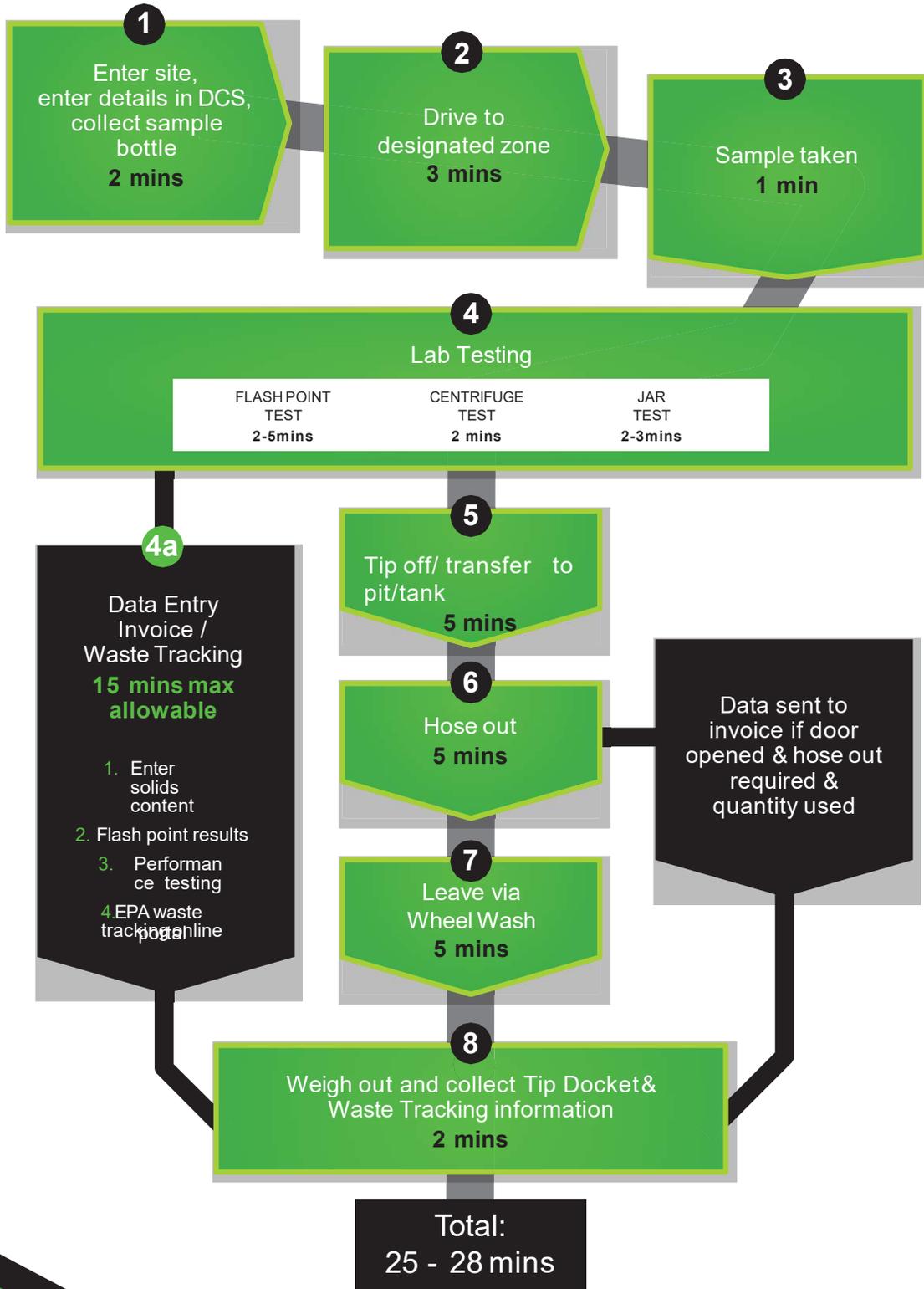




TIPPING PROCEDURE

J120 / FIREWATER

Classification report required prior to tipping.

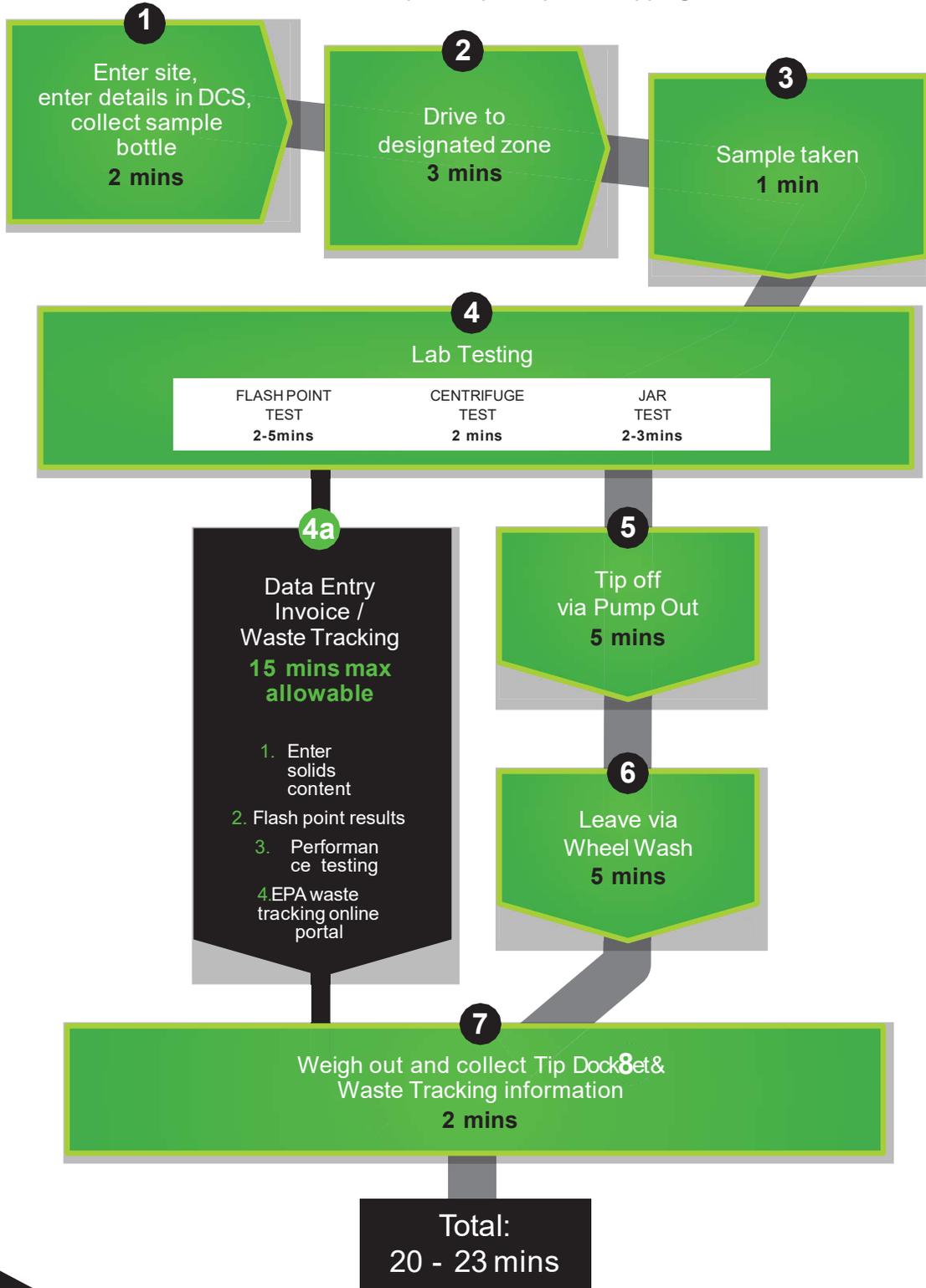




TIPPING PROCEDURE

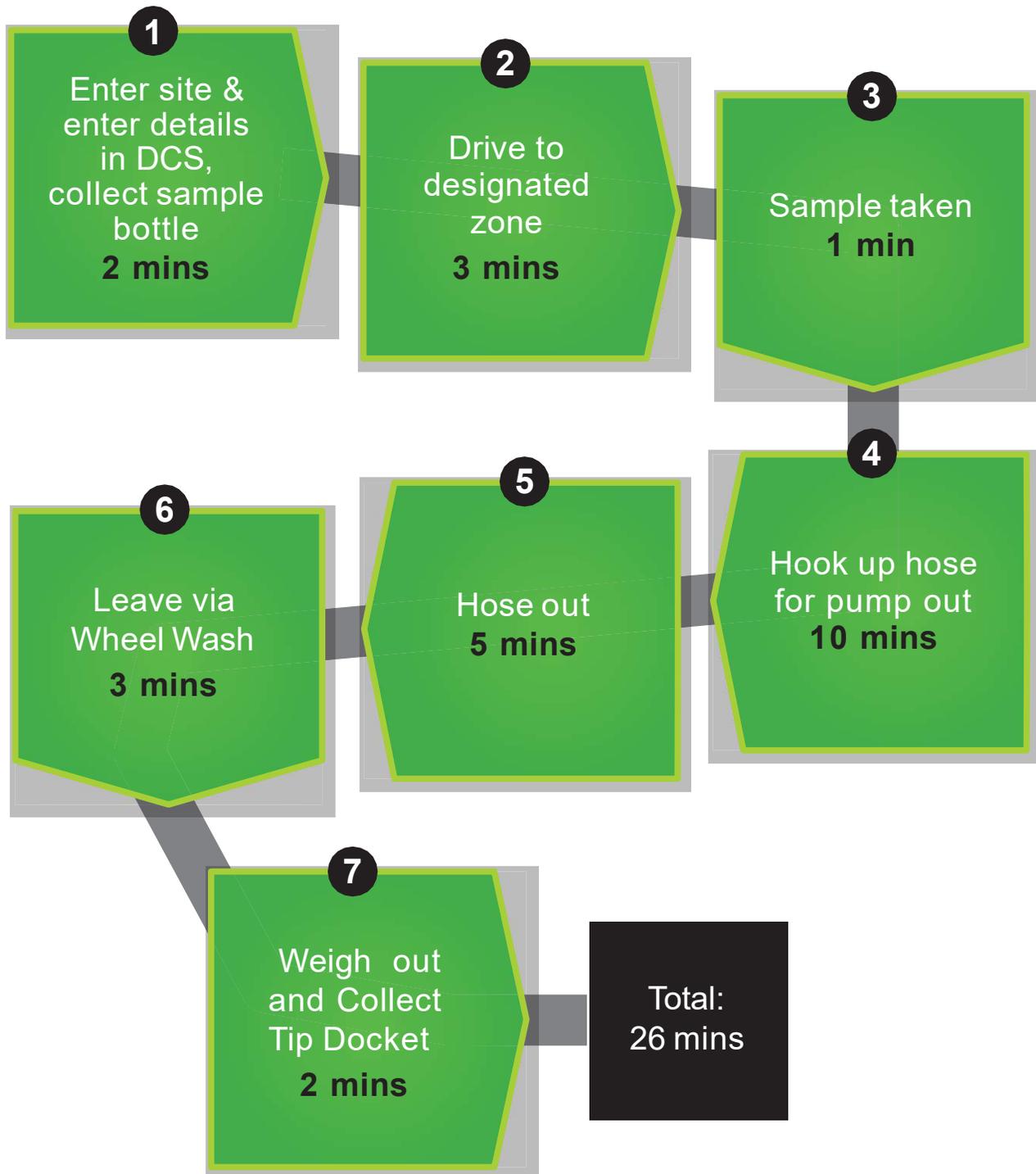
A100 / B100 / C100 / N140 / Z180 / M250

Classification report required prior to tipping.





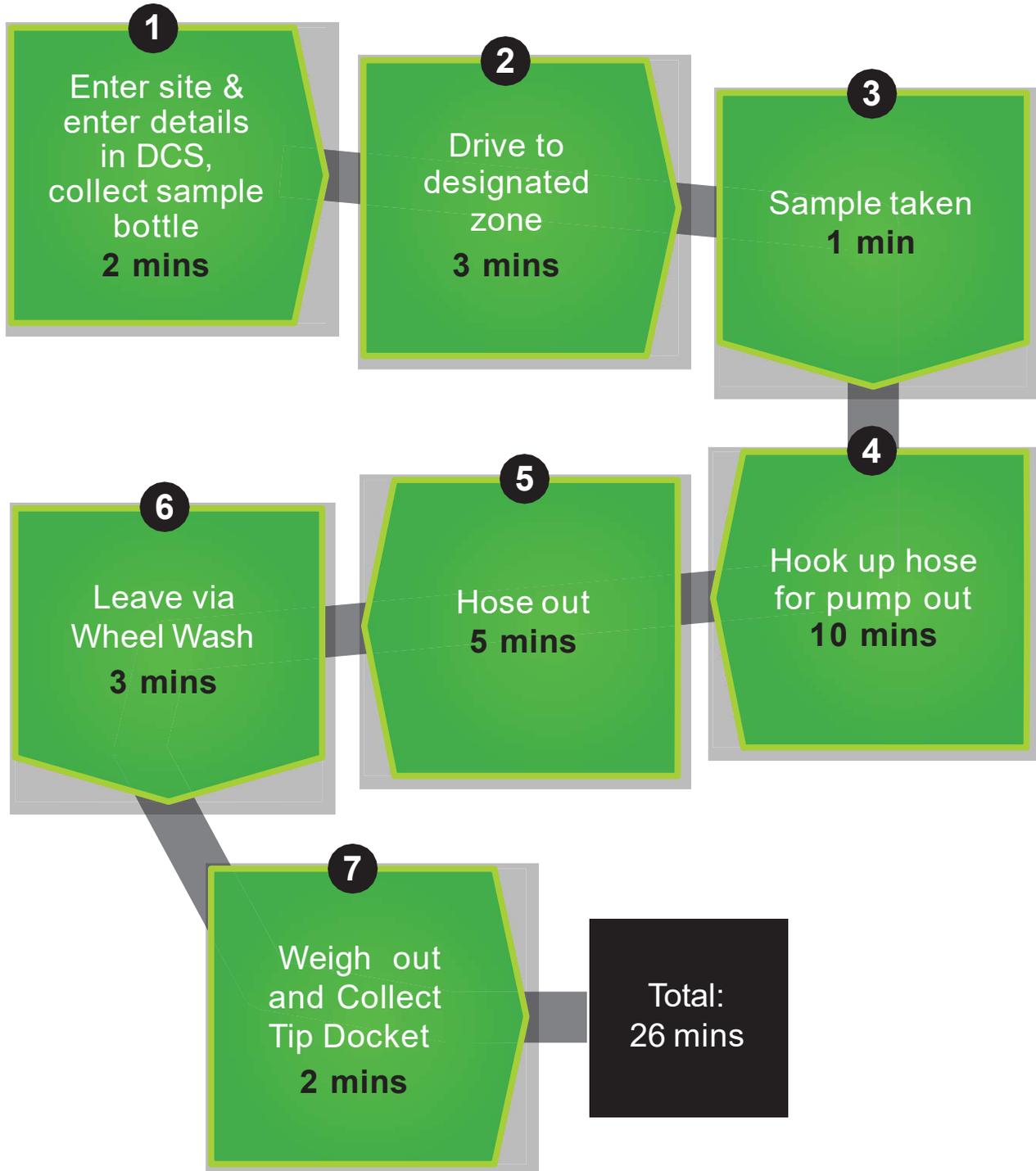
TIPPING PROCEDURE SEWER WASTE





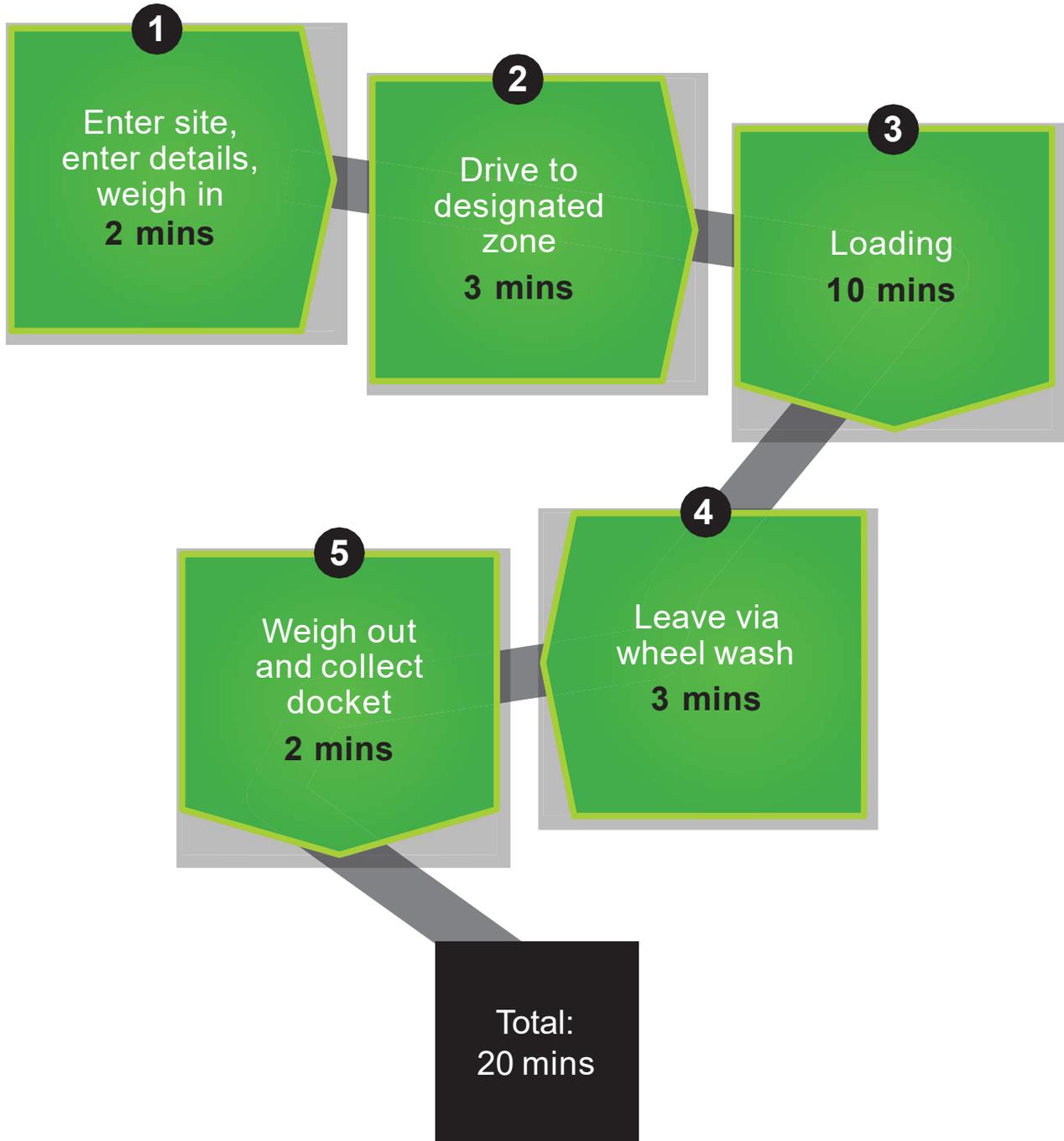
TIPPING PROCEDURE LEACHATE

Classification report required prior to tipping.





