

Site Contamination Management Plan - CTT

PURPOSE	This Site Contamination Management Plan (SCMP) has been prepared in accordance with conditions 23, 24, 53 and 103 of the Conditions of Development Consent (COCs) for the Clyde Transfer Terminal (CTT) as a guide to minimise the exposure to contaminated soils and dust generation in the event of any future disturbance to the ground.
----------------	---

Scope	This SCMP has been prepared to provide the management measures implemented to minimise potential adverse impacts related to existing site contamination at the CTT.
Review Frequency	3 Yearly or prior to any excavation works

CONTENTS	<ul style="list-style-type: none"> Revision History Definitions/Abbreviations Introduction <ul style="list-style-type: none"> Overview Historical Background Scope and Objectives Legal and Other Requirements <ul style="list-style-type: none"> Conditions of Development Consent Environment Protection Licence Stakeholder Consultation <ul style="list-style-type: none"> Government Bodies NSW Department of Planning, Industry and Environment: NSW Environment Protection Authority: Cumberland City Council <ul style="list-style-type: none"> Community Goals of SCMP <ul style="list-style-type: none"> Roles and Responsibilities Existing Environmental and Operational Impacts <ul style="list-style-type: none"> Existing Environment Predicted Site Contamination Impacts
-----------------	---

	<ul style="list-style-type: none"><u>Site Contamination Management Measures</u><u>Site Contamination Management Plan</u><u>Disturbed Material Transported Offsite</u><u>Management of Disturbed Material Onsite</u><u>Management of Dust</u><u>Management of Groundwater</u> <u>Site Contamination Monitoring and Reporting</u><u>Monitoring Program</u><u>Performance Reporting and Review</u><u>Exceedances and Corrective Actions</u><u>Publishing of Monitoring Data</u> <u>References</u> <u>Appendix A - Site Auditor Endorsement</u> <u>Appendix B - Site Contamination Construction Environmental Management Plan</u>
--	--

Quality Information

Details:	Prepared by:	Reviewed By:	Authorised by:
Name:	Anae Ressos	Rod Jones and Ramona Bachu BSc; GDip; MEEM	Sara Maddison BE(Civ); BE(Env)
Position:	Environmental Coordinator	Facilities Manager - Clyde/Greenacre Acting NSW Environmental Compliance Advisor	Operations Project Manager/ Environmental Management Representative
Signature:		 	

Company:	Veolia Environmental Services (Australia) Pty Ltd
ABN:	20 051 316 584
Line of Business:	Waste
Facility:	Clyde Transfer Terminal
Address :	322 Parramatta Road, Auburn NSW

Rev	Revision Details	Issued to	Date
0.1	First draft for internal review	NSW Resource Recovery Technical Team ANZ People & Safety SHEQ Team	06 November 2020
0.2	Second draft for internal review	NSW Resource Recovery Technical Team ANZ People & Safety SHEQ Team	29 July 2021
0.3	Final draft	Department of Planning, Industry and Environment	30 July 2021

Definitions/Abbreviations

See definitions in the [BMS Dictionary](#) - Only definitions directly pertaining to this document are included.

Subject	Definition
AQMP	Air Quality Management Plan
BMS	Business Management System
CCC	Community Consultative Committee
CTT	Clyde Transfer Terminal
COC	Conditions of Development Consent
DA	Development Application
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP&A	Environmental Planning and Assessment (Act and Regulations)
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ERP	Emergency Response Plan
JSEA	Job Safety and Environment Assessment
OEMP	Operational Environmental Management Plan
PIRMP	Pollution Incident Response Management Plan
POEO	Protection of the Environment Operations Act 1997
RMS	Roads and Maritime Services
SCMP	Site Contamination Management Plan
SMP	Stormwater Management Plan
TPA	Tonnes per annum
Veolia	Veolia Australia and New Zealand

1. Introduction

1.1. Overview

Veolia Australia and New Zealand (Veolia) operates the Clyde Transfer Terminal (CTT), which is located within a portion of the Clyde Rail Yard, at 322 Parramatta Road, and forms part of Lot 201 of DP10076683 in the Cumberland Local Government Area. Refer to Site Layout Plan in **Appendix A** of the Operational Environmental Management Plan (OEMP).

The CTT facility has been approved to receive up to 600,000 tonnes per annum (TPA) of waste from within the Sydney Region. Waste is containerised and loaded onto rail wagons for transportation by rail to the Woodlawn Eco Precinct (owned and operated by Veolia) in the Southern Tablelands (approximately 250 kilometres southwest of Sydney) for treatment, recycling and energy recovery.

