



Decision Document

Environmental Protection Act 1986, Part V

Proponent: **Vancouver Waste Services Pty Ltd**

Licence: **L7344/1998/10**

Registered office: 128 Albany Highway
ALBANY WA 6330

ACN: 135 344 357

Premises address: Mindijup Road Multiple Use Facility
Part of Lot 3 on Diagram 61867 and part of Lot 102 on Plan 22860 Mindijup Road, within co-ordinates (MGA Zone 50)
E597577, N6153749; E599498, N6153643; E597162, N6152577; E597988, N6153695; E599520, N6152676; E597170, N6153340; E599067, N6153677; E597558, N6152697; E597244, N6153638; E599067, N6153648; E597552, N6152085;
PALMDALE WA 6328, as depicted in Schedule 1

Issue date: Thursday, 22 December 2011

Commencement date: Tuesday, 17 January 2012

Expiry date: Monday, 16 January 2017

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Peter van Schoubroeck
Licensing Officer

Decision Document authorised by: Caron Goodbourn
Delegated Officer



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details											
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>										
Activities that cause the premises to become prescribed premises	<table border="1"> <thead> <tr> <th>Category number(s)</th> <th>Assessed design capacity</th> </tr> </thead> <tbody> <tr> <td>37</td> <td>4000 tonnes per annual period</td> </tr> <tr> <td>62</td> <td>17 000 tonnes per annual period</td> </tr> <tr> <td>63</td> <td>5 500 tonnes per annual period</td> </tr> <tr> <td>67A</td> <td>12 000 tonnes per annual period</td> </tr> </tbody> </table>	Category number(s)	Assessed design capacity	37	4000 tonnes per annual period	62	17 000 tonnes per annual period	63	5 500 tonnes per annual period	67A	12 000 tonnes per annual period
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	37	4000 tonnes per annual period									
	62	17 000 tonnes per annual period									
63	5 500 tonnes per annual period										
67A	12 000 tonnes per annual period										
Application verified	Date: N/A										
Application fee paid	Date: N/A										
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>										
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>										
Commercial-in-confidence claim	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										
Commercial-in-confidence claim outcome	Endorsed										
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>										
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	<table border="1"> <tbody> <tr> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td>Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/></td> </tr> </tbody> </table>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>								
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>										
Is the proposal subject to Ministerial Conditions?	<table border="1"> <tbody> <tr> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td>Ministerial statement No: EPA Report No:</td> </tr> </tbody> </table>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:								
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:										
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	<table border="1"> <tbody> <tr> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td>Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>										
Is the Premises within an Environmental Protection Policy (EPP) Area <i>Environmental Protection South West Agriculture Zone Wetlands Policy 1998</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>										



3 Executive summary of proposal and assessment

The Vancouver Waste Services Pty Ltd Mindijup Road site (VWSMR) is located within a rural zoning area. The location is within a minor valley of primarily deep pale sand sloping towards the west (Kalgan River). Surrounding land use consists of agricultural paddocks, some remnant native vegetation and the predominant land use being leased blue gum plantation. The Premises is 45 kilometres north east from the centre of the City of Albany.

The VWSMR undertakes the following prescribed activities:

- Inert landfill, primarily for tyres;
- Solid waste storage facility, primarily for inert waste and green waste;
- Composting facility; and
- A trial char production facility.

Potential sensitive receptors are identified as:

- A resident located within 500 metres of the Premises boundary of Lot 3;
- A resident located 1km southwest of the Premises boundary of Lot 3;
- Mindijup Silica Sand Mine (licensed premises L6798/1993/10) located directly south east of the prescribed premises activities;
- The Kalgan River located 900 metres to the northwest of the site.
- Surface water flows into the Kalgan River; and
- Local groundwater.

The Class 1 inert landfill site is primarily for tyre disposal and some inert waste. Receipt of tyres for burial is restricted to less than 500 tonnes per year under the licence and another 5,000 tonnes of inert waste. Tyre burial occurs immediately upon receipt of the tyres to reduce fire risk.

Solid waste storage activities are for the storage and grinding of bulk green waste on the Premises, and the temporary storage of inert waste (other than tyres) on the Premises. VWSMR have the capacity to store up to 12,000 tonnes of green waste and 5,000 tonnes of inert waste.

Composting is undertaken on a 7,500 m² compacted gravel composting pad, underlined with low permeability compacted clay, which drains into a dam (>30,000m³) which retains runoff and rainfall providing water for the composting process (constructed under W4797/2010/1). VWSMR have the capacity to produce 12,000 tonnes of compost per year.

