



REFERENCE: 19/2/5/1/B4/46/WL0118/14

The Municipal Manager
Stellenbosch Municipality
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STELLENBOSCH
7599

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For attention: Saliem Haider

WASTE MANAGEMENT LICENCE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008) FOR THE PROPOSED CLOSURE AND REHABILITATION OF CELL 1 OF THE STELLENBOSCH WASTE DISPOSAL FACILITY, STELLENBOSCH LOCAL MUNICIPALITY, WESTERN CAPE.

WASTE MANAGEMENT LICENCE

A. DECISION

I, Lance McBain-Charles, in my capacity as the Acting Director: Waste Management of the Department of Environmental Affairs and Development Planning (hereinafter referred to as "the Department"), in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA), as amended, read with the Environmental Impact Assessment (EIA) Regulations promulgated in terms of Government Notice (GN) No. R. 543 of 18 June 2010 hereby issue this Waste Management Licence (WML), No. 19/2/5/1/B4/46/WL0118/14, to the Stellenbosch Local Municipality to close and rehabilitate Cell 1 of the Stellenbosch Waste Disposal Facility, Stellenbosch Local Municipality, Western Cape Province (hereinafter referred to as "the Facility").

This Licence does not repeal the Permit for the Facility issued by the Department of Water Affairs and Forestry dated 29/01/1999 (Permit No.: 16/2/7/G203/D16/Z1/P331).

The Variation Licence Issued by this Department dated 07/02/2013 (Reference No.: E13/2/10/7-B4/37-WL0077/11) remains in force with the issuing of this Licence.

B. DESCRIPTION OF THE ACTIVITY

The activities for decommissioning of a WDF such as this Facility as per the Minimum Requirements for Waste Disposal by Landfill of the Department of Water Affairs and Forestry, Second Edition, 1998 (referred to as the "Minimum Requirements") for the Facility will entail but not limited to the following:

- (a) Disposal of general waste;
- (b) Storage of waste;
- (c) Facility Auditing;
- (d) Gate or weighbridge recording procedures;
- (e) Waste body volume surveys, which include the determination of the total airspace at the waste disposal facility within 12 (twelve) months after this Licence is issued;
- (f) Waste collection and processing of other data;
- (g) Leachate and water quality monitoring;
- (h) Gas monitoring;
- (i) Air quality monitoring;
- (j) Monitoring of rehabilitated areas;
- (k) Attending to the health of workers;
- (l) Remedial design to address identified problem areas;
- (m) Final landfill capping design and construction to the required quality and thickness;
- (n) Final shaping, landscaping, re-vegetation and compaction of the side slopes to gradients between a minimum of 1:50 and a maximum of 1:3;
- (o) Permanent stormwater diversion measures, run-off control and anti-erosion measures;
- (p) Any infrastructure relating to the End-use Plan;
- (q) The design and compliance are to be confirmed by a registered Professional Engineer; and
- (r) Permanent stormwater diversion measures, run-off control and anti-erosion measures.

The following activities have been identified in NEM: WA The list of waste management activities that have, or are likely to have, a detrimental effect on the environment Government Notice No. 921 of 29 November 2013 (GN No. 921) are hereby authorised:

Category A

3(14) The decommissioning of a facility for a waste management activity listed in Category A or B of this Schedule.

In the event of constructing and operating a Drop-off facility on the Facility, the following waste management activities in Category C may be triggered if the volumes are exceeded.

Category C

- 5(1) The storage of general waste at a facility that has the capacity to store in excess of 100m³ of general waste at any one time, excluding the storage of waste in lagoons or temporary storage of such waste.
- 5(2) The storage of hazardous waste at a facility that has the capacity to store in excess of 80m³ of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.
- 5(3) The storage of waste tyres in a storage area exceeding 500m².

Should these volumes be exceeded then it would be required for the applicant to comply with the NEM: WA, "National Norms and Standards for Storage of Waste", Government Notice No. 926 of 29 November 2013 (GN No. 926).

In this Licence, "Director" means the Director: Waste Management of the Western Cape Department of Environmental Affairs and Development Planning, who may be contacted at the address below:

Director: Waste Management
Department of Environmental Affairs and Development Planning
Private Bag X 9086

CAPE TOWN

8000

In this Licence, " Director: RPW" means the Director: Resource Protection and Waste of the Department of Water and Sanitation: Western Cape Provincial Operations who may be contacted at the address below:

Director: RPW Western Cape Provincial Operations
Department of Water and Sanitation
Private Bag X16

SANLAMHOF

7532

The Licence Holder appointed the following independent Environmental Assessment Practitioner (EAP) to administer the application for this Waste Management Licence:

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

The Board of Directors
Aurecon South Africa (Pty) Ltd
Contact person: Tamryn Johnson
P.O. Box 494

CAPE TOWN

8000

Tel.: (021) 526 5737

Fax: (021) 529 9500

E-mail: tamryn.johnson@aurecongroup.com

The granting of this Waste Management Licence is subject to compliance with the conditions set out in section C.

