Bulk Recovery Solutions
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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

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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

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

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.

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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@bulkrecoverysolutions.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.

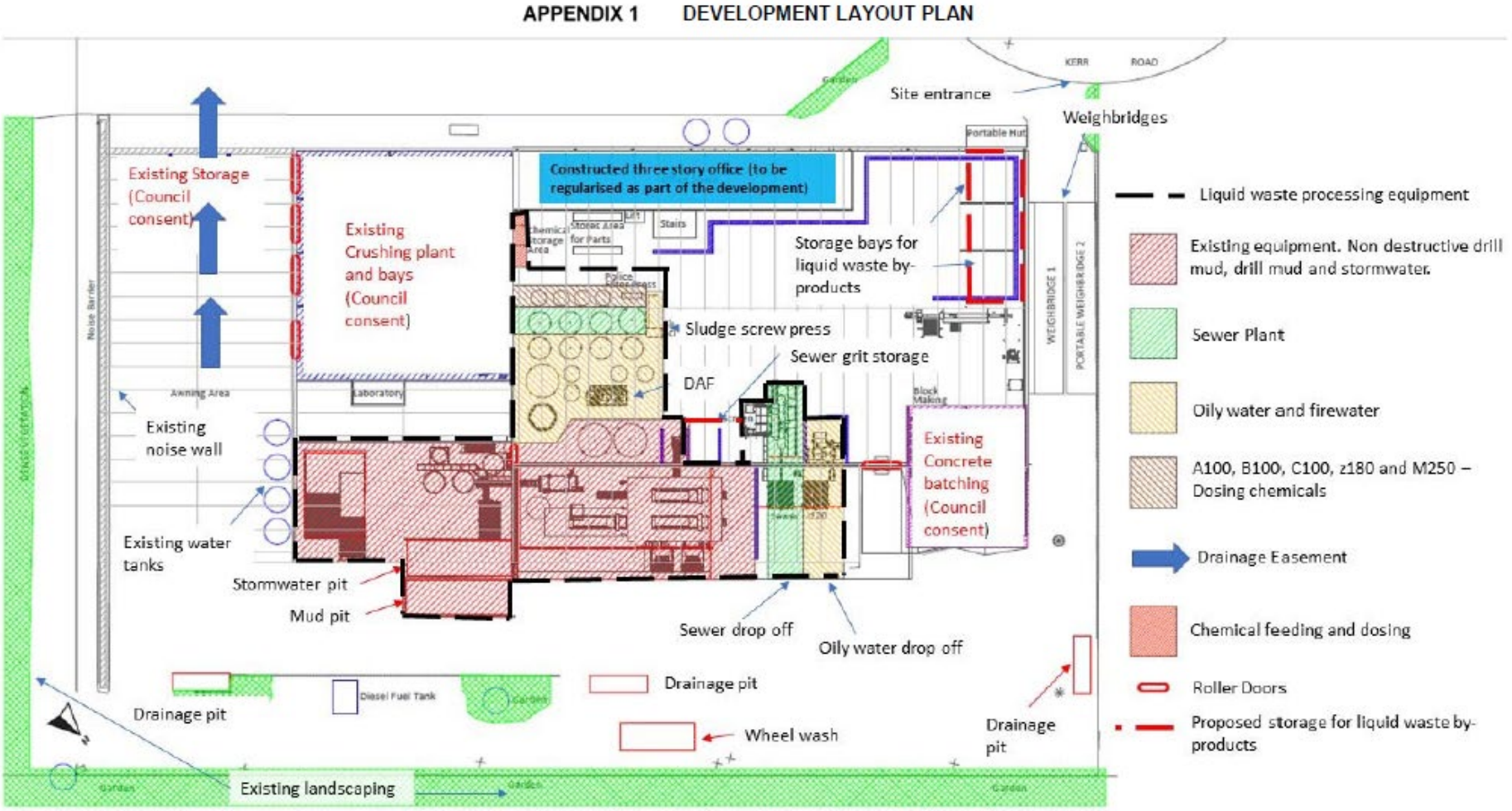
Access to the site is provided via a double driveway at the cul-de-sac head on Kerr Road. The western most driveway provides access to the rear of the building via a security office and weighbridge. The eastern most driveway provides access to the front of the building, office space and staff / visitor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

Figure 2-3: Approved Development Layout Plan



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), sewagesludge 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 onthe 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	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: (a) detail the type and quantity of waste to be generated during construction and operation of the development; (b) describe the handling, storage and disposal of all waste streams generated on site, consistent with the *Protection of the Environment Operations Act 1997, Protection of the Environment Operations (Waste) Regulation 2014* and the *Waste Classification Guideline* (Environment Protection Authority, 2014); (c) detail the materials to be reused or recycled, either on or off site; and (d) include the Management and Mitigation Measures included in Appendix 2	(a) **Section 5 & Tables 5-1, 5-2 and 5-3** (b) **Section 5 & Attachment 2** (c) **Table 5-3 & Section 5** (d) **Table 6-1 in Section 6**
B27	The Applicant must: (a) Not commence operation until the Waste Management Plan is approved by the Planning Secretary; (b) Implement the most recent version of the Waste Management Plan approved by the Planning Secretary.	**Sections 3 & 11**
Waste Monitoring Program		
B28	From the commencement of operation of the development, the Applicant must implement a Waste Monitoring Program for the development. The program must: (a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation; (b) include suitable provision to monitor the: i) quantity, type and source of waste received on site; and ii) quantity, type and quality of the outputs produced on site; and (c) ensure that: i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site; and ii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.	**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 *Waste Classification Guidelines Part 1: Classifying Waste* (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 resourcescan be achieved.

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

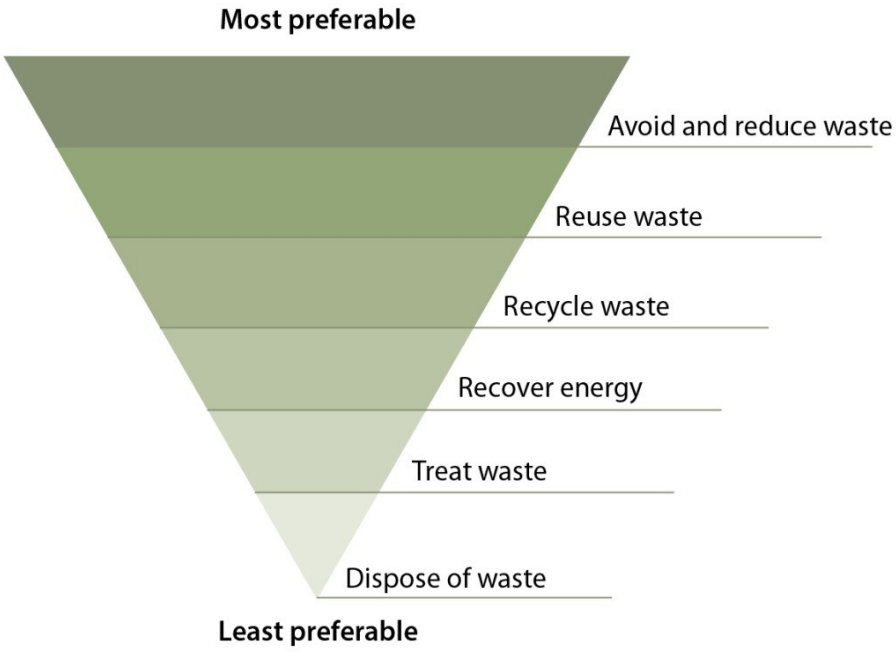


Figure 1: The waste hierarchy

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**.