MATERIAL PICK UP PROCEDURES



Oily Water Process

The Oily Water Process includes the following liquid waste classifications:

1. Oily waters J120,
2. Waste oil / hydrocarbons,
3. Industrial wastewater, and
4. Groundwater (including M250, J100, N160, N250, F100).

The above wastes received on the site largely originates from industrial wastewater and generally consists of non-putrescible materials.

Solids are suspended in water. Due to the nature of the waste and varying qualities to be received, the process required is a multi-level approach which requires complex planning and processing. The system has the ability to process in both batch and continuous process. This document should be read in conjunction with the flow diagram including technical and simplified flow with plant i.d. numbers. The flow diagram is presented in drawing No **BRSL-001R6**.

The process works in the way outlined below.

Plant i.d. number 1050

In this part of the process the vacuum truck reverses into position suitable so that the connection point on the rear of vacuum truck and a flexible hose is able to be connected. The operator once connection point is confirmed then opens his valve and the valve on plant automatically will open accepting liquid and solid waste into 4" hose. The liquid and solid waste are screened through an in-line filter and pumped into a further part of the plant to holding tank JMT4 within plant i.d. 1052.

The liquid received in this part of the process is mostly liquid with minimum solids content, emulsions, etc.....

Plant i.d. number 1051

In this part of the plant is where the touch screen and operator interface are kept. Operators will key in their main docket number and cross references with flash point testing as well as flow meter for water used during the cleaning process. If liquids have not been tested, then pumps and process does not start as it is all interlocked to BRS processing quality system.

Once all waters have been decanted and pumped to plant i.d. No 1052, the system lights flash and sends signal to operator to check and remove hoses.

Plant i.d. number 1052

In this plant there is tank JMT4 which is the main holding and feeding tank. JMT4 is a buffer tank as well as a recirculation tank for the whole plant. Liquid waste is although processed through various parts of the plant, it comes back to this point again for many reasons but ultimately if it is not meeting discharge or re-use requirements.

This tank accepts main infeed liquids from vac truck receivable i.d. plant 1050, water by-products from receiving plants with i.d. 1055, 1056, 1057, 1058.

Plant i.d. number 1053

The tanks number JMT1 & JMT2 are tanks used for pre-conditioning of the liquids. These can be used in a batch process or continuous process alternating between filling and decanting and feeding to the DAF plant i.d. 1055. These tanks are the separation between bulk sludge, oils, and underflow.

These tanks have optional inputs to chemically treat product prior to progressing further in the process.

Plant i.d. number 1054

This is the chemical dosing component of the plant to separate contaminants from the liquids.

There are four chemical dosing systems for Ph adjustment, flocculation and coagulation as required. These systems are in a bunded area which feed to JMT1 and JMT2 with plant i.d. No 1053 as well as for continuous feed to the DAF plant i.d. 1055 and plant i.d. No 1056 which includes the sludge screw press.

Plant i.d. number 1055

This plant is a key component in processing all liquid waste going through the plant. The name of this plant is a DAF with stands for Dissolved Air Flootation. This process chemically treats the waste fed from JMT1 and JMT2 within plant i.d. No 1053. The DAF breaks the product down to three main components:

1. Underflow which is the clean treated water. This is then fed into plant i.d. No 1059 which is the polished clean water,
2. Sludge which drops to the bottom of the DAF and is fed to plant i.d. No 1056,
3. Floated effluent which is also fed back into plant i.d. No 1056.

Plant i.d. number 1056

This part of the process takes sludge from plant i.d. No 1053 and plant i.d. No 1055. This sludge is from the process and it is designed to take liquid waste and process it into a spadable product. This product is then tested and sent to a suitably licensed facility. All liquid coming from the process is resent back to plant i.d. No 1052 for re-processing.

Plant i.d. number 1057

This part of the plant is the oily water separator. This separator, as its name implies, separates water from oil in the last stage to refine to a higher quality oil. This separation process gets oil to a standard where there is beneficial re-use for the product. This is then tested and re-sold to oil recycling facilities for further refinement. The disposal of this liquid is to EPA approved and licensed facilities to accept such waste product.

All water is fed back into the closed loop system within the plant i.d. No 1052 for recirculation and processing.

Plant i.d. number 1058

This part of the process is the solids and sludge process. This process is designed to make liquid waste solids non spadable into a spadable product by adding additives to thicken and dry moisture content. It consists of a tip hopper, auger feeding, a cement hopper, mixing hopper and sludge storage hopper.

Plant i.d. number 1059

These are storage tanks which accept treated water from the process. These tanks hold the clean processed water, and they are the final holding point and last testing point. This liquid is then tested and graded to test if processes water meets either beneficial re-use on site, for export off site for other processes or suitable for disposal to Sydney Water sewer network.

Plant i.d. number 1060

This is a polishing process and triple checks after testing process there are no contaminates in the water, a police press is used as an option when either sending to sewer or for beneficial re-use on site. If it is for re-use, the system diverts the water to plant i.d. 1061. The flowmeter is trade certified and carries a Sydney Water consent to discharge under consent number 51065.

Plant i.d. number 1061

All water has been processed, tested and polished once coming to these tanks. These tanks are designed to link to tankers, water trucks and/or re-use on site. This is the highest quality water.

Sewer Waste Process

The sewer waste received on the site largely originates from Sydney Water and generally consists of non-putrescible solids suspended in water.

Due to the limited nature of the waste to be received, the process required is a simple screening of the suspended solids through a multi-level screen which separates solids and liquids. The Plan titled **BRSL-003R1** to be read in conjunction with the description presented below.

The process works in the following way.

Plant i.d. number 1000:

In this part of the process the vacuum truck reverses into position suitable so that the connection point on the rear of vacuum truck and a flexible hose is able to be connected. The operator once connection point is confirmed opens his valve and the valve on plant automatically will open accepting liquid and solid waste into 4" hose. The liquid and solid wastes are split into three parts:

1. Solid waste which is waste greater than 8mm - this waste is conveyed up an auger and washed through its travel up auger and dropped into a bin as labelled coarse. This coarse material is all landfill material and typically consists of rags, rocks, sticks and other similar waste materials.
2. Solid fine sands and silts less than 8mm in size and typically sands, fine gravels and silts - this material travels through the first screen and typically floats with the water due to the resonance time in suspension and heavier than water, the material drops out of suspension and into cross augers which feed into bin labelled fine sands silts bin. The material from this position is tested in accordance with EPA's procedures. If the material is suitable for recovery it is reused after testing occurs alternatively sent to an appropriately approved and licensed landfill.
3. Liquid waste is then transferred from plant i.d. 1000 to plant i.d. 1001. These liquids are already processed having all solids removed and sent to storage.

Plant i.d. number 1001:

In this part of the process the material has been sent from plant i.d. 1000 - this is post treatment - the liquid material in this area i.d.1001 are storage tanks. These storage tanks hold the liquid waste for testing prior to being released to sewer.

Each tank is on a measuring device called loadcells. These measuring devices give level of each of the tanks.

Once testing has occurred and material is suitable for release to sewer then a valve is opened at the bottom of each tank and liquid flows through a flow meter to the Sydney Water discharge system through to Glenfield STP.

The discharge process is licensed through Sydney water with a consent to discharge through conditional consent number 50996.

As there is air displaced and replaced with the filling and discharge, a carbon filter system is used for the filtering and cleaning of air during filling and emptying of the tanks.

Plant i.d. number 1002:

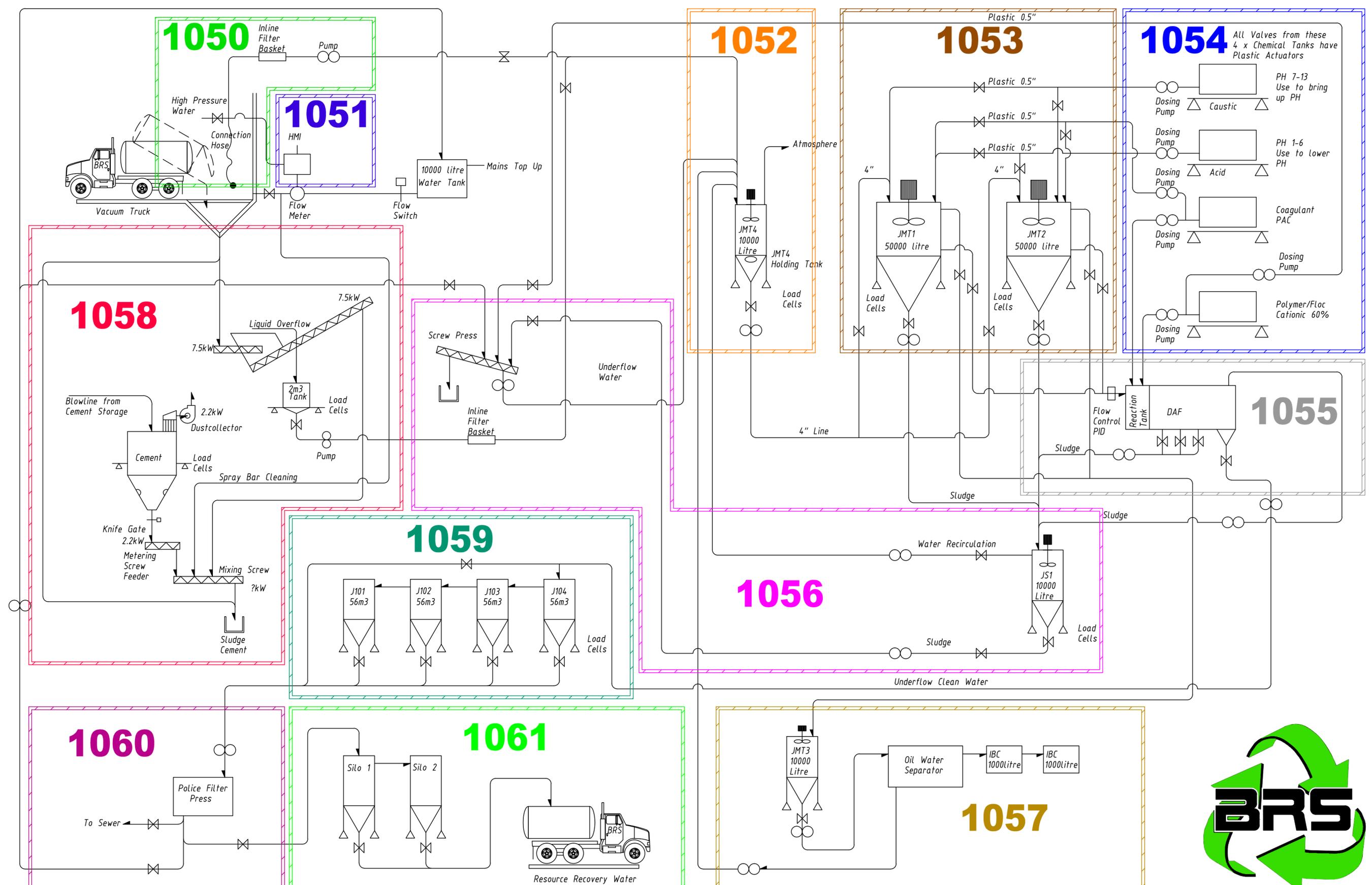
In this part of the process once vac truck has completed discharging all of the waste material, to clean any residual sand and soils out of rear of vac truck the hose is disconnected and rear door of vac truck is opened. A freshwater hose is used to clean any remaining residue out of rear of vac truck. The vac truck once cleaned out is suitable for re-use. All residues are collected and conveyed via augers and pumps into trommel screen.

The liquid and solid waste are split into three parts as described below.

1. Solids waste is waste greater than 4mm - this waste is conveyed along the trommel internally which is semi immersed in water and product is cleaned as it is conveyed. Once at the end of the trommel the solids are dropped into a bin as labelled coarse greater than 4mm. This coarse material is all landfill material and typically consists of rags, rocks, sticks and similar waste materials

2. Solids fine sands and silts less than 4mm in size and typically sands, fine gravels and silts - this material travels through the trommel and drops through the holes. This material is agitated and an anti-clockwise auger on outside of trommel is used to convey materials back to buckets which grab the fine material and pick it up and drop onto screen labelled es601 screen. This screen de-waters any remaining residue and vibrates solids fine into a bin labelled fine sands / silt. The material from this position is tested in accordance with EPA's procedures. If the material is suitable for recovery it is reused after testing occurs alternatively it is sent to an appropriately approved and licensed landfill.

3. Liquids waste is then gravity fed from trommel back to plant i.d. 1000 and then to plant i.d. 1001. These liquids are already processed having all solids removed and sent to storage.



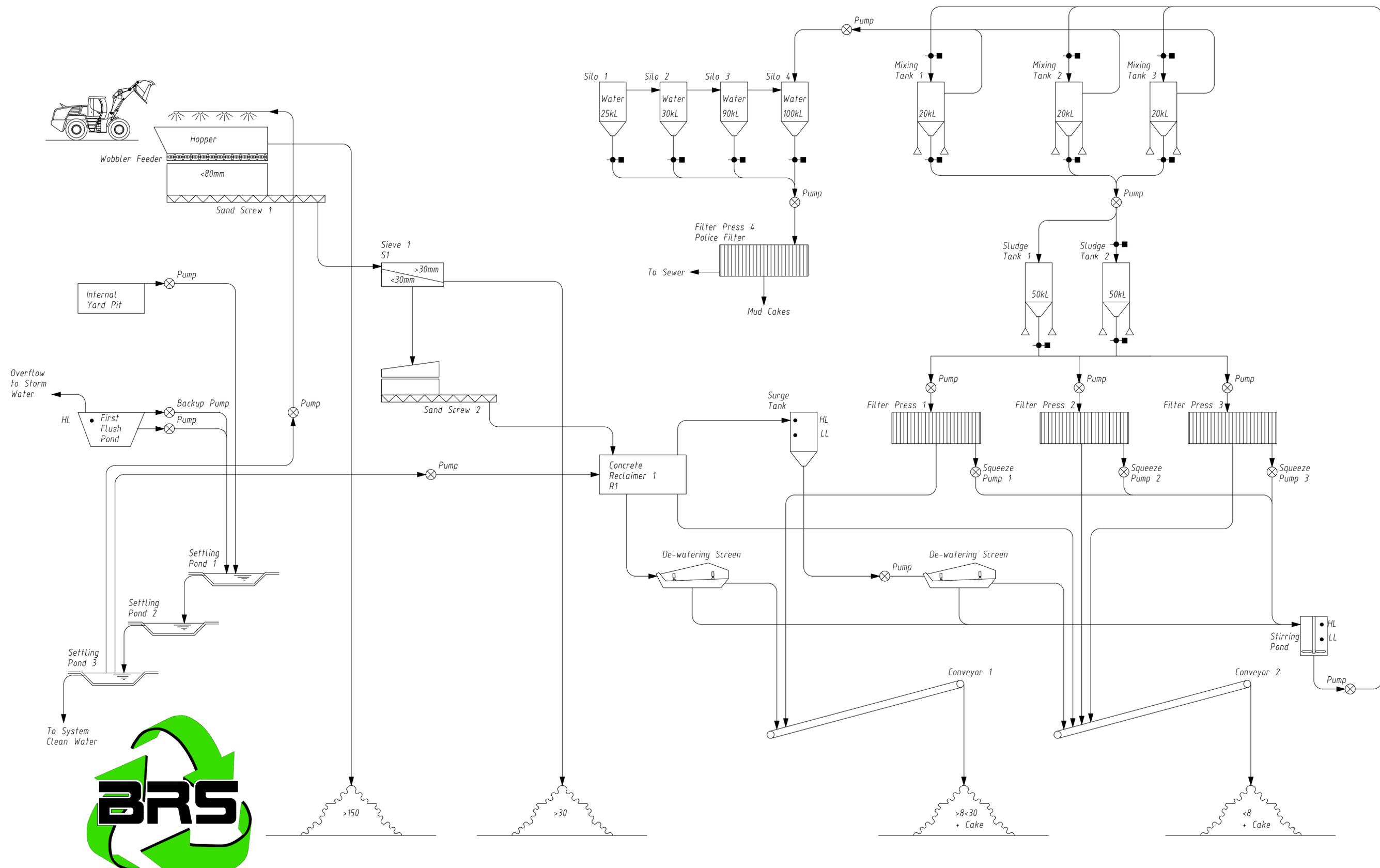
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues		Date	By	Appr
Revision	Amendment			
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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www.awe.com.au Phone: 1300 044 044

Client	Bulk Recovery Solutions, Ingleburn, NSW	Drawn By	AA
Checked By		Scale	1:1 (A1 Sheet)
Title	Plant Flow Diagram	Date	23-03-21
Drawing Number and Revision	BRSLS-001R6	This drawing is the property of Armstrong Design, and must not be copied or disclosed to third parties except with the written permission of Armstrong Design.	



Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues		Date	By	Appr
Revision	Amendment			
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				



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Client	Bulk Recovery Solutions, Ingleburn, NSW	Drawn By	AA
Checked By	TB	Scale	1:1 (A1 Sheet)
Title	NDD, Mud, Cement Slurry Flow Diagram	Date	08-04-21
Drawing Number and Revision	BRSLS-004	This drawing is the property of Armstrong Design, and must not be copied or disclosed to third parties except with the written permission of Armstrong Design.	