C. LICENCE CONDITIONS

LICENCE NUMBER: 19/2/5/1/B4/46/WL0118/14
WASTE APPLICATION: CLOSURE AND REHABILITATION OF CELL 1 OF THE STELLENBOSCH WASTE DISPOSAL FACILITY, STELLENBOSCH, WESTERN CAPE
CLASS G:M:B+/CLASS B (Closure)
LOCATION: PORTION 2 OF FARM MORGENSTER 203 AND REMAINDER OF FARM GROOTVLEI 183, DISTRICT OF STELLENBOSCH
LICENCE HOLDER: STELLENBOSCH MUNICIPALITY
CONTACT PERSON: THE MUNICIPAL MANAGER OR THE DESIGNATED WASTE MANAGER/OFFICER
ADDRESS: P.O. BOX 17, STELLENBOSCH 7599

1. LOCATION

- 1.1. This Licence authorises the Stellenbosch Local Municipality to close and rehabilitate Cell 1 of the Facility on portions of Farms 2/203 and Grootvlei 183, Stellenbosch.
- 1.2. The location of the entrance of property on which the Facility is established is:

Latitude	Longitude
33°56'21.82"S	18°49'15.89"E

- 1.3. The boundaries of the Facility must be according to the following co-ordinates:

Corner Points	Latitude	Longitude
1	33°56'27.07"S	18°49'18.28"E
2	33°56'25.49"S	18°49'13.57"E
3	33°56'28.21"S	18°49'10.41"E
4	33°56'28.35"S	18°49'7.86"E
5	33°56'40.45"S	18°49'8.54"E
6	33°56'41.26"S	18°49'17.24"E
7	33°56'36.83"S	18°49'19.83"E
8	33°56'30.53"S	18°49'19.92"E

- 1.4. The footprint of the Facility and its associated infrastructure is 124,000 m².
- 1.5. The Surveyor General 21 Digit codes of the Facility are: C0670000000020300002 and C06700000000018300000.

2. PERMISSIBLE WASTE

- 2.1. Any portion of the Facility which has been constructed or developed according to condition 5 of this Licence, may be used for the disposal of general waste. Only waste that is classified as general waste, according to the NEM: WA, or any current and future Norms and Standards developed by the Department Environmental Affairs, is authorised.
- 2.2. If more than 80m³ of hazardous waste is going to be stored at the Facility, a registration form in terms of the relevant National Norms and Standards for the Storage of Waste (GN No. 926) must be completed and the waste must be stored accordingly.
- 2.3. The Licence Holder must take all reasonable steps to ensure that:
 - 2.3.1. no hazardous waste; and
 - 2.3.2. no health care waste, including pharmaceutical waste, as defined by the Western Cape Health Care Waste Management Act, 2007, (Act No. 7 of 2007), be disposed of at the Facility.
- 2.4. The Licence Holder must prevent the acceptance of any waste not authorised at the Facility.
- 2.5. All waste loads must be checked at the gate to prevent the disposal of waste not authorised by this Licence.
- 2.6. Organic waste can be disposed of at the Facility but must be in accordance with the Organic Waste Diversion Plan, targets and procedures referred to in conditions 15.7 and 15.8 of the Licence.

3. APPOINTMENT OF WASTE MANAGEMENT CONTROL OFFICER/ENVIRONMENTAL CONTROL OFFICER

- 3.1. The waste management activities that are authorised by this Licence, must be managed by fit and proper persons who are competent in respect of the responsibilities to be undertaken by them.
- 3.2. A Waste Management Control Officer (WMCO)/Environmental Control Officer (ECO) must be appointed, who will monitor and ensure compliance and correct implementation of all mitigation measures and provisions as stipulated in the Licence and Environmental Management Programme (EMPr) dated 30 May 2017, prior to any construction activities being undertaken at the Cell. The WMCO/ECO must:
 - 3.2.1. report any non-compliance with any Licence conditions or requirements or provisions of NEM: WA to the Licensing Authority through means reasonably available;
 - 3.2.2. identify and submit potential measures to the Licence Holder and the Director in respect of waste minimisation, including the reduction, recovery, re-use and recycling of waste; and
 - 3.2.3. monitor any future construction activities and ensure that the construction plans are in accordance with the approved engineering design.

4. GENERAL MANAGEMENT

- 4.1. The EMPr for the decommissioning of the Cell mentioned in Condition 3.2, submitted as part of the final Basic Assessment Report, is hereby approved and must be implemented together with all the conditions of this Licence.
- 4.2. An application for the amendment to the EMPr must be submitted to the Licensing Authority if any further amendments are to be made to the EMPr and this may only be implemented once the amended EMPr has been authorised by the Licensing Authority.
- 4.3. Any persons having duties that are or may be affected by the matters set out in this Licence must have convenient access to a copy of it. This must be kept at or near the place where those duties will be carried out.

- 4.4. The Licence and EMPr must be produced to any authorised official of the Department who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein and must be made available for inspection by any employee or agent of the Licence Holder who works or undertakes work at the Cell.
- 4.5. The Licence Holder shall remain responsible for the Cell, and/or any of its impacts arising from the operations on the environment.
- 4.6. The Licence Holder must take all reasonable steps to ensure that the rest of the Facility is operated in a manner which must prevent the creation of nuisance conditions or health hazards, such as vectors (flies and vermin), exposed waste, dust, windblown litter, obnoxious odours, burning waste and noise.
- 4.7. The Licence Holder must ensure that no general waste is burned on the Cell. The Licence Holder will be responsible to manage spontaneous combustion and smouldering of waste in the rehabilitated Cell and the rest of the waste body.
- 4.8. Waste disposed of at the Facility must be compacted and covered daily with a minimum of approximately 150 millimetres of soil or other material approved by the Director.
- 4.9. The Licence Holder must take responsibility for the health and safety of workers and employees at the Facility, in terms of Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).
- 4.10. Reclamation of waste may be undertaken in a designated roofed area away from the waste body, under the management of the Permit Holder, but may not take place at the working face of Facility. Informal waste reclamation on any part of the footprint area is prohibited.
- 4.11. An Emergency Response Plan (ERP) must be developed, and all staff must be trained in the implementation thereof. The ERP should be regularly updated and must include fire evacuations, injury on duty, accidents, and procedures caused by unexpected hazardous waste ending up at the Facility.
- 4.12. The Facility must comply with the Noise Control Regulations P.N. 200/2013, as promulgated under the Environmental Conservation Act, 1989 (Act No. 73 of 1989).

