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Published on: 9 July 2014

Statement No: 976

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

RESOURCE RECOVERY FACILITY, RED HILL

Proposal: The proposal is to construct and operate a resource recovery facility within the existing Red Hill Waste Management Facility, City of Swan, for the processing of waste to produce energy, using either anaerobic digestion technology or gasification technology.

Proponent: EASTERN METROPOLITAN REGIONAL COUNCIL
Australian Business Number 89 631 866 056

Proponent Address: 1st Floor Ascot Place, 226 Great Eastern Highway
BELMONT WA 6984

Assessment Number: 1844

Report of the Environmental Protection Authority Number: 1487

This Statement authorises the implementation of the proposal described and documented in Schedule 1 and Schedule 2. Schedule 3 details definitions of terms and phrases used in the implementation conditions and procedures.

1 Proposal Implementation

1-1 The proponent shall use either anaerobic digestion technology or gasification technology, but not both.

1-2 If anaerobic digestion technology is used when implementing the proposal, the proponent shall not exceed the authorised extent of physical and operational elements provided for in Table 2 in Schedule 1 of this Statement and shall also ensure the requirements of conditions 2, 3, 4, 5, 6, 7 and 8 of this Statement are met, unless amendments to the Proposal and the authorised extent of the proposal has been approved under the EP Act.

- 1-3 If gasification technology is used when implementing the proposal, the proponent shall not exceed the authorised extent of physical and operational elements provided for in Table 2 in Schedule 2 of this Statement and shall also ensure the requirements of conditions 2, 3, 4, 5, 6 and 9 of this Statement are met, unless amendments to the proposal and the authorised extent of the proposal has been approved under the EP Act.

2 Contact Details

- 2-1 The proponent shall notify the CEO of any change of its name, physical address or postal address for the serving of notices or other correspondence within 28 days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State.

3 Time Limit for Proposal Implementation

- 3-1 The proponent shall not commence implementation of the proposal after the expiration of five (5) years from the date of this statement, and any commencement, within this five (5) year period, must be substantial.
- 3-2 Any commencement of implementation of the proposal, within five (5) years from the date of this statement, must be demonstrated as substantial by providing the CEO with written evidence, on or before the expiration of five (5) years from the date of this statement.

4 Compliance Reporting

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.
- 4-2 The proponent shall submit to the CEO the compliance assessment plan required by condition 4-1 at least six months prior to the first compliance assessment report required by condition 4-6, or prior to implementation, whichever is sooner.

The compliance assessment plan shall indicate:

- (1) the frequency of compliance reporting;
 - (2) the approach and timing of compliance assessments;
 - (3) the retention of compliance assessments;
 - (4) the method of reporting of potential non-compliances and corrective actions taken;
 - (5) the table of contents of compliance assessment reports; and
 - (6) public availability of compliance assessment reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.

- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO.
- 4-5 The proponent shall advise the CEO of any potential non-compliance within seven days of that non-compliance being known.
- 4-6 The proponent shall submit to the CEO the first compliance assessment report 15 months from the date of issue of this Statement addressing the 12 month period from the date of issue of this Statement and then annually from the date of submission of the first compliance assessment report.

The compliance assessment report shall:

- (1) be endorsed by the proponent's Managing Director / General Manager / Chief Executive Officer or a person delegated to sign on the Managing Director's / General Manager's / Chief Executive Officer's behalf;
- (2) include a statement as to whether the proponent has complied with the conditions;
- (3) identify all potential non-compliances and describe corrective and preventative actions taken;
- (4) be made publicly available in accordance with the approved compliance assessment plan; and
- (5) indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Public Availability of Data

5-1 Subject to condition 5-2, within a reasonable time period approved by the CEO of the issue of this statement and for the remainder of the life of the proposal the proponent shall make publically available, in a manner approved by the CEO, all validated environmental data (including sample design, sampling methodologies, empirical data and derived information products (e.g. maps)) relevant to the assessment of this proposal and implementation of this Statement.

5-2 If any data referred to in condition 5-1 contains particulars of:

- (1) a secret formula or process; or
- (2) confidential commercially sensitive information,

the proponent may submit a request for approval from the CEO to not make this data publically available. In making such a request the proponent shall provide the CEO with an explanation and reasons why the data should not be made publically available.