**Attachment 4 – BRS SSD8593 OEMP – Operational Workplace Inspection
Procedures**

BRS Operational Workplace Inspection Procedure

PROCEDURE NO. 211603.5

DATE: 11/08/2021

PREPARED BY: Environmental Risk Assessors Pty Ltd REVISION NO:1

SUBJECT: Operational Workplace Inspection Procedure

1. PURPOSE

The purpose of this procedure is to set out the process relating to Workplace Inspections of Bulk Recovery Solutions Pty Ltd Resource Recovery facility in relation to the operational activities.

2. RESPONSIBILITIES

- Site Manager
- All staff and contractors of BRS
- Environmental Manager

3. REFERENCES

- Protection of the Environment Operations Act 1997 and Subordinate Regulations
- Environmental Planning and Assessment Act 1979 and Subordinate Regulations
- Work Health & Safety Act 2011 and Subordinate Regulations

4. DEFINITIONS

Workplace Inspections

Inspections conducted by the Site Manager, a delegated BRS employee or Environmental Manager using the environmental checklist provided to assess the housekeeping standards of the facility to ensure compliance with relevant Development Consent conditions and relevant legislation.

Environmental Harm

Any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution. (Ref: POEO Act).

Due Diligence

The systematic identification of the environmental risks and liabilities associated with the organisation's operational activities.

5. PROCEDURE

- A sample Workplace Inspection Checklist is provided below to be completed and recorded **on a fortnightly basis**. This information is used to check compliance and ensure due diligence. It is also used to determine whether action must be taken to rectify any operational related activities

that have arisen and may have the potential to cause harm to the environment or human health. This checklist must be updated to correctly reflect specific site requirements when operational activities are modified.

- The Site Manager is responsible for ensuring that any actions required are implemented. The appropriate column of the checklist to indicate that these actions have been adequately undertaken is also the responsibility of the Site Manager or delegate/s.
- The Workplace Inspection must cover all active working areas including:
 - ▶ The incoming material loading, unloading, stockpiling and storage areas inside and outside the buildings,
 - ▶ External areas including car parking areas, roadways, stormwater drains and boundaries,
 - ▶ All management and mitigation measures implemented on site during the operation stage,
 - ▶ Waste storage areas, and
 - ▶ Office areas and amenities, if different from existing ones.
- The Operational Workplace Inspection Checklist must be updated as required. Site management may prefer to update the checklist, so it is more specific to each area.

6. **RECORDS**

All records of Workplace Inspections and any corrective actions (if required) must be maintained for at least six (6) years.

SUBJECT: OPERATIONAL WORKPLACE INSPECTION CHECKLIST

Area: _____		Date: _____	
ITEM CHECKED	YES	NO	DETAILS
Are all staff trained in the activities' management awareness?			
Is there any excessive or unusual dust present?			
Is all waste stored appropriately to minimise harm to human health or the environment?			
Are all erosion and sediment controls in place and well maintained?			
Are all areas well managed to prevent the generation of dust?			
Is any environmental documentation missing from display – signage, policy, emergency plan, MSDS register etc.?			
Is any firefighting equipment missing, blocked from easy access, or not been serviced in the past 6 months?			
Are all spill kits well positioned and well maintained?			
Are safety signs visible and in good condition?			
Are any containers or items not in the correct location?			
Do the active working areas appear to be well managed and in normal working order?			
Are all stormwater drains cleaned and no excess sediments present?			
Are BRS mobile plant well maintained?			
Are all landscaped areas well maintained?			
Are the weighbridges operating correctly?			

Are all cameras operating correctly?			
Are there sufficient vacant car parking spaces for visitors/contractors?			
Is there an offensive noise that can be heard outside the boundaries of the site?			
Is there any offensive odour that can be detected outside the boundaries of the site?			
Are all lights directed downward and away from residential receivers?			
Is the road sweeper operating properly and in good order?			
Inspect all management and mitigation measures implemented on site during the operation stage			

Attachment 5 – BRS SSD8593 OEMP – Additional Operational Procedures

BRS Operational Complaints Handling Procedure

PROCEDURE NO. 211603.5

DATE: 11/08/2021

PREPARED BY: Environmental Risk Assessors Pty Ltd ISSUE NO: 2

SUBJECT: Operational Complaints Handling Procedure

The purpose of this procedure is to ensure that a “complaints oriented” process is in place to focus on the type, date, time and origin of the complaint, together with “feedback” to the complainant regarding (if appropriate) investigation of the complaint and any remedial action arising from the complaint.

Public complaints registers are to be maintained in a separate document titled “Complaints Register”.

1 Procedure

- Complete the Complaint Response Form. The following information is mandatory:
 - ▶ Name of complainant,
 - ▶ Location of complainant,
 - ▶ Date and time of complaint,
 - ▶ Weather conditions prevailing at the time of complaint,
 - ▶ Any process operations existing at the time of complaint, and
 - ▶ Telephone Number.
- Complaint investigated by site management or staff and action appropriate to the circumstances taken.
- Advise DPIE (and EPA), if required.

Depending on the seriousness of the complaint including its type, nature, impact, number of complainants, it must be acted on by BRS personnel accordingly. However, all complaints must be investigated within 24 hours from being received by BRS.

Appropriate actions may include, but not limited to the following:

- Investigation into the mobile plant movements during the period in question. If mobile plant movements were in breach of the Construction Environmental Management Plan, remedial action must be taken e.g. inform the vehicle driver(s) of the breach of site conditions and request compliance in the future.
- Where complaints relate to excessive dust emissions (or offensive noise):
 - ▶ Advise the complainant that investigation will be initiated immediately and ask the complainant to note the time and nature of the dust or noise when the issue reoccurs.
 - ▶ From the time the complaint is lodged, conduct regular weather monitoring (use The Site Climate Record form) so that upon reoccurrence of the issue, the weather conditions can be checked to confirm the likelihood of the dust (or noise) generated from site to cause the complaint.

- ▶ If the likelihood is high, appropriate tests/measurements at the location specified by the complainant as being the possible cause of the complaint (similar time of day) can be conducted. Compare results with previous tests/measurements (if available) and where an increase has occurred, further investigate sources, recommend remedial action for the preparation of an action plan to rectify the problem on a long-term basis.
- On completion of the Action Plan ensure that the complainant is fully informed of remedial measures and that the Complaint Register updated.

BRS – ENVIRONMENTAL COMPLAINT RESPONSE FORM

REF: 01

REV: 1

PAGE 1 OF 2

COMPLAINT REGISTER REFERENCE NO:

DATE: TIME:AM/PM

COMPLAINTS RECEIVED BY:

NAME OF COMPLAINANT: TELEPHONE NO:.....

ADDRESS:

DETAILS OF COMPLAINT:

DATE OF OCCURENCE: TIME AM/PM:

WEATHER DATA CHECK: Estimate weather conditions from observed Site Climate Records or Meteorological data from a relevant Bureau of Meteorology Station.

Where L/M/S = Low/Medium/Strong, and Wind direction is monitored on an 8 points scale of N, NE, E, SE, S, SW, W, NW.

External Temp °C	Rel. Humidity (%)	Wind Direction	Wind Speed L/M/S	Odour L/M/S	Equipment Condition

LOCATION OF THE EVENT:

PROCESS OPERATIONS AT TIME OF COMPLAINT

PARTICULAR DETAILS RELATING TO THE COMPLAINT:

.....

CORRECTIVE AND PREVENTATIVE ACTION:

COMPLAINT INVESTIGATED BY:

RESULTS OF INVESTIGATION:

.....
.....
.....
.....
.....
.....
.....

ON COMPLETION OF CORRECTIVE AND PREVENTATIVE ACTION:

LETTER SENT TO COMPLAINANT YES NO N/A DATE:

WORK PRACTICE MODIFIED YES NO N/A DATE:

COMPLAINT RESPONSE COMPLETED:

PRINT NAME

SIGNATURE:

DATE: TIME:AM/PM



Traffic Stacking and Queuing Procedure **Version 3 - March 2021**

This procedure is for the Stacking and Queuing of incoming Traffic into Bulk Recovery Solutions Pty Ltd (BRS) located at 16 Kerr Road, Ingleburn and it must be adhered to by all truck drivers transporting materials from and/or to the BRS site.

The BRS site is not open for the public in the meaning that no transport from and/or to the site will be accepted on an ad-hoc basis. On the contrary, all jobs are pre-booked through the operations office in coordination with the weighbridge operator prior to arrival to the site for tipping to assist in scheduling and avoid traffic congestion onsite at Kerr Rd.

Despite the pre-booking of all jobs, all drivers must call the weighbridge operator prior to entering the Ingleburn Industrial Estate. This will give the yard staff ample opportunity to provide feedback on whether there is room in the yard for an extra truck.

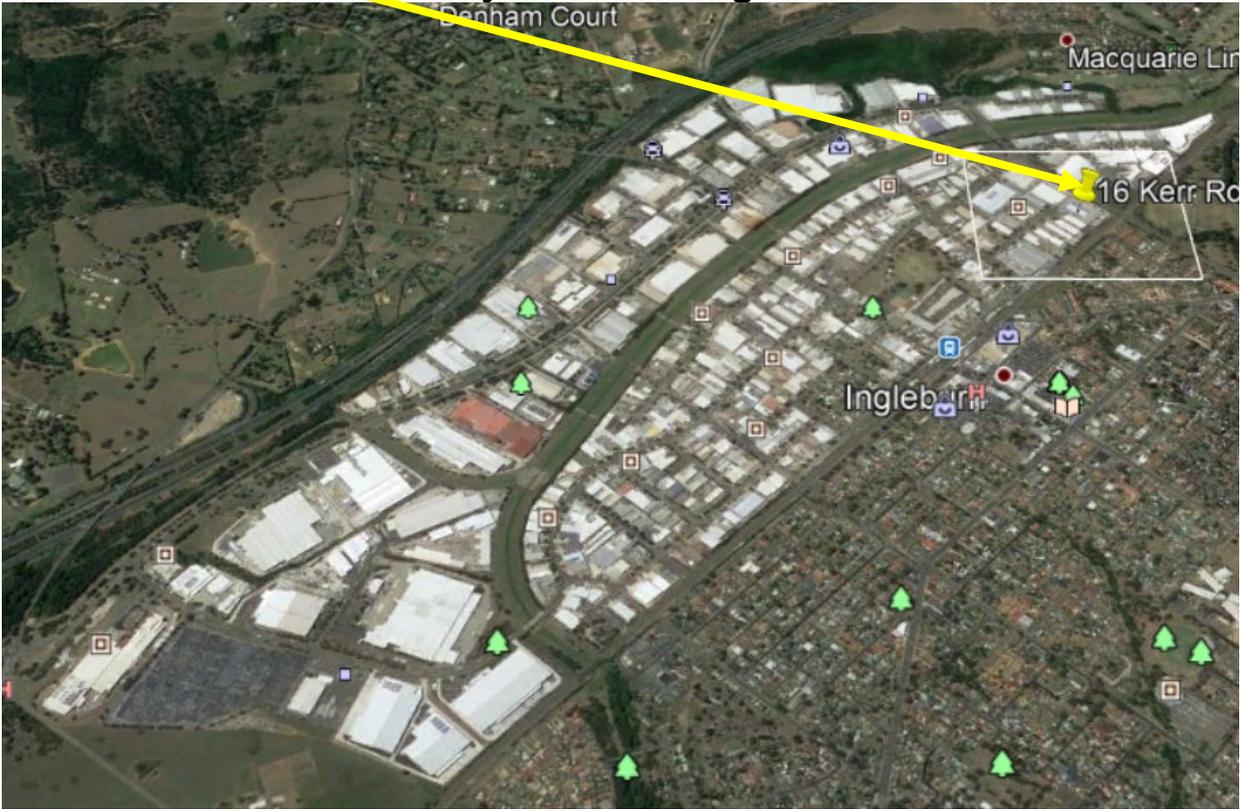
Based on this practice, there should be no queuing or stacking anywhere within or outside the site boundaries and the traffic flow should be smooth. However, if for unforeseen events such as breakdowns (trucks, machinery or equipment), trucks will be diverted to other lawfully licensed facilities that can accept such wastes.

If the yard is full and arriving trucks cannot be accommodated, truck drivers must wait away from the site for further instructions from the Weighbridge operator as to when they can come into the site. Drivers are to be on UHF Channel 10.

Truck drivers will be informed to avoid parking their vehicles in any of the streets in the vicinity of the BRS site and preferable in dedicated trucks parking/stopping bays to assist in smooth traffic flow and avoid traffic congestion within the Ingleburn Industrial Estate.

Note: A copy of this procedure will be sent to all parties as part of booking the jobs with BRS.

Location of BRS Facility within the Ingleburn Industrial Estate

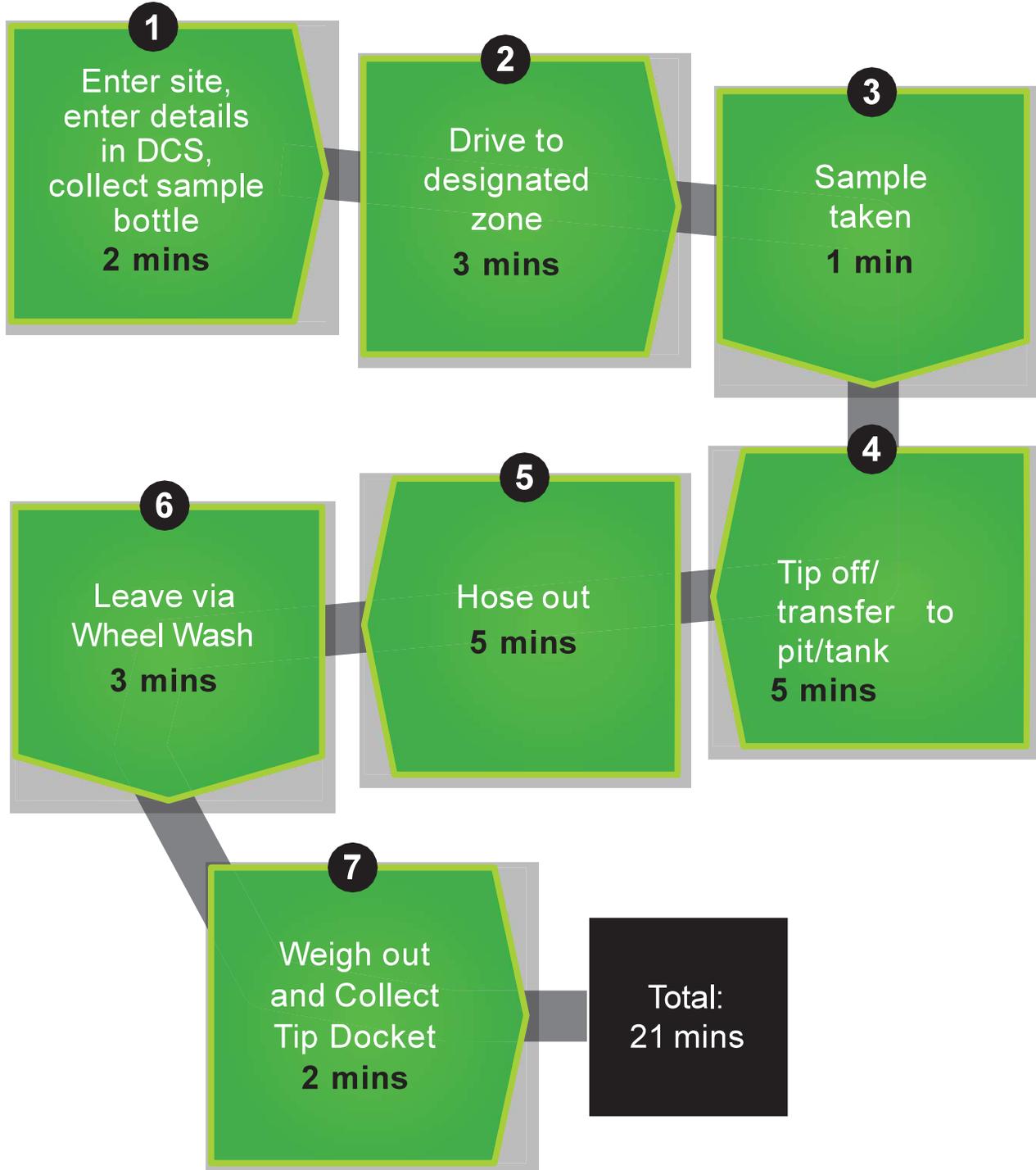




TIPPING PROCEDURE

STORMWATER / GROUNDWATER

Classification report required prior to tipping.



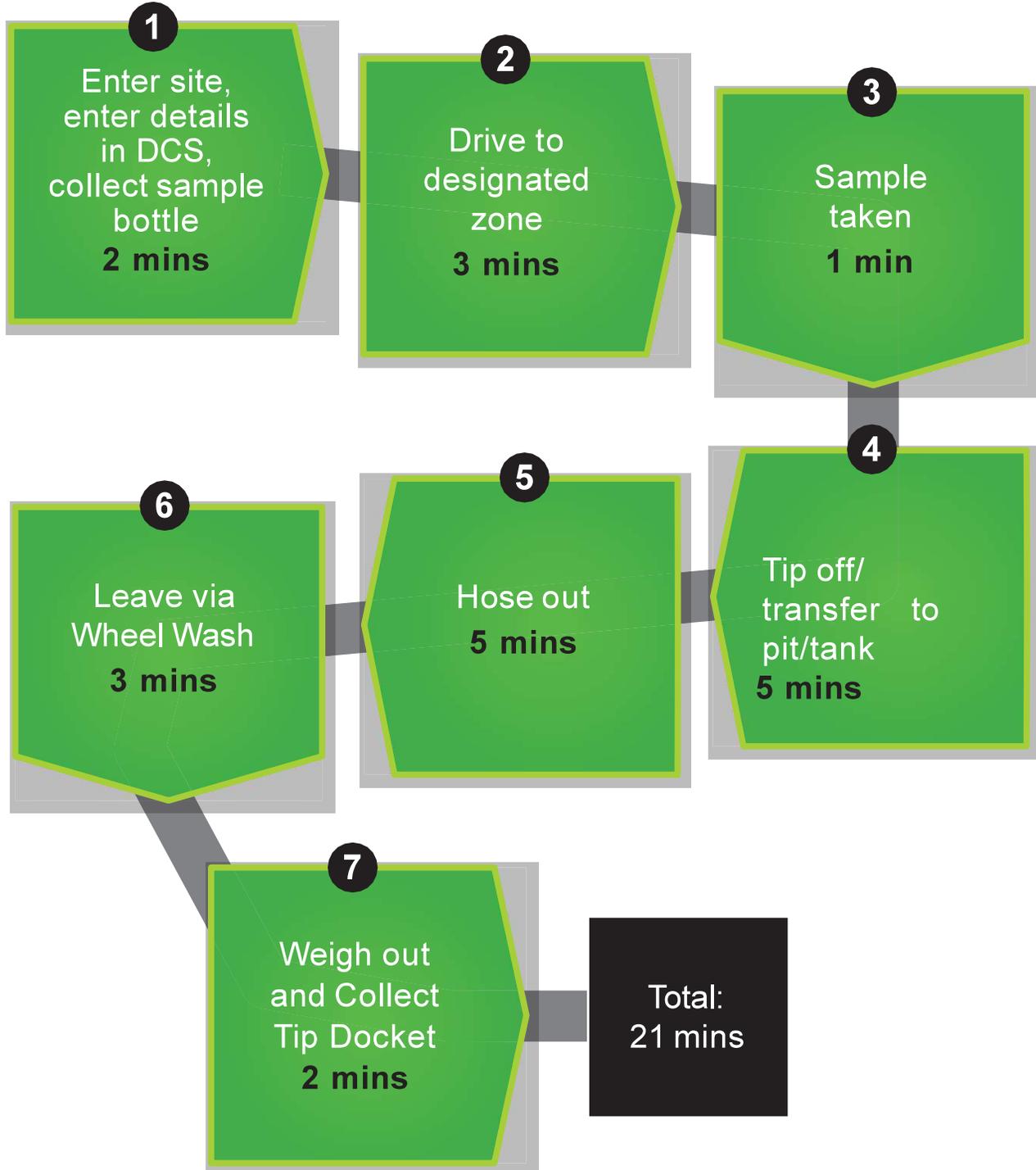
This is based on 10 tonne Vac Truck loads for Liquids.
20 Tonne Tankers will take approximately 26-27 minutes.