5. DECOMMISSION PHASE

- 5.1. The Licence Holder must submit a Closure Report, which includes the Closure Design, Closure Requirements and End Use Plan to the Director and the Director: RPW for approval, 90 (ninety) days prior to construction for decommissioning of the Facility.
- 5.2. The closure and rehabilitation of the Stellenbosch landfill Cell 1 must be in accordance with the following design plans by Jan Palm Consulting Engineers:
 - 5.2.1. Drawing A192/901 'Proposed Final Contours' dated September 2014;
 - 5.2.2. Drawing A192/902 'Sections and Details' dated May 2015;
 - 5.2.3. Drawing A192/903 'Multriwell Layout and Details' dated July 2015;
- 5.3. The Site, or any portion thereof must be covered and maintained in such a way that:
 - 5.3.1. the formation of pools, and or damming due to rain is prevented;
 - 5.3.2. free surface runoff of rain-water is ensured;
 - 5.3.3. contamination of stormwater is prevented; and
 - 5.3.4. minimal or no erosion occurs.
- 5.4. The Licence Holder shall retain the responsibility for the Cell, and its monitoring after decommissioning of the Cell is according to the Minimum Requirements and any relevant Norms and Standards that may replace the Minimum Requirements and ensure that:

- 5.4.1. the presence of any nuisances such as dust, flies, exposed waste, and bad odours must be monitored regularly, and monitoring results are kept in terms of Condition 15.
- 5.4.2. any complaints from the public must be attended to by the Licence Holder, who must take all reasonable and practical steps to alleviate the cause of the complaint within a reasonable timeframe to the satisfaction of the Director and record it in terms of Conditions 15.
- 5.5. The Licence Holder must notify the Director within 24 (twenty-four) hours if any condition of this design acceptance cannot be or is not adhered to. The notification must be supplemented in writing, with reasons for non-compliance and proposed rectification measures, within 7 (seven) days.
- 5.6. The applicant must ensure that there is no alignment between engineer, contractor and material suppliers in the development and implementation of the construction quality assurance plan.
- 5.7. The Licence Holder must ensure that construction quality assurance of the capping, granular material specifications and the design report is carried out in accordance with conditions (1.8 to 1.12) of the Record of Decision (RoD) issued by Department of Water and Sanitation (DWS) and dated 3 July 2018.
- 5.8. Construction within the Cell must be carried out under the supervision of a Professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 2000 (Act 46 of 2000).
- 5.9. Upon completion of the construction for decommissioning of Cell 1, the Licence Holder must submit an end of construction report and a certificate to the Director and the Director: RPW that the construction for decommissioning of Cell 1, as proposed by the Licence Holder and approved by the Director and the Director: RPW, is in accordance with recognised civil engineering practice, the approved engineering designs, the construction quality assurance protocol, together with the standard specifications including the Bill of Quantities and costing for submission to the Chief Financial Officer for evaluation with respect to deviation from the Department of National Treasury Regulations and for the efficiency use of State resources.
- 5.10. The design of the gas venting system and usage of extracted landfill gas is to be approved by the Director in relation with applicable legislation and any other authority.
- 5.11. The performance of the leachate curtain collector drain, and resultant reduction of pollution mitigation must be established, based on the findings of the groundwater quality report, submitted to the Director within 6 (six) months of the date of this Licence.
- 5.12. A functional riparian area of 30 (thirty) metres buffer must be established on both banks of the Veldwagters River starting from at least 500 (five hundred) metres upstream up to 500 (five hundred) metres downstream of the site.
- 5.13. Silt fence, sand bags or similar material must be used to manage stormwater and sedimentation when reshaping river banks to establish the riparian area and wider 1:100 (once in one hundred) year floodlines.
- 5.14. Erosion control measures must be installed on the stormwater discharge outlets and clean stormwater must be discharged into the watercourses in a slow diffused manner.
- 5.15. Floodline determination study must be done for post development phase of the proposed activities to indicate floodline changes after establishment of 30 (thirty) metres functional riparian area and indicate the impact on upstream and downstream users. Should the gas compound be located within the 1:100 (once in one hundred) year floodline, it must be relocated to a new location outside of 1:100 (once in one hundred) year floodline area and be protected against 1:100 (once in one hundred) year floods.
- 5.16. If the new floodlines changes upstream and downstream floodlines after conducting the study, the reshaping of the river banks must be done in such a way that the floodlines do not change upstream

and downstream. Furthermore, the Responsible Authority must be contacted prior to construction phase of the proposed development.