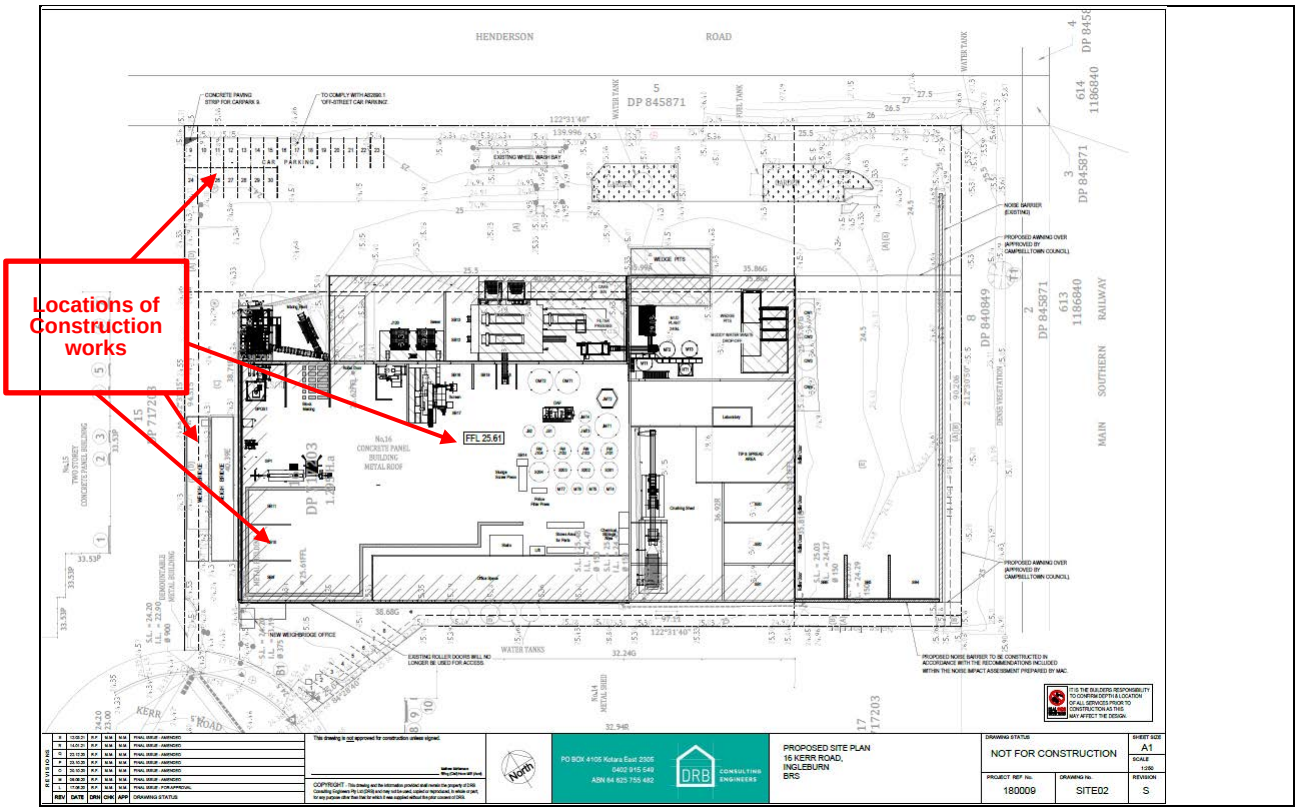
5.1 CONSTRUCTION WASTE

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 receival 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.

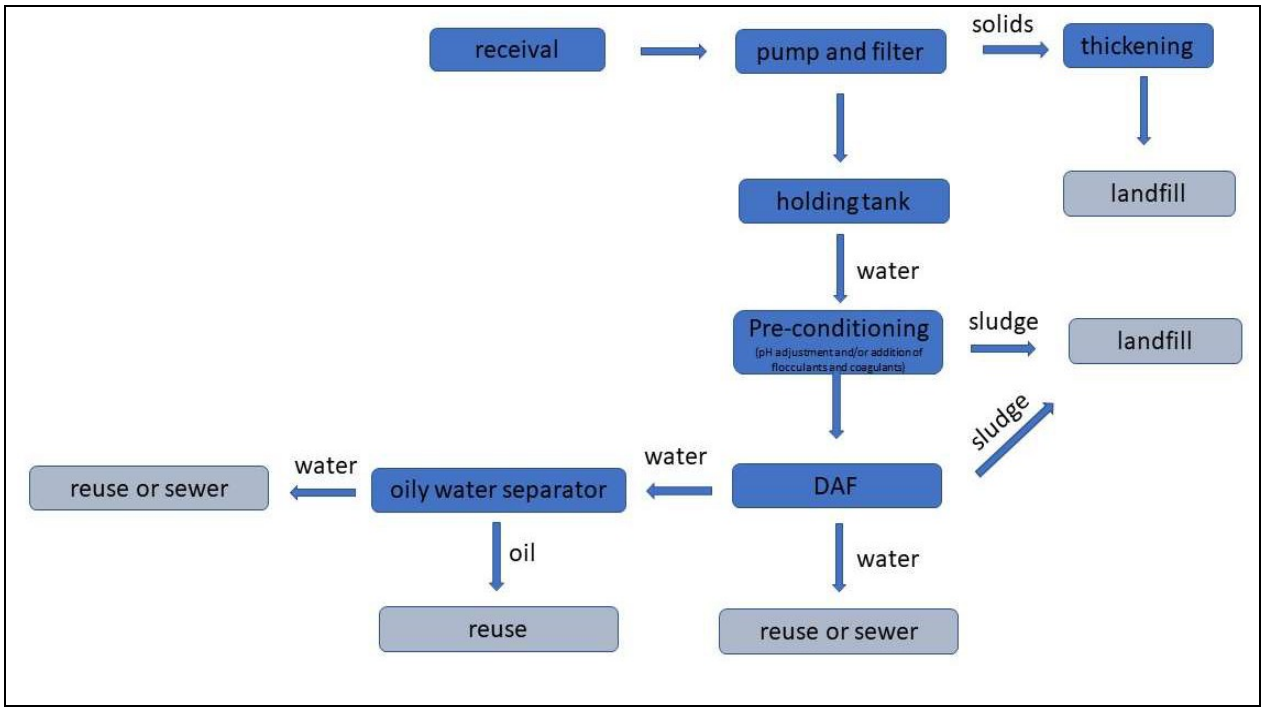
5.2.6 Drilling Mud Processing

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,

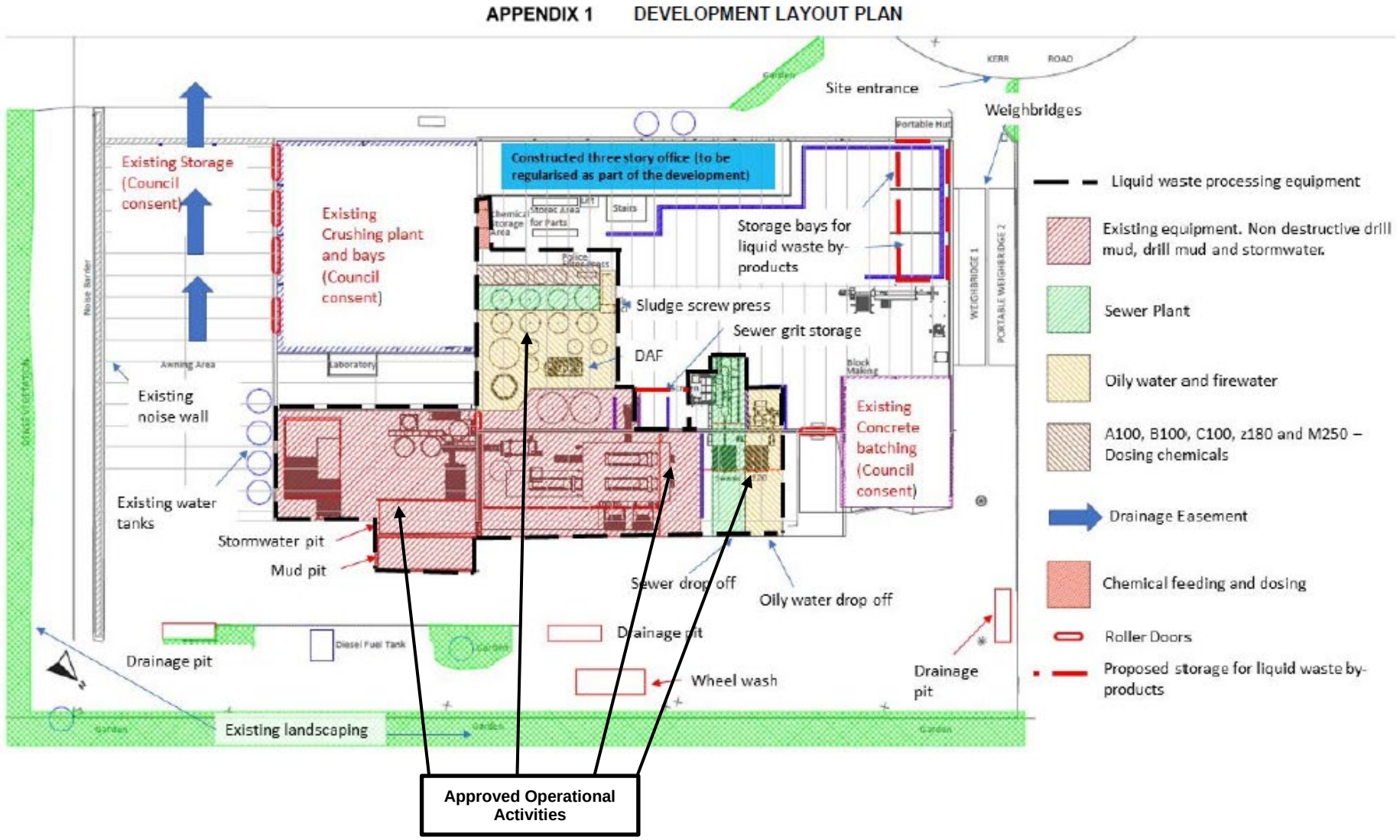
Filter cakes (compacted fines) would be produced from the screw press and, where suitable, this recovered material would be mixed and blended onsite for reuse and resold, for example as engineering fill and for landscaping supplies, but only after they are tested in accordance with current EPA guidelines. 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	A range of waste management procedures are implemented by the operation including the following: • 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	As part of its social responsibility, BRS posts letters to surrounding residentsin 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 isto 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: ❖ 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, ❖ Complains handling procedure and register; and ❖ EMP and other environmental documentation review procedure