TIPPING PROCEDURE

DRILL MUD / NDD / CEMENT SLURRY

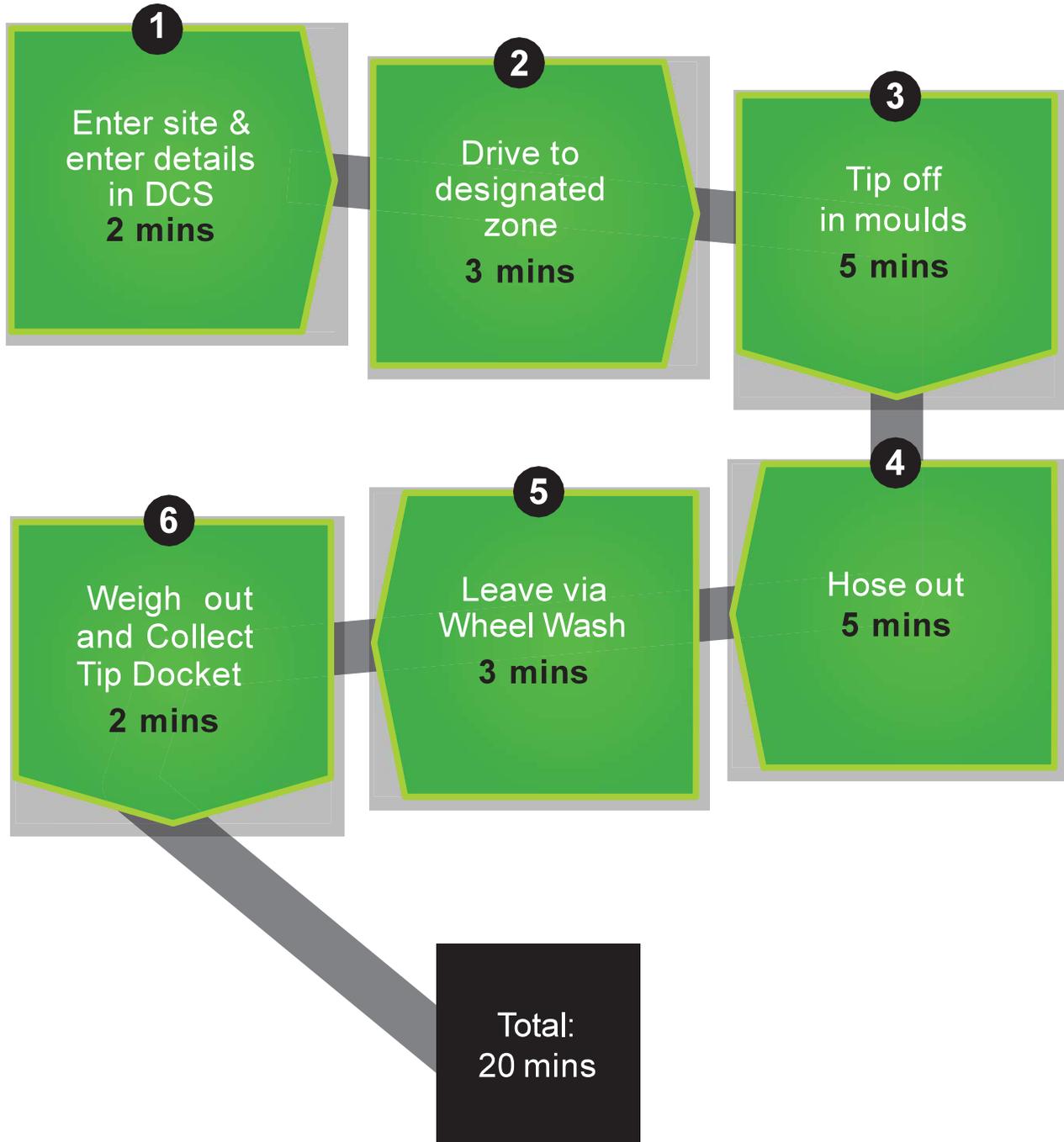
Classification report required prior to tipping.



This is based on 10 tonne Vac Truck loads for Liquids.
20 Tonne Tankers will take approximately 26-27 minutes.



TIPPING PROCEDURE CEMENT AGITATOR TRUCKS

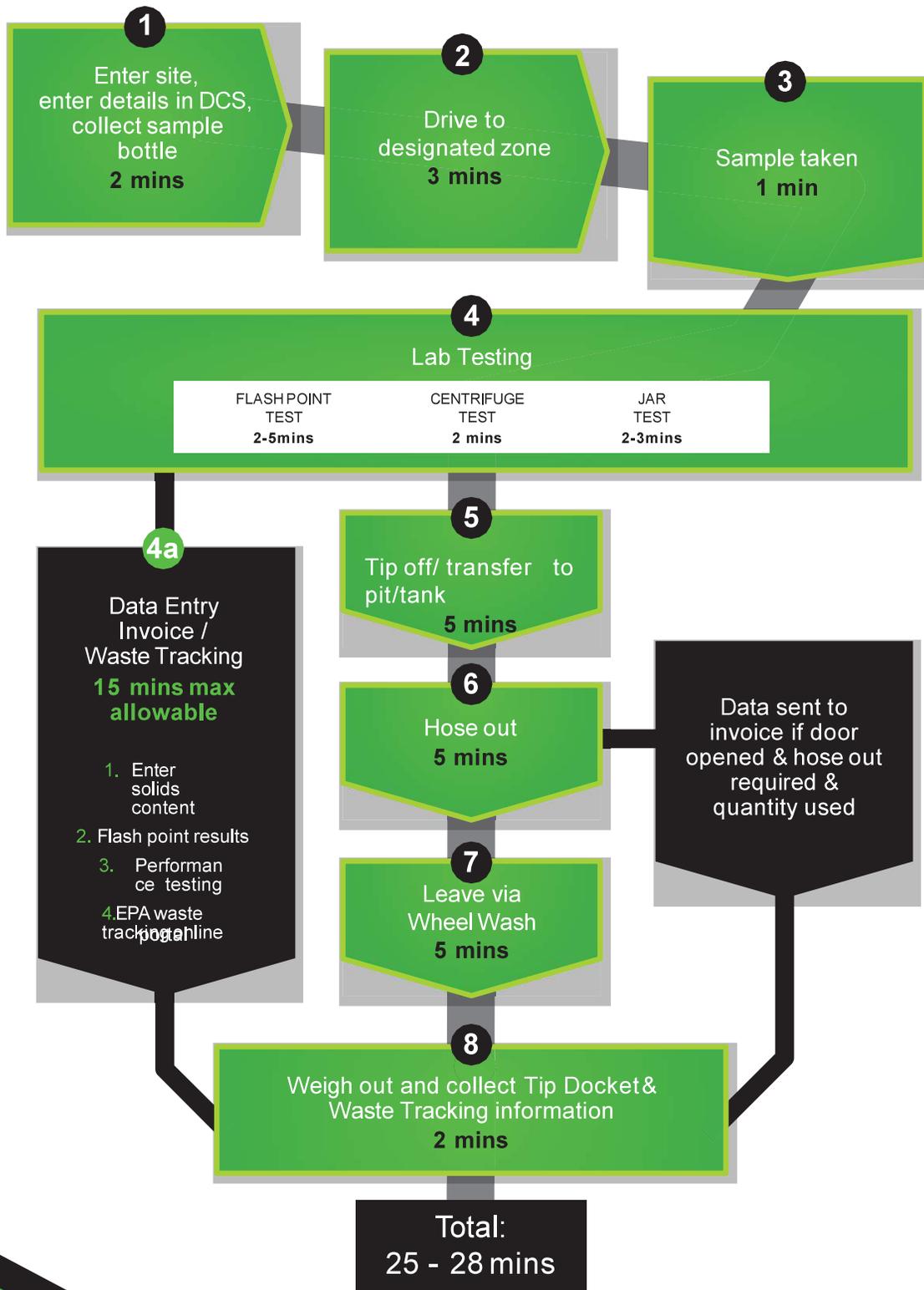




TIPPING PROCEDURE

J120 / FIREWATER

Classification report required prior to tipping.

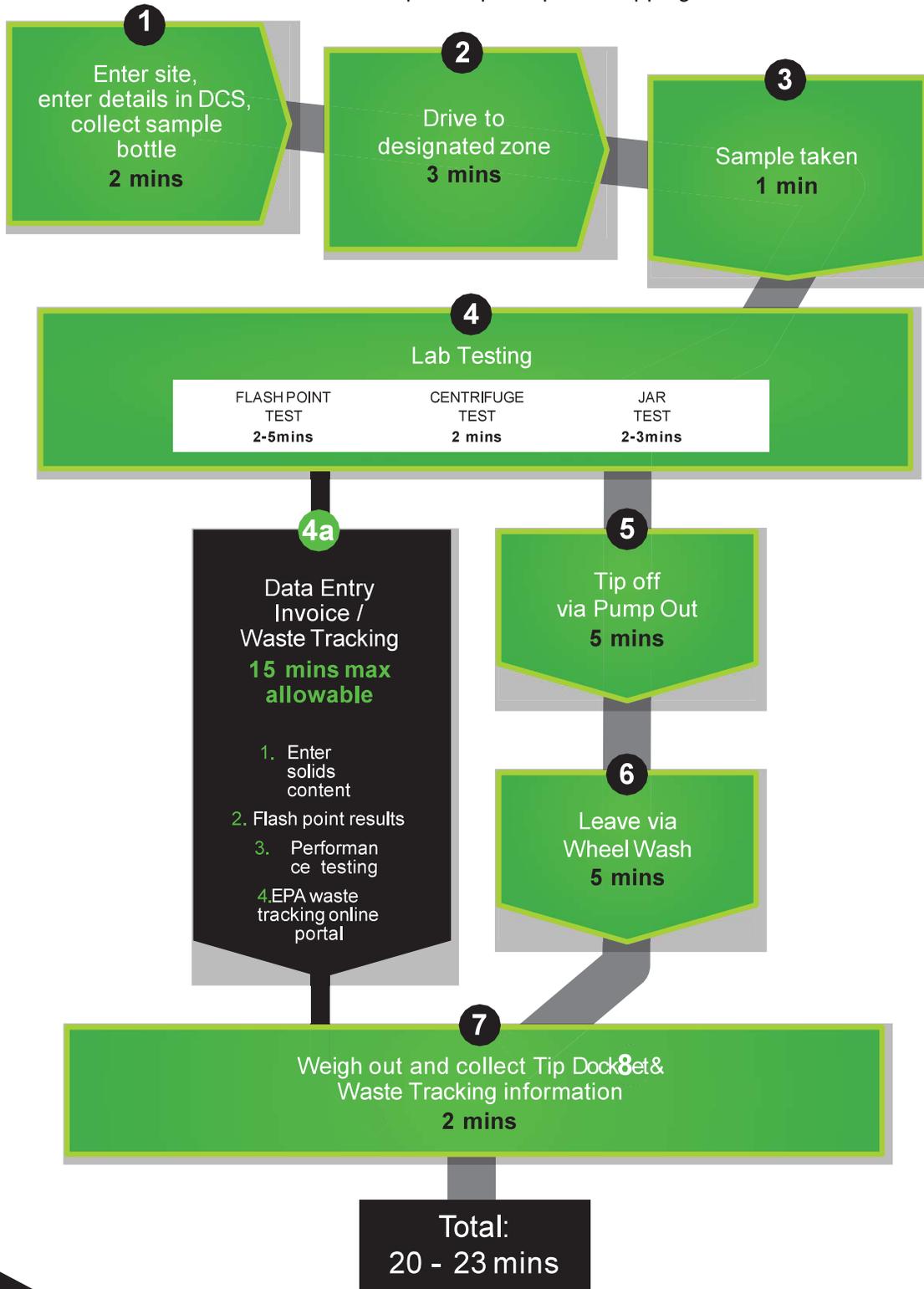




TIPPING PROCEDURE

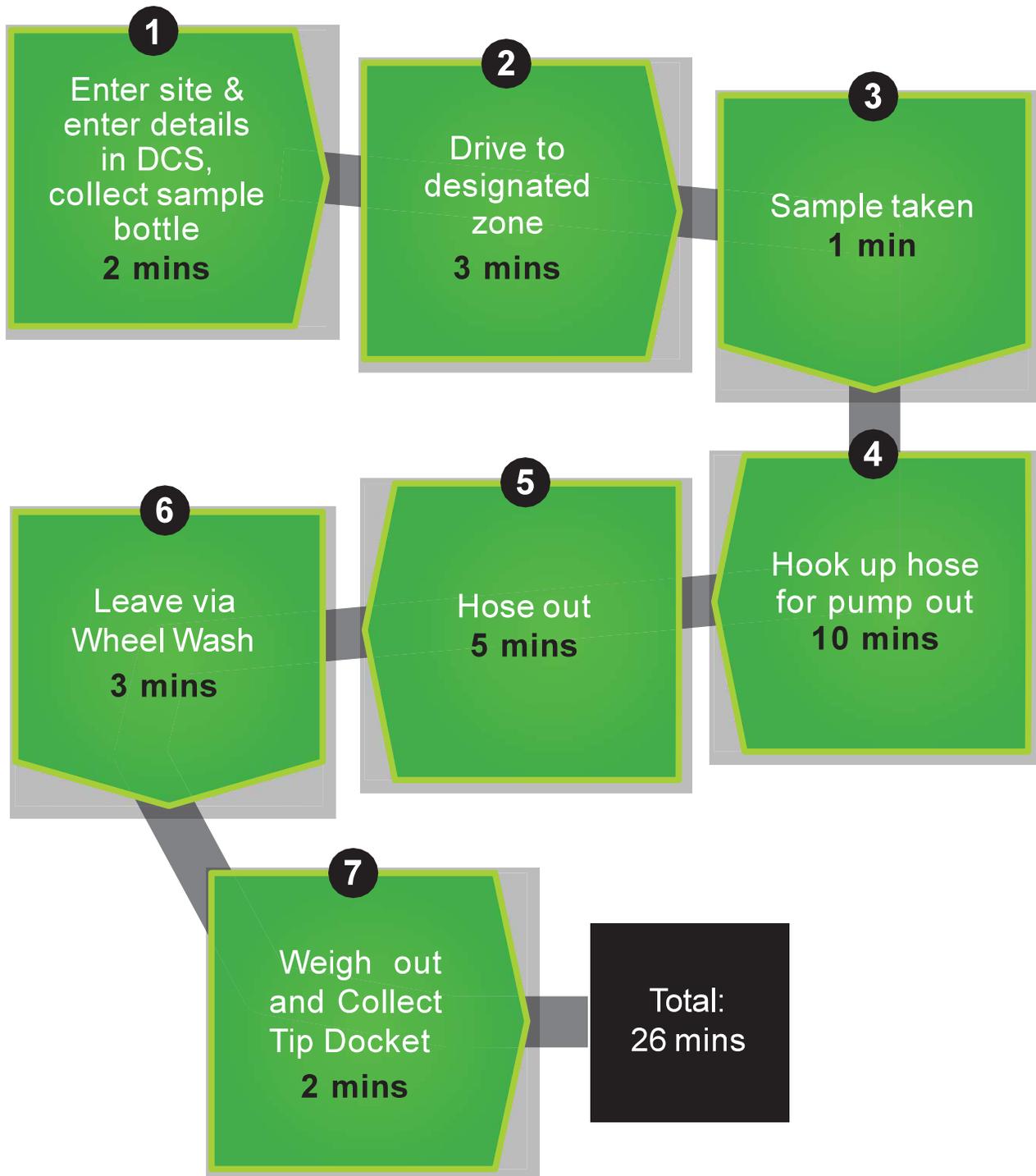
A100 / B100 / C100 / N140 / Z180 / M250

Classification report required prior to tipping.





