



Waste Management Plan

For Banksmeadow Transfer Terminal

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QUALITY INFORMATION

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Definitions/Abbreviations

AQMP	Air Quality Management Plan
BTT	Banksmeadow Transfer Terminal
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EPL	Environment Protection Licence
IMF	Crisps Creek Intermodal Facility
MBT	Woodlawn Mechanical Biological Treatment
NIMS	National Integrated Management System
NMI	National Measurement Institute
OEMP	Operational Environmental Management Plan
POEO	Protection of the Environment Operations (Act and Regulations)
PTS	Paperless Truck System
SMA	Sydney Metropolitan Area
SWLMP	Soil, Water and Leachate Management Plan
TPA	Tonnes per Annum
WHS	Work Health and Safety (Act and Regulation)
WMP	Waste Management Plan
Veolia	Veolia Australia and New Zealand

SECTION 1 INTRODUCTION

1.1 Overview

Veolia Australia and New Zealand (Veolia) operates the Banksmeadow Transfer Terminal (BTT), which is located at 14 Beauchamp Road and 34-36 McPherson Street, Banksmeadow.

The BTT facility has been approved receive up to 500,000 tonnes per annum (TPA) of waste (including 400,000 TPA of putrescible waste and 100,000 TPA of non putrescible waste) from within the Sydney Region. The waste will be containerised and loaded onto rail wagons for transportation by rail to the Woodlawn Eco Project Site (owned and operated by Veolia) in the Southern Tablelands (approximately 250 kilometres southwest of Sydney) for treatment, recycling and energy recovery.

The BTT includes the following infrastructure:

- An access road for waste trucks entering and exiting the facility from Beauchamp Road.
- Incoming and outgoing weighbridges to check the waste type and weight of the waste being delivered to the facility.
- An enclosed building for the unloading and handling of waste, with environmental controls such as dust suppression and odour control systems.
- A hardstand area for temporary storage and manoeuvring of full and empty sealed shipping containers prior to loading on to trains.
- Rail sidings for the loading of containers onto trains for rail transport to Woodlawn.

The NSW Department of Planning and Environment (DPE) assessed the State Significant development (SSD 5855) and granted Development Consent for the 'State Significant' development on 28 April 2015, in accordance with section 89 (e) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

In addition, an Environmental Protection Licence (EPL) has been issued under the *Protection of the Environment Operations Act 1997* (POEO Act) by the NSW Environment Protection Authority (EPA).

This Waste Management Plan (WMP) has been prepared to manage waste received at the BTT, in accordance with the requirements of the Conditions of Development Consent (the Consent Conditions) and Environment Protection Licence issued for the BTT. The WMP details strategies to implement control strategies and mechanisms for the effective management of solid and liquid waste, and details management strategies for the lawful disposal and/or recovery of waste accepted via the facility in its operational phase.

1.2 Scope and Objectives

The purpose of this WMP is to provide, in accordance with Consent Conditions, EPL, relevant legislation and as part of Veolia's National Integrated Management System (NIMS), waste management procedures to form part of the BTT Operational Environmental Management Plan (OEMP).

The OEMP is the working environmental management tool for the operation of the BTT, concentrating on key environmental issues, including supporting detailed plans

for the management of water quality, waste, traffic, air quality, greenhouse gas, noise, landscape and vegetation and emergency response.

This WMP provides information on the key waste management requirements for the BTT, including the following:

- Details of the classification and quantity of waste that would be accepted, handled and transferred;
- Details of the waste monitoring program;
- Description of how putrescible waste would be stored and managed on site, including transport of waste to and from the site
- Details of the potential impacts associated with storing and transferring waste;
- Measures that would be implemented to ensure adherence to the objectives in the NSW Waste Avoidance and Resource Recovery Strategy 2007 and the EPA's Waste Classification Guidelines.

1.3 Legal and Other Requirements

The following regulatory framework applies to this WMP:

- Development Consent (DA SSD 5855) issued under the *Environmental Planning and Assessment Act 1979*
- Environment Protection Licence (EPL 20581) issued under the *Protection of the Environment Operations Act 1997* (POEO Act)
- The *Protection of the Environment Operations (Waste) Regulation 2014*;
- Commonwealth *National Measurement Act 1960*

1.3.1 Conditions of Development Consent

Consent conditions 5, 6, 16 to 20 of Schedule 3 relate to waste management. In particular, Condition 19 requires the preparation and implementation of a Waste Management Plan. The requirements considered relevant to this WMP are detailed in Table 1.1 below.

Table 1.1 Development Consent Requirements

Relevant Conditions	Requirement	WMP Reference
Limits of Consent		
5	The Applicant shall not receive or process more than: (a) 400,000 tonnes per annum of putrescible material; and (b) 100,000 tonnes per annum of non-putrescible material at the site.	Refer OEMP and Section 4.2
6	The Applicant shall only receive, store, handle or dispose of General Solid Waste or other classes of waste that are authorised for receipt on site by an EPL.	Noted
Waste Storage and Processing		
16	All uncontainerised waste shall be stored within the building at the premises and all waste processing activities shall be conducted within the building at all times.	Noted