A one year char production process is to be trialled using a MC Furnace by C.M Technology B.V. The process comprises of a central furnace and two char production retorts. Following the venting of water vapour from the wood, acetic acid is released. Subsequently pyrolysis gases are released; these gases are redirected to the furnace to maintain the heat cycle. Investigations are proposed into the potential capture of acetic acid.

This Licence amendment is for the following:

- Approval for a one off burn of stored green waste no longer suitable for composting;
- Approval to undertake a trial char production process;
- Removal of the approval to accept biosolids into the composting process as this activity does not occur onsite and Department of Health approval for the facility to accept biosolids has lapsed; and
- Administrative amendments.

Emission risks associated with the burning of green waste and char production are assessed herein. DER has considered the risk profile of emissions and discharges from landfill and composting activities at the Premises. No significant changes are known to have occurred since the previous licence was granted; therefore DER has not amended conditions relating to emissions and discharges from landfill and composting activities.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.1.2	<p>Operation</p> <p>Condition 1.1.2 has been amended to include standard definitions relevant to the activities undertaken at the Premises. This includes amending the annual period for reporting back to the calendar year, which was changed due to an administrative error in the previous licence amendment.</p>	General provisions of the <i>Environmental Protection Act 1986</i>
Premises operation	L1.3.1 – L1.3.9; and L4.1.1	<p>Operation</p> <p>Condition 1.3.1 has been included to ensure that any limit (being waste acceptance and char production volumetric limits; and waste acceptance, processing and operational descriptive limits) being exceeded within section 1.3 of the Licence are recorded and investigated.</p> <p>Condition 1.3.2, Table 1.3.1 has been amended to:</p> <ul style="list-style-type: none"> • Ensure that the Licensee operates the char production trial within the design specifications of the equipment and approved trial parameters. Planning approval by the City of Albany has only been granted until 31/07/2016, subsequently approval under the <i>Environmental Protection Act 1986</i> is provided for this period, extension will be considered upon application from the Licensee. • Define the waste code where relevant. • Clarify the waste acceptance quantity limits. • Specify that asbestos cannot be accepted at the Premises. • Remove the approval to accept biosolids for composting based on biosolids not previously being accepted at the Premises and approval from the Department of Health to accept biosolids expiring on 19 January 2015. 	<p>Application supporting documents</p> <p>General provisions of the <i>Environmental Protection Act 1986</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>Condition 1.3.3 has been amended to:</p> <ul style="list-style-type: none"> • Clarify landfill operations, cover material requirements are now contained within condition 1.3.4. • Remove processing requirements for compost containing biosolids. • Amend green waste grinding process requirements to be outcome focused. • Include green waste burning process requirements. • Include char production burning process requirements. <p>Condition 1.3.4 has been included to isolate the cover requirements previously contained within the condition 1.3.3 'processing of materials' table 1.3.2.</p> <p>Condition 1.3.6 has been amended to clarify approved green waste burning and fire response requirements.</p> <p>Condition 1.3.9 has been included in ensure that the Licensee undertakes and manages prescribed activities in accordance with the listed management plans, specifically relating to char production and fire management.</p> <p>Operation (green waste burning) <u>Emission Description</u> <i>Emission:</i> Smoke emissions from the burning of about 2,500 tonnes of green waste, aged to a minimum of 8 months. Burn is expected to last no more than three days. <i>Impact:</i> Reduced local air quality, potentially impacting local flora and fauna, the most proximate residential or public receptors are over 500 metres from the burn site. <i>Controls:</i> Green waste is screened for contaminants at the John Street prescribed premises (L8786/2013/1) prior to placement at the Premises. Contaminants are directed to landfill at this stage. The burn plan details fire control resources available and a burn strategy based on managing fire behaviour, potential risks to receptors and smoke emissions.</p>	