- 5.17. Recommended Ecological Class of at least D must be achieved on the Veldwagters River as required by the DWS after implementation of the proposed activities.
- 5.18. Alien plant species must be monitored and removed as soon as they start to colonise the site. Indigenous vegetation must be used for rehabilitation and establishment of the riparian area.
- 5.19. The Water Use Licence (Section 21 (c) and (i)) must be applied for before the commencement of the construction activities.

6. ACCESS CONTROL

- 6.1. The Licence Holder must prevent unauthorised access to the Cell, by having the Facility enclosed with a fence and a gate of the same height.
- 6.2. All entrances to the Facility must be manned during operating hours and locked outside operating hours.
- 6.3. Weatherproof, durable and legible notices must be displayed at each entrance to the Facility in at least 3 (three) official languages applicable to the area. These notices must prohibit unauthorised entry and must contain the name, address and telephone number of the Licence Holder and the person responsible for the Facility.
- 6.4. The Licence Holder must ensure that there is no illegal access to the closed and rehabilitated Cell and that no illegal dumping occurs at the Facility.
- 6.5. The Licence Holder must ensure that all roads at the Facility are maintained to allow access to all areas by vehicle.

7. ENVIRONMENTAL POLLUTION INVESTIGATIONS

- 7.1. If, in the opinion of the Director, any environmental pollution, nuisances or health risks may be or is occurring on the Facility, the Licence Holder must investigate the cause of the problem and take reasonable steps to alleviate the problem in consultation with the Director.
- 7.2. Should the investigation carried out as per Condition 7.1 above reveal any unacceptable levels of pollution, the Licence Holder must submit a report with mitigation measures to the satisfaction of the Director.

8. WATER QUALITY MANAGEMENT

8.1. Runoff Management

- 8.1.1. Works constructed in compliance with Condition 5 must be of such a capacity as to maintain a freeboard of half a meter and to accommodate:
 - (a) all stormwater runoff, which could be expected because of the estimated maximum precipitation during a period of 24 (twenty-four) hours with an average frequency of 1:50 (once in the fifty) years; and
 - (b) all expected leachate.
- 8.1.2. Works constructed in compliance with Condition 8.1.1 must, on a continuous basis, be properly maintained.

8.1.3. All runoff (stormwater) arising because of precipitation on land adjacent to the Facility must be prevented from entering the Facility and must be diverted and drained from the Facility, by means of works constructed by the Licence Holder in accordance with Condition 5.

8.1.4. Uncontaminated runoff water must under no circumstances be used to dilute leachate emanating from the Facility but must be diverted to and discharged into the nearest stormwater channel.

8.2. **Leachate Management**

8.2.1. Sporadic leachate from the Facility must, by means of works which must be constructed and maintained on a continuous basis by the license holder and be lined as approved by the Director and Director RPW, to prevent pollution to groundwater:

- (a) be evaporated in lined dams as approved by the Director and Director: RPW; and
- (b) be discharged into any convenient sewer if accepted by the authority in control of that sewer.

9. **MONITORING**

9.1. **Water Quality Monitoring**

9.1.1. The Licence Holder must develop and implement a groundwater quantity and quality monitoring programme. The monitoring programme should include boreholes up-gradient and down-gradient of the site.

9.1.2. A geophysical survey should be concluded in consultation with the Director and Director: RPW prior to siting and drilling of the additional groundwater monitoring boreholes to optimize drilling positions and to delineate the structural geologic features which could act as preferential groundwater flow pathways.

9.1.3. The site should be capped effectively to prevent ponding and ingress of water into the waste body and runoff should be directed away from the decommissioned site.

9.1.4. If the groundwater and downstream users are affected by migration of the pollution from the landfill site, the applicant should compensate them with potable water.

9.1.5. All monitoring boreholes must be locked or secured to prevent pollution and any other interference to ensure that the integrity of water sampling is maintained.

9.1.6. Surface water quality monitoring should be conducted for variables listed in Annexure 2 on a quarterly basis in the Veldwagters River upstream and downstream of the site to manage the surface water

9.2. **Detection monitoring**

9.2.1. Monitoring for groundwater and surface water quality must be conducted for variables listed in Annexure 2 on a quarterly basis or such frequency as may be determined by the Director and Director: RPW.

9.3. **Investigative monitoring**

9.3.1. If, in the opinion of the Director, a water quality variable listed under the detection monitoring programme, as referred to in condition 9.2 (Detection Monitoring), shows an

increasing trend, the Licence Holder shall initiate a monthly monitoring programme until such time that the variable is within acceptable limits.

9.4. **Post closure monitoring**

- 9.4.1. Groundwater monitoring must continue after closure of the site and must be maintained for a period of 30 (thirty) years, or for such period and/or frequency as may be determined by the Director for variables listed in Annexure 2.

10. **ANALYSIS OF SAMPLES, MONITORING METHODS AND PARAMETERS**

- 10.1. The Licence Holder must carry out all tests in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), referred to in the Standards Act, 2008 (Act No. 8 of 2008), to analyse the samples taken under the monitoring programmes specified in condition 10.
- 10.2. The Licence Holder may only use another method of analysis if written proof that the method is at least equivalent to the SABS method, is submitted to the Director and Director: RPW.
- 10.3. The Licence Holder must put in place a monitoring and measurement plan that must inter alia include:
- 10.3.1. mass (in tons or kilograms) received;
 - 10.3.2. waste types and sources;
 - 10.3.3. air quality monitoring which addresses dust and odours; and
 - 10.3.4. an annual (once per year) topographical survey submitted to the Director in the form of an Airspace Determination Report, which must estimate the remaining volume of airspace and lifetime for disposal on the rest of the cells at the facility.