The CTT includes the following infrastructure:

- An access road for waste trucks entering and exiting the facility from Parramatta 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 maneuvering of full and empty sealed shipping containers prior to loading onto trains.
- Rail sidings for the loading of containers onto trains for rail transport to Woodlawn.

The Minister of Planning approved the Development Application (DA) 205-08-01 on 29 August 2002, in accordance with section 89 (e) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). A number of Conditions (COC) of Development Consent (Consent) were issued to stipulate regulatory requirements for the operation of the CTT.

There have been a number of modifications since to COC which have been approved by the Department of Planning, Industry and Environment (DPIE) in accordance with section 75W of the *Environmental Planning and Assessment Act 1979*. The consent modification application (DA No. 205-08-01 MOD 5) to extend operations and increase waste acceptance to 600,000 TPA was outside the scope of this Site Contamination Management Plan (SCMP).

In addition, an Environment 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 SCMP has been prepared in accordance with conditions 23, 24, 53 and 103 of the Conditions of Development Consent (COCs) for the CTT as a guide to minimise the disturbance of contaminated soils and dust generation on site during operational activities.

1.2. Historical Background

The CTT site has historically been used for rail purposes since the early nineteen hundreds. Hydrocarbon-based liquids, ash-based materials, coal wash, slag, ashes and ballast comprise the rail-based wastes. These wastes include heavy metals, lead and asbestos.

The site has been redeveloped so as to operate a road/rail waste transfer station with gatehouse/weighbridge for the transportation of General Solid Waste (Putrescible), classified in accordance with Schedule 1 of the Protection of the Environmental Operations (POEO) Act 1997.

The CTT's operating area comprises a transfer building, housing a hydraulic waste compactor pit, a weighbridge, container storage, loading and unloading areas and a leachate tank. Waste enters the CTT by road, is weighed on the weighbridge and unloaded onto the tipping floor, prior to compaction and loading into containers, ready for rail transport to the bioreactor site at Woodlawn.

1.3. Scope and Objectives

The objective of this SCMP is to provide mitigation management procedures in the event of disturbing the ground and subsurface soils during the operation of the CTT, as part of the CTT Operational Environmental Management Plan (OEMP), in accordance with relevant COCs, EPL, relevant legislation and as part of Veolia's waste management procedures.

The OEMP is the working environmental management tool for the operation of the CTT, concentrating on key environmental issues, including supporting detailed plans for the management of water quality, waste, traffic, air quality, noise, contamination, pest and vermin and emergency response.

1.4. Legal and Other Requirements

The following regulatory framework applies to this SCMP:

- Development Application (DA 205-08-01) issued under the , in accordance with section 89 (e) of the *Environmental Planning and Assessment Act 1979* (EP&A Act)
- Environment Protection Licence (EPL 11763) issued under the *Protection of the Environment Operations Act 1997* (POEO Act)
- *Contaminated Land and Management Act 1997* (CLM Act)

1.4.1. Conditions of Development Consent

The COCs related to the Site Contamination Management Plan are detailed in **Table 1.1** below.

Table 1.1 Conditions of Consent Requirements

Relevant Conditions	Requirement	SCMP Reference
23	The applicant shall obtain an environmental report prepared by a site auditor accredited under the <i>Contaminated Land Management Act 1997</i> to determine the nature and extent of contamination at the site and any investigation and/or remediation necessary before the land is suitable for commercial/industrial use.	(a) Noted Section 1 and 2 and Addressed in Section 3.1, 4.1.3 and section 5 of SCMP (b) Noted Section 1 and 2 and Addressed in

	<p>Prior to construction the Applicant shall obtain written endorsement from the site auditor for the following aspects of the Site Contamination Management Plan:</p> <p>(a) A plan to manage the disturbance of contaminated soil in a manner that protects sub-surface waters from contamination</p> <p>(b) A plan to manage dust during the construction and operational stages in a manner that protects the health of on-site and off-site personnel.</p>	<p>Section 3.1, 4.1.2 and section 5 of SCMP and 4.1 of AQMP</p>
24	<p>Prior to completion of construction, any amelioration measures required to enable a site audit statement to be issued shall be implemented.</p>	<p>Noted in Section 4.1</p>
53	<p>The Site Contamination Management Plan must include any actions recommended in the environmental report by the site auditor that apply to operation stage activities.</p>	<p>Noted and addressed in Section 5.1 (Site Contamination Management Plan)</p>
103	<p>The Site Contamination Management Plan must be implemented to the satisfaction of the Planning Secretary, prior to and for the duration of the development.</p>	<p>Noted</p>

1.4.2. Environment Protection Licence

EPL No. 11763 stipulates the environmental obligations for Veolia to not cause, permit or allow any waste to be received at the CTT, except for what is permitted under the licence.