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Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Almost certain <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Conditions 1.3.3(n), 1.3.3(o), 1.3.6 and 1.3.9 ensure only green waste is burnt within the requirements detailed within the green waste burning management documents. The <i>Environmental Protection (Unauthorised Discharge) Regulations 2004</i> are applicable to the burning of non-green waste materials.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Almost certain <i>Risk Rating:</i> Moderate</p>	
Point source emissions to air	L2.2.1	<p>Operation (char production) <u>Emission Description</u> <i>Emission:</i> Temporary release of water vapour and acetic acid from the retort vents A4 and A5. Carbon dioxide may be released at times from all vents and stacks (A1 – A5). Trace amounts of products of incomplete combustion (CO, CH₄, NO_x, SO₂, C_xH_x and more complex organic compounds) may be released from all vents and stacks (A1 – A5) under abnormal operating conditions however these should be directed to the incinerator under normal operating conditions.</p> <p><i>Impact:</i> Reduced local air quality, potentially impacting local flora and fauna, the most proximate residential or public receptors are over 500 metres from the emission points. <i>Controls:</i> Manual control of stack and vent opening during the char production processes ensures that pyrolysis gases that would otherwise be released are directed to the incinerator to aid the heat generation process. Capture of acetic acid is</p>	<p>Application supporting documents</p> <p>C.M Technology B.V. Manual MC furnace</p> <p>General provisions of the <i>Environmental Protection Act 1986</i></p>



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Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>proposed to be investigated during the trial period. The production unit can be largely managed as a closed system. Investigations into the most efficient operations of char production based on control of stack and vent emissions will be undertaken during the trial period.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Possible <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> Condition 1.3.2 requires the Licensee to operate the char production trial within the design specifications of the equipment and approved trial parameters. Condition 1.3.9 requires the MC Furnace to be managed in accordance with the design manual specifications. Condition 2.2.1 lists the authorised point source emission to air emission points for the char production process. Condition 4.1.1 improvement reference IR2 has been included to require the ability for point source emissions to air from char production activities to be monitored. Monitoring in accordance with the relevant USEPA method for determination of emissions from stationary sources cannot be undertaken on the existing char production unit.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	



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Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions	N/A	It is considered that the provisions of Section 49 of the <i>Environmental Protection Act 1986</i> are sufficient to regulate potential fugitive (dust) emissions from the char production process and any other fugitive (dust) emissions arising from activities at the Premises. Condition 2.6.1 from the previous licence has subsequently been removed from the Licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Odour	N/A	It is considered that the provisions of Section 49 of the <i>Environmental Protection Act 1986</i> are sufficient to regulate potential odour emissions from the char production process and any other fugitive (dust) emissions arising from activities at the Premises. Condition 2.7.1 from the previous licence has subsequently been removed from the Licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Noise	N/A	Operation Noise emissions generated at the Premises have not resulted in complaints or been identified as an issue. Noise emissions arising from the operation of the char production activities are not expected to exceed ambient noise levels at the premises. Therefore no licence conditions are required in this section. Should noise emissions arise from the Premises operation they can be managed under the requirements of the <i>Environmental Protection (Noise) Regulations 1997</i> .	General provisions of the <i>Environmental Protection Act 1986</i>
Monitoring of inputs and outputs	L3.2.1	Operation Condition 3.2.1 has been amended to ensure that char production input and output parameters are monitored which will allow production limits set under condition 1.3.2 to be verified.	General provisions of the <i>Environmental Protection Act 1986</i>
Process monitoring	L3.3.1	Operation Condition 3.3.1 has been amended to ensure that criteria essential to ensure that normal operating conditions are maintained in the char production process, which in turn ensures that emissions to air are maintained within acceptable levels.	General provisions of the <i>Environmental Protection Act 1986</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Improvements	L4.1.1	Operation Condition 4.1.1 improvement reference IR1 has been amended to specify the submission date of 28 February 2015, which is consistent with the submission date in the previous licence, being four months after the issue of the previous licence. A submission has not been received by DER. Condition 4.1.1 improvement reference IR2 has been included to require the ability for point source emissions to air from char production activities to be monitored. Monitoring in accordance with the relevant USEPA method for determination of emissions from stationary sources cannot be undertaken on the existing char production unit. Condition 4.1.2 has been removed; all improvement conditions have defined dates of completion.	General provisions of the <i>Environmental Protection Act 1986</i>
Information	L5.2.1 and L5.3.1	Operation Condition 5.2.1 has been amended to require a summary of char production operations to be included in the Annual Environmental Report. Condition 5.3.1 has been amended to remove notification requirements under which provisions of Section 72 of the <i>Environmental Protection Act 1986</i> are sufficient to regulate.	General provisions of the <i>Environmental Protection Act 1986</i>
Licence Duration	N/A	The expiry date (16 January 2017) of the licence has not been amended. None of the amendments undertaken require the expiry date of the licence to be reconsidered.	N/A



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
30/09/2015	Proponent sent a copy of draft instrument	None applicable	None applicable
02/11/2015	Instrument issue advertised in the West Australian		



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High