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

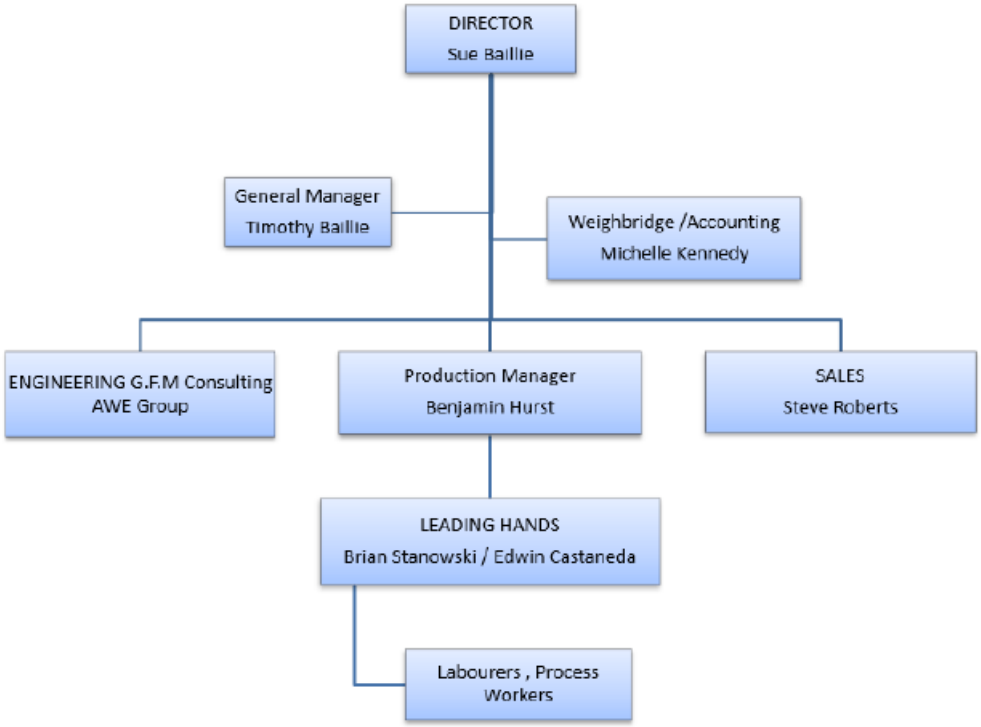
The Site Manager is responsible for the implementation and maintenance of the WMP throughout the activities to be conducted on site. The Site Manager may delegate the responsibility to other staff members who are appropriately trained to implement and maintain the WMP.

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 G.F.M Consulting, AWE Group	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
	• 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 coperational 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			

SUBJECT: **WASTE RELATED WORKPLACE INSPECTION CHECKLIST**

Housekeeping (circle): **Exceptional** **Good** **Average** **Poor** **Very Poor**

Comments / Actions Required:

Name **Position**

Signature **Date**

Attachment 2 – BRS Waste Related Processes and Procedures

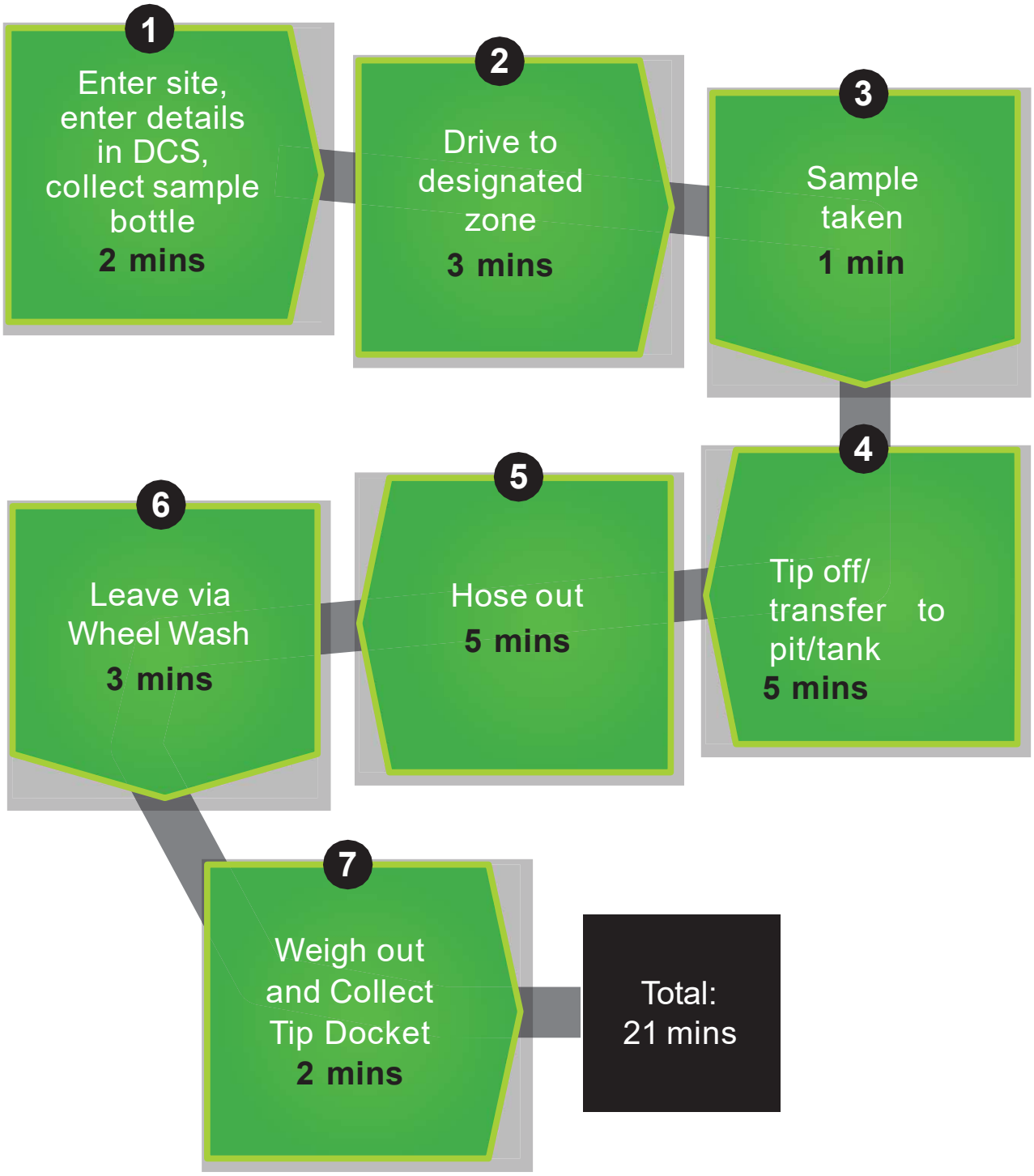
Bulk Recovery Solutions
www.bulkrecoverysolutions.com

EPA APPROVED SITE Lic:20797

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.