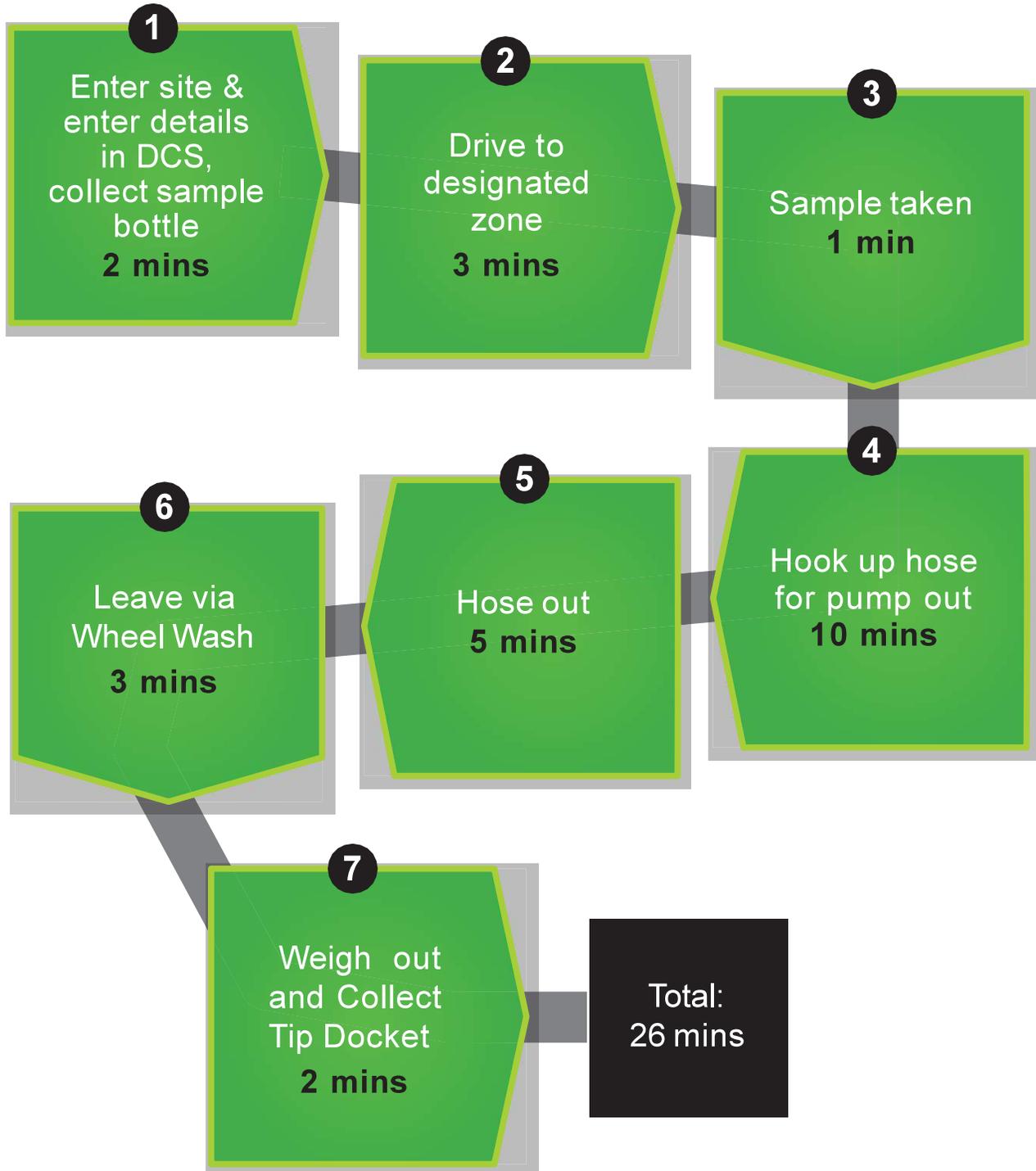
TIPPING PROCEDURE SEWER WASTE





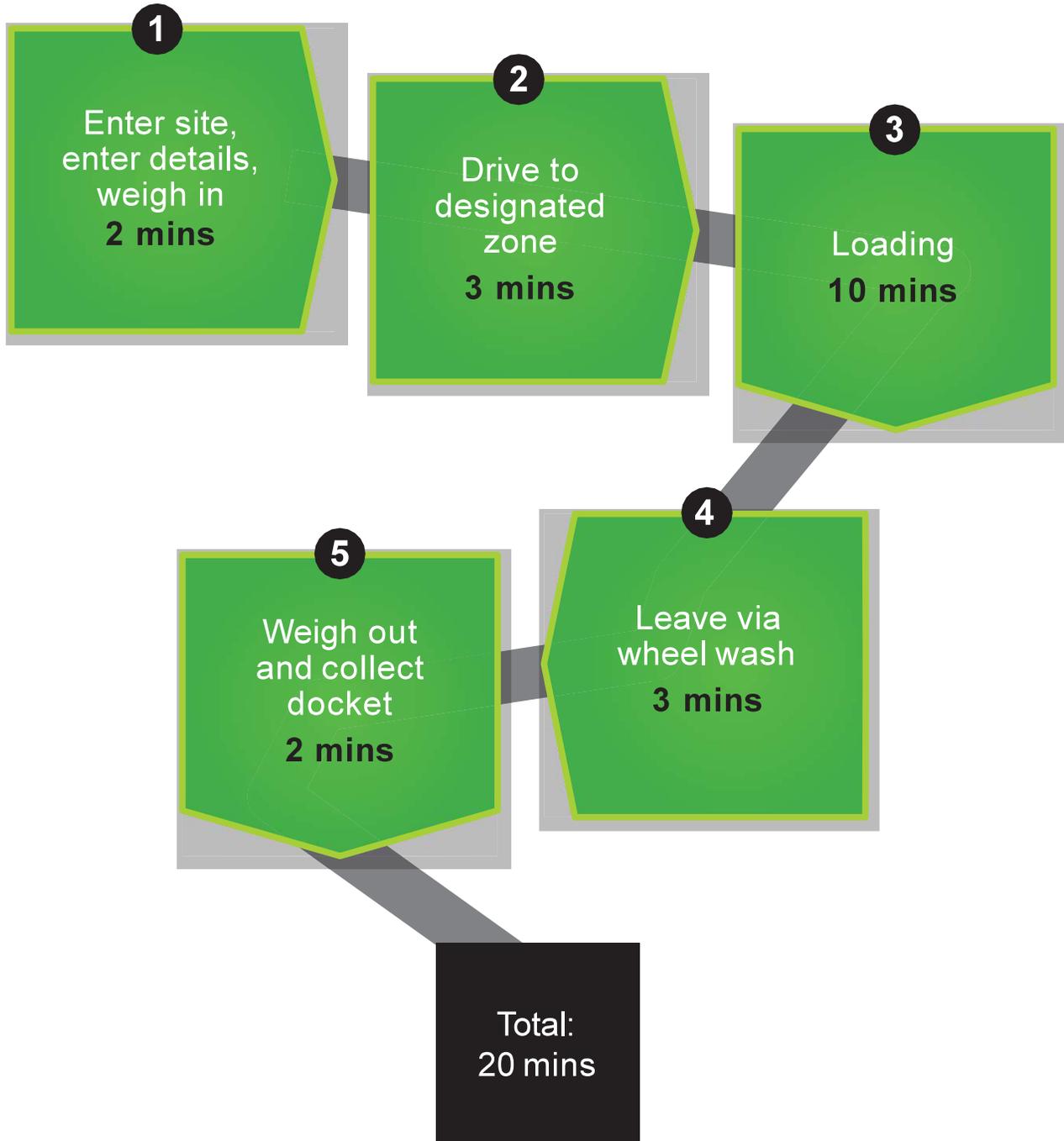
TIPPING PROCEDURE LEACHATE

Classification report required prior to tipping.





MATERIAL PICK UP PROCEDURES



Oily Water Process

The Oily Water Process includes the following liquid waste classifications:

1. Oily waters J120,
2. Waste oil / hydrocarbons,
3. Industrial wastewater, and
4. Groundwater (including M250, J100, N160, N250, F100).

The above wastes received on the site largely originates from industrial wastewater and generally consists of non-putrescible materials.

Solids are suspended in water. Due to the nature of the waste and varying qualities to be received, the process required is a multi-level approach which requires complex planning and processing. The system has the ability to process in both batch and continuous process. This document should be read in conjunction with the flow diagram including technical and simplified flow with plant i.d. numbers. The flow diagram is presented in drawing No **BRSL-001R6**.

The process works in the way outlined below.

Plant i.d. number 1050

In this part of the process the vacuum truck reverses into position suitable so that the connection point on the rear of vacuum truck and a flexible hose is able to be connected. The operator once connection point is confirmed then opens his valve and the valve on plant automatically will open accepting liquid and solid waste into 4" hose. The liquid and solid waste are screened through an in-line filter and pumped into a further part of the plant to holding tank JMT4 within plant i.d. 1052.

The liquid received in this part of the process is mostly liquid with minimum solids content, emulsions, etc.....

Plant i.d. number 1051

In this part of the plant is where the touch screen and operator interface are kept. Operators will key in their main docket number and cross references with flash point testing as well as flow meter for water used during the cleaning process. If liquids have not been tested, then pumps and process does not start as it is all interlocked to BRS processing quality system.

Once all waters have been decanted and pumped to plant i.d. No 1052, the system lights flash and sends signal to operator to check and remove hoses.

Plant i.d. number 1052

In this plant there is tank JMT4 which is the main holding and feeding tank. JMT4 is a buffer tank as well as a recirculation tank for the whole plant. Liquid waste is although processed through various parts of the plant, it comes back to this point again for many reasons but ultimately if it is not meeting discharge or re-use requirements.

This tank accepts main infeed liquids from vac truck receivable i.d. plant 1050, water by-products from receiving plants with i.d. 1055, 1056, 1057, 1058.

Plant i.d. number 1053

The tanks number JMT1 & JMT2 are tanks used for pre-conditioning of the liquids. These can be used in a batch process or continuous process alternating between filling and decanting and feeding to the DAF plant i.d. 1055. These tanks are the separation between bulk sludge, oils, and underflow.

These tanks have optional inputs to chemically treat product prior to progressing further in the process.

Plant i.d. number 1054

This is the chemical dosing component of the plant to separate contaminants from the liquids.

There are four chemical dosing systems for Ph adjustment, flocculation and coagulation as required. These systems are in a banded area which feed to JMT1 and JMT2 with plant i.d. No 1053 as well as for continuous feed to the DAF plant i.d. 1055 and plant i.d. No 1056 which includes the sludge screw press.

Plant i.d. number 1055

This plant is a key component in processing all liquid waste going through the plant. The name of this plant is a DAF with stands for Dissolved Air Flootation. This process chemically treats the waste fed from JMT1 and JMT2 within plant i.d. No 1053. The DAF breaks the product down to three main components:

1. Underflow which is the clean treated water. This is then fed into plant i.d. No 1059 which is the polished clean water,
2. Sludge which drops to the bottom of the DAF and is fed to plant i.d. No 1056,
3. Floated effluent which is also fed back into plant i.d. No 1056.

Plant i.d. number 1056

This part of the process takes sludge from plant i.d. No 1053 and plant i.d. No 1055. This sludge is from the process and it is designed to take liquid waste and process it into a spadable product. This product is then tested and sent to a suitably licensed facility. All liquid coming from the process is resent back to plant i.d. No 1052 for re-processing.

Plant i.d. number 1057

This part of the plant is the oily water separator. This separator, as its name implies, separates water from oil in the last stage to refine to a higher quality oil. This separation process gets oil to a standard where there is beneficial re-use for the product. This is then tested and re-sold to oil recycling facilities for further refinement. The disposal of this liquid is to EPA approved and licensed facilities to accept such waste product.

All water is fed back into the closed loop system within the plant i.d. No 1052 for recirculation and processing.

Plant i.d. number 1058

This part of the process is the solids and sludge process. This process is designed to make liquid waste solids non spadable into a spadable product by adding additives to thicken and dry moisture content. It consists of a tip hopper, auger feeding, a cement hopper, mixing hopper and sludge storage hopper.

Plant i.d. number 1059

These are storage tanks which accept treated water from the process. These tanks hold the clean processed water, and they are the final holding point and last testing point. This liquid is then tested and graded to test if processes water meets either beneficial re-use on site, for export off site for other processes or suitable for disposal to Sydney Water sewer network.

Plant i.d. number 1060

This is a polishing process and triple checks after testing process there are no contaminates in the water, a police press is used as an option when either sending to sewer or for beneficial re-use on site. If it is for re-use, the system diverts the water to plant i.d. 1061. The flowmeter is trade certified and carries a Sydney Water consent to discharge under consent number 51065.

Plant i.d. number 1061

All water has been processed, tested and polished once coming to these tanks. These tanks are designed to link to tankers, water trucks and/or re-use on site. This is the highest quality water.

Sewer Waste Process

The sewer waste received on the site largely originates from Sydney Water and generally consists of non-putrescible solids suspended in water.

Due to the limited nature of the waste to be received, the process required is a simple screening of the suspended solids through a multi-level screen which separates solids and liquids. The Plan titled **BRSLs-003R1** to be read in conjunction with the description presented below.

The process works in the following way.

Plant i.d. number 1000:

In this part of the process the vacuum truck reverses into position suitable so that the connection point on the rear of vacuum truck and a flexible hose is able to be connected. The operator once connection point is confirmed opens his valve and the valve on plant automatically will open accepting liquid and solid waste into 4" hose. The liquid and solid wastes are split into three parts:

1. Solid waste which is waste greater than 8mm - this waste is conveyed up an auger and washed through its travel up auger and dropped into a bin as labelled coarse. This coarse material is all landfill material and typically consists of rags, rocks, sticks and other similar waste materials.
2. Solid fine sands and silts less than 8mm in size and typically sands, fine gravels and silts - this material travels through the first screen and typically floats with the water due to the resonance time in suspension and heavier than water, the material drops out of suspension and into cross augers which feed into bin labelled fine sands silts bin. The material from this position is tested in accordance with EPA's procedures. If the material is suitable for recovery it is reused after testing occurs alternatively sent to an appropriately approved and licensed landfill.
3. Liquid waste is then transferred from plant i.d. 1000 to plant i.d. 1001. These liquids are already processed having all solids removed and sent to storage.

Plant i.d. number 1001:

In this part of the process the material has been sent from plant i.d. 1000 - this is post treatment - the liquid material in this area i.d.1001 are storage tanks. These storage tanks hold the liquid waste for testing prior to being released to sewer.

Each tank is on a measuring device called loadcells. These measuring devices give level of each of the tanks.

Once testing has occurred and material is suitable for release to sewer then a valve is opened at the bottom of each tank and liquid flows through a flow meter to the Sydney Water discharge system through to Glenfield STP.

The discharge process is licensed through Sydney water with a consent to discharge through conditional consent number 50996.

As there is air displaced and replaced with the filling and discharge, a carbon filter system is used for the filtering and cleaning of air during filling and emptying of the tanks.

Plant i.d. number 1002:

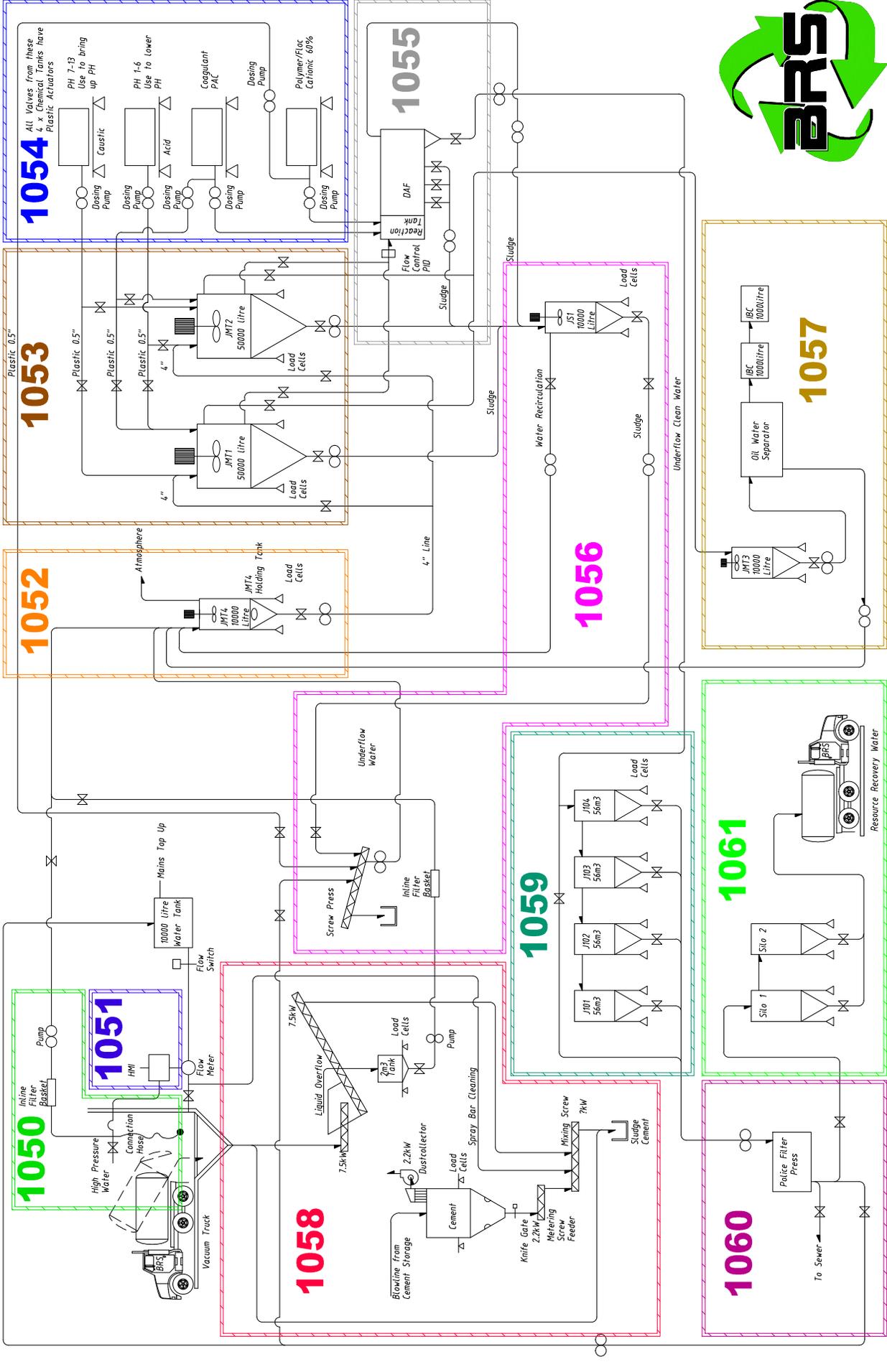
In this part of the process once vac truck has completed discharging all of the waste material, to clean any residual sand and soils out of rear of vac truck the hose is disconnected and rear door of vac truck is opened. A freshwater hose is used to clean any remaining residue out of rear of vac truck. The vac truck once cleaned out is suitable for re-use. All residues are collected and conveyed via augers and pumps into trommel screen.

The liquid and solid waste are split into three parts as described below.