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Relevant Conditions	Requirement	WMP Reference
17	To prevent unmanageable waste storage, the Applicant shall ensure that:	
17(a)	the storage of waste within the building shall not exceed more than 1,500 tonnes at any one time;	Noted
17(b)	Waste stockpiles within the building shall not exceed 4.5m in height; and	Noted
17(c)	The container stacking height shall not exceed 3 loaded containers	Noted
Restrictions of the Receipt, Storage, Handling and Disposal of Waste		
18	The Development shall ensure that any waste generated on the site during construction is classified in accordance with the EPA's Waste Classification Guidelines and disposed of to a facility that may lawfully accept the waste.	Noted
Waste Management		
19	The Applicant shall prepare and implement a Waste Monitoring Program for the development to the satisfaction of Secretary. This program must:	
19(a)	be prepared in consultation with EPA by a suitably qualified and experienced expert; and	Refer to Section 5.1
19(b)	include a suitable program to monitor the: <ul style="list-style-type: none"> • quantity, type and source of waste received on site; and • quantity, type and quality of the outputs produced on site. 	Noted
19(c)	ensure that: <ul style="list-style-type: none"> • all waste that are controlled under a tracking system have the appropriate documentation prior to acceptance at the site; and • staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste. 	Refer to Section 4
20	The Applicant shall prepare and implement a Waste Management Plan for the development, in consultation with the EPA and to the satisfaction of the Secretary. The plan shall:	Noted
20(a)	be prepared by a suitably qualified and experienced expert	Noted
20(b)	be submitted for approval by the Secretary prior to the commencement of construction;	Noted
20(c)	include an asbestos risk assessment for demolition work prior to the removal of any asbestos from the site;	Not relevant for operations
20(d)	include final details of the waste management system implemented at the site;	Refer to Section 4.1
20(e)	ensure that appropriate waste storage facilities are included in the final design of the waste management system	Refer to Section 4.3

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Relevant Conditions	Requirement	WMP Reference
20(f)	detail the type and quantity of waste to be generated by the construction and operation of the development;	Refer to Section 4.3.1
20(g)	detail the quality of waste to be received on site	Refer to Section 4.2
20(h)	detail the materials to be reused or recycled, either on or off site;	Refer to Section 4.2 and 4.3
20(i)	detail the procedures for handling, storage, collection of recycling and disposal of all waste in accordance with best practice industry standards and guidelines;	Refer to Section 4.3
20(j)	detail the procedures for the management of waste material, excluding recyclable waste, to ensure: <ul style="list-style-type: none"> • the waste material is regularly removed from the site to an appropriately licensed facility; and • any stockpiles of waste material are stored on sealed areas 	Refer to Sections 3.1.2 & 4.3
20(k)	If deemed necessary, outline reasonable and feasible measures that may be require to improve waste management at the site and prioritise recommendations for implementation	Refer to Section 5.2

1.3.2 Mitigation Measures

In addition, the operational mitigation measures appended to the Consent Conditions for waste management are presented below.

Table 1.2 Construction Mitigation Measures Requirements

	Mitigation Requirement	WMP Reference
1	A Waste Management Plan (WMP) will be incorporated into the OEMP, which will include the following information:	
1(a)	Characterisation of waste streams accepted at the facility	Refer to Section 4.2
1(b)	Procedures for weighbridge activities – including screening of incoming loads, weighing of incoming and outgoing vehicles, weighbridge data recording and archiving, and weighbridge inspection schedule.	Refer to Section 4.1
1(c)	Tipping procedures for each waste stream – including screening and scavenging.	Refer to Section 4
1(d)	Procedures for management of non-conforming loads and materials.	Refer to Section 4.2
1(e)	Procedures for ensuring the Site remains clean and tidy.	Refer to Section 4.3

	Mitigation Requirement	WMP Reference
1(f)	Procedures for loading materials – including front end loader operation, loading of non-putrescible waste into semi-trailers, loading of putrescible waste into compactors, compacting and containerising operations.	Refer to Section 3.1.2
1(g)	Procedures for rail transport – loading and unloading of containers.	Refer to Section 3.1.2
1(h)	Operational contingencies – should any Site activity undergo a temporary shutdown.	Refer to Section 4.5
1(i)	Roles and responsibilities for compliance with the WMP.	Refer to Section 2.1
1(j)	Procedures for inspection, monitoring, review and auditing to ensure compliance with the WMP.	Refer to Section 5
2	An Operational Contingency Plan will be incorporated into the OEMP will include the following:	Refer to Section 4.5
2(a)	Identification of internal and external factors that may disrupt the operation of the Banksmeadow TT.	
2(b)	Identification of the potential operational impacts associated with operational disruption.	
2(c)	Prescribe measures to mitigate potential impacts associated with disruption to operations	
2(d)	Notification of the EPA on 131 555 in the event of unscheduled disruptions to the operation of the Banskmeadow TT.	

1.3.3 Environment Protection Licence

EPL No. 20581 stipulates the environmental obligations for Veolia to not cause, permit or allow any waste to be received at the BTT site, except for what is permitted under the licence.

Conditions L2, O1, O5 and O6 set out requirements in relation to the management of waste on site as detailed in Table 1.3 below.

Table 1.3 Environment Protection Licence Requirements

Relevant Conditions	Requirement	WMP Reference
L2.2	The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled “Waste” and meeting the definition, if any, in the column titled “Description” in the table below. Any waste received at the premises must only be used for the activities	Noted

