



the DEDECT

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Basic Assessment Report for the Continued Operations of Lehurutshe Landfill site: Waste License Application NWP/WM/NM5/2013/27, Ramotshere-Moiloa Local Municipality

(For official use only)

File Reference Number:
Application Number:
Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES	NO X
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If YES, please complete the form entitled "Details of specialist and declaration of interest"

for appointment of a specialist for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail¹:

<p>Project Description The application is for a waste management licence for the continued operation of the unauthorised Lehurutshe landfill site for the disposal of general waste to land in the Ramotshere Moiloa Local Municipality</p> <p>NW-DEDECT Reference: NWP/WM/NM5/2013/27</p> <p>The listed activity applied for The listed NEM:WA activity is: Category B, Activity 8, The disposal of general waste to land covering an area in excess of 200 m² and with a total capacity exceeding 25 000 tons published in GN. 921 of 29 November 2013.</p> <p>Based on the motivation that it is an application for an existing waste management activity with known impacts, the North-West Department of Economic Development, Environment, Conservation and Tourism (NW DEDECT) granted permission to apply for a basic assessment process instead of scoping and full EIA process in terms of the provisions of the EIA regulations, 2010.</p> <p>Scope of the application</p> <table border="1"> <thead> <tr> <th>Phase</th> <th>Included in the scope of this application</th> <th>Responsibility</th> <th>Where/how to address</th> </tr> </thead> <tbody> <tr> <td>Pre-operation conditions</td> <td>No</td> <td>NW DEDECT (if applicable)</td> <td>The landfill site is already in existence. The NW DEDECT may require that certain conditions are adhered to as part of the waste management licence.</td> </tr> <tr> <td>Operation of the landfill site</td> <td>Yes</td> <td>CEM</td> <td>The application is for the operation of the Lehurutshe landfill site. Conditions for operation of the landfill site is addressed as part of the EMPr (Appendix F)</td> </tr> </tbody> </table>				Phase	Included in the scope of this application	Responsibility	Where/how to address	Pre-operation conditions	No	NW DEDECT (if applicable)	The landfill site is already in existence. The NW DEDECT may require that certain conditions are adhered to as part of the waste management licence.	Operation of the landfill site	Yes	CEM	The application is for the operation of the Lehurutshe landfill site. Conditions for operation of the landfill site is addressed as part of the EMPr (Appendix F)
Phase	Included in the scope of this application	Responsibility	Where/how to address												
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Operation of the landfill site	Yes	CEM	The application is for the operation of the Lehurutshe landfill site. Conditions for operation of the landfill site is addressed as part of the EMPr (Appendix F)												

¹ Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

Detailed operational design specifications	No	Municipality to appoint registered Consulting Engineer	Detailed operational plan, project plan, design plan and design drawings need to be generated by a registered consulting engineer to satisfy all the requirements that may be specified in the waste license.
Detailed design requirements (operational/closure/remedial design, design of storm water management, leachate management, settlement/surface pondage), plan drawings, and long and short term stability.	No	Municipality to appoint registered Consulting Engineer	It is not possible to do a detailed operational or closure design and planning proposals for this site at this stage. The proponent needs to make provision for this in its IDP as well as the short to medium expenditure framework. The upgrade/operation/closure of this site is the responsibility of the Ramotshere-Moiloa Local Municipality. It is not known how long it will take before the municipality is in a position to commence with work and how the conditions at the site will change in the interim. Hence the approach to do the final designs and planning when the project can be implemented and after the waste license is issued. It is imperative that the NW DEDECT and the DWA sign off on these final designs and operational plans. Refer to the EMPr in Appendix F.
Pre-closure conditions	Yes	CEM	Although the application is for the continued operation of the Lehurutshe landfill site, one of the alternatives investigated is to close the landfill site and construct a transfer station at a suitable site. Pre-closure conditions are, therefore, addressed as part of the EMPr (Appendix F)
Closure plan/EMPr to inform closure design	Yes	CEM	Although the application is for the continued operation