Bulk Recovery Solutions
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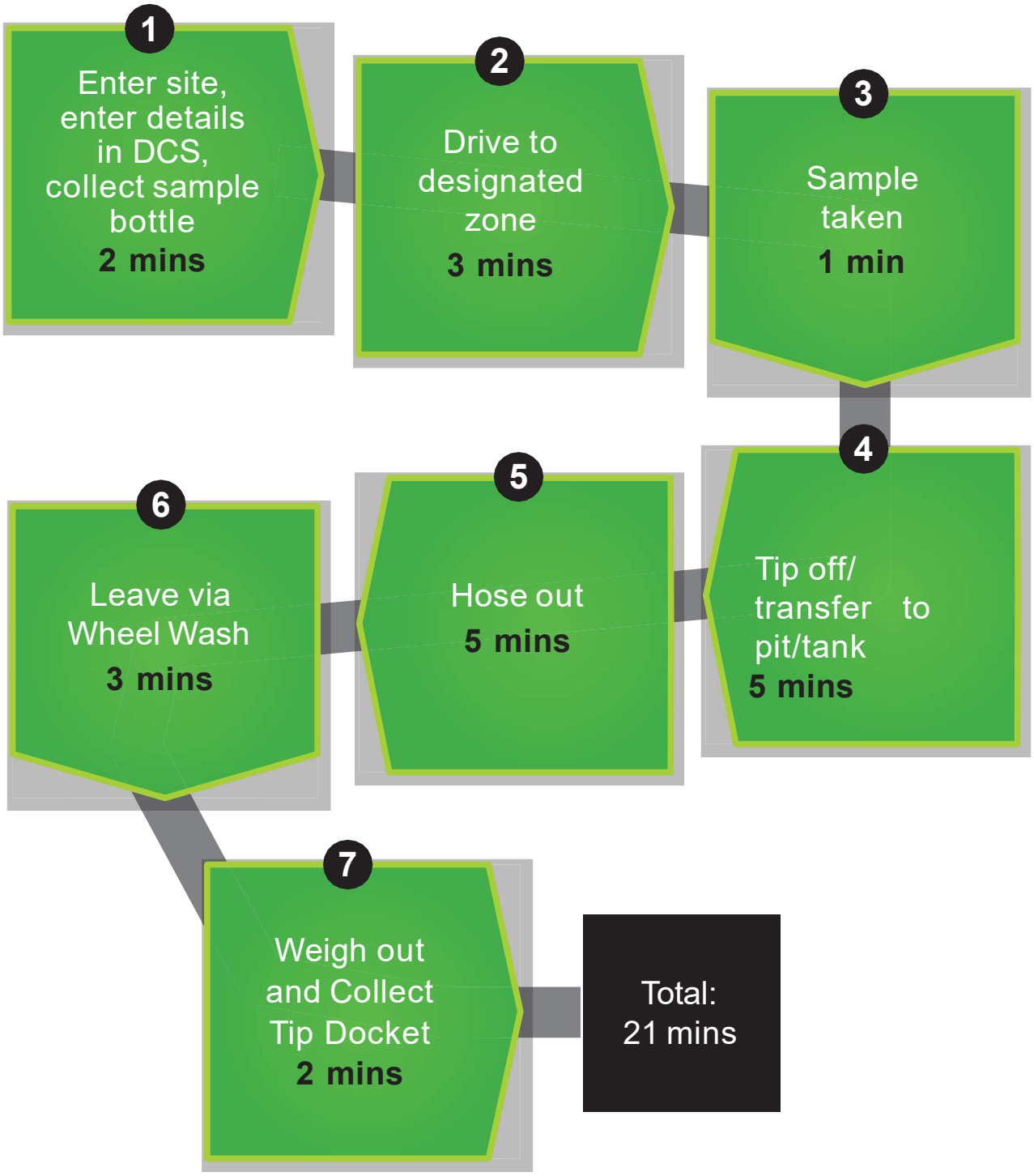
TIPPING PROCEDURE

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.

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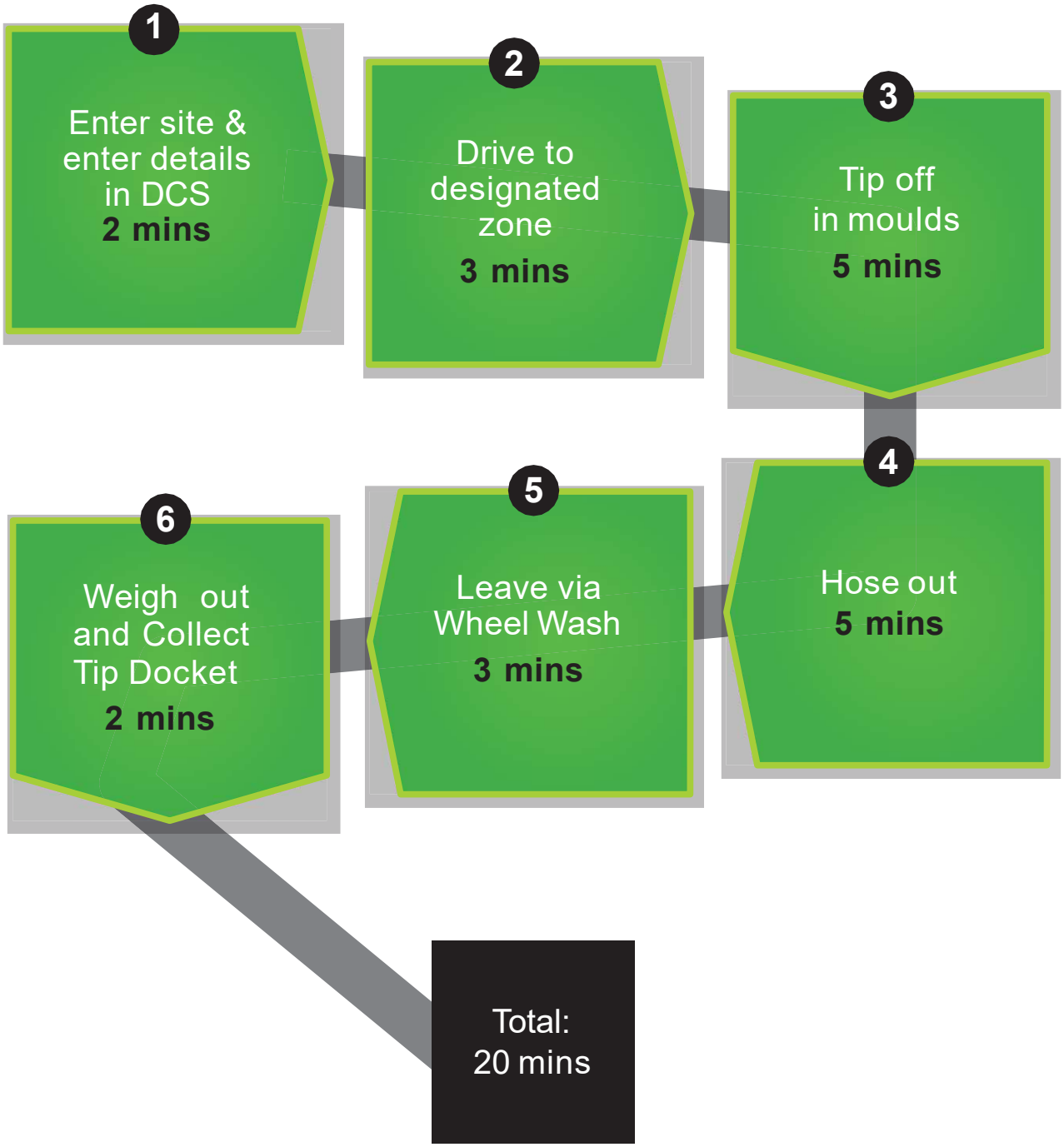
TIPPING PROCEDURE