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Relevant Conditions	Requirement	WMP Reference															
	<p>referred to in relation to that waste in the column titled "Activity" in the table below.</p> <p>Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below. This condition does not limit any other conditions in this licence.</p> <table border="1" data-bbox="371 589 1211 768"> <thead> <tr> <th>Code</th> <th>Waste</th> <th>Description</th> <th>Activity</th> <th>Other Limits</th> </tr> </thead> <tbody> <tr> <td>NA</td> <td>General solid waste (non-putrescible)</td> <td>As defined in Schedule 1 of the POEO Act, in force from time to time.</td> <td>Waste processing (non-thermal treatment)</td> <td>100,000t per annum</td> </tr> <tr> <td>NA</td> <td>General solid waste (putrescible)</td> <td>As defined in Schedule 1 of the POEO Act, in force from time to time.</td> <td>Waste processing (non-thermal treatment)</td> <td>400,000t per annum</td> </tr> </tbody> </table>	Code	Waste	Description	Activity	Other Limits	NA	General solid waste (non-putrescible)	As defined in Schedule 1 of the POEO Act, in force from time to time.	Waste processing (non-thermal treatment)	100,000t per annum	NA	General solid waste (putrescible)	As defined in Schedule 1 of the POEO Act, in force from time to time.	Waste processing (non-thermal treatment)	400,000t per annum	
Code	Waste	Description	Activity	Other Limits													
NA	General solid waste (non-putrescible)	As defined in Schedule 1 of the POEO Act, in force from time to time.	Waste processing (non-thermal treatment)	100,000t per annum													
NA	General solid waste (putrescible)	As defined in Schedule 1 of the POEO Act, in force from time to time.	Waste processing (non-thermal treatment)	400,000t per annum													
<p>O1.1</p>	<p>Licensed activities must be carried out in a competent manner.</p> <p>This includes:</p> <p>a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and</p> <p>b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	<p>Noted</p>															
<p>O5.1</p>	<p>The licensee must ensure that any general solid waste (putrescible) and/or general solid waste (non-putrescible) received for storage or recovery or processing at the premises is assessed and classified in accordance with the EPA Waste Classification Guidelines as in force from time to time.</p>	<p>Noted</p>															
<p>O5.2</p>	<p>The licensee must ensure that each waste for recovery/recycling is stockpiled separately</p>	<p>Noted</p>															
<p>O5.3</p>	<p>No maintenance or cleaning of waste vehicles or waste containers shall be conducted at the Premises.</p>	<p>Noted</p>															
<p>O6.1</p>	<p>All waste processing activities shall be conducted within the transfer building.</p>	<p>Noted</p>															
<p>O6.2</p>	<p>No waste shall be stored outside the transfer building except when containerised for the purpose of transport to the Woodlawn Eco-Project Site.</p>	<p>Noted</p>															
<p>O6.3</p>	<p>Waste shall be processed on a first in, first out basis.</p>	<p>Noted</p>															
<p>O6.4</p>	<p>Vehicles leaving the waste processing areas must not track materials outside the transfer building.</p>	<p>Noted</p>															
<p>O6.5</p>	<p>All areas that involve the handling of waste including container transfer and handling areas, clean container storage areas and internal roadways must be sealed. All waste containers shall be maintained so as to contain all waste, liquid and odour.</p>	<p>Noted</p>															
<p>O6.6</p>	<p>All waste containers shall be maintained so as to contain all waste, liquid and odour.</p>	<p>Noted</p>															

1.4 Stakeholder Consultation

As part of an ongoing commitment to stakeholder engagement, Veolia has implemented a program of communication and consultation during the preparation of this WMP. Veolia has consulted with government agencies and other key stakeholders.

The key issues raised during consultation for air quality and greenhouse gas impacts included odour impacts on surrounding area and measures to mitigate, as well as emissions from waste vehicles

1.4.1 Government Bodies

The following government bodies have been consulted with in relation the requirements of this WMP:

- NSW Department of Planning and Environment;
- NSW Environment Protection Authority;

1.4.2 Community

Veolia's communication may include the following where applicable:

- public notices and announcements;
- meetings and correspondence with appropriate regulatory authorities; and
- discussions with adjoining land owners / neighbours who may be affected by the BTT.

The key objectives of the community focused communication and consultation program include:

- Educating stakeholders regarding key aspects of the the BTT; and
- Informing community groups and neighbours to help Veolia understand concerns.

The following avenues provide availability of information about the BTT:

- Dedicated Veolia webpage:
<http://www.veolia.com.au/sustainable-solutions/community-development/banksmeadow-transfer-terminal>

- Community telephone line:

Location	Contact
BTT 24 hour feedback line	1800 298 981

- Dedicated email address:
banksmeadow@veolia.com.au
- Published monitoring data:
<http://www.veolia.com.au/sustainable-solutions/environmental-compliance/nsw-environmental-monitoring-data>

SECTION 2 GOALS OF WMP

The specific goals of the WMP are to document operational strategies for the BTT to detail:

- Waste screening processes;
- Waste handling and loading procedures;
- Managing non conforming waste; and
- Managing potential impacts from operational disruptions

2.1 Roles and Responsibilities

Table 2.1 Roles and Responsibilities - WMP

Action	Responsibility	Timing
Overall implementation of the WMP	Facility Manager	Ongoing
Actioning operational contingency plan	Facility Manager	For operational failures
Identify non conforming waste and notify Facility Manager	Plant Operator(s) or Weighbridge Operator	On receipt of waste not conforming with EPL or consent
Informing customer of any non-conforming waste	Facility Manager or Sales Manager	As required
Training and communication	Facility Manager or Safety, Health, Environment and Quality (SHEQ) representative(s)	Training as required, 12 monthly corporate refreshers Review of any complaints received or incidents, and reports from audits/monitoring conducted Liaising with regulators and stakeholders, as required

SECTION 3 EXISTING ENVIRONMENT AND OPERATIONAL IMPACTS

3.1 Existing Environment

3.1.1 Site Features

The BTT consists of the transfer terminal building incorporating site offices and amenities, and associated road and rail infrastructure, including:

- An access road for waste trucks entering and exiting the facility from Beauchamp Road;
- Incoming and outgoing weighbridges to check the waste type and weight of the waste being delivered to the facility. This entrance includes a temporary truck parking area prior to the incoming weighbridge.
- An enclosed building for the unloading and handling of waste, with environmental controls such as an air extraction system and a dust suppression system.
- Two compactors are located on the western side of the building;
- A hardstand area for temporary storage and manoeuvring of loaded and empty sealed shipping containers prior to loading on to trains.
- Rail sidings for the loading of sealed containers onto trains for rail transport to additional Veolia waste management facilities.
- A separate access road for light vehicles via McPherson Street including designated parking area;
- The main office building is located at the front of the transfer terminal building, adjacent to the McPherson Street entrance.