11. **AUDITING**

11.1. **Internal audits**

- 11.1.1. Internal audits must be conducted quarterly (four times per year) by the Licence Holder and on each audit occasion an official report in terms of Condition 11.2.6 must be compiled by the relevant auditor to report the findings of the audits, which must be made available to the external auditor specified in condition 11.2.1 and the Director (if requested), according to condition 14.4.5.

11.2. **External audits**

- 11.2.1. The Licence Holder must appoint an independent external auditor to audit the Facility annually (once a year) and this auditor must compile an audit report in terms of Condition 11.2.6 documenting the findings of the audit to the Director.
- 11.2.2. The audit report must specifically state whether conditions of this Licence are adhered to and must include an interpretation of all available data and test results regarding the operation of the Facility and all its impacts on the environment.
- 11.2.3. The audit report must contain recommendations regarding non-compliance or potential non-compliance with the Licence conditions and must propose target dates for the implementation of the recommendations by the Licence Holder.

- 11.2.4. The external audit report must be submitted to the Environmental Monitoring Committee (hereinafter referred to as the "Monitoring Committee"), provided in condition 13, within 3 (three) months, from the date on which the external auditor finalised the report.
- 11.2.5. Each external audit must be submitted to the Director within 30 (thirty) days, from the date on which the external auditor finalised the report.
- 11.2.6. Both the internal and external audit reports must be in accordance with the format as prescribed by the Director.

12. DEPARTMENTAL AUDITS AND INSPECTIONS

- 12.1. The Director and the Director: RPW reserves the right to audit and/or inspect the Facility at any time and at such a frequency as the Director and Director: RPW may decide, or to have the Facility audited or inspected.
- 12.2. The Licence Holder must make any records or documentation available to the Director and the Director: RPW upon request, as well as any other information the Director and Director: RPW may require.
- 12.3. The findings of these audits or inspections shall be made available to the Licence Holder within 60 (sixty) days of the end of the audit or inspection and shall not be treated as confidential.

13. MONITORING COMMITTEE

- 13.1. The Licence Holder must establish a Monitoring Committee for the normal operative lifetime of the Facility.
- 13.2. The Licence Holder must take the necessary steps to establish, maintain and ensure the continued functioning of a Monitoring Committee for the normal operative lifetime of the Facility and for a period of at least two years after the closure of the Facility, or such longer period as may be determined by the Director.
- 13.3. The Monitoring Committee must be representative of relevant interested and affected persons and may consist of at least 3 (three) of the following representatives:
 - 13.3.1. Licence Holder and/or his/her appointed consultant(s) or advisor(s);
 - 13.3.2. representative(s) of the Health, Environment and/or Waste Departments of the relevant local authority;
 - 13.3.3. representative(s) of this Department; and
 - 13.3.4. at least 3 (three) persons/parties, their representatives elected by the local residents, or proof of notification of the Monitoring Committee to interested and affected parties of each meeting.
- 13.4. The Monitoring Committee must meet annually (once a year) and no later than 3 (three) months after the finalisation of the external audit report was conducted in terms of condition 11.2.1 and submitted in terms of condition 11.2.5.
- 13.5. The Licence Holder must keep minutes of all meetings of the Monitoring Committee and distribute these minutes to all members of the Monitoring Committee within 30 (thirty) days after the meeting.

14. RECORD KEEPING

- 14.1. Design and construction records including topographical surveys and methodical materials test results (on all materials used) shall be maintained, archived and accessible for the life of the facilities including decommissioning.
- 14.2. The Licence Holder must keep records of all monitoring results, nuisances and complaints at the Facility or Municipal offices.
- 14.3. Accurate records of waste volumes or masses received and recovered must be kept at the Facility or Municipal offices and reported to the Department as per condition 15.6.
- 14.4. All records required or resulting from activities required by this Licence must:
 - 14.4.1. be legible;
 - 14.4.2. be made available and should form part of any audit report;
 - 14.4.3. If amended, be amended in such a way that the original and any subsequent amendments remain legible and are easily retrievable;
 - 14.4.4. be retained in accordance with documented procedures which are approved by the Director; and
 - 14.4.5. be made available upon the request of the Director.
- 14.5. The Licence Holder must record all borehole data and chemical analysis in a format agreed upon in writing between the Director and the Director: RPW, the Licence Holder, and a relevant specialist if so required, for interpretation in terms of condition 11.2.2.
- 14.6. The Licence Holder must register and report all waste volumes or masses received, recovered, disposed of or stored to the Department's Integrated Pollutant and Waste Information System (IPWIS), which can be accessed on the URL: <http://ipwis.pgwc.gov.za/ipwis3/public>, as required by the Department.