6 Odour – Existing Operations

- 6-1 The proponent shall reduce the cumulative odour levels prior to operation of the anaerobic digestion or gasification facility. In order to demonstrate this, the proponent shall comply with the requirements of conditions 6-2 to 6-4.
- 6-2 The proponent shall prepare a Cumulative Odour Reduction Report.
- 6-3 The Cumulative Odour Reduction Report required pursuant to condition 6-2 shall:
- (1) investigate options and propose measures to reduce the cumulative odour impact from the Red Hill Waste Management Facility by management measures such as relocating the greenwaste windrows; and
 - (2) provide a re-run of the model (SLR Consulting Australia 2012 'Resource Recovery Facility: Odour Impact Assessment for Lot 8 (Site E) Toodyay Road' Report) to demonstrate that the chosen measures from 6-3(1) provides an overall improvement in predicted cumulative odour impacts,
- to the satisfaction of the CEO on advice of the DER.
- 6-4 Prior to operation of the anaerobic digestion or gasification facility the proponent shall implement management measures approved by the CEO to meet condition 6-1.

Should the option be anaerobic digestion, then condition 7 and 8 applies.

7 Odour Control System

- 7-1 The proponent shall ensure that maximum odour emissions from the anaerobic digestion facility are less than those listed in Column 3 of Table 2 in Schedule 1.
- 7-2 The proponent shall commission an independent peer review of the detailed design of the total odour control system, prior to submission of an application for a Works Approval, that addresses:
- (1) building orientation (shielding of openings from prevailing winds);
 - (2) sealing of the building to minimise fugitive emissions;
 - (3) location of extraction points, ducting and fans, and performance specification of the air collection network within the building;
 - (4) humidification system in the building and at the air inlet of the biofilter;
 - (5) biofilter surface irrigation system;
 - (6) degree of automation of the monitoring/control system for critical parameters such as temperature, relative humidity, volumetric flow of the air at the inlet of the biofilter as well as the back-pressure, and the temperature and moisture content of the biofilter media;

- (7) biofilter type (open, covered or enclosed) and design (suitability for Perth's hot and dry climate);
 - (8) biofilter size and loading, number of building air changes per hour;
 - (9) type of biofilter media used;
 - (10) redundancy incorporated in the design;
 - (11) the robustness of the facility design and operational protocols to achieve (or better) the authorised extent in Schedule 1;
 - (12) the verification / monitoring required to demonstrate compliance with the authorised extent in Schedule 1; and
 - (13) the technology suppliers warranty with respect to achieving the authorised extent in Schedule 1,
- to the requirements of the CEO.

The peer review should have particular emphasis on the design, process control, management, and maintenance of the biofilter.

- 7-3 The proponent shall submit a copy of the peer review report required by condition 7-2 to the DER with the application for the Works Approval.

8 Air Quality

- 8-1 The proponent shall ensure that emissions from the anaerobic digestion facility are as low as reasonably practicable. In order to demonstrate this, the proponent shall comply with the requirements of conditions 8-2 to 8-3.

- 8-2 The proponent shall prepare an Air Quality Report.

- 8-3 The Air Quality Report required pursuant to condition 8-2 shall:

- (1) benchmark the emissions for all criteria pollutants from the chosen anaerobic digestion technology against best practice;
- (2) set out emission rates for all the sources;
- (3) address normal operations, start up, shut down, and equipment failure; and
- (4) provide a rerun of the model (Synergetics 2012 '*Air Quality dispersion modelling of the proposed Resource Recovery Facility (RRF) at Red Hill Waste Management Facility – Location RRF on Lot 8, Toodyay Road – for Eastern Metropolitan Regional Council*' Report),

to the satisfaction of the CEO on advice of the DER.

- 8-4 The proponent shall submit the Air Quality Report required by condition 8-2 to the DER with the application for the Works Approval.

Should the option be gasification, then condition 9 applies.

9 Gasification Technology

- 9-1 The proponent shall ensure that the gasification technology to be implemented is consistent with the EPA and the Waste Authority's strategic advice (*'Environmental and Health Performance of Waste to Energy Technologies: Report No. 1468'* under section 16(e) of the *Environmental Protection Act 1986*). In order to achieve this, the proponent shall comply with the requirements of conditions 9-2 to 9-4.
- 9-2 The proponent shall prepare and submit documentation that demonstrates the chosen gasification technology:
- (1) uses only components that have operated reliably elsewhere;
 - (2) can operate within emission standards equal to the 'Directive 2000/76/EC of the European Parliament and of the Council (4 December 2000)';
 - (3) uses only components that have a successful track record in treating the waste streams proposed;
 - (4) has operated at a similar scale to that proposed; and
 - (5) has a configuration of components that has been demonstrated elsewhere,
- to the satisfaction of the CEO on advice of the DER.
- 9-3 The proponent shall commission an independent peer review, to provide comment on the validity of the documentation prepared for condition 9-2 to demonstrate the chosen gasification technology meets points (1), (2), (3), (4), and (5) of condition 9-2 to the satisfaction of the CEO on advice of the DER.
- 9-4 The proponent shall submit a copy of the documentation required by condition 9-2 and the peer review required by 9-3 to the DER with the application for the Works Approval.