Additional details of the BTT facility are provided in Section of 3.2 of the OEMP.

3.1.2 Waste Operations

The operation of the BTT includes receipt of solid waste from municipal, commercial and industrial sources within the Sydney Metropolitan Area (SMA) as follows:

- Waste is accepted, weighed and unloaded on the tipping floor of the transfer terminal building, where screening for non-conforming waste is completed in accordance with the EPL.
- The waste is pushed by front end loaders into compactors via a chute. Scales within the compactors are used to notify the operators of the weight of waste in real time.
- The waste is then compacted and transferred from the compactor into a modified 40 foot shipping container with the use of a hydraulic ram.
- Loaded shipping containers are transferred daily onto train wagons for transport via rail to the Crisps Creek Intermodal Facility (IMF), approximately 250 kilometres southwest of Sydney, in the Southern Tablelands.
- Empty shipping containers are unloaded daily from train wagons.

Procedures for the operation of plant and equipment on site, including front end loaders, compaction units, and container handlers are detailed within Veolia's National Integrated Management System.

3.2 Predicted Waste Impacts

The principal potential waste impacts associated with operations of the BTT include:

- Handling large quantities of waste with potential to generate odour;
- Disruption to waste operations and waste storage on site;
- Release of leachate from waste to stormwater may cause pollution of surface water;
- Receipt of non conforming waste in contravene with its EPL.

The EIS identified potential waste impacts and risks associated with the operation of the BTT. Table 3.1 lists these impacts and the risk assessment, which determined the level of mitigation required for those impacts.

Table 3.1 Waste Impact Risk Rating

Issue	Potential Impact	Source	Risk Ranking	Key Issue
Waste management	Odour emissions from putrescible waste	The handling of large quantities of waste at the facility has potential to result in the emission of odour if not properly managed.	Moderate	Yes, refer to AQMP
	Disruption to operations	Unplanned disruption to terminal operations resulting in large quantities of waste being stored on site.	Very high	Yes, refer to Section 4.5
	Release of leachate to stormwater	Failure to separate leachate generated at BTT from stormwater, resulting in environmental harm.	High	Yes, addressed in design of site and management controls, refer to SWLMP
	Receipt of non-conforming wastes at the Site.	Waste which the EPL does not permit to be handled at BTT is brought to the site.	Moderate	Yes, refer to Section 4.2

Operations at the BTT have the potential to be disrupted by various internal and external factors. Some disruptions may be planned, such as scheduled maintenance work on the rail infrastructure or compactors, while other disruptions may occur without notice. Potential sources of disruption to the operation of BTT include:

- Power disruption
- Rail Service disruption (scheduled and unscheduled)
- Failure of equipment (compaction unit(s), front end loader, container handler, sweeper)
- Failure of boom gate at the transfer terminal building entry
- Hot loads

SECTION 4 WASTE MANAGEMENT MEASURES

4.1 Waste Management System

All waste transport vehicles entering the facility are required to go via the incoming weighbridge. The weighbridge operator is responsible for recording all details of the waste accepted onto the site and directing trucks to the transfer terminal building for processing.

Waste transport vehicles exiting the site are weighed on the outgoing weighbridge to confirm the weight of waste deposited at the site.

All weighbridges on the site are National Measurement Institute (NMI) approved and maintained in proper working order and would be certified at least once a year in accordance with the Commonwealth *National Measurement Act 1960*.

Records of waste transport would be maintained by Veolia for submission to the EPA and quantification of the waste levy payable.

4.1.1 Waste Tracking

The weighbridge is the primary location on site for tracking waste, including monitoring the quantity, type and source of waste received on site, and the quantity, type and quality of the outputs produced on site.

The waste management system implemented at the weighbridge enables appropriate documentation prior to acceptance of waste at the site. This system also records and materials separated from the general waste stream and taken off site for reuse or recycling.

Veolia utilises the same integrated Weighbridge Management System, across all sites. This involves the connection of Veolia's own Paperless Weighbridge System (PWS) with the SAP accounting and record keeping software/database. The PWS architecture is designed for 24/7 operation, store and forward technology is used in all components to ensure data is not lost, and once connectivity is established, queued data flows in both directions automatically. This system allows each site to record the following information:

- Date
- Vehicle Registration
- Customer
- Waste type
- Gross and Tare Weight
- Gross and Tare Time
- PWS Docket Number

The following figures show details of this system.