15. REPORTING

- 15.1. Reporting of Incidents
 - 15.1.1. The Licence Holder must, within 24 (twenty-four) hours, notify the Director of the occurrence or detection of any incident at the Facility, which has the potential to cause disruption in the normal operation of the Facility, or has caused water pollution, pollution of the environment, health risks or nuisance conditions.
 - 15.1.2. The Licence Holder must, within 14 (fourteen) days, or a shorter period of time, if specified by the Director, from the occurrence or detection of any incident referred to in condition 15.1.1, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Director of measures taken to:
 - (a) correct the impact resulting from the incident;
 - (b) prevent the incident from causing any further impact; and
 - (c) prevent a recurrence of a similar incident.
 - 15.1.3. If measures have not been implemented within 21 (twenty-one) days of the incident to address impacts caused by the incident referred to in condition 15.1.1, or measures which have been implemented are inadequate, the Director may implement the necessary measures at the cost and risk of the Licence Holder.
 - 15.1.4. The Licence Holder or duly appointed person must keep an incident report and complaints register, which must be made available to both external and Departmental auditors for the purpose of their audits.

- 15.2. The Director must be notified within 7 (seven) days of any changes to the management of the Facility, including the name of the incoming person together with evidence that such person has the required technical competence.
- 15.3. The Director must be notified within 14 (fourteen) days of the following changes:
 - 15.3.1. licence Holder's trading name, registered name or registered office address;
 - 15.3.2. particulars of the Licence Holder's ultimate holding company (including details of an ultimate holding where a Licence Holder has become a subsidiary); and
 - 15.3.3. steps taken with a view to the Licence Holder going into bankruptcy, entering into composition or arrangement with creditors.
- 15.4. All audit reports (internal and external) must be submitted to the Director within 30 (thirty) days from the date on which the auditor finalised the audit.
- 15.5. The monitoring information required in terms of condition 10 must be reported to the Director in a yearly report. The information must also be included into a trend report, which must contain a graphical presentation of all monitoring results obtained previously, as well as an interpretation and discussion of the results of each monitoring occasion.
- 15.6. The Licence Holder must submit a written report to the Director regarding any deviations from plans described in this Licence and must obtain written permission from the Director before such deviations may be implemented.
- 15.7. The Licence Holder must submit an Organic Waste Diversion Plan to the Director 90 (ninety) days after the signature of this Licence and annually thereafter.
- 15.8. The information within the Organic Waste Diversion Plan must:
 - 15.8.1. provide a status quo of current organic waste sources and volumes disposed at municipal WDFs, and current rates and procedures of organic waste diversion from WDFs; and
 - 15.8.2. set annual targets and identify procedures from 2018 that will be implemented to meet these targets for the diversion of organic waste from municipal WDFs, in order to reach a 50% diversion by the year 2022 and 100% diversion by the year 2027.

16. LEASING AND ALIENATION OF THE FACILITY

- 16.1. Should the Licence Holder want to alienate or lease the Facility, he/she shall notify the Director in writing of such an intention at least 120 (one hundred and twenty) days prior to the said transaction.

17. TRANSFER OF LICENCE

- 17.1. Should the Licence Holder want to transfer holdership of this Licence, he/she must apply in terms of section 52 of the NEM:WA.
- 17.2. Any subsequent Licence Holder shall be bound by the conditions of this Licence.

18. COMMENCEMENT

- 18.1. This decommissioning phase of the Cell must commence within 5 (five) years of the date of this Licence. If commencement of the activity does not occur within that period, the validity of this Licence lapses and a new application for Licence must be made for the activity to be undertaken.
- 18.2. If the Licence Holder anticipates that commencement of the activity would not occur within 5 (five) years of the date of this Licence, he/ she must apply and show good cause for an extension of the commencement date in this Licence 6 (six) months prior to its expiry date.

19. GENERAL

- 19.1. This Licence shall not be transferable unless such transfer is subject to Condition 17 above.
- 19.2. This Licence shall not be construed as exempting the Licence Holder from compliance with the provisions of any National and Provincial Legislation and relevant Ordinance, Regulation, By-laws and relevant National Norms and Standards.
- 19.3. Transgression of any condition of this Licence could result in the suspension of the Licence by this Department.
- 19.4. This Licence is valid for the duration that groundwater monitoring must continue after closure of the Facility, and which is to be continued for a period of 30 (thirty) years in terms of condition 9.4 (post-closure Monitoring). The licence may be reviewed at any time after commencement. Based on the results of the review, especially compliance to Licence conditions or recommendations from the audit reports and or changing legislation, the Licence can be amended or withdrawn, or the validity thereof extended.
- 19.5. Transgression of any condition of this Licence could result in the suspension of the Licence by the Licensing Authority and may render the Licence Holder liable for criminal prosecution or other actions provided for in Section 67(1) of the NEM:WA, 2008.
- 19.6. In terms of section 28 and 30 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), and section 19 and 20 of the National Water Act (Act No. 36 of 1998), any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the Licence Holder reads through and understand the legislative requirements pertaining to the project. It is the Licence Holder's responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmental acceptable manner.