[Signed 9 July 2014]

Albert Jacob MLA
MINISTER FOR ENVIRONMENT; HERITAGE

ANAEROBIC DIGESTION OPTION

Table 1: Summary of the Proposal

Proposal Title	EMRC Resource Recovery Facility
Short Description	The proponent proposes to construct and operate a resource recovery facility for the processing of waste to produce compost and biogas using anaerobic digestion technology. The biogas would be burnt in gas engines to produce electricity.

Table 2: Location and authorised extent of physical and operational elements

Element	Location	Authorised Extent
Resource Recovery Facility and associated infrastructure	Site E, Red Hill (Figure 1)	Clearing of up to 0.85 ha of remnant vegetation.
Waste types accepted for processing:		The organic fraction of municipal solid waste from either a source separated collection system or from the rubbish bin using the mechanical separation designed into the facility.
Excluded wastes: <ul style="list-style-type: none"> • scheduled waste, as defined by ANZECC for the <i>National Strategy for the Management of Scheduled Waste (1992)</i>; • medical waste; • radioactive waste; • asbestos; • liquid and oily wastes; • contaminated soils; • tyres; • animal carcasses; • waste with a halogen content greater than 1%; • highly corrosive or toxic liquids or gases such as strong acids or chlorine or fluorine; • explosive materials; and • material already deposited in the onsite landfill. 		Not to be processed.
Quantity of waste to be processed:		Up to 150,000 tpa.

Odour concentration emitted from biofilter:		Less than 500 odour units.
Building under negative pressure:		Waste may only be accepted while the building is being maintained under negative pressure.
Fast Acting Doors:		Waste may only be accepted while the Fast Acting Doors are fully operational.

Figures

Figure 1 Development envelope and locations of sensitive receptors surrounding the Red Hill Waste Management Facility

GASIFICATION OPTION

Table 1: Summary of the Proposal

Proposal Title	EMRC Resource Recovery Facility
Short Description	The proponent proposes to construct and operate a resource recovery facility for the processing of waste to produce steam using gasification technology. The steam would be used in a steam turbine to produce electricity.

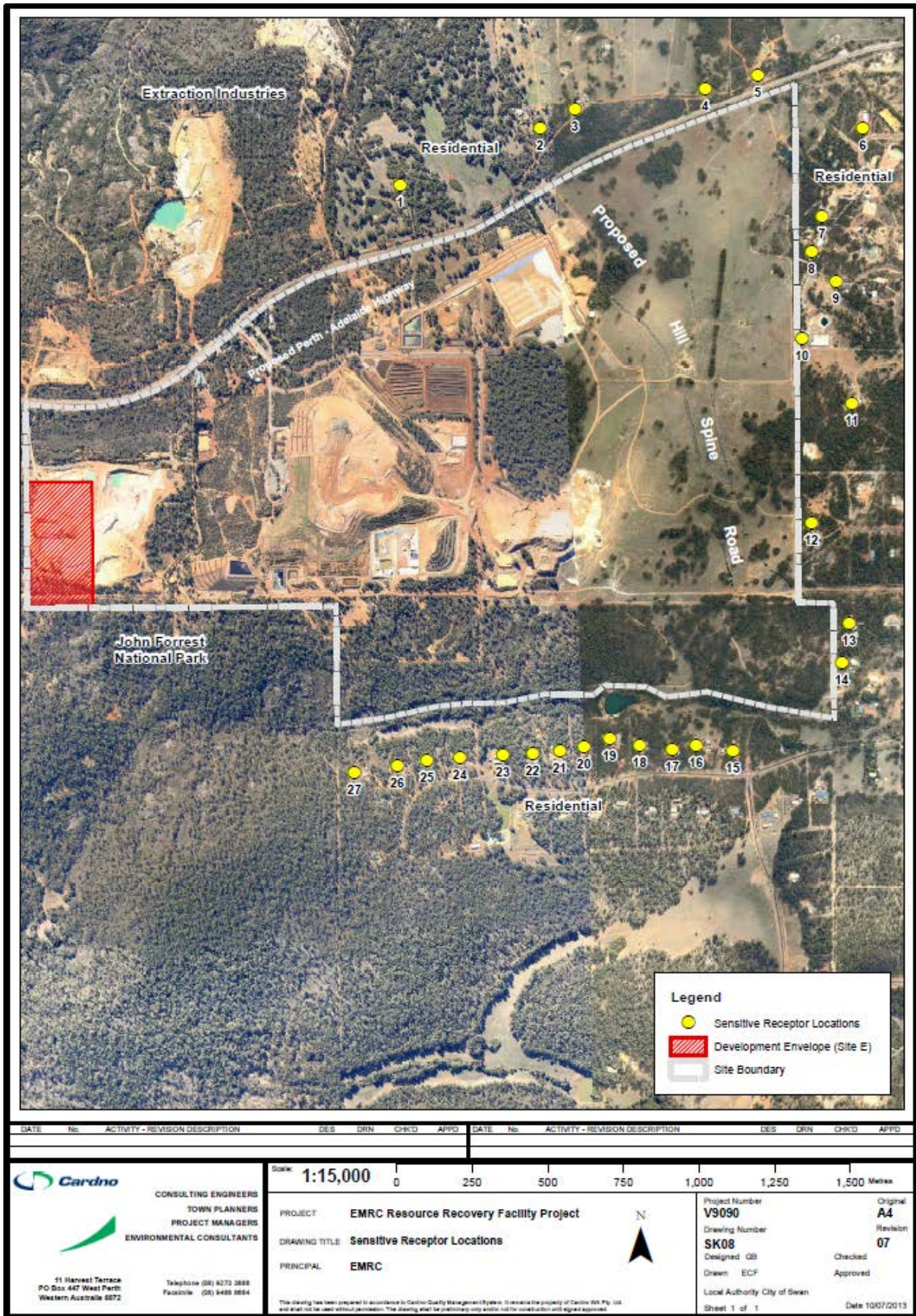
Table 2: Location and authorised extent of physical and operational elements