1. Solids waste is waste greater than 4mm - this waste is conveyed along the trommel internally which is semi immersed in water and product is cleaned as it is conveyed. Once at the end of the trommel the solids are dropped into a bin as labelled coarse greater than 4mm. This coarse material is all landfill material and typically consists of rags, rocks, sticks and similar waste materials

2. Solids fine sands and silts less than 4mm in size and typically sands, fine gravels and silts - this material travels through the trommel and drops through the holes. This material is agitated and an anti-clockwise auger on outside of trommel is used to convey materials back to buckets which grab the fine material and pick it up and drop onto screen labelled es601 screen. This screen de-waters any remaining residue and vibrates solids fine into a bin labelled fine sands / silt. The material from this position is tested in accordance with EPA's procedures. If the material is suitable for recovery it is reused after testing occurs alternatively it is sent to an appropriately approved and licensed landfill.

3. Liquids waste is then gravity fed from trommel back to plant i.d. 1000 and then to plant i.d. 1001. These liquids are already processed having all solids removed and sent to storage.



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 Checked By: AA
 Scale: 1:1 (A1 Sheet)
 Date: 23-03-21
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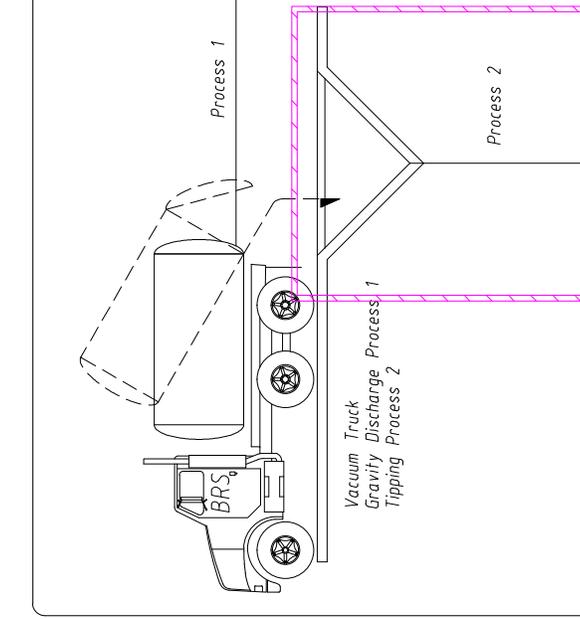
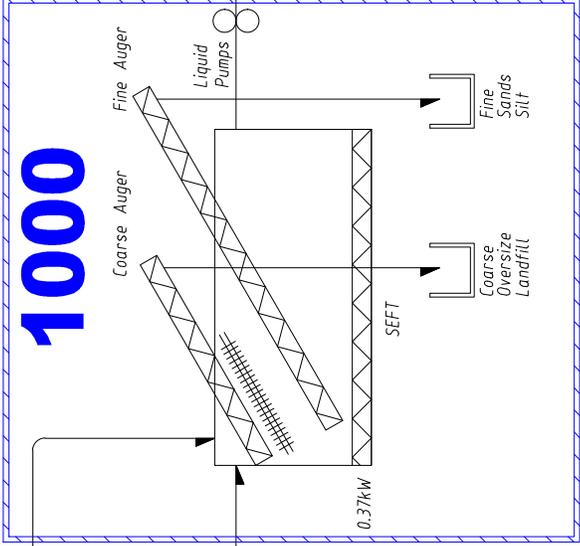
AWES

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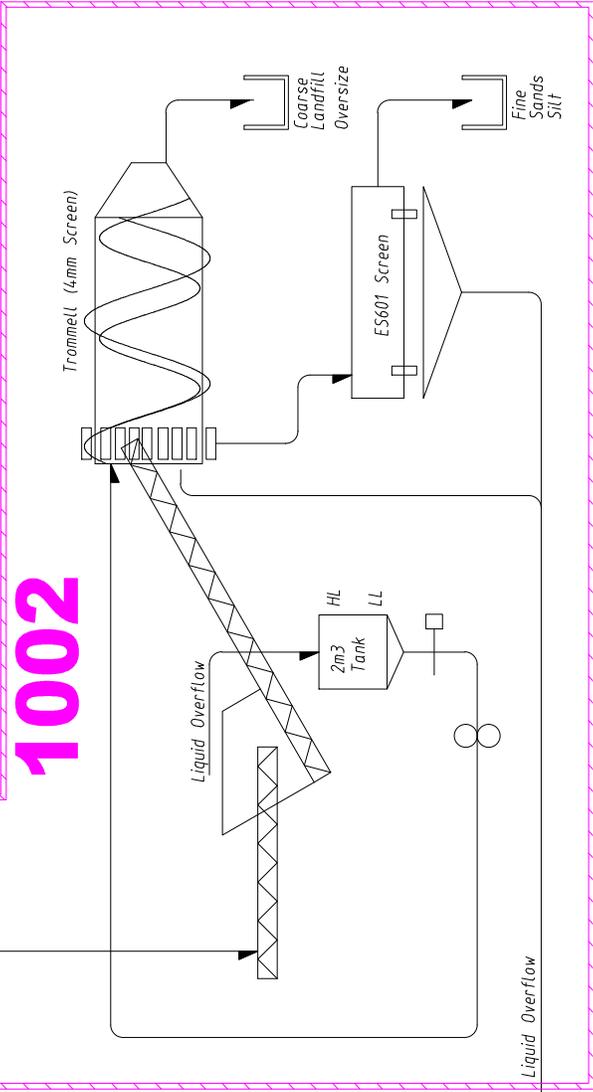
Items Listing	Rev.	Chg.	Description	Material	Remarks	Amendments or Issues	Revision	Appr	By	Date
						As Originally Drawn	RD	MA	MA	MA
							RT			
							RZ			
							R3			
							RS			
							RR			
							RT			
							RR			

Client: Bulk Recovery Solutions, Ingleburn, NSW
 Title: Plant Flow Diagram
 Drawing Number and Revision: BRSL5-001R6

1001



1002



Drawn By	AA
Checked By	
Scale	1:1 (A1 Sheet)
Date	23-03-21
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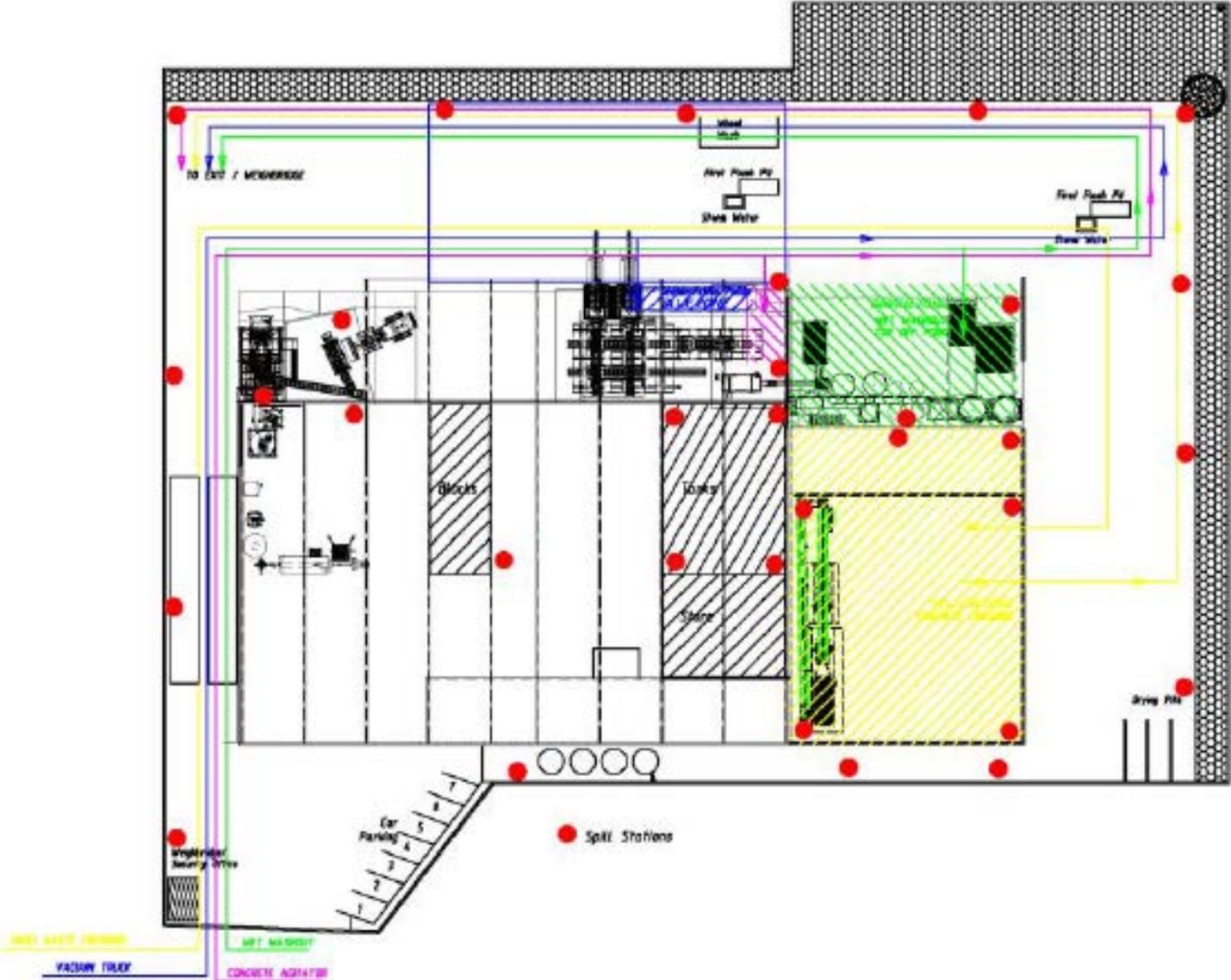
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Item Code	Description	Material	Remarks	Measurements or Stock	By	Date
R0				As Originally Drawn	MM	MM
R1						
R2						
R3						
R4						
R5						
R6						
R7						
R8						

Client: Bulk Recovery Solutions, Ingleburn, NSW
Title: Sewer Plant Flow Diagram
Drawing Number and Revision: BRSL-003R1

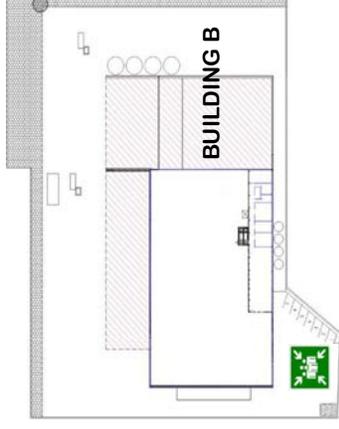
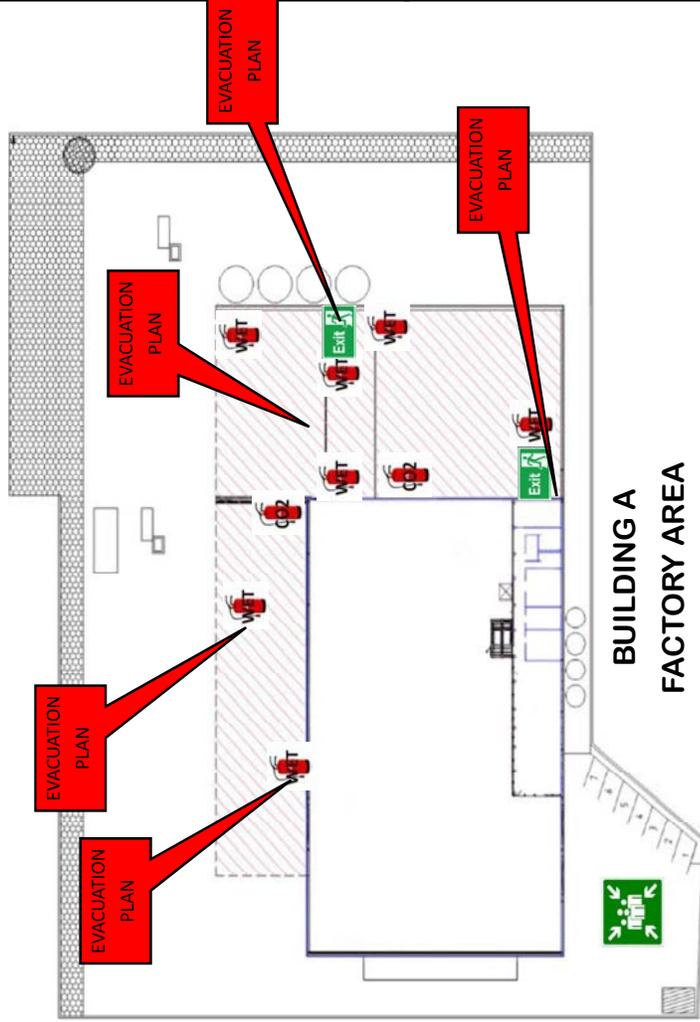
BRS – 16 Kerr Road, Ingleburn – Spill Kits Locations



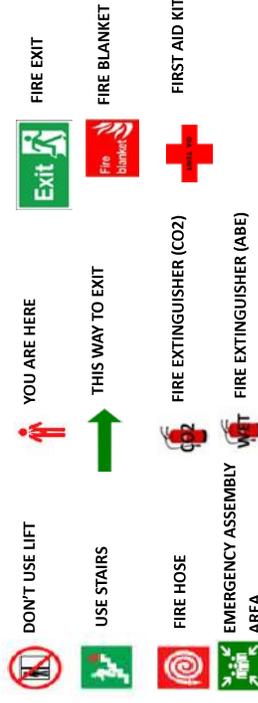
EVACUATION DIAGRAM

BUILDING B

16 KERR ROAD, INGLEBURN



LEGEND



EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
2. CALL FIRE BRIGADE 000
3. ATTACK FIRE IF TRAINED, IF SAFE TO DO SO
4. EVACUATE TO EMERGENCY ASSEMBLY AREA
5. REMAIN IN EMERGENCY ASSEMBLY AREA AND ENSURE EVERYBODY IS ACCOUNTED FOR.

IN ANY EMERGENCY DIAL

000

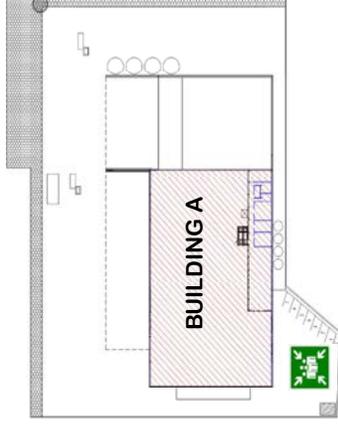
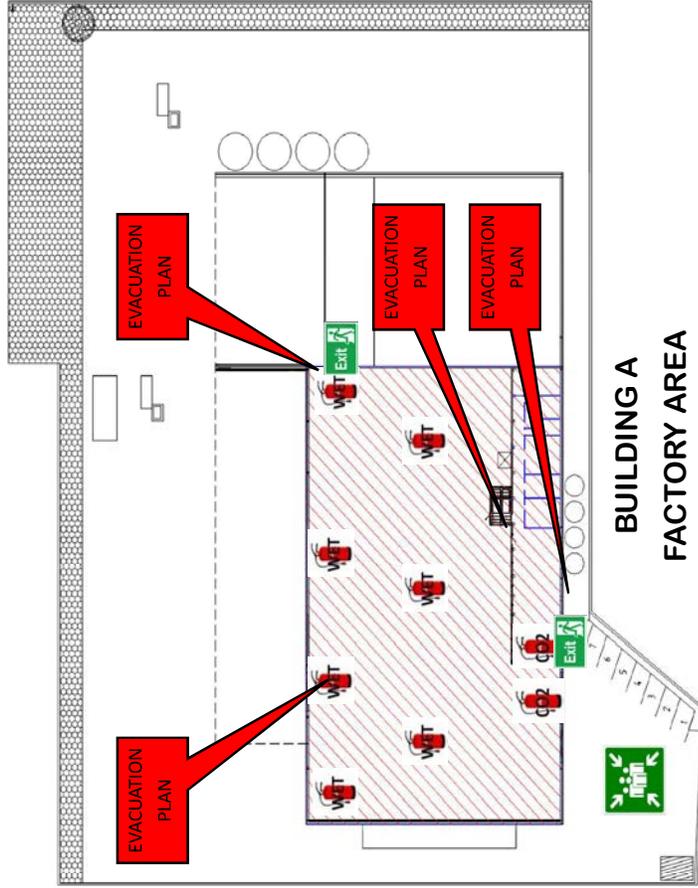
AND ASK FOR FIRE BRIGADE,
POLICE OR AMBULANCE

YOUR ASSEMBLY AREA IS:
AT MAIN FRONT GATE

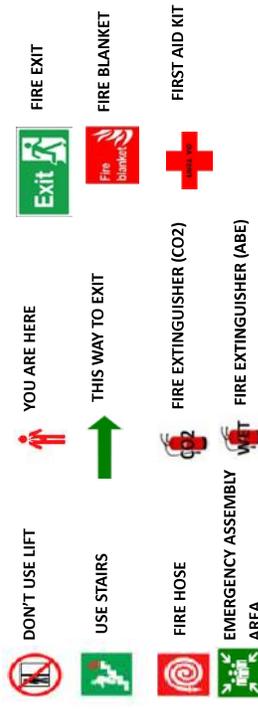
EVACUATION DIAGRAM

BUILDING A

16 KERR ROAD, INGLEBURN



LEGEND



EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
2. CALL FIRE BRIGADE 000
3. ATTACK FIRE IF TRAINED, IF SAFE TO DO SO
4. EVACUATE TO EMERGENCY ASSEMBLY AREA
5. REMAIN IN EMERGENCY ASSEMBLY AREA AND ENSURE EVERYBODY IS ACCOUNTED FOR.