			of the Lehurutshe landfill site, one of the alternatives investigated is to close the landfill site and construct a transfer station at a suitable site. Pre-closure conditions are, therefore, addressed as part of the EMPr (Appendix F)
Closure design and approval	No	Municipality to appoint registered Consulting Engineer	Detailed closure plan, project plan, design plan and drawings need to be generated by a registered consulting engineer to satisfy all the requirements that may be specified in the waste license
Detailed design requirements (closure/remedial design, design of storm water management, leachate management, settlement/surface pondage), plan drawings, and long and short term stability.	No	Municipality to appoint registered Consulting Engineer	It is not possible to do a detailed closure design and planning proposals for this site at this stage. The proponent needs to make provision for this in its IDP as well as the short to medium expenditure framework. The closure of this site is the responsibility of the Ramotshere-Moiloa Local Municipality. These need to be generated by a registered consulting engineer to satisfy all the requirements that may be specified in the waste license. Refer to the EMPr in Appendix F.
Alternative waste disposal options – establishment of a transfer station	Yes	NW DEDECT and Ramotshere-Moiloa Local Municipality	Four waste disposal alternatives are provided as part of this application. It is the duty of NW DEDECT to decide which of these alternatives would have the least environmental damage. It is the duty of the Ramotshere-Moiloa Local Municipality to implement this option.
Post-closure care and maintenance	Yes	CEM	Although the application is for the continued operation of the Lehurutshe landfill

			site, one of the alternatives given is to close the landfill site and construct a transfer station on the remaining portion of the landfill site, post-closure care and maintenance are, therefore, addressed as part of the EMPr (Appendix F)
Post-closure hand-over documents	No	Municipality to appoint registered Consulting Engineer	Documents to be generated and handed over to the municipality for implementation
Additional authorisations	Not applicable	Municipality to appoint independent EAP	Waste disposal activities trigger the need for a section 21(g) water use license in terms of the National Water Act, 1998 (No. 36 of 1998) (NWA). No application is needed for a NWA section 21(g) water use license as the DWA dispenses this requirement by providing the relevant National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA) authority with conditions that need to be included in the NEMA environmental authorisation. Because the site is located closer than 500m from a water resource, it will be necessary to apply for a water use license in terms of section 21(c) & (i) of the NWA, 1998.
Rezoning application	Not applicable	Municipality	A rezoning application may be required, since the land is zoned for agricultural use, while the land is currently being used for municipal use (disposal of waste).

Site Location

The Lehurutshe landfill site is located on the Remainder of the Farm Welbedacht 39-JO. This property belongs to the Ramotshere-Moiloa Local Municipality.

The site is located off the N4 (west) on the Lehurutshe turn-off to the right. The access road to the landfill site is the first turnoff (gravel road) to the right off the Lehurutshe road. The landfill site is located 1.1 km south of Lehurutshe (Unit 1) and 1.7 km west of Lehurutshe (Unit 2). The site is bordered by vacant land, with the N4 situated approximately 200 m south of the border of the landfill site.

Three boreholes are located towards the south of the landfill site (between the landfill site and the N4). The boreholes are situated between 120 m and 200m from the southern edge of the landfill site.

There is generally insufficient surface water in the area (arid) and rural water supply is heavily reliant on ground water sources. It is suspected that the town of Lehurutshe and the farmers in the area are dependent on these boreholes for domestic water supply. The distance of the landfill site to the boreholes and potential for ground water contamination due to the activities at the landfill site is cause for concern.

The Elands River is located approximately 300 metres from the southern border of the landfill site, on the opposite (southern) side of the N4.

Zonation of the land

The land is zoned for agricultural use, while it is currently being used for the disposal of waste. A rezoning application is therefore required.

Land ownership

The land belongs to the Ramotshere-Moiloa Local Municipality.