CEMENT AGITATOR TRUCKS



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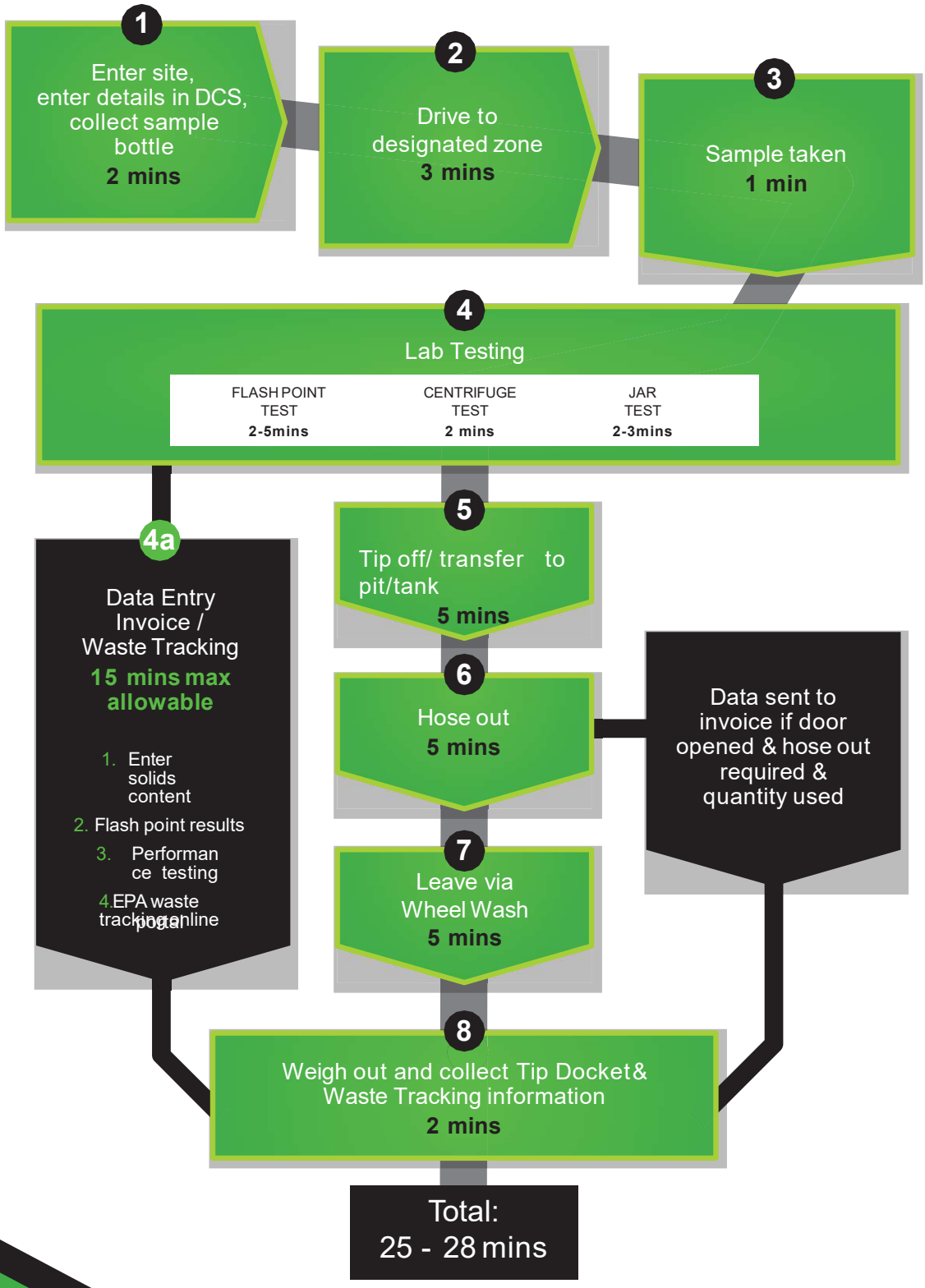
TIPPING PROCEDURE

J120 / FIREWATER

Classification report required prior to tipping.



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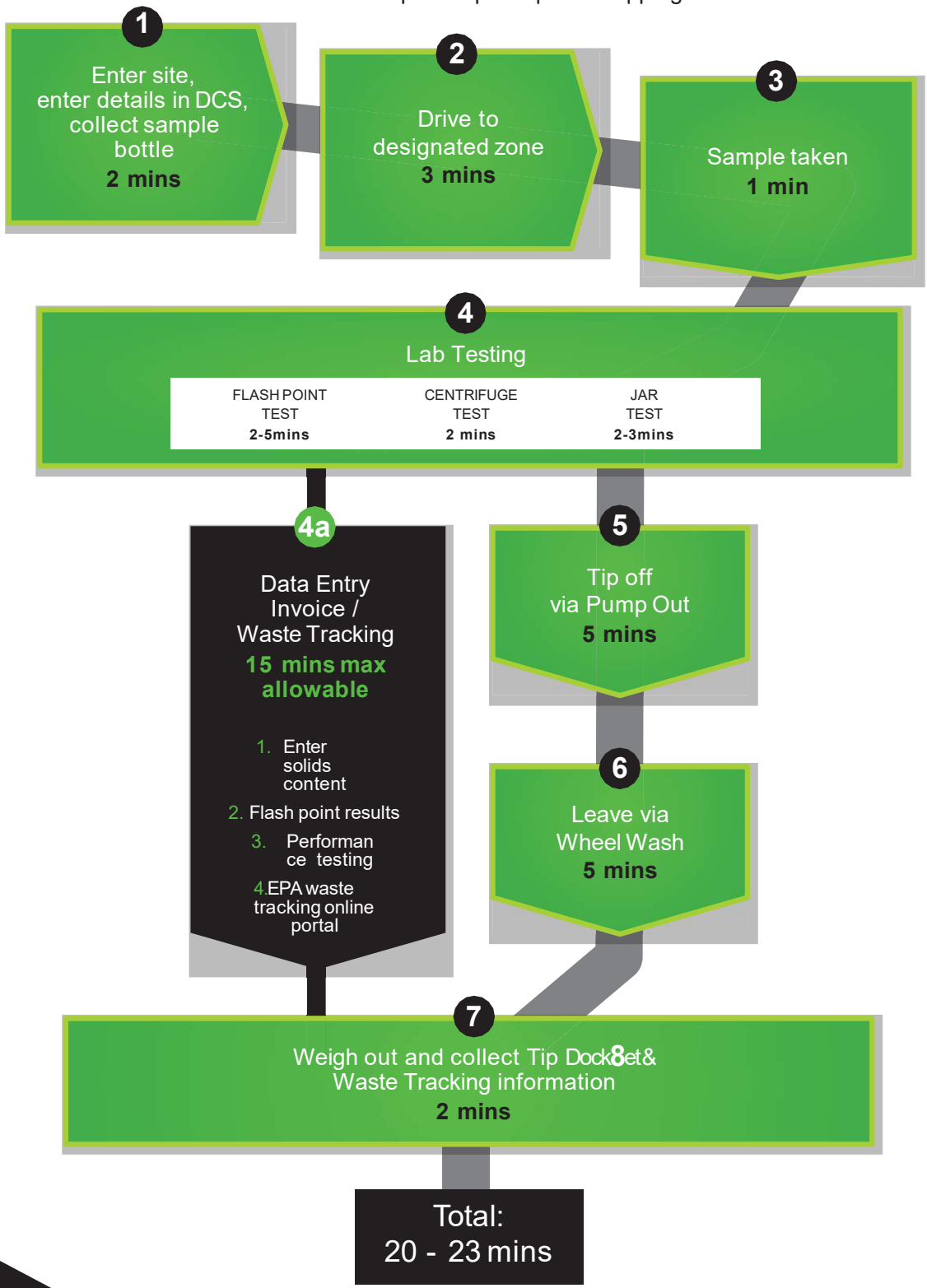
TIPPING PROCEDURE

A100 / B100 / C100 / N140 / Z180 / M250

Classification report required prior to tipping.