D. APPEAL OF LICENCE

1. The applicant must in writing, within 12 (twelve) calendar days of the date of this decision and in accordance with regulation 10(2) of GN No. R. 543 of 18 June 2010:
 - 1.1 Notify all registered Interested & Affected Parties ("I&AP's") of:
 - (a) the outcome of the application;
 - (b) the reasons for the decision as included in Annexure 1; and
 - (c) the date of the decision.
 - 1.2 Draw the attention of all registered interested and affected parties to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of the EIA Amendment Regulations, 2010; and
 - 1.3 Draw the attention of all registered I&AP's to the manner in which they may access the decision;
2. Appeals must comply with the provisions contained in Chapter 7 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) EIA Regulations.
3. An appellant must:
 - 3.1 submit a notice of intention to appeal to the Minister, within 20 (twenty) calendar days of the date of the decision;
 - 3.2 submit the appeal within 30 (thirty) calendar days after the lapsing of the 20 (twenty) calendar days contemplated in regulation 60(1), for the submission of the notice of intention to appeal; and
 - 3.3 within 10 (ten) calendar days of having lodged the notice of intention to appeal, provide each person and organ of state registered as an I&AP's in respect of the application, or the applicant, with:
 - (a) a copy of the notice of intention to appeal form; and
 - (b) a notice indicating where and for what period the appeal submission will be made available for inspection by such person, organ of state, or applicant, on the day of lodging it with the Minister, and that a responding statement may be made on the appeal within 30 (thirty) calendar days from the date the appeal submission was lodged with the Minister.
4. A person, organ of state or applicant who submits a responding or answering statement in terms of regulation 63 must within 10 (ten) calendar days of having submitted the responding or answering statement, serve a copy of the statement on the other party.
5. If the person, organ of state or applicant fails to meet a timeframe with respect to the requirements as detailed above, the person, organ of state or applicant must immediately submit a written explanation to the Ministry providing a concise explanation for the non-compliance.

6. All notice of intention to appeal and appeal forms must be submitted by means of one of the following methods:

By post: Western Cape Ministry of Local Government, Environmental Affairs and
Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr J. de Villiers (Tel: 021 483 3721)
Room 809, 8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to Jaap.DeVilliers@westerncape.gov.za.

A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail Jaap.DeVilliers@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

E. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of the Licence shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is greatly appreciated.

Yours faithfully,



LANCE MCBAIN-CHARLES

ACTING DIRECTOR: WASTE MANAGEMENT

DATE OF DECISION: 2018/9/13

CC: (1) Malise Noe (DWS: Resource Protection and Waste)
CC: (2) Tamryn Johnson (Aurecon South Africa (Pty) Ltd)

Fax: (086) 634 5998 / E-mail: NoeM@dws.gov.za
E-mail: tamryn.johnson@aurecongroup.com

ANNEXURE 1

REASONS FOR THE DECISION

The reasons for the licence decision as well as factors affecting the broader development that were considered to ensure the effective implementation of this Licence are explained below.

- (a) The information contained in the Application Form for a Waste Management Licence dated 21 July 2014;
- (b) The Basic Assessment Report (BAR) dated 17 October 2017, compiled by Aurecon South Africa (Pty) Ltd., including the Waste Management Licence Application Additional Information Annexure.
- (c) Comments raised by I&AP's throughout the Public Participation Process, the Applicant and the Environmental Assessment Practitioner's responses thereto;
- (d) Relevant information contained in the Departmental information base; and
- (e) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of the NEMA, 1998 (Act No. 107 of 1998).

A summary of the issues which, in the Department's view were of the most significance, are set out below.

Environment

The waste body has already been reshaped to a gradient of (1V:3H) as part of the operational works. This gradient is also a requirement of the site decommissioning and rehabilitation.

The Stellenbosch Landfill Site is located outside the urban edge of Stellenbosch on the western foothills of the Helderberg, Hottentots-Holland, Jonkershoek and Simonsberg Mountains, as shown in Figure 6 below (White, 2014). At a more local scale, the site is surrounded by the low Papegaaiberg and Bottelary Hills to the north and flatter agricultural lands to the south (Belcher, 2014).

The landfill site is surrounded by the suburban communities and is located 300 m north of Adam Tas Road. The Veldwagters River is immediately adjacent and east of the site.

The subgrade material (in-situ soil and rock below the waste bodies) could not be confirmed as no geotechnical investigations were undertaken at the site prior to the establishment of Cells 1, 2 and 3. During the geotechnical site investigation, undertaken as part of the Geotechnical Assessment by Fouche and Pape (2014), it was observed that the side slopes of the landfill currently appear stable. It was also observed that no immediate tangible risk of major slope failure is present at the site.

Groundwater sampling was undertaken as part of the Geohydrological Assessment by Conrad (2014). The Assessment revealed that the site is located directly above a regional aquifer, which is classified by the Department of Water and Sanitation (DWS) as an intergranular and fractured aquifer. It has an average borehole yield of more than (0.1 – 0.5) litres per second. The regional groundwater quality of the general site area and surrounds as indicated by the electrical conductivity (EC) is between (75 and 150) milliSiemens per meter.

It was revealed that the groundwater level at the site is shallow (0.15 and 0.82) metres below ground level. This indicates that groundwater contamination can occur easily and the contribution of contamination to the nearby Veldwagters River is likely to occur.

From the national groundwater vulnerability mapping project (DWAf, 2005) the Stellenbosch Landfill Site is located on a "medium to low" groundwater vulnerability zone. Conrad (2014) stated that this classification is almost suitable for the presence of a landfill; however, Conrad (2014) felt that the

national classification is incorrect at the site. With the intergranular aquifer and shallow depth of the groundwater, the groundwater vulnerability to surface based contaminants is most probably "high".

Groundwater sampling was undertaken on site at the only two monitoring boreholes not vandalised. The samples from two well points (WP2 and WP8) were compared to nearby off-site samples to determine whether the groundwater is contaminated.