IN ANY EMERGENCY DIAL

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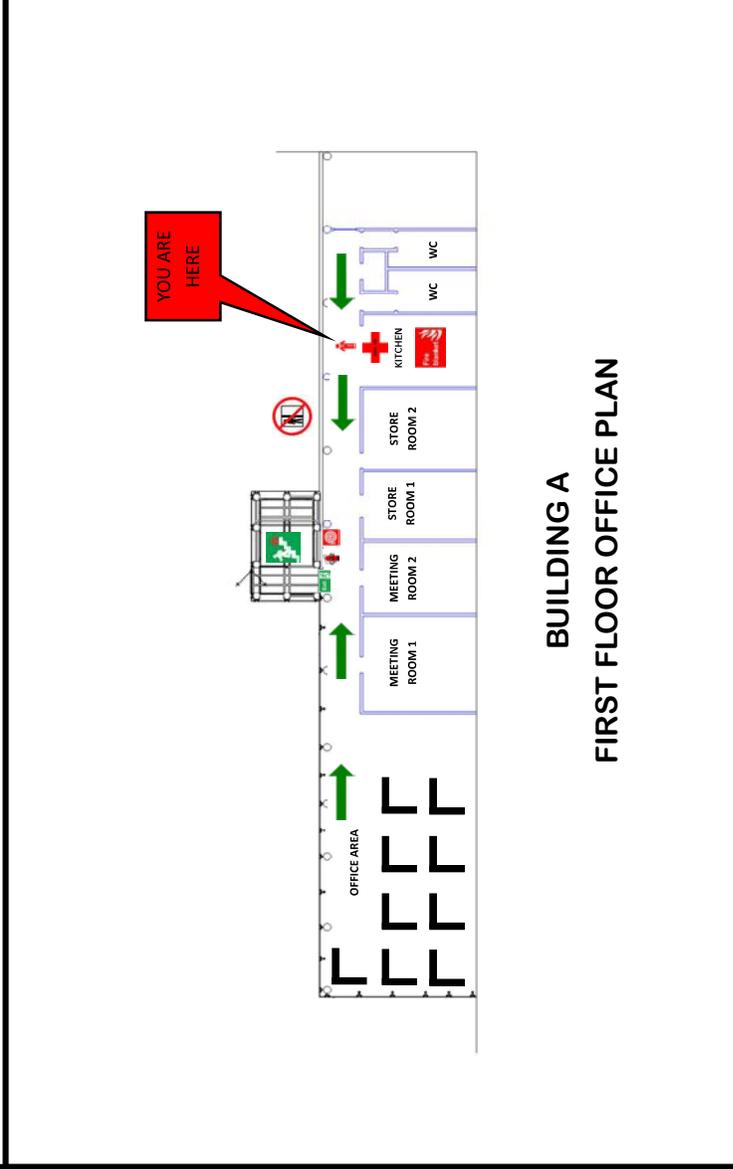
AND ASK FOR FIRE BRIGADE,
POLICE OR AMBULANCE

YOUR ASSEMBLY AREA IS:
AT MAIN FRONT GATE

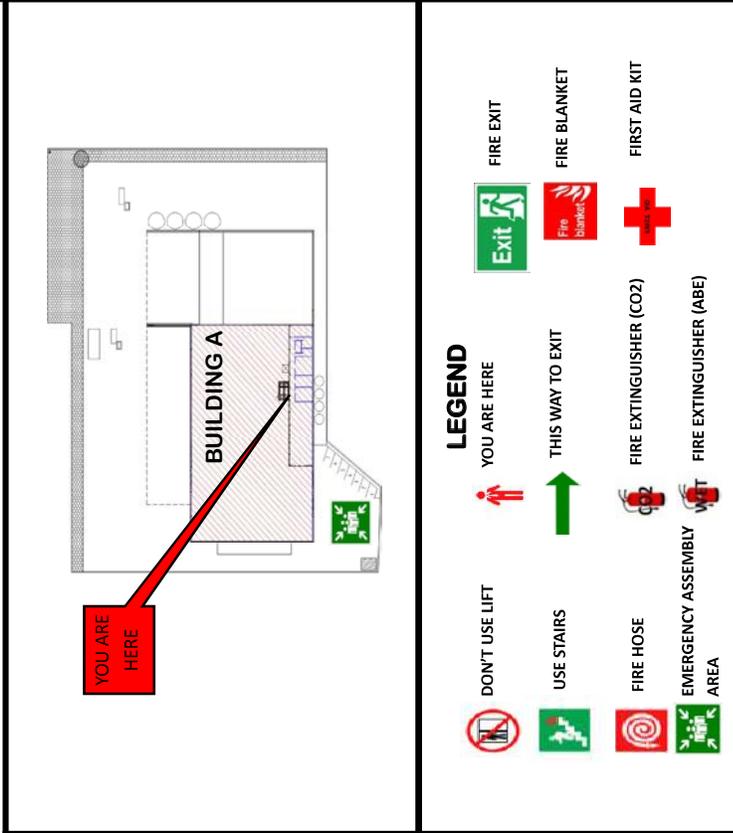
EVACUATION DIAGRAM

BUILDING A

16 KERR ROAD, INGLEBURN



**BUILDING A
FIRST FLOOR OFFICE PLAN**



EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
2. CALL FIRE BRIGADE 000
3. ATTACK FIRE IF TRAINED, IF SAFE TO DO SO
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IN ANY EMERGENCY DIAL

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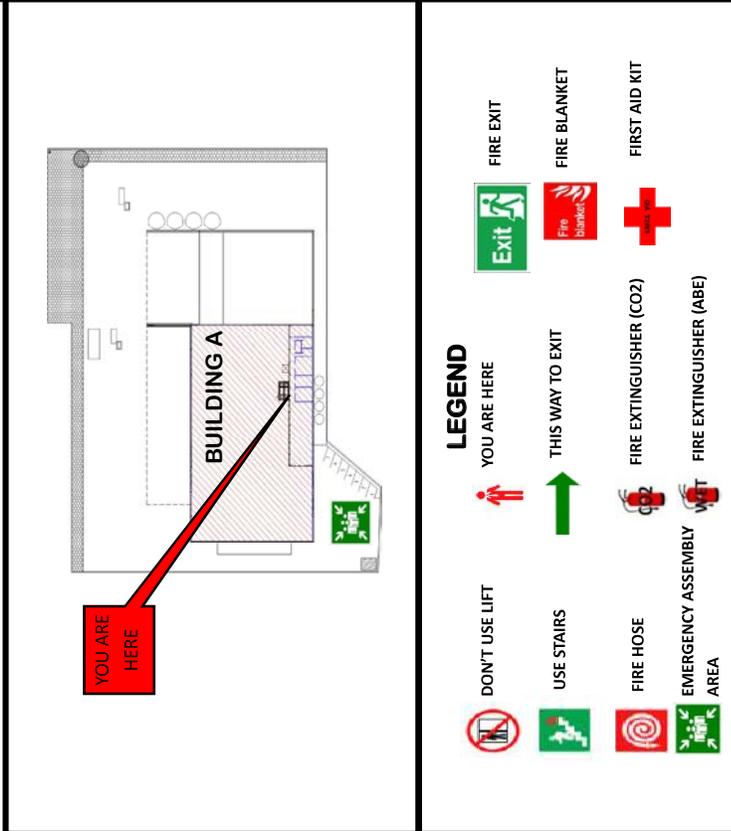
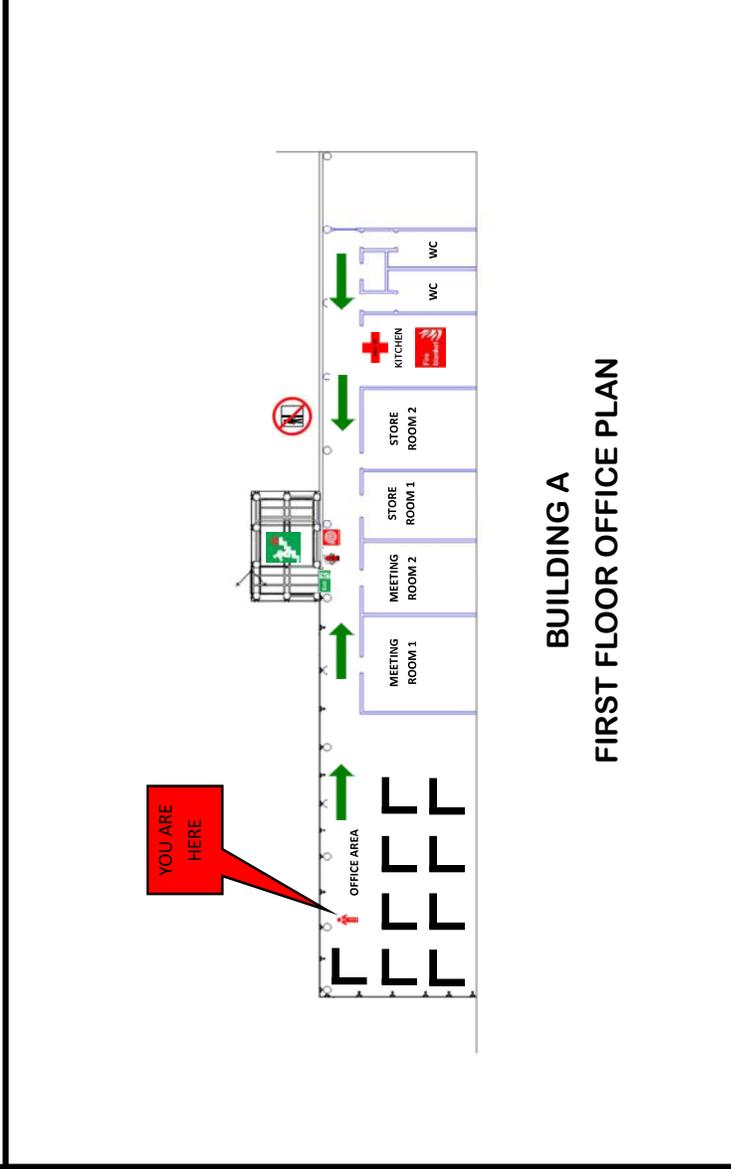
AND ASK FOR FIRE BRIGADE,
POLICE OR AMBULANCE

YOUR ASSEMBLY AREA IS:
AT MAIN FRONT GATE

EVACUATION DIAGRAM

BUILDING A

16 KERR ROAD, INGLEBURN



EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
2. CALL FIRE BRIGADE 000
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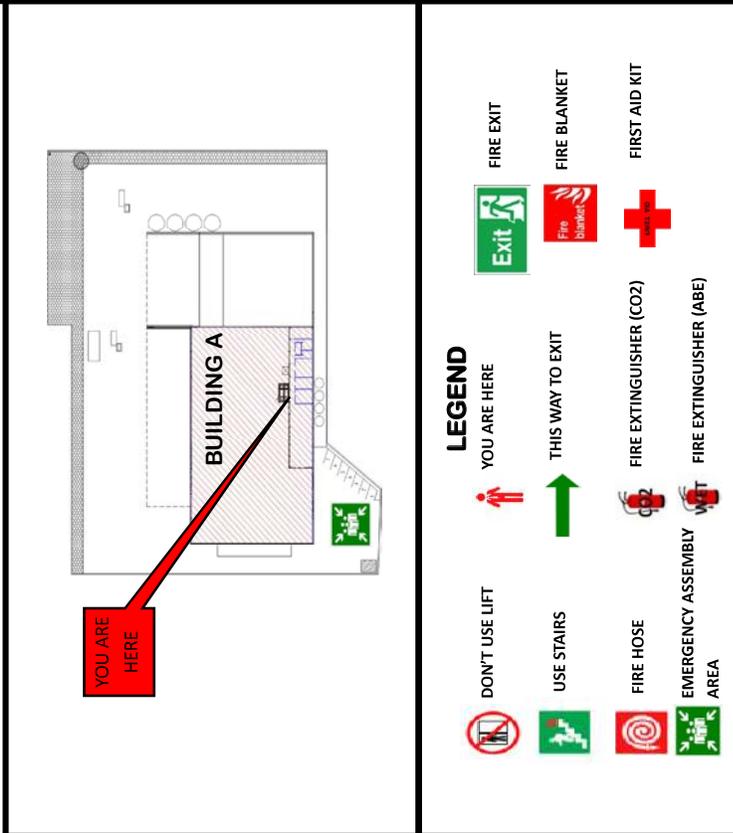
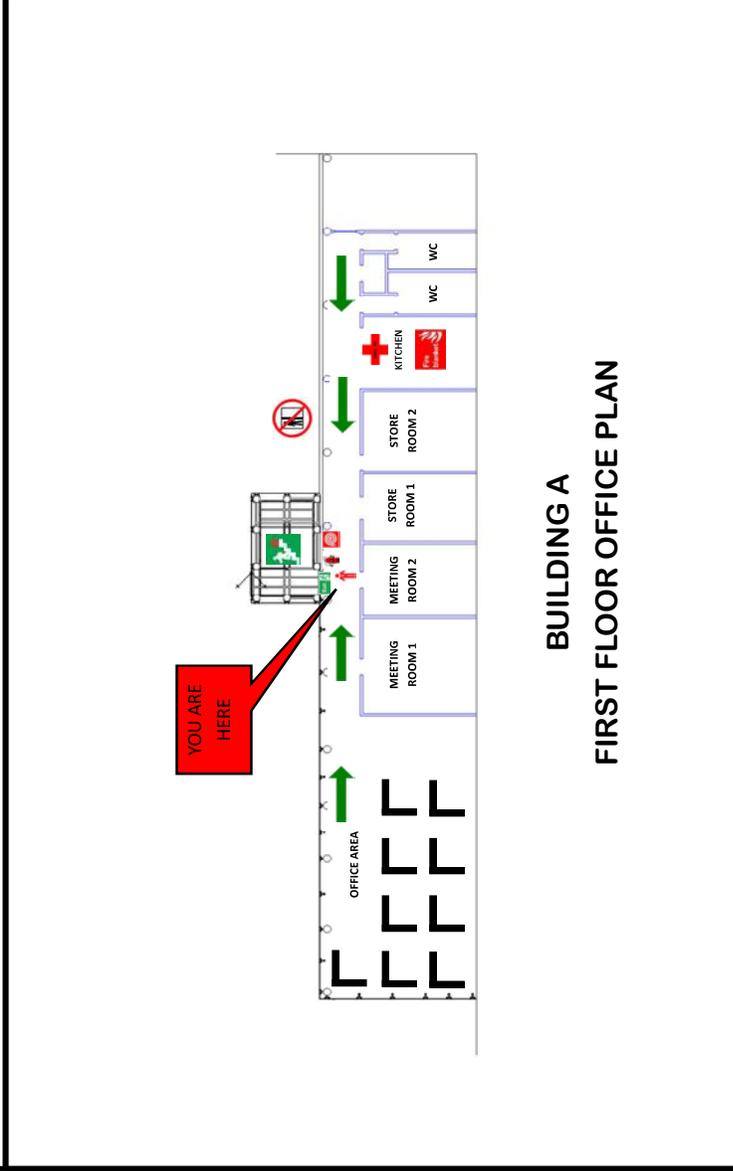
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YOUR ASSEMBLY AREA IS:
AT MAIN FRONT GATE

EVACUATION DIAGRAM

BUILDING A

16 KERR ROAD, INGLEBURN



EVACUATION PROCEDURE

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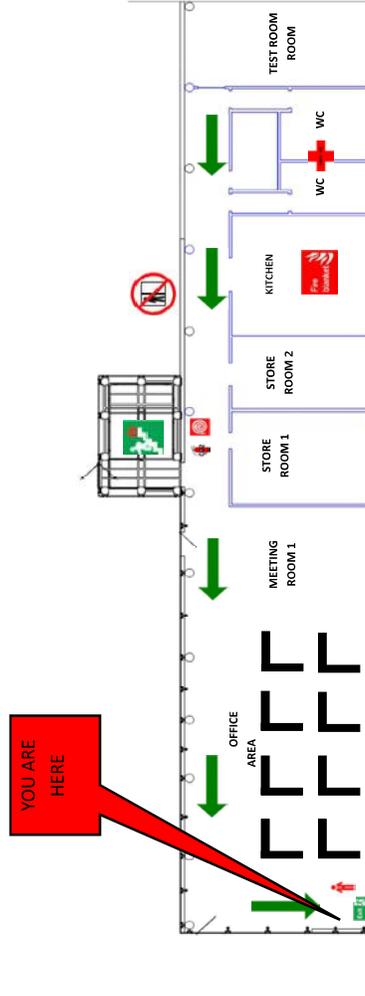
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AT MAIN FRONT GATE

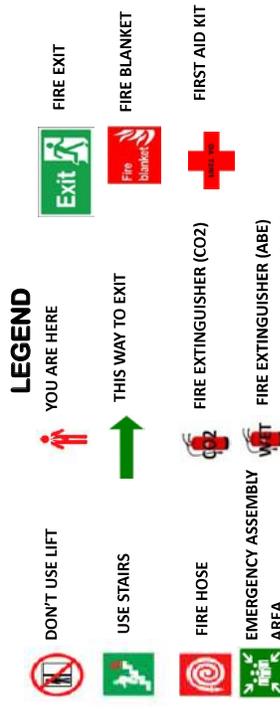
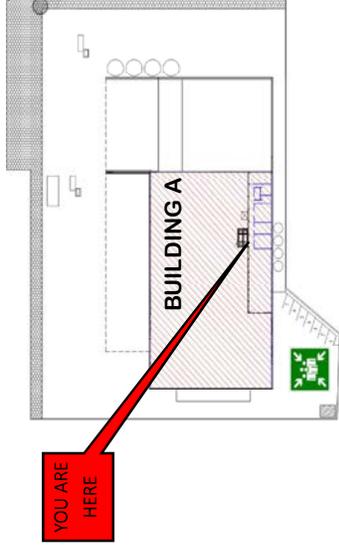
EVACUATION DIAGRAM

BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A
GROUND FLOOR OFFICE PLAN



EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
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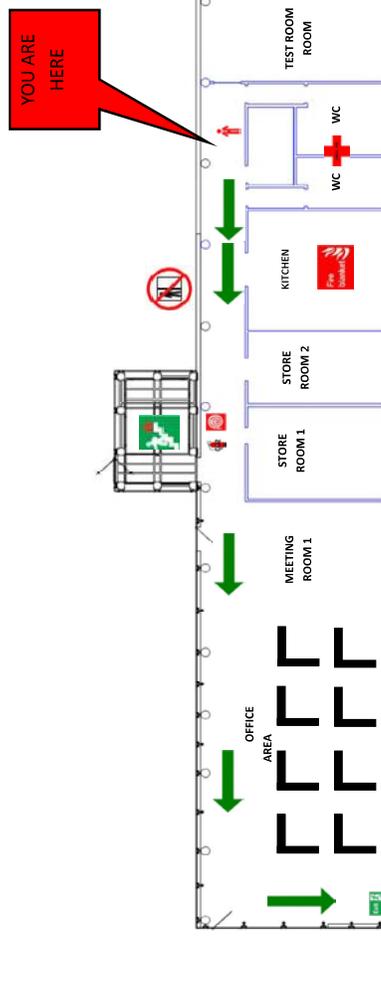
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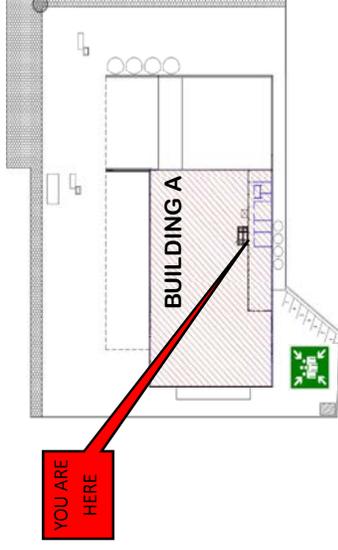
EVACUATION DIAGRAM