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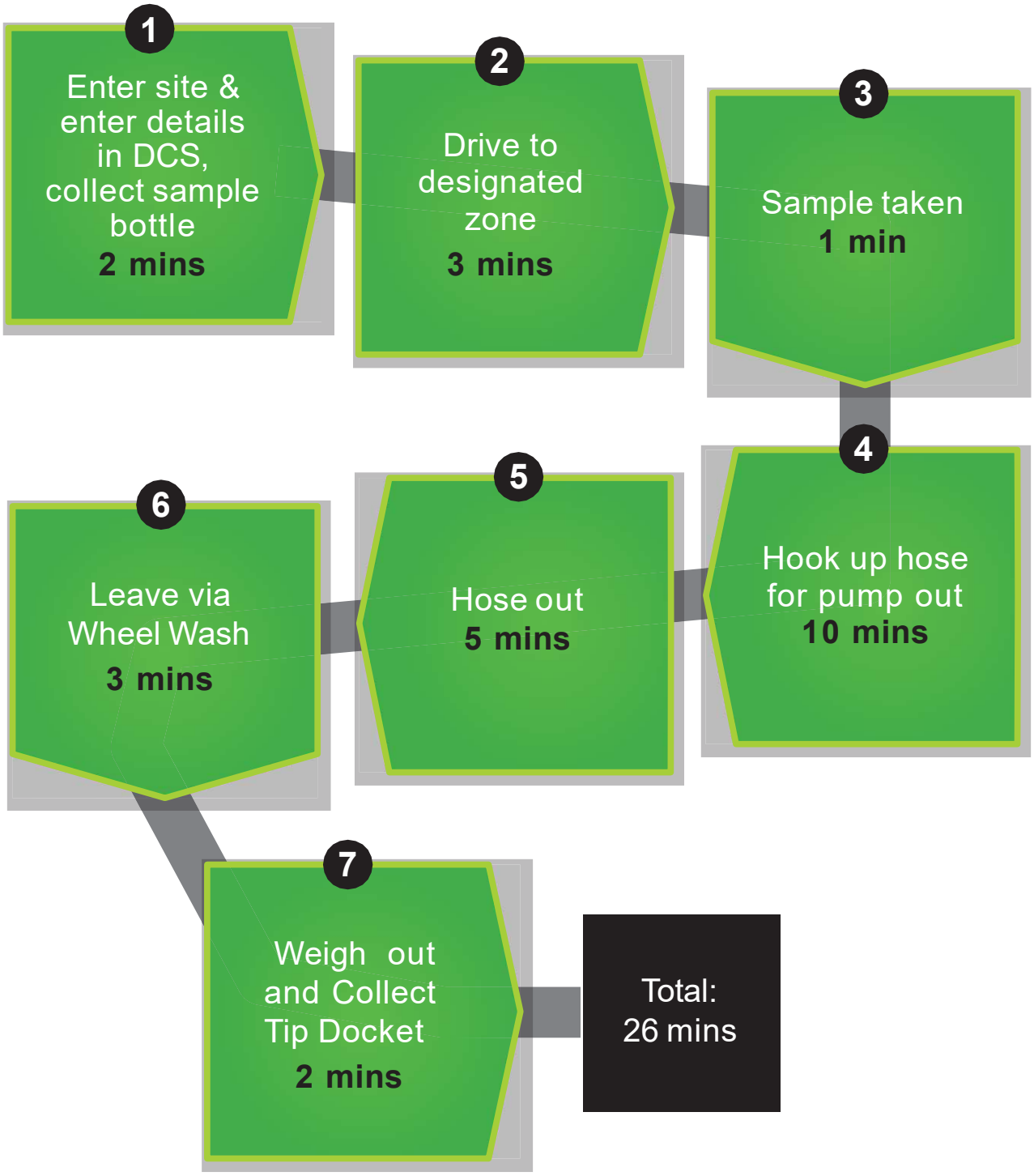
TIPPING PROCEDURE

SEWER WASTE



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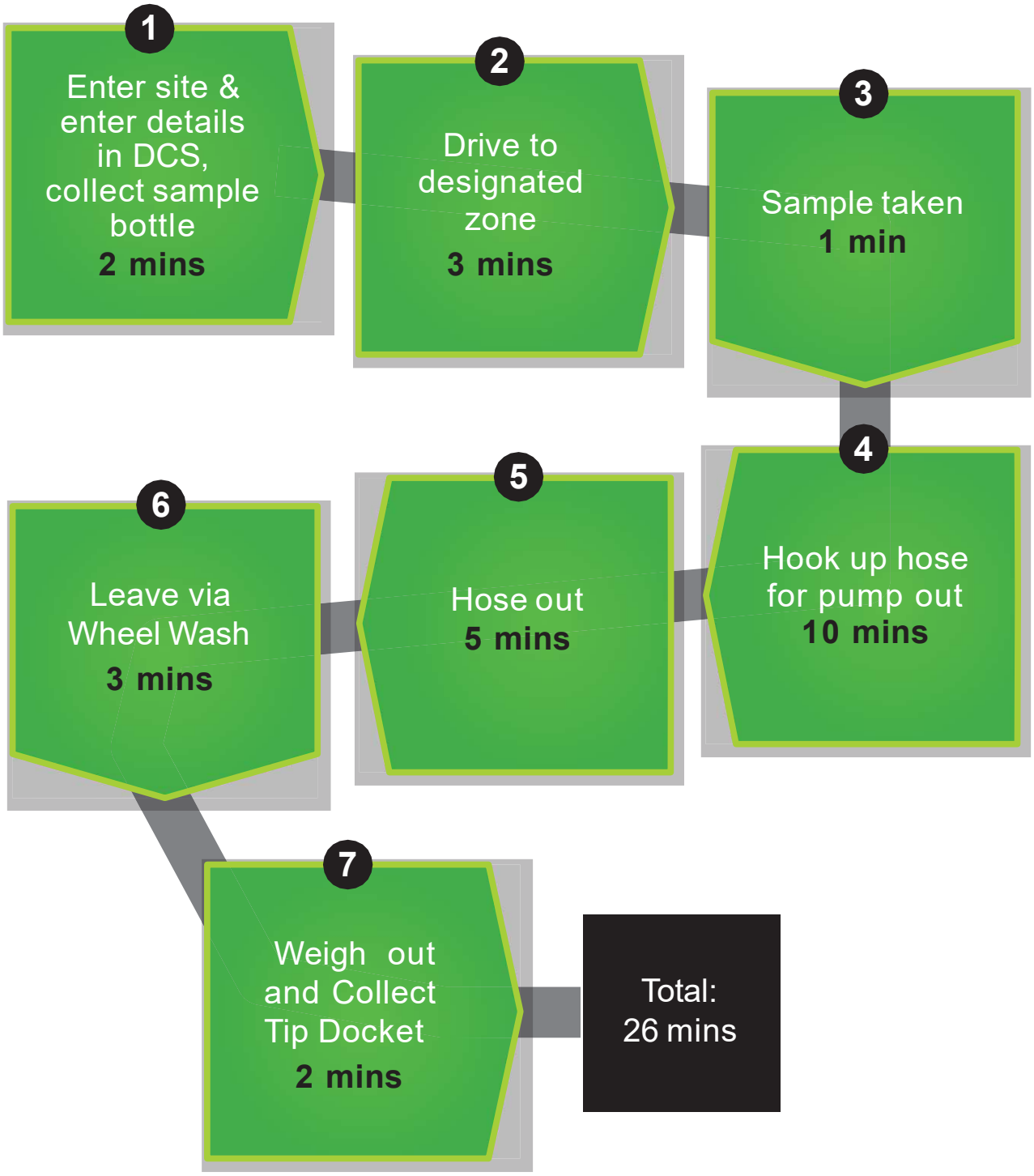
TIPPING PROCEDURE

LEACHATE

Classification report required prior to tipping.



