

Woodlawn Mechanical & Biological Treatment Facility





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## 1. Introduction

Veolia Australia and New Zealand (Veolia) own and operate the Woodlawn Eco Project Site (the Eco Project Site), which is located in the Southern Highlands of NSW, approximately 250 kilometres (km) South West of Sydney. The Eco Project Site consists of two properties on approximately 6,000 hectares (ha)of land, namely Woodlawn and Pylara.

The Woodlawn Mechanical Biological Treatment (MBT) Facility, which is anticipated to be operational from mid 2017 is located on the Woodlawn property of the Eco Project Site (refer site plan below). The MBT facility has

Proposed Barristor

Proposed Intermodal Facility

Woodlawn Eco Project Site

Eco Project Site

Woodlawn Eco Project Site

SML 20

Figure 1. WMBT Facility Location

been designed with a maximum capacity to accept 240,000 tonnes per annum (TPA) of mixed waste and 40,000 TPA of green waste generated with the Sydney Region. The facility shall enable processing of mixed waste to extract recyclable material and produce compost.

The term mechanical biological treatment refers to several combinations of a hybrid process that combines mechanical techniques (used to sort mixed waste with potential recovery of inert recyclable material) and biological techniques (to stabilise the organic fraction). This type of technology to be used at the MBT Facility will be a composting process to treat the residual fraction of municipal, commercial and industrial solid waste (MSW) received from councils (or commercial/industrial customers) opting to utilise this waste management option over landfilling. Residual material from the MBT process will be deposited in the Bioreactor.

## 1. Introduction

## 1.1 Legislative requirement

In accordance with Condition 5, Schedule 4 of the Project Approval (Woodlawn Alternative Waste Technology Project) and Environment Protection Licence 20446, Veolia hereby provides a report on the environmental performance of the MBT Facility during its construction phase.

## 1.2 Environmental performance

In accordance with Condition 5, Schedule 4 of the Project Approval:

- a) Standards and performance measures will be set prior to the commencement of operations as part of the preparation of the Operational Environmental Management Plan for the MBT Facility, in accordance with the Development Consent and the findings within the environment assessment undertaken for the development.
- b) No complaints received since the commencement of construction in October 2015.
- c) Monthly monitoring was undertaken in accordance with the MBT Facility's Environment Protection Licence and as described in the Construction Environmental Management Plan, as approved by the Department. Copies of the monthly reports are attached.
- d) Analysis of the monitoring results against the requirements of the EPL are provided in the monthly reports.
- e) As the development has not commenced operating, the trends identified during the construction period are not reflecting of the MBT operations that will be undertaken at the facility;
- f) No non compliances against the reporting requirements have been identified.
- g) No corrective actions have been required other than ongoing performance inspection on the environmental controls implemented during the construction phase such as soil and water erosion control measures, air quality and weather monitoring/

### 1.3 Conclusion

In accordance with its legislative requirements, Veolia believes the environmental performance of the MBT Facility is being met in a satisfactory manner.



# **Appendices**

# **Appendices**

Note: All documents appended to this Report are provided electronically.

# **Appendices**

## Appendix 1 Monthly Summaries

- 1. October 2015 Monthly Summary
- 2. November 2015 Monthly Summary
- 3. December 2015 Monthly Summary
- 4. January 2016 Monthly Summary
- 5. February 2016 Monthly Summary



Site	Woodlawn Mechanical & Biological Treatment Facility	
Reporting Period	1 – 31 October 2015	
EPL	20476	
Anniversary Date	22 December	

This document provides a summary of published environmental monitoring data for the Woodlawn Mechanical & Biological Treatment Facility in accordance with Section 66(6) of the Protection of the Environment Operations Act (NSW).

#### A. Project progress

Construction activity on site began with site set up, commencement of bulk and some detailed excavation, sedimentation ponds and fermentation concrete pads commencing. The silt fence erection and site run off controls were put in place for the work undertaken.

#### **B.** Monitoring summary

Depositional Dust monitoring was undertaken during this reporting period.

#### C. Monitoring data

Below are the results from the depositional dust monitoring for this period:

Point 4,6,7: Depositional Dust

Location	on Unit	
Point 4 (Pylara)	g/m2/mth	1.8
Point 6 (West Void)	g/m2/mth	5.4
Point 7 (WMBT)	g/m2/mth	No data

#### D. Concentration limits exceedances

Not applicable.

#### E. Response to concentration limit exceedances

Not applicable.