BUILDING A

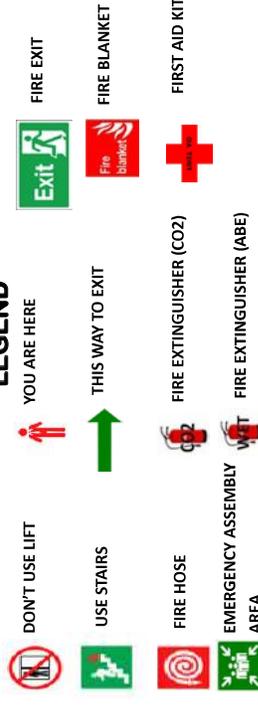
16 KERR ROAD, INGLEBURN



BUILDING A
GROUND FLOOR OFFICE PLAN



LEGEND



EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
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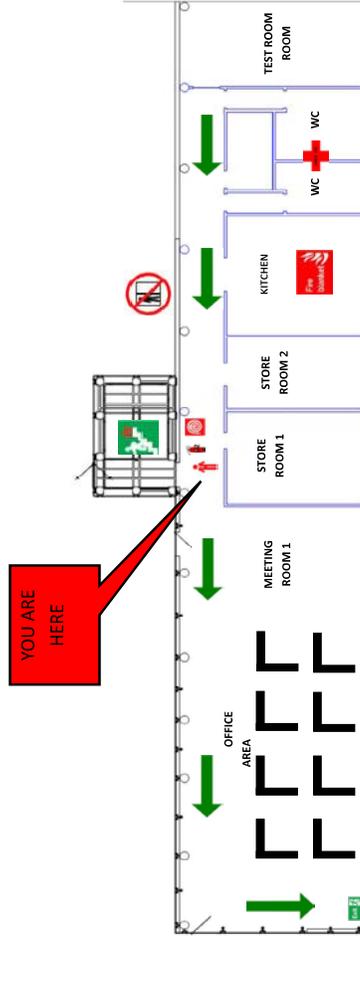
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AT MAIN FRONT GATE

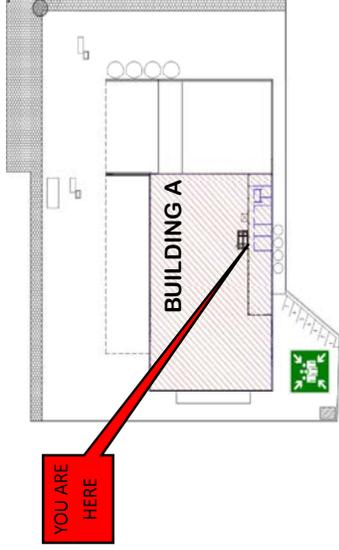
EVACUATION DIAGRAM

BUILDING A

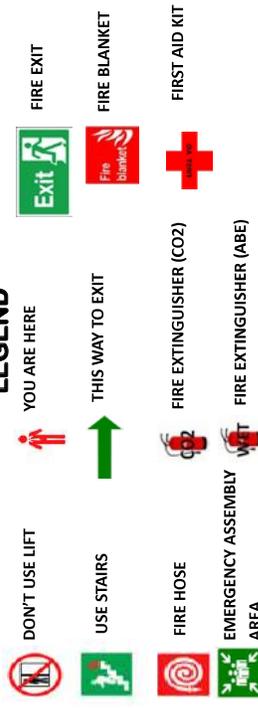
16 KERR ROAD, INGLEBURN



BUILDING A
GROUND FLOOR OFFICE PLAN



LEGEND



EVACUATION PROCEDURE

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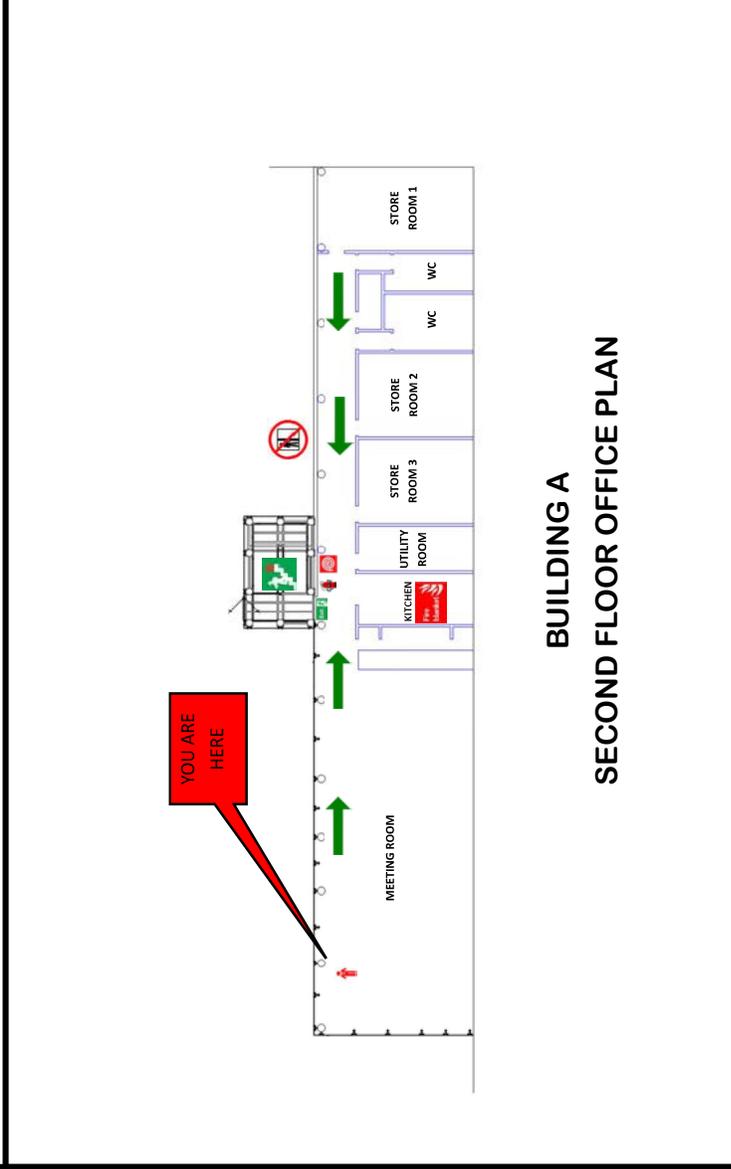
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AT MAIN FRONT GATE

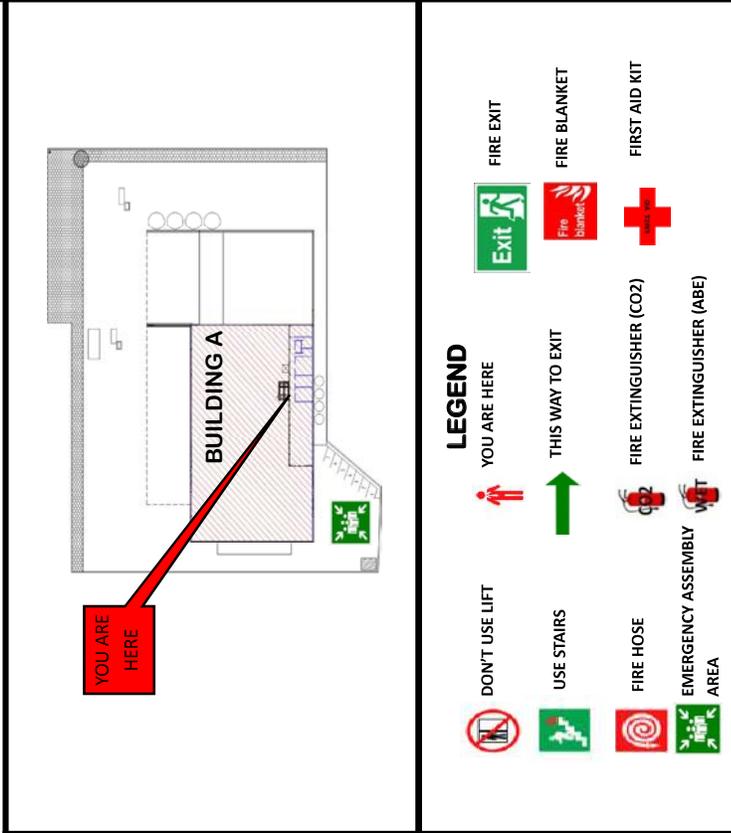
EVACUATION DIAGRAM

BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A
SECOND FLOOR OFFICE PLAN



LEGEND

- YOU ARE HERE
- THIS WAY TO EXIT
- FIRE HOSE
- FIRE EXTINGUISHER (CO2)
- FIRE EXTINGUISHER (ABC)
- DON'T USE LIFT
- USE STAIRS
- FIRE EXIT
- FIRE BLANKET
- FIRST AID KIT
- EMERGENCY ASSEMBLY AREA

EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
2. CALL FIRE BRIGADE 000
3. ATTACK FIRE IF TRAINED, IF SAFE TO DO SO
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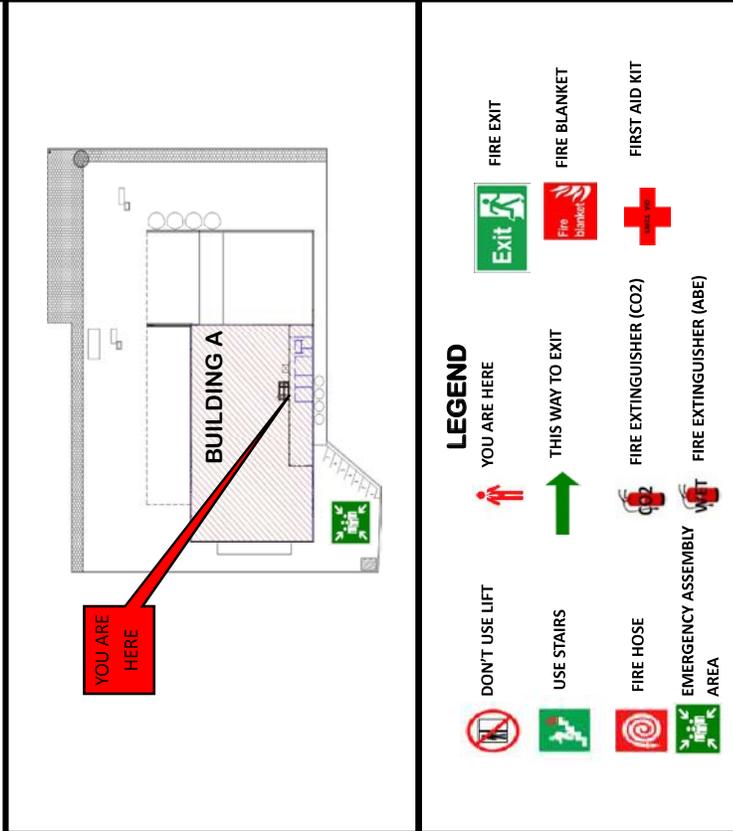
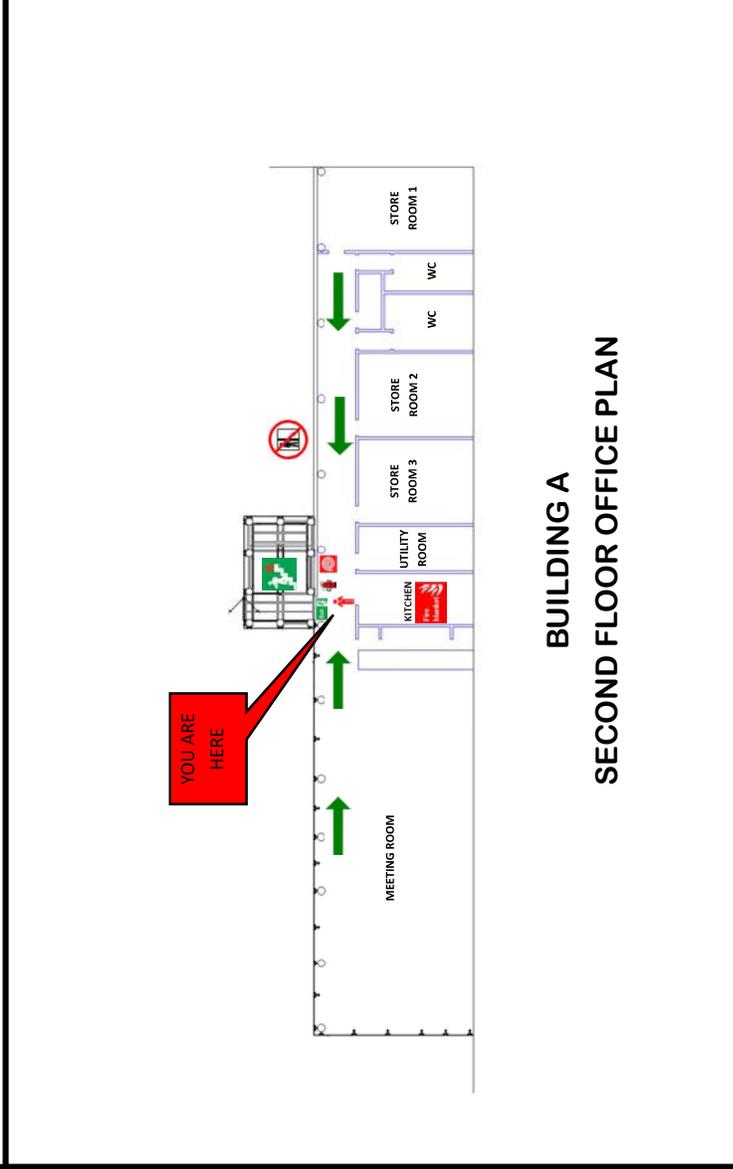
IN ANY EMERGENCY DIAL
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AND ASK FOR FIRE BRIGADE,
POLICE OR AMBULANCE

YOUR ASSEMBLY AREA IS:
AT MAIN FRONT GATE

EVACUATION DIAGRAM

BUILDING A

16 KERR ROAD, INGLEBURN



EVACUATION PROCEDURE

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IN ANY EMERGENCY DIAL

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AND ASK FOR FIRE BRIGADE,
POLICE OR AMBULANCE

YOUR ASSEMBLY AREA IS:
AT MAIN FRONT GATE

E . F . S**Essential Fire Standards Pty Ltd**

ABN :54 109 552 945 ACN : 109 552 945

Phone: 02 8795 0030

Fax: 02 8795 0092

Po Box 45

WORK SHEET

Customer : Australian Weighing - Building A
 Address: 16 Kerr Road
 Suburb : INGLEBURN NSW
 Date: 18th March 2019
 Technician: Andrew White

Contact: Tim or Margaret
 Phone: 87173333
 Mobile: Bradley 0427452018
 Email: _____
 Next Service: September 2019

Service Level	Service	Recommendations / Comments					
1	Bi-Annual						
2	Annual						
3	3 Yearly						
4	Pres Test						
5	Recharge						
Unit Number	Type of Equipment	Location	Pressure Test Due	Service Level	Signs	Brackets	Work
1	5kg Co2	Front Left Workshop	2019	4	Yes	Yes	Inspected - Pressure Tested
2	9kg ABE	Mid Left Stores	2019	4	Yes	Yes	Inspected - Pressure Tested
3	9kg ABE	Rear Left Workshop	2019	4	Yes	Yes	P/Tested - Remounted + Install Sign
4	9kg ABE	Rear Left Dock	2019	4	Yes	Yes	Inspected - Pressure Tested
5	9kg ABE	Mid Left Workshop	2019	4	Yes	Yes	Inspected - Pressure Tested
6	9kg ABE	Rear Wall Welding Bay	2019	4	Yes	Yes	Inspected - Pressure Tested
7	9kg ABE	Rear Right Workshop	2019	4	Yes	Yes	Inspected - Pressure Tested
8	9kg ABE	Mid Right Workshop	2019	4	Yes	Yes	Inspected - Pressure Tested
9	9kg ABE	Mid Front Workshop	2019	4	Yes	Yes	Inspected - Pressure Tested
10	3.5kg Co2	2nd Floor Office Rear	2019	4	Yes	Yes	Inspected - Pressure Tested
11	4.5kg ABE	2nd Floor Office Mid	2019	4	Yes	Yes	Inspected - Pressure Tested
12	FHR	2ndFloor Office Mid	N/A	1	Yes	Yes	Inspected
13	Fire Blanket	2nd Floor Office Kitchen	N/A	1	Yes	Yes	Inspected
14	3.5kg Co2	2nd Floor Office Front	2019	4	Yes	Yes	Inspected - Pressure Tested
15	4.5kg ABE	1st Floor Office Rear	2019	4	Yes	Yes	Inspected - Pressure Tested
16	Fire Blanket	1st Floor Office Kitchen	N/A	1	Yes	Yes	Inspected
17	3.5kg Co2	1st Floor Office Mid	2019	4	Yes	Yes	Inspected - Pressure Tested
18	FHR	1st Floor Office Mid	N/A	1	Yes	Yes	Inspected
19	3.5kg Co2	1st Floor Office Front	2019	4	Yes	Yes	Inspected - Pressure Tested
20	4.5kg ABE	Gound Floor Office Rear	2019	4	Yes	Yes	Inspected - Pressure Tested
21	Fire Blanket	Gound Floor Office Kitchen	N/A	1	Yes	Yes	Inspected
22	3.5kg Co2	Gound Floor Office Hallway	2019	4	Yes	Yes	Inspected - Pressure Tested
23	FHR	Gound Floor Office Hallway	N/A	1	Yes	Yes	Inspt'd-Small Leak from Centre Note Only
24	3.5kg Co2	Gound Floor Office	2019	4	Yes	Yes	Inspected - Pressure Tested
25	FHR	Gound Floor Office Entry	N/A	1	Yes	Yes	Inspected