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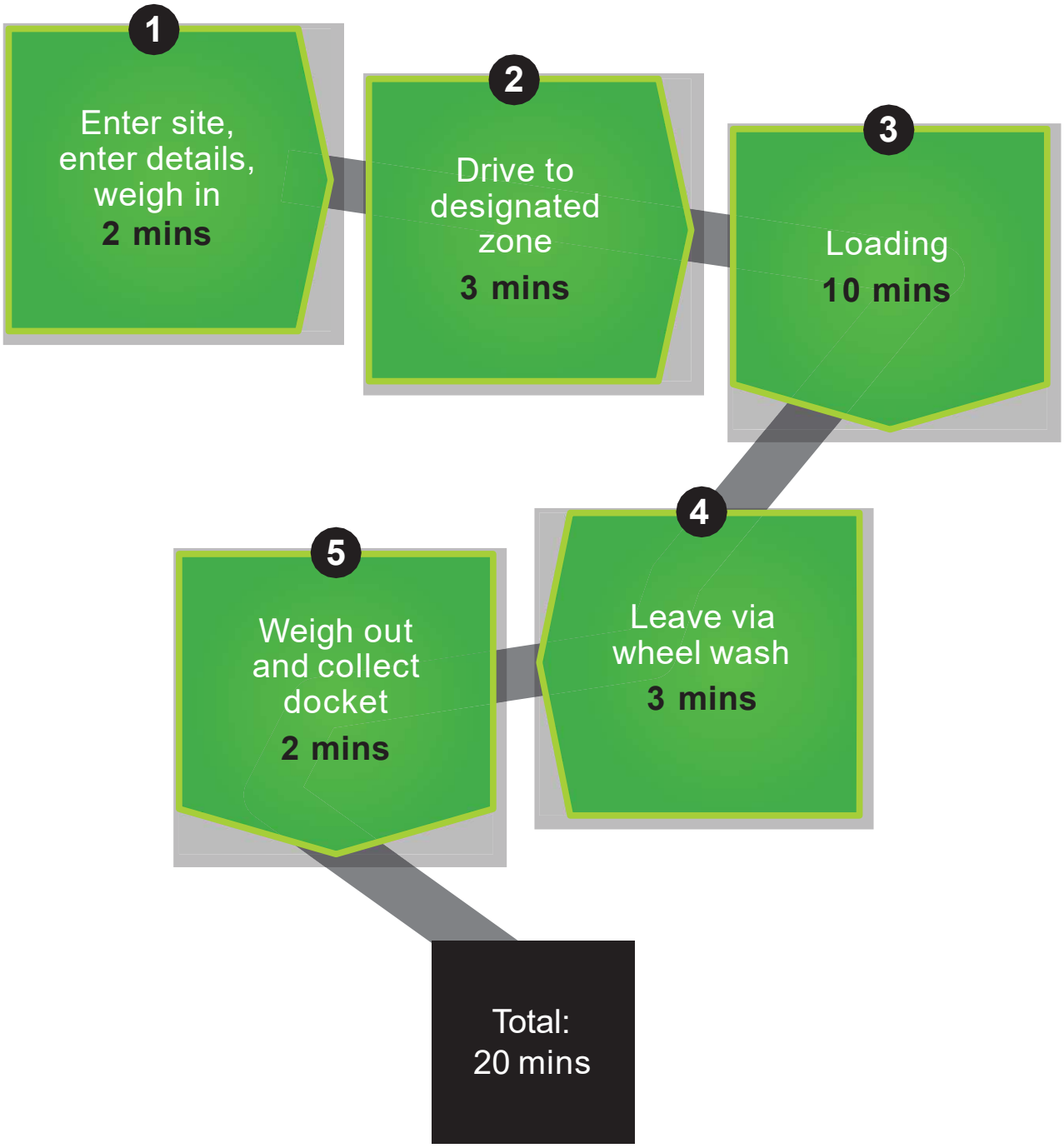
MATERIAL PICK UP PROCEDURES



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 **BRSLS-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 contaminates 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 Floatation. 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 then 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 then 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.

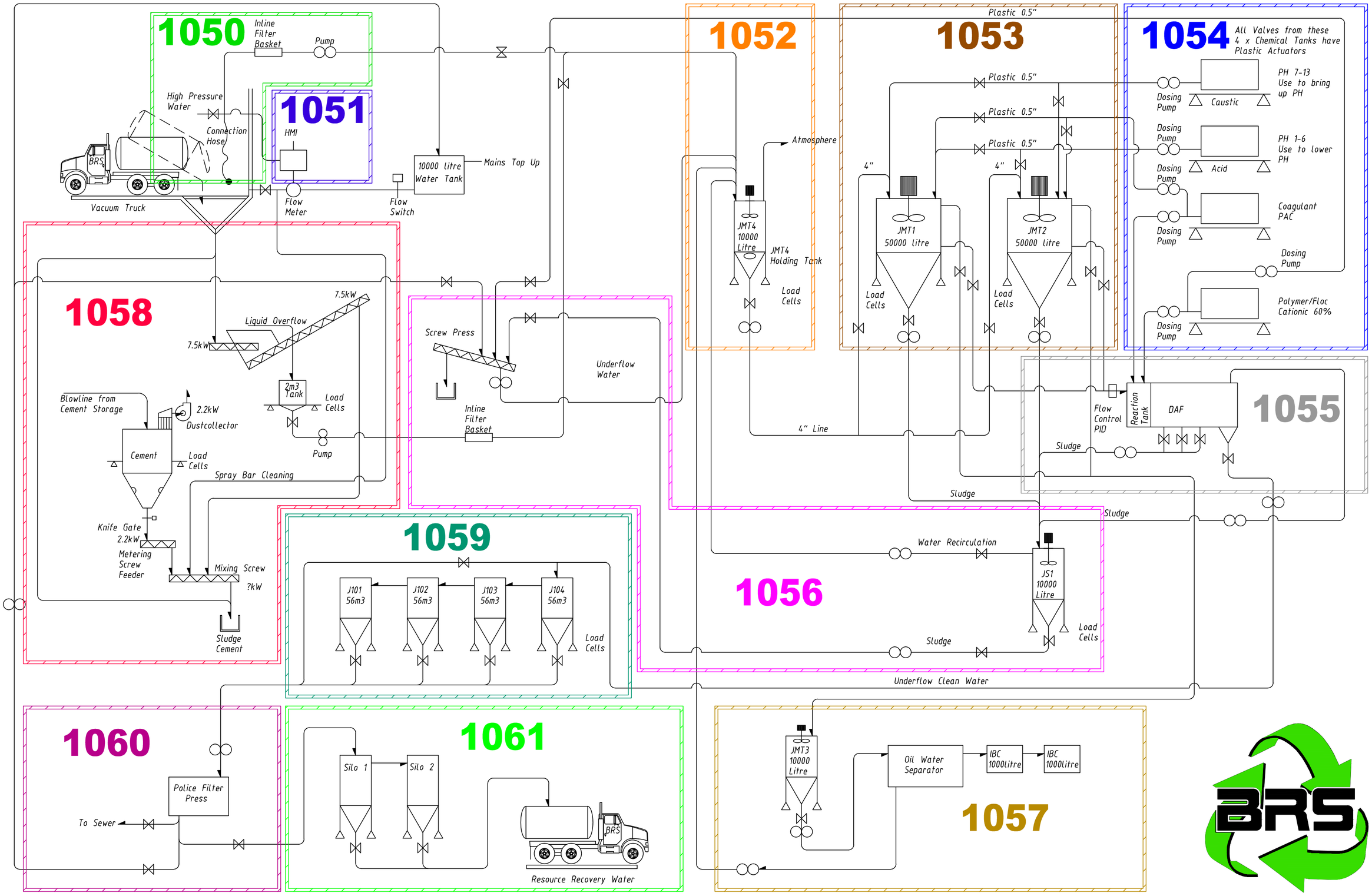
Plant i.d. number 1002:

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 then 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 then 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.