Element	Location	Authorised Extent
Resource Recovery Facility and associated infrastructure	Site E, Red Hill (Figure 1)	Clearing of up to 0.85 ha of remnant vegetation.
Waste types accepted for processing:		Municipal solid waste from the rubbish or residual bins of a two bin or three bin collection system.
Excluded wastes: <ul style="list-style-type: none"> • scheduled waste, as defined by ANZECC for the <i>National Strategy for the Management of Scheduled Waste (1992)</i>; • medical waste; • radioactive waste; • asbestos; • liquid and oily wastes; • contaminated soils; • tyres; • animal carcasses; • waste with a halogen content greater than 1%; • highly corrosive or toxic liquids or gases such as strong acids or chlorine or fluorine; • explosive materials; and • material already deposited in the onsite landfill. 		Not to be processed.
Quantity of waste to be processed:		Up to 200,000 tpa.

Figures

Figure 1 Development envelope and locations of sensitive receptors surrounding the Red Hill Waste Management Facility

Figure 1: Development envelope and locations of sensitive receptors surrounding the Red Hill Waste Management Facility



Schedule 3

Term or Phrase	Definition
ANZECC	Australian and New Zealand Environment and Conservation Council
CEO	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the <i>Environmental Protection Act 1986</i> , or their delegate.
Criteria pollutants	Key air pollutants set by the National Environment Protection Measure for Ambient Air Quality, which includes carbon monoxide, ozone, sulphur dioxide, nitrogen dioxide, lead and particles (PM ₁₀).
DER	Department of Environment Regulation
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986</i>
ha	hectare
Odour unit	The concentration of odorant(s) at standard conditions that elicits a physiological response from a panel (detection threshold) equivalent to that elicited by one Reference Odour Mass (ROM), evaporated in one cubic metre of neutral gas at standard conditions.
tpa	Tonnes per annum

Notes

The following notes are provided for information and do not form a part of the implementation conditions of the Statement:

- The proponent for the time being nominated by the Minister for Environment under section 38(6) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal unless and until that nomination has been revoked and another person is nominated.
- If the person nominated by the Minister, ceases to have responsibility for the proposal, that person is required to provide written notice to the Environmental Protection Authority of its intention to relinquish responsibility for the proposal and the name of the person to whom responsibility for the proposal will pass or has passed. The Minister for Environment may revoke a nomination made under section 38(6) of the *Environmental Protection Act 1986* and nominate another person.
- To initiate a change of proponent, the nominated proponent and proposed proponent are required to complete and submit *Post Assessment Form 1 – Application to Change Nominated Proponent*.
- The General Manager of the Office of the Environmental Protection Authority was the Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986* at the time the Statement was signed by the Minister for Environment.