1.5. 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 SCMP. Veolia has consulted with government agencies and other key stakeholders.

1.5.1. Government Bodies

The following government entities will be consulted with in relation the requirements of this SCMP:

- NSW Department of Planning, Industry and Environment;
- NSW Environment Protection Authority;
- Cumberland City Council

1.5.2. Community

Veolia aims to ensure that the local community is kept informed of the progress of the project in a proactive and responsive manner. Veolia’s communication may include the following where applicable:

- public notices and announcements;

- meetings and correspondence with appropriate regulatory authorities; and
- discussions with adjoining landowners / neighbours who may be affected by the CTT.

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

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

The following avenues provide availability of information about the CTT:

- Dedicated Veolia webpage:
<https://www.veolia.com/anz/our-services/our-facilities/transfer-stations/clyde-transfer-station>
- Community telephone line and email address:

Location	Contact
CTT 24 hour feedback line	(02) 9841 2600
Dedicated email address	clyde.weighbridge@veolia.com

- Published Monitoring Reports:
<https://www.veolia.com/anz/our-services/our-facilities/transfer-stations/clyde-transfer-station>
- Published Monitoring Data:
<https://www.veolia.com/anz/about/about-veolia/operational-compliance/nsw-monitoring-reports>

2. Goals of SCMP

2.1. Roles and Responsibilities

The following table details the roles and responsibilities associated with the SCMP.

Table 2.1 SCMP Roles and Responsibilities

Action	Responsibility	Timing
Overall implementation of the SCMP	Facility Manager	As required, upon trigger of the SCMP
Implement methodology for managing disturbed soil and dust	Facility Manager	When the SCMP is triggered
Coordinate monitoring and compile reports	Monitoring Personnel	When the SCMP is triggered
Conduct monitoring and maintain internal records of monitoring	Monitoring Personnel	When the SCMP is triggered
Identify non-conformances and notify Facility Manager	Resource Recovery Technical Team or site nominee	When the SCMP is triggered
Authorise and confirm the implementation of mitigation measures	Facility Manager	When the SCMP is triggered

3. Existing Environmental and Operational Impacts

3.1. Existing Environment

The SCMP has been prepared to identify measures to minimise and control the mobilisation of contaminants on-site or offsite and to minimise exposure to workers. In accordance with Condition 23, the original SCMP was endorsed by a site auditor which can be referred to in **Appendix A**.

The approved SCMP provides a guide for the effective control of contaminated material during any construction work at the CTT, where excavation into the ground is likely to occur. Although the CTT is sealed with a hardstand to prevent disturbance to existing soil or groundwater, any ground disturbance, while not envisaged, causing likely mobilisation of contaminants, the management procedures outlined in the Site Contamination Construction Management Plan (**Appendix B**) will be complied with. The Site Contamination Construction Management Plan will be updated as required.

3.2. Predicted Site Contamination Impacts

As per the environment assessment in the Clyde EIS (Maunsell, 2001), it was determined that the CTT was contaminated due to the industrial history of the site. A significant proportion of the material identified on the site was imported fill prior to this development. Ash originating from this imported fill was identified throughout the soil profile. The assessment determined the fill material to be probably contaminated. The consistent presence of ash throughout the soil profile suggested origins as a by-product of the coal combustion process used to generate energy for the local steam locomotives. As a result of this possible origin, other potential contaminants likely present within the fill material, include:

- Polycyclic Aromatic Hydrocarbons (PAH)'s; and
- Various metals including Copper, Lead, Zinc, Chromium, Cadmium, and Mercury.

Site contamination could have an impact. As a result of the possible contamination and the potential impact on the health and safety of workers on site, as well as an environmental impact on the air quality, surface water and ground water quality, and the ecology surrounding the CTT area, the CTT was sealed with hardstand. However, should there be any disturbance to the soil as a result of any works on site, this could disturb the soil and any contaminants. The potential site contamination impacts as a result of removal, relocation and/or disturbance of contaminated material on site at the CTT are listed below in **Table 3.1**.

Table 3.1 Potential impact from Site Contamination

Item/Group at Risk	Risk Assessment	Management
Workers	Within human based assessment criteria.	Personal protective equipment (PPE) in accordance with the Task Specific Risk Assessment, Job Safety and Environment Assessment (JSEA) and Veolia Safety Management Plan. Blinding and/or sealing of open excavations.