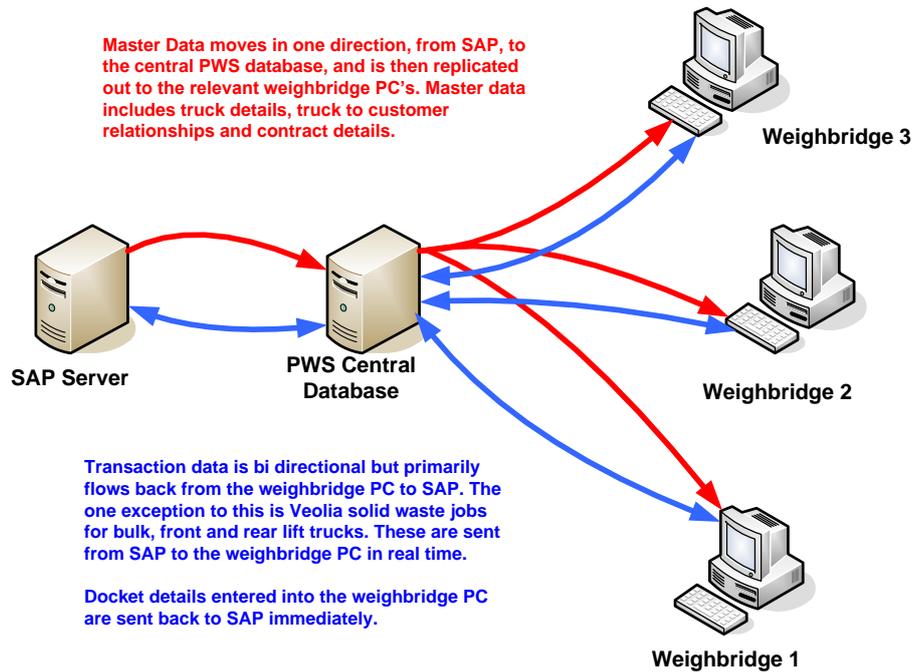


Figure 4.1 SAP and PWS Interface

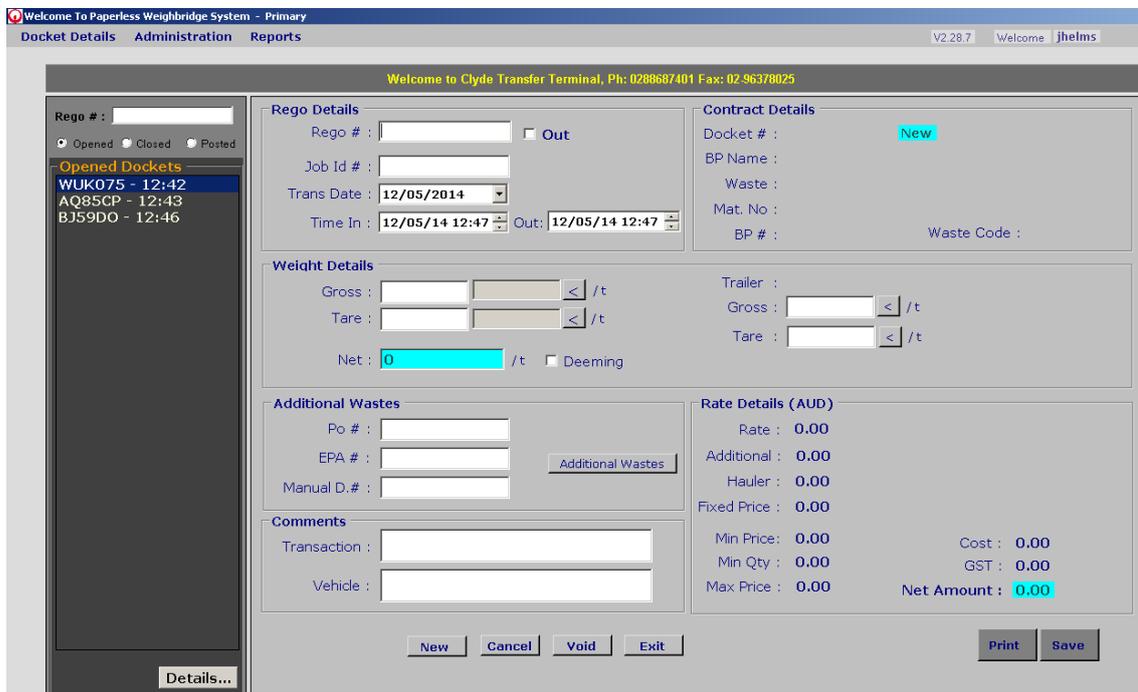


Figure 4.2 PWS Data Entry System

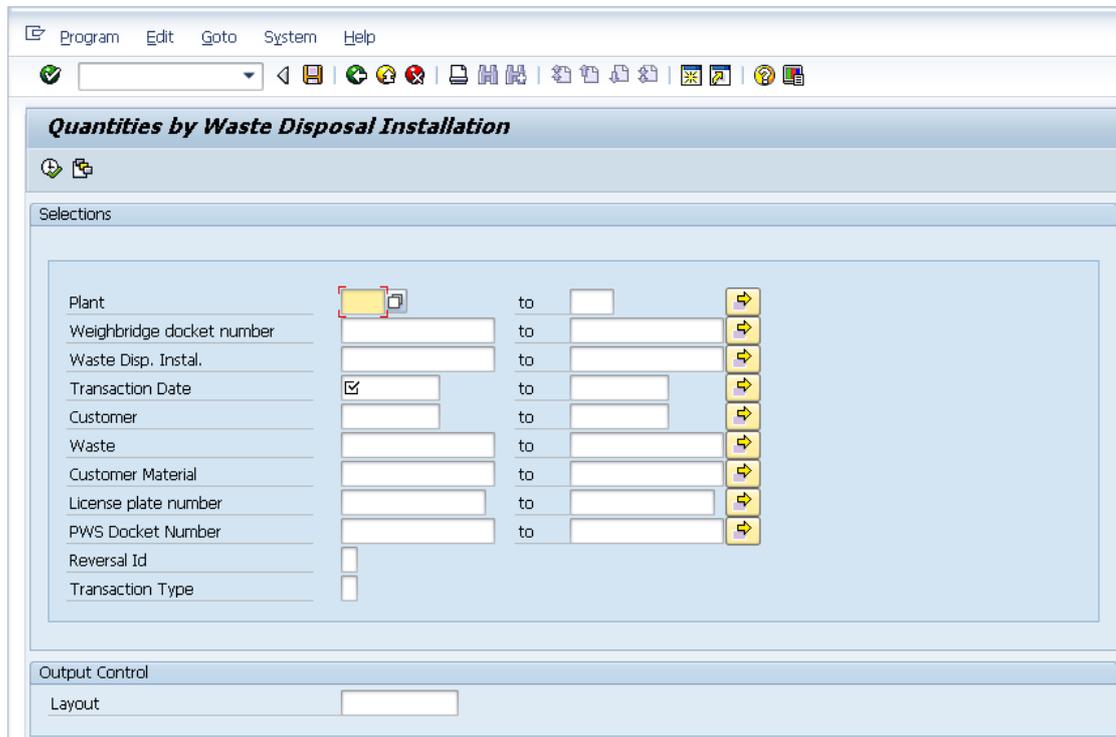


Figure 4.3 SAP Report Generation System

4.2 Waste Classification and Screening

The BTT is licensed under EPL No 20581 to accept the following waste types and operate 24 hours per day, 7 days per week:

- 400,000 TPA of General Solid Waste (Putrescible)
- 100,000 TPA of General Solid Waste (Non-Putrescible)

The EPL permits waste processing (non thermal treatment) and waste storage activities at the facility.

4.2.1 Waste Classification

These waste types are defined in the NSW EPA Waste Classification Guidelines Part 1: Classifying Waste as follows:

Putrescible waste

The following wastes (other than special waste, liquid waste, hazardous waste or restricted solid waste) have been pre-classified by the EPA as 'general solid waste (putrescible)':

- household waste that contains putrescible organics
- waste from litter bins collected by or on behalf of local councils
- manure and night soil
- disposable nappies, incontinence pads or sanitary napkins
- food waste
- animal waste

- *grit or screenings from sewage treatment systems that have been dewatered so that the grit or screenings do not contain free liquids*
- *any mixture of the wastes referred to above.*

Non-putrescible waste

The following wastes (other than special waste, liquid waste, hazardous waste, restricted solid waste or general solid waste (putrescible)) are pre-classified as 'general solid waste (non-putrescible)':

- *glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal*
- *paper or cardboard*
- *household waste from municipal clean-up that does not contain food waste*
- *waste collected by, or on behalf of, local councils from street sweepings*
- *grit, sediment, litter and gross pollutants collected in, and removed from, stormwater treatment devices and/or stormwater management systems, that has been dewatered so that they do not contain free liquids*
- *grit and screenings from potable water and water reticulation plants that has been dewatered so that it does not contain free liquids*
- *garden waste*
- *wood waste*
- *waste contaminated with lead (including lead paint waste) from residential premises or educational or child care institutions*
- *containers, previously containing dangerous goods, from which residues have been removed by washing³ or vacuuming*
- *drained oil filters (mechanically crushed), rags and oil-absorbent materials that only contain non-volatile petroleum hydrocarbons and do not contain free liquids*
- *drained motor oil containers that do not contain free liquids*
- *non-putrescible vegetative waste from agriculture, silviculture or horticulture*
- *building cavity dust waste removed from residential premises or educational or child care institutions, being waste that is packaged securely to prevent dust emissions and direct contact*
- *synthetic fibre waste (from materials such as fibreglass, polyesters and other plastics) being waste that is packaged securely to prevent dust emissions, but excluding asbestos waste*
- *virgin excavated natural material*
- *building and demolition waste*
- *asphalt waste (including asphalt resulting from road construction and waterproofing works)*
- *biosolids categorised as unrestricted use, or restricted use 1, 2 or 3, in accordance with the criteria set out in the Biosolids Guidelines (EPA 2000)*
- *cured concrete waste from a batch plant*

- *fully cured and set thermosetting polymers and fibre-reinforcing resins*
- *fully cured and dried residues of resins, glues, paints, coatings and inks*
- *any mixture of the wastes referred to above*

Recoverable waste

The following waste types have the potential to limit the effectiveness of the operations and therefore will be targeted for separation from the general waste stream, where feasible, for recycling or reuse:

- Timber waste;
- Green waste;
- Bricks;
- Concrete;
- Batteries;
- Ferrous metals; and
- Non-ferrous metals.

Non-conforming waste

Non-conforming waste includes:

- Radioactive wastes
- Toxic wastes including any:
 - Material containing arsenic, cyanide or sulphide
 - Toxic soluble salts of the following metals: barium, boron, cadmium, copper, chromium, lead, manganese, mercury, selenium, silver or zinc.
 - Pesticides, in particular any of the following:
 - Chlorinated hydrocarbons
 - Fluorinated hydrocarbons
 - Organophosphates
 - Carbamates
 - Phenols.
 - Soluble acid or alkali or acidic or basic compounds.
- Liquid wastes
- Special wastes, for example asbestos and pharmaceutical waste
- Any flammable liquid or material deriving from grease, oil, tar petroleum, shale or coal
- Any sludge or material (unless it can be shown to be innocuous and harmless) being the refuse from any industrial process carried out in any:

- Tanning or leather processing plant
- Petroleum or petrochemical plant
- Chemical plant
- Paint manufacturing plant
- Metal treatment plant
- Vegetable oil or mineral oil processing plant
- Medical and quarantine wastes
- Dead animals.

4.2.2 Screening and Recording Waste

There are two main screening points for identification of the type of waste received as it is delivered to the site:

- The weighbridge operator - queries the driver as to contents of load as well as a visual inspection of the load, if necessary, before directing the vehicle to enter the facility.
- The operator of the front end loader – inspection of the waste as it is discharged from the vehicle, to check for non-conforming waste and easily extractable, bulk recyclable waste.

Details of the waste received, including identification of the vehicle, weight, nature and origin of the waste, are recorded at the weighbridge, and inspection of the load is undertaken at the unloading point to verify information provided at the weighbridge.

Waste is screened in accordance with the NSW Resource Recovery Screening and Recording of Waste Procedure (PRO-NSW-000-325), which is available at the site office.