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: Bulk Recovery Solutions, Ingleburn, NSW

Title: Plant Flow Diagram

Drawing Number and Revision: BRSLS-001R6

Drawn By: AA

Checked By:

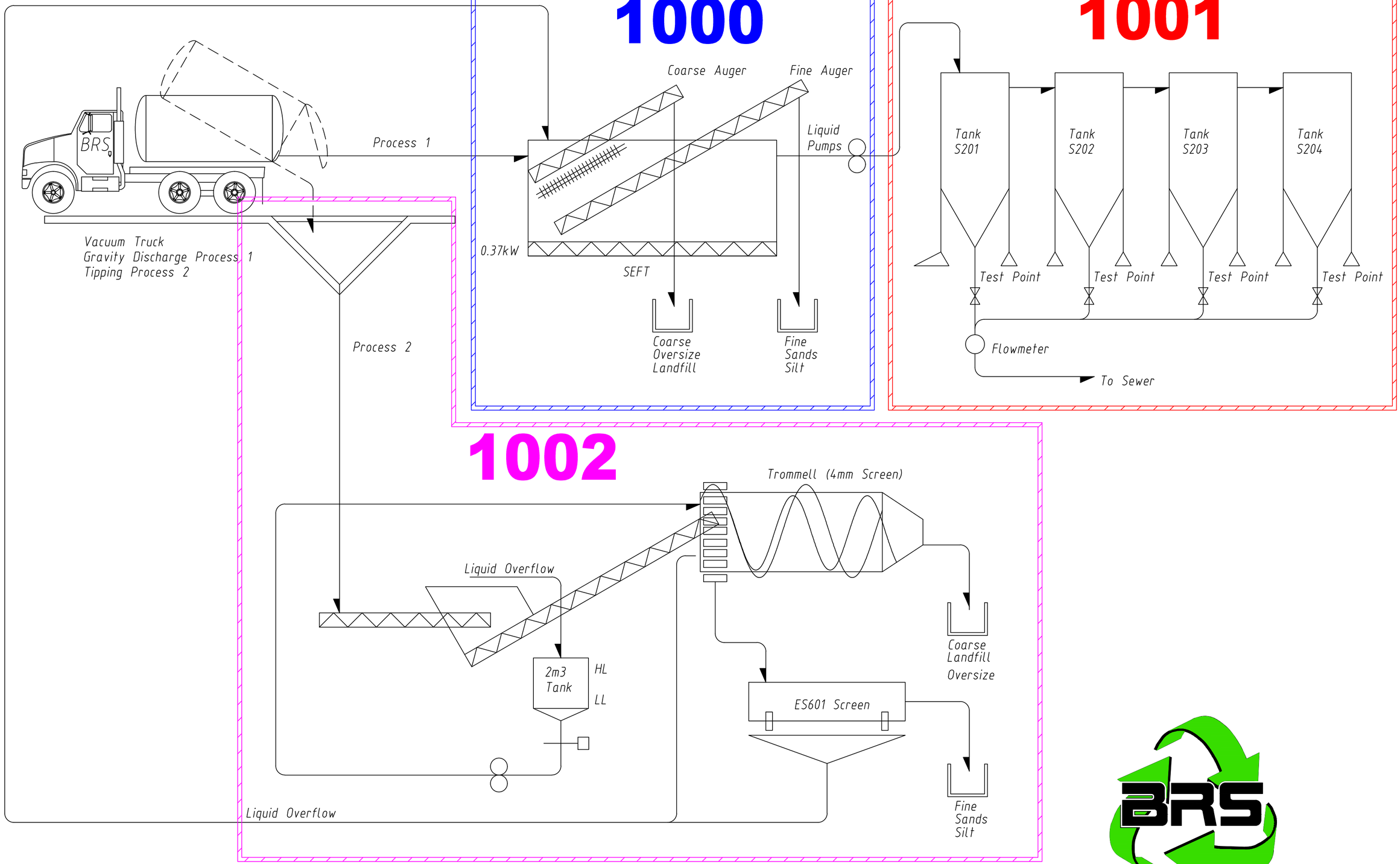
Scale: 1:1 (A1 Sheet)

Date: 23-03-21

1000

1001

1002



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
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

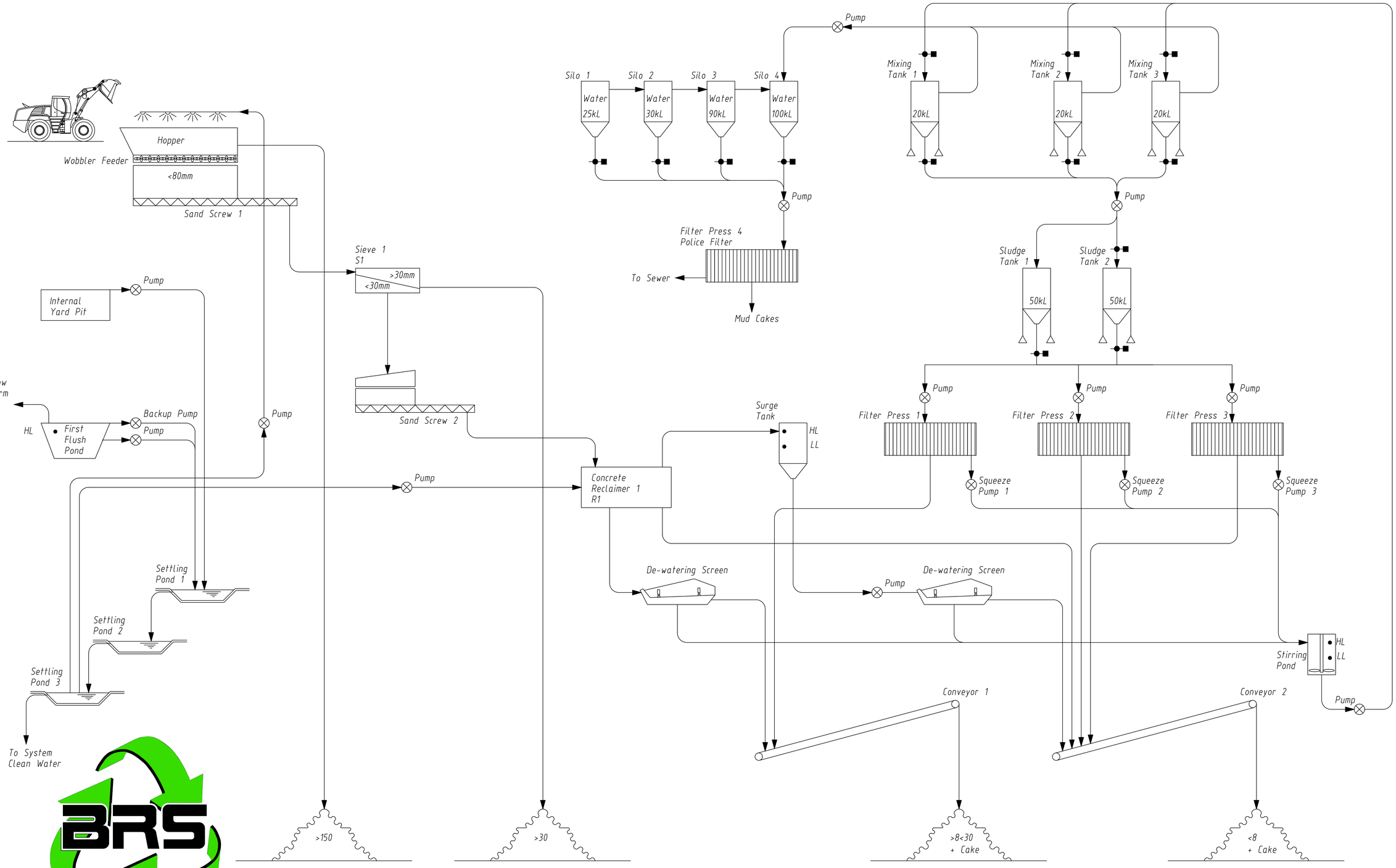
Checked By:

Title: Sewer Plant Flow Diagram

Scale: 1:1 (A1 Sheet)

Date: 23-03-21

Drawing Number and Revision: BRSLS-003R1



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: Bulk Recovery Solutions, Ingleburn, NSW

Title: NDD, Mud, Cement Slurry Flow Diagram

Drawing Number and Revision: BRSLS-004

Drawn By: AA

Checked By: TB

Scale: 1:1 (A1 Sheet)

Date: 08-04-21