#### F. Licence non-compliances and investigations



Site	Woodlawn Mechanical & Biological Treatment Facility	
Reporting Period	1 – 30 November 2015	
EPL	20476	
Anniversary Date	22 December	

This document provides a summary of published environmental monitoring data for the Woodlawn Mechanical & Biological Treatment Facility in accordance with Section 66(6) of the Protection of the Environment Operations Act (NSW).

#### A. Project progress

- · Bulk excavation is progressing well with approx. 75,000m3 cut to full completed to date.
- · Fermentation, Buffer, Refining and Drum pads trimmed to level.
- Reception pit 95% excavated with remainder in rock to compete, this includes for the additional 20% building expansion depth.
- Pad footings are complete to the first stage of the Fermentation building, Organic Buffer Building at 75% complete to the Refining Building.
- · Piling for the BRS Drum pads is complete.
- · Pad footings to the BRS Drums is 40% complete.
- · Sediment controls setup complete and are being continually monitored.
- · The ponds road bore cross is complete.
- · In ground services across the project are 50% complete.
- · Structural steel erection for the Fermentation Building has commenced.
- · Materials from the BRS drum containers has been removed, with sorting and pre-assembly

Project approximately 10% complete.

#### B. Monitoring summary

Depositional Dust monitoring was undertaken during this reporting period.

#### C. Monitoring data

Below are the results from the depositional dust monitoring for this period:

Point 4,6,7: Depositional Dust (g/m2/mth)

Location	Unit	October 2015	November 2015
Point 4 (Pylara)	g/m2/mth	1.8	5.7
Point 6 (West Void)	g/m2/mth	5.4	5.5
Point 7 (WMBT)	g/m2/mth	No data	No data



## **D. Concentration limits exceedances** Not applicable.

## **E.** Response to concentration limit exceedances Not applicable.

## F. Licence non-compliances and investigations



Site Woodlawn Mechanical & Biological Treatment Facility	
Reporting Period 1 – 31 December 2015	
EPL	20476
Anniversary Date	22 December

This document provides a summary of published environmental monitoring data for the Woodlawn Mechanical & Biological Treatment Facility in accordance with Section 66(6) of the Protection of the Environment Operations Act (NSW).

#### A. Project progress

- Bulk excavation is progressing well with approx. 85,000m3 cut to full completed to date.
- Reception pit excavated and reinforcement 70% tied.
- Pad footings are complete to the second stage of the Fermentation building.
- Main pad footings to the BRS Drums is complete.
- Sediment controls include V drains and are being continually monitored.
- The ponds road bore cross is complete.
- In ground services across the project are 50% complete.
- Structural steel erection for 50% of Fermentation & Organic Buffer complete.
- Structural steel erection for Refining Building commenced early January.
- Precast panels for Organic Buffer to be installed early January.
- Pre-assembly of materials from BRS drum containers progressing.
- Ponds road widening complete with monitoring now commenced.
- Construction of the haul road to commence early January.

Project approximately 17% complete

#### B. Monitoring summary

A new depositional dust gauge was installed on 1 December 2015 to establish monitoring from Point 7 (Background receiver – Woodlawn Eco Precinct – Lot 69). This new monitoring site has been named 'DG33' internally.

#### C. Monitoring data

Below are the results from the depositional dust monitoring for this period:

Point 4,6,7: Depositional Dust (g/m2/mth)

Location	Unit	October 2015	November 2015	December 2015
Point 4 (Pylara)	g/m2/mth	1.8	5.7	0.6
Point 6 (West Void)	g/m2/mth	5.4	5.5	5.8
Point 7 (WMBT)	g/m2/mth	No data	No data	0.8



### D. Concentration limits exceedances

Not applicable.

### E. Response to concentration limit exceedances

Not applicable.

### F. Licence non-compliances and investigations



Site Woodlawn Mechanical & Biological Treatment Facility	
Reporting Period 1 – 31 January 2016	
EPL	20476
Anniversary Date	22 December

This document provides a summary of published environmental monitoring data for the Woodlawn Mechanical & Biological Treatment Facility in accordance with Section 66(6) of the Protection of the Environment Operations Act (NSW).

#### A. Project progress

- Bulk excavation is progressing well with approx. 90,000m3 cut to full competed to date, back fill to Reception pit, mat pad and haulage road areas continuing.
- · Sediment controls include V drains and are being continually monitored.
- HV pole installation commenced along the haulage road
- · Reception pit base slab pour complete.
- · Reception pit first wall lift commenced.
- · Drum pre-assembly, rear frame structures and girth gear continuing.
- · Drum lift studies and drum lifting delivery sequencing complete
- · Drum main footing survey recording ongoing no compliance issues to report
- · Refining building structural steel and precast walls complete.
- · Refining building roof cladding commenced.
- · Organic Buffer precast walls complete
- · Organic Buffer building roof cladding and roof safety system complete.
- · Organic Buffer building push wall formwork commenced.
- · Structural Steel to the second stage of the Fermentation building commenced.
- · Fermentation building maintenance corridor ground slab concrete works commenced.
- Preparation has commenced for the installation of the BRS Drum trunnions, with install to commence mid February.
- In ground services site wide are 50% complete.
- · Ponds road monitoring complete ready for installation of next layer of dolerite.