4.2.3 Waste Rejection

If any non-conforming waste is detected through the screening process, it shall be rejected and shall not be disposed of without further investigations, assessment and appropriate statutory consent.

Veolia's Control of Non-conforming Waste Procedure (PRO-COL-000-112) provides details regarding the identification of any unacceptable wastes and how to deal with these materials, which is accessible on site

In all instances where a load with non-conforming waste is identified the Facility Manager would be immediately informed and the Control of Non-Conforming Waste Form (FOR-NSW-000-113) would be filled out. A copy of any completed form is kept on site and the customer that transported the waste is also provided a copy.

If a load of non-conforming waste is identified prior to unloading, the vehicle would be directed to an appropriate disposal facility. If non-conforming waste is identified during deposition of the waste on the tipping floor, the vehicle driver would be asked to immediately stop depositing the waste. The non-conforming waste would be reloaded into the vehicle that transported the waste to the site and directed to transport the waste to an appropriate facility, with all actions documented on the Control of Non-Conforming Waste Form (FOR-NSW-000-113).

In the event that the vehicle depositing the non-conforming waste has already left the building, the site operator would segregate the non-conforming waste into a 'safe area' on the tipping floor, so that operational activities can continue while the customer responsible for the waste is notified and advised to remove the non-conforming waste. The front end loader operator would assist the customer retrieving the non-conforming waste to reload the waste into the customer's vehicle for disposal at an appropriate facility.

4.3 Waste Storage and Processing

Once inside the transfer building, waste trucks are directed to deposit the waste on the tipping floor. Waste is generally handled on a first in / first out basis. However, if a waste load is identified as either odorous or dusty, that load would be prioritised by the front end loader or excavator operator for immediate compaction.

If a load is identified as offensive (odorous or dusty) it is prioritised for compaction and loading into the sealed containers and recorded using the Incident Management System. This is supplemented with spot checks by the Facility Manager and SHEQ representative

In the event that easily extractable, bulk recyclable waste is detected this waste would be separated from the general waste stream and set aside for removal from the facility to another facility licensed to receive this type of waste for processing or recycling. This includes waste types identified as recoverable in section 4.2.1.

The tipping floor and compaction unit areas are cleared on a daily basis, where feasible, to ensure that waste is being processed within a manageable timeframe. These procedures also assist with general housekeeping and cleanliness on site.

These processes implemented within the transfer terminal building ensure that the BTT and other related facilities are able to operate in the most efficient manner through the separation and processing of waste types in the most appropriate way.

4.3.1 Waste Generation

Waste is generated on site through offices, lunch rooms and other site activities. These waste streams could potentially include:

- General solid waste (putrescible) – mixed residual waste.
- General solid waste (non-putrescible) – recyclable materials (such as paper, plastic containers, glass containers and aluminium cans), cardboard and plastic packaging, and maintenance items consumables.
- Liquid waste – leachate generated on site and transferred to Woodlawn (refer to SWLMP)

Typical waste generation during operations is 250L/day of the general solid waste(putrescible & non-putrescible) and 2000L/day of the liquid waste

Appropriate waste receptacles are provided throughout the site to enable the segregation of recyclables and general waste on site. General waste is processed through the facility and recyclable material is transported off site to an appropriately licenced facility for recycling of material.

4.4 Waste Training Programs

4.4.1 Drivers

All drivers accessing the site are trained in the conditions of site entry which provides information on site safety rules and acceptable waste types. The induction program is supported by the following measures:

- Verbal advise from weighbridge operator;
- Printed material to be handed to the driver at the weighbridge;
- Spot checks by Facility Manager or SHEQ representative;
- Tool box meetings; and
- Site entry signage.

4.4.2 Staff

As part of the site induction requirements, and in addition to operational training requirements, employees are also trained in a range of waste processing related areas including:

- waste tracking
- waste identification and classification
- control of non-confirming waste

This training ensures that staff receive adequate training to be able to recognise and handle any hazardous or other prohibited waste.

4.5 Operational Contingency Control Measures

Operations at the Banksmeadow TT have the potential to be disrupted by various internal and external factors. Some disruptions may be planned, such as scheduled maintenance work on the rail infrastructure or compactors, while other disruptions may occur without notice. Potential sources of disruption to the operation of the site and remediation measures are shown in Table 4.1.

Table 4.1 Operational Contingency Plan

External Factor	Potential Impact	Remedial Measure
Power disruption	Compactors inoperative; Lighting inoperative; Data and communication facilities inoperative. Accumulation of waste within transfer terminal building	Power disruption may be overcome by alternative power feed. However, in the event total power failure is experienced, the following procedure shall be adopted: Continue to receive waste matter until Terminal Shed capacity has been reached. The Generator in the Weighbridge should be activated immediately to maintain power. Manual weighbridge receipts can also be issued, where required. Divert waste to CTT or other licensed facility
Rail Service	Unable to transport loaded	Schedule transportation of additional containers from