From the field measurements of groundwater chemistry there is clear evidence of groundwater contamination at the two monitoring well points on site. The salinity level of the down-gradient monitoring well point (WP2) is higher than for the up-gradient well point (WP8). This may also be attributable to the close proximity of the Stellenbosch WWTW to WP2. The salinity levels, especially of WP2 increases with depth.

The EC values for the landfill monitoring are significantly higher than the background boreholes. This indicates that the landfill (particularly Cells 1 and 2) and the WWTW are negatively impacting groundwater quality.

Deviation

The applicant has not requested deviations.

NEED AND DESIRABILITY

The decommissioning and rehabilitation of the site would ensure legislated waste management practices are adhered to. It would also support the move towards sustainable cities and would mitigate against the current contamination of the Veldwagters River. The proposed Preferred Alternative would also remedy the general negative visual impacts associated with landfill sites.

ALTERNATIVES

No feasible or reasonable site alternative exists. The site has been utilised as a landfill since 1966 and has been permitted for such use. The proposed project is for the decommissioning and rehabilitation of the Stellenbosch landfill with an end use to green the site and augment electricity to power the WWTW.

Design Alternatives

Alternative 1: Open space green landscaping, preferably using indigenous vegetation, coupled with a community upliftment project(s).

Alternative 2: Methane gas extraction for generation of electricity.

A combination of the above Alternatives is proposed to form the Preferred Alternative.

No-Go Alternative

Most of the potential impacts associated with the No-go alternative are expected to be of high (-) significance and cannot be mitigated if this alternative is implemented. The geotechnical impacts are expected to be of lower significance.

Based on the impact ratings provided by the specialists, either Alternatives 1 or 2 could be implemented. The No-go alternative should not be implemented as the impacts associated with it are mostly of high (-) significance.

PUBLIC PARTICIPATION PROCESS (PPP)

The PPP comprised of the following: -

- (a) Submit the completed Application for a Waste Management Licence in terms of NEM: WA to DEA&DP: Waste Management Directorate on 22 July 2014;
- (b) Receive a DEA&DP reference number for Application for a Waste Management Licence in terms of NEM: WA on 19 August 2014;
- (c) Emails to identified I&APs notifying them of the availability of the BID for perusal and comment on the proposed end-uses for the decommissioning and rehabilitation of the Stellenbosch Landfill Site, for a period of 21 days. The 21 day comment period ran from 29 August 2014 to 19 September 2014 on 27 - 29 August 2014;
- (d) Advertisement of the initial public notification period of 21 days and the availability of the BID in the Eikestad Nuus, Die Burger and the Stellenbosch Gazette as per DEA&DP Public Participation Guideline:
 - 2 September 2014 (Stellenbosch Gazette)
 - 3 September 2014 (Die Burger)
 - 4 September 2014 (Die Eikestad Nuus);
- (e) Notice boards at strategic locations on 8 September 2014;
- (f) An initial round of stakeholder meetings was conducted on 19 September 2014;
- (g) Submit the Draft BAR to the DEA&DP on 5 November 2014;
- (h) A Public Meeting held at the Devon Valley Hotel in Stellenbosch from 18:00 – 19:00 on 11 November 2014;
- (i) Hard copies and/or electronic copies of the Final BAR were provided to authorities for a comment period of 30 days on 30 May 2017; and
- (j) the Final BAR to the DEA&DP on 10 July 2017.

Authorities Consultation: -

- (a) DEA&DP: Directorate Waste Management;
- (b) Directorate Development Management; Directorate Pollution Management
- (c) Department of Water and Sanitation
- (d) Heritage Western Cape
- (e) Cape Winelands District Municipality
- (f) CapeNature
- (g) Western Cape Government: Human Settlements
- (h) Department of Agriculture
- (i) Department of Public Works

Comments and recommendations provided by the other relevant authorities have been considered in the evaluation of this application. No authorities objected to the commencement of the activity.

The general objectives of IEM have been considered as follows:

- (j) The principals of NEMA have been considered as described in (18) below.
- (k) The Basic Assessment Process has allowed for the detailed identification, prediction and evaluation of potential impacts on the environment, socio-economic conditions and cultural heritage, and describes means of minimising (mitigating) negative impacts and enhancing positive impacts through the EMP.
- (l) Through inputs from the EAP and specialists during the Basic Assessment process, sufficient information has been made available to ensure that all effects of the proposed activity on the environment have been considered in this BAR. In addition, potential impacts or concerns highlighted by I&APs and commenting authorities during the Draft BAR PPP will be incorporated and evaluated.
- (m) Adequate and appropriate opportunity for Public Participation has been provided through the Basic Assessment process and the guidelines for Public Participation were followed.
- (n) A comprehensive impact assessment has been undertaken to identify and assess the environmental attributes of the proposed development site and surrounding landscape. The risks, consequences, alternatives together with options for mitigation have also been considered.
- (o) The methods best suited to environmental management for this activity have been followed and an EMP compiled.

ANNEXURE 2

WATER QUALITY VARIABLES REQUIRED FOR DETECTION MONITORING:

Monitor at quarterly intervals for:

Alkalinity (P.Alk)

Ammonia (NH₃-N)

Chemical Oxygen Demand (COD)

Chlorides (Cl)

Electrical Conductivity (EC)

Nitrate (NO₃-N)

pH

Potassium (K)

Total Dissolved Solids (TDS)

Calcium (Ca)

Fluoride (F)

Magnesium (Mg)

Sodium (Na)

Sulphate (SO₄)

END