		Covering/protection of overburden storage for later incorporation into the works.
Ecology	Exceeds the provisional Phototoxicity criteria as adopted for this site.	Care with reuse of material on site, ensure it is placed in an area to be sealed with paving. Procedures from the Quality Assurance System to be in place to track material.
Air Quality	Dust expected to be minimal due to the moist nature of the contaminated material.	Water spraying or chemical surfactants/suppressants to control dust emissions. Air quality sampling (including particulate matter) in place to validate control measures.
Surface Water Quality	Surface water build up expected only due to rain.	Erosion and sediment control structures and drainage diversion to sediment basin.
Ground Water Quality	May exceed marine water quality guidelines	Perched groundwater to be collected in sump, assumed to be contaminated and pump collected by a licensed contractor for appropriate disposal off site. Deep groundwater – construction activities will not be below the water table and as such ground water ingress to site excavations is not envisaged to be an issue. This management reference is for contingency only.

4. Site Contamination Management Measures

4.1. Site Contamination Management Plan

4.1.1. Disturbed Material Transported Offsite

Records of material taken off site are to be filed, stored and archived in accordance with the relevant document control procedures found on Veolia's Business Management System (BMS). Copies of invoiced weighbridge dockets from waste transported off site are to be filed and provided to the Facility Manager.

The following information in relation to the storage, treatment and disposal of waste is recorded in accordance with EPA requirements:

- Amount and type of waste transported;
- Name and licence plate number of the transporter;
- Date of transportation; and
- Name and location of the receiving waste facility.

Waste is transported to an approved waste facility only. Documentation including Transport Certificates is completed if required. Transporters are informed of the nature of waste to be transported from the site. The EPA is informed of any suspected breaches in the POEO Act with respect to transportation of waste.

4.1.2. Management of Disturbed Material Onsite

For the duration of the operations undertaken at the CTT, the site will be sealed, unless upgrade works are required to the existing hardstand or any other excavation, thereby minimising the potential for disturbing the soils. If future works are to be undertaken involving disturbing the ground, mitigation measures as outlined in the Construction SCMP provided in **Appendix B** will be implemented.

4.1.3. Management of Dust

The management of dust during the operational stage is detailed in the Air Quality Management Plan (AQMP), which aims to minimise potential dust emissions from the CTT. In addition to the measures outlined in the AQMP, an objective of the CTT's operations is to ensure the effective sealing of the site to minimise any disturbance of soil.

4.1.4. Management of Groundwater

The surface of the site has been sealed to minimise the potential disturbance of groundwater and groundwater will not be utilised for any aspect of the operation. In accordance with the site auditor recommendations, groundwater will not be abstracted for use without ascertaining that it is suitable for the proposed use.

Background groundwater monitoring was undertaken by Veolia prior to the commencement of Terminal operations, on the recommendation of the site auditor to determine the risk, if any, that the impacted fill material posed to the quality of groundwater and surface water. The monitoring results indicated that no significant contamination potential was detected, consequently groundwater monitoring is no longer undertaken at this site, nor is it a requirement of the site's Environmental Protection Licence (EPL). Further information related to water monitoring is detailed in the Stormwater Management Plan (SMP).

5. Site Contamination Monitoring and Reporting

5.1. Monitoring Program

Air quality, surface water and ground water monitoring requirements when the SCMP is triggered, will be reviewed in line with the risks associated with the particular activity and a program prepared for the relevant monitoring locations and schedules associated with surface water, groundwater and/or dust.

5.2. Performance Reporting and Review

Any measured contribution to on and off site contamination shall be evaluated and assessed against the relevant criteria for each contaminant type.

Where performance reporting for contaminated material is required under the COCs 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 adopted 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

In the event of an exceedance of the relevant criteria, the EMR and NSW Environmental Advisor (or the nominated SHEQ representative) shall be promptly informed of the location, the margin of exceedance and the source of emission so that an appropriate response can be made to the Planning Secretary, EPA and Cumberland Council, as required by the COCs.

Handling of any 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 contamination related incidents will be managed in accordance with Veolia's non conformance procedures. Investigations will be undertaken in accordance with the Incident Management Standard 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 and further detailed in the Emergency Response Plan (ERP) for the CTT, which incorporates the Pollution Incident Response Management Plan (PIRMP).

At completion of any investigation, any corrective actions required will be recorded in Veolia's issues management system, Rivo and managed in accordance with the Continual Improvement Procedure, in a timely manner, as described in **Section 5.1.1** of the 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:

<https://www.veolia.com/anz/about/about-veolia/operational-compliance/nsw-monitoring-reports>

References

Document Name
Maunsell McIntyer (2001a). <i>Clyde Transfer Terminal Environmental Impact Statement</i> , Maunsell McIntyer Pty Ltd. August 2001.
Maunsell (2001b). <i>Clyde Transfer Terminal Supplementary Environmental Impact Statement</i> , Maunsell Australia Pty Ltd. December 2001.

Appendix A - Site Auditor Endorsement

Appendix B - Site Contamination Construction Environmental Management Plan