Project now approximately 23 % complete



#### **B.** Monitoring summary

Depositional Dust monitoring was undertaken during this reporting period.

#### C. Monitoring data

Below are the results from the depositional dust monitoring for this period:

Point 4,6,7: Depositional Dust

Location	Unit	Oct 2015	Nov 2015	Dec 2015	Jan 2016
Point 4 (Pylara)	g/m2/mth	1.8	5.7	0.6	1.3
Point 6 (West Void)	g/m2/mth	5.4	5.5	5.8	10
Point 7 (WMBT)	g/m2/mth	No data	No data	0.8	0.9

#### D. Concentration limits exceedances

Not applicable.

#### E. Response to concentration limit exceedances

Not applicable.

#### F. Licence non-compliances and investigations



Site Woodlawn Mechanical & Biological Treatment Facility	
Reporting Period	1 February – 29 February 2016
EPL	20476
Anniversary Date	22 December

This document provides a summary of published environmental monitoring data for the Woodlawn Mechanical & Biological Treatment Facility in accordance with Section 66(6) of the Protection of the Environment Operations Act (NSW).

#### A. Project progress

- A Haul road bulk excavation complete with first layer of road base down
- Sediment controls including V drains and are being continually monitored and an area of sedimentation control outflow was identified and rectified by the use of hay bales.
- \* HV pole installation complete, overhead cable installation commenced
- \* Reception pit second lift complete, backfilling and first ring beam commenced.
- \* Drum pre-assembly, rear frame structures and girth gear continuing.
- ♣ Drum trunnion alignment for 3 & 4 complete, temporary stand setup commenced
- \* Refining wall cladding 85% complete.
- \* Refining slabs have been poured, switch room and workshop remain.
- A Organic Buffer building push wall formwork commenced.
- A Organic Buffer building push wall reinforcement installation 75% complete.
- \* Structural Steel to the second stage of the Fermentation building complete.
- \* Fermentation building maintenance corridor ground slab concrete works ongoing, mid height walls continuing and FRP works to push wall commenced.
- ♣ In ground services site wide are 75% complete.

Project approximately 31 % complete

#### B. Monitoring summary

1 round of depositional dust and surface water monitoring was undertaken in February. A rainfall event on 1 February created flow and both Point 8 (Site 140) and point 1 (Site 115) were sampled. The depositional dust results for February have not been received back from the laboratory as yet (submitted 02/03/2016).

#### C. Monitoring data

#### Point 1: Site 115

Analyte	Unit	1/02/2016	
Ammonia	mg/L	<0.1	
Biochemical Oxygen Demand	mg/L	<2	
Dissolved Oxygen	mg/L	6.79	
Electrical Conductivity	μS/cm	2910	



pH	рН	7.96
Potassium	mg/L	5
Redox Potential	mV	300
Total Dissolved Solids	mg/L	2470
Total Organic Carbon	mg/L	19
Total Suspended Solids	mg/L	<2

Point 4,6,7: Depositional Dust (g/m2/mth)

		10/			
Location	Unit	Oct 2015	Nov 2015	Dec 2015	Jan 2016
Point 4 (Pylara)	g/m2/mth	1.8	5.7	0.6	1.3
Point 6 (West Void)	g/m2/mth	5.4	5.5	5.8	10
Point 7 (WMBT)	g/m2/mth	No data	No data	0.8	0.9

#### Point 8: Site 140

Analyte	Unit	1/02/2016	
рН	mg/L	8.13	
Total Suspended Solids	mg/L	225	

#### D. Concentration limits exceedances

The concentration limit for TSS was exceeded at Point 8 (site 140). TSS was also tested at Point 1 which is located downstream of Point 8 on the boundary of the Woodlawn Bioreactor site. The result for TSS at Point 1 was <2mg/L demonstrating that there was no elevated discharge from the site.

#### Point 8: Site 140

Analyte	Concentration limit	Unit	1/02/2016
Total Suspended Solids	50	mg/L	225

#### E. Response to concentration limit exceedances

Veolia have engaged Lipman, the project managers to install a hay bale sedimentation trap at Point 8 to reduce and/or eliminate unfiltered discharge from the construction site.

#### F. Licence non-compliances and investigations