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Waste Management

External Factor	Potential Impact	Remedial Measure
disruption (scheduled)	containers to Woodlawn; Unable to receive empty containers from Woodlawn. Accumulation of waste within transfer terminal building	Woodlawn to Banksmeadow to increase storage capacity of compacted waste. Continue to receive waste matter until transfer terminal building capacity has been reached. Divert waste to CTT or other licensed facility
Rail Service disruption (unscheduled)	Unable to transport loaded containers to Woodlawn; Unable to receive empty containers from Woodlawn. Accumulation of waste within transfer terminal building	Continue to receive waste matter until transfer terminal building capacity has been reached. Divert waste to CTT or other licensed facility.
Failure of Front-end Loader	Inability to push waste into compactor opening Accumulation of waste within transfer terminal building	Utilise the second (spare) front end loader to address the immediate situation. In the case of the second front end loader failing, the site contractor has within 4 hours to provide an alternative unit If one of the front end loaders is going to be unavailable for over 24 hours, then the site contractor must supply another suitable unit.
Failure of Container Handler	Inability to load and unload containers Accumulation of waste within transfer terminal building	Two container handlers available at BTT to ensure efficient continuity of operation Equipment supplier contracted to provide on-site breakdown maintenance service; Sufficient quantity of containers to continue compaction process. Remaining container handler can continue to retrieve and supply containers; Engagement of contractor to hire container handler ;
Failure of Sweeper	Inability to provide ongoing site sweeping	Equipment supplier contracted to provide on-site breakdown maintenance service; Use Skidsteer unit with sweeper attachment; Hiring of alternative unit; Engagement of contractor to complete sweeping service
Failure of the Boom-Gate at the entry to the	Disruption to the safe flow of traffic at the site	Operator to be positioned at the entry to the transfer terminal buldin where the boom-gate usually operates; Operator to direct traffic movements shed;

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Waste Management

External Factor	Potential Impact	Remedial Measure
Terminal Shed		Operator to be in constant contact, via two-way radio, with the loader operator .
Failure of compaction unit(s)	Compactors inoperative Accumulation of waste within transfer terminal building	Two compactors provide redundancy in the system Preventative maintenance program to minimise the potential for both compaction units failing at the same time Storage capacity within the building to cater for short term breakdown events Potential to divert waste to Clyde for long term issues on site
Hot load	Disruption to traffic flows on site Site resources detained in management of hot load	Response in accordance with Management of Hot Load Procedure

This Operational Contingency Plan will be implemented in the event of an operational disruption as outlined above.

The Facility Manager will be informed of any such event and provide further direction in accordance with the plan.

In addition, the Facility Manager will also be mindful of the volumes of waste accepted at the site in accordance with the maximum waste input rates as well as the waste storage limits on site.

SECTION 5 WASTE MONITORING AND REPORTING

5.1 Monitoring Program

Inspection, testing and monitoring will be undertaken at the BTT, in accordance with the site specific Inspection and Testing Register. The outcomes of monitoring will be recorded in appropriate forms/checklists as detailed in Section 5.1.1 of the OEMP.

Inspection and monitoring checklists for waste management during the operational phase of the BTT are held on Veolia's document management system.

The Facility Manager is responsible for monitoring the effectiveness of all waste management measures on site.

Regular environmental inspections are undertaken by the BTT personnel to ensure that environmental controls have been implemented, meet specification, and are being maintained in accordance with the NSW Inspecting and Testing Program (PRO-NSW-000-228) as summarised in Table 5.1 below.

Table 5.1 Waste Monitoring Program

Item	Type of Inspection/ Testing	Frequency of Inspection	Responsibility
Weighbridge	Certification and/or calibration	Annual	Plant Maintenance Supervisor
Compactors 1 & 2	Calibration	Annual	Plant Maintenance Supervisor
Waste volume monitoring <ul style="list-style-type: none"> • Storage on site • Annual limit 	Waste on floor Tonnage data review	Daily Ongoing	Facility Manager, Leading Hand(s)
Site Inspection and Housekeeping Checks	Inspection	Weekly	Leading Hand or Nominated person

5.2 Performance Reporting and Review

Annual management reviews of the environmental performance of the BTT will assess the continuing suitability, adequacy and effectiveness of the on-site environmental management measures implemented. This review will include performance against the goals of the WMP. This review would include consideration of any reasonable and feasible measures that may improve the management of waste at the site and prioritisation of any recommendations for implementation.

Where performance reporting is required under the Consent Conditions or EPL, all relevant information will be recorded and maintained on site. This will include, but not be limited to, the following:

- Sampling dates, times and name of sampler;
- Chain of Custody, analysis and results;
- Complaints received and corrective actions taken; and
- Copy of the EPL, development consent and other relevant approvals.

Veolia will use monitoring data to review and identify any exceedances against the adapted goals with the appropriate corrective actions applied as discussed below.

Details of compliance reporting requirements are provided in Section 5.1.2 of the OEMP.

5.3 Exceedances and Corrective Actions

Handling of any waste related complaints will be managed in accordance with the process outlined in Section 4.3.4 of the OEMP. The Facility Manager, or their site nominee, will record and manage all complaints in accordance with Veolia's complaints handling, notification and reporting procedures.

Any waste related incidents will be managed in accordance with Veolia's Non Conformance Procedure (PRO-COL-000-137). Investigations will be undertaken in accordance with the NSW Incident Investigation Procedure (PRO-NSW-000-130) or on a case by case basis depending on the severity of the incident as described in Section 5.1.1 of the OEMP.

Notification, emergency response and reporting requirements relating to incidents are detailed in Section 4.4 of the OEMP.

At completion of any investigation, any corrective actions required will be recorded in the Vault and managed in accordance with the NSW Corrective Action Procedure (PRO-NSW-000-132) in a timely manner as described in Section 5.1.1 of OEMP.

5.4 Publishing of Monitoring Data

Where required, Veolia publishes the results of any environmental monitoring required under the EPL on the following website:

<http://www.veolia.com.au/sustainable-solutions/environmental-compliance/nsw-environmental-monitoring-data>

REFERENCES

1. (Hyder, 2014b) Veolia Environmental Services Banksmeadow Transfer Terminal Response to Submissions, Hyder Consulting Pty Ltd, September 2014
2. (Hyder, 2014a) Veolia Environmental Services Banksmeadow Transfer Terminal Environment Impact Statement, Hyder Consulting Pty Ltd, April 2014
3. (EPA, 2014) Waste Classification Guidelines Part 1: Classifying Waste, NSW Environment Protection Authority, November 2014;