Operating entity

The landfill is managed and operated by the Ramotshere-Moiloa Local Municipality.

Waste site characteristics and current operations

The waste disposal site is not formally classified, but it is estimated to be GCB- and is 3.13 ha in extent.

The estimated date of commencement of the site is unknown. According to the *Readiness Report for Ramotshere Moiloa Local Municipality* (Jaffares & Green, 2010) the site is expected to have been operational for more than 9 years.

Waste disposal was uncontrolled with no access control or any management of waste deposited on the property. There are no controls for litter and dumping occurs outside of the dedicated areas. There is no equipment for landfill operations, and waste is not compacted and covered, but merely disposed of in an open depressed area. Poor operations on the site results in poor visual aesthetics and a fair amount of uncovered waste was observed on site. Evidence of the burning of waste (including waste tyres) has been observed.

The majority of waste is concentrated at the northern part of the landfill site, but large quantities of waste is scattered over the surface of the entire landfill site. To optimally make use of the available air space, it is recommended that the scattered waste is moved to the northern side of the landfill site. The eastern part (old part) of the landfill site has been covered with topsoil and are heavily infested by alien and invasive plant species. The landfill boundary comprises of a 3 – 4 metre high soil berm, which could be used as cover material when the landfill site is eventually closed. There is still a large portion of land available at the landfill site.

There are no formal statistics on the quantities of waste disposed of, and it is uncertain what amount of waste is reclaimed (informally) from the site.

No groundwater or gas monitoring is conducted on or near the facility. The lack of ground water monitoring data is a cause for concern, since the town of Lehurutshe is largely dependent on ground water for its domestic water supply and the proximity of ground water wells to the site.

Waste management does not feature as a priority project in the IDP of Ramotshere-Moiloa Local Municipality. The local municipality has not yet developed an Integrated Waste Management Plan (IWMP) and the Ngaka Modiri Molema District Municipality is in the process of revising its IWMP.

Activities proposed as part of this application

This application proposes four potential alternatives to be considered for the continued operation of the Lehurutshe landfill site:

Alternative 1: The first proposed alternative is to retain the *status quo* as far as the waste management activities at the landfill site is concerned (i.e. continue with the disposal of waste on the surface of soil). The waste management practices at the landfill site needs to be improved (i.e. the daily compaction and covering of waste). Scattered waste needs to be collected and disposed of on the working face (active part) of the landfill site, and storm water control measures to be implemented in line with the *Minimum Requirements*. Monitoring practices need to be implemented. Once the landfill site has reached it capacity, the site needs to be capped, closed and rehabilitated in line with the *Minimum Requirements* for landfill sites and other applicable legislation.

Alternative 2: Due to the risk of ground water contamination, the second proposed alternative is to cap and close the existing portion of the landfill site, and to establish a transfer station at a suitable site for the temporary storage, sorting and reclamation of waste on the remaining portion of the landfill site. It is proposed that non-recyclable waste from the landfill site is disposed of at the authorised landfill site in Zeerust.

Once the transfer station has been established, it is advised that the existing waste is concentrated to the working face of the landfill site and capped, closed and rehabilitated in line with the *Minimum Requirements* for landfill sites and other applicable legislation.

Alternative 3: If closure of the landfill site with the establishment of a transfer station is not an option, it is proposed that the area of the landfill site which has been used for waste disposal is capped and closed, while formally designed, lined cells/trenches are developed (in line with the *Norms and Standards for the disposal of Waste to Landfill, GN 636 of 2013*) and used for the disposal of waste in the future.

Alternative 4: The fourth suggested alternative is to retain the *status quo* as far as waste disposal practices (on surface dumping) is concerned, but to adopt a modular approach to the capping and closure of cells, where cells are capped, closed and revegetated as soon as they have reached their capacity.

Waste recyclers

There are 15 – 20 reclaimers on site. According to the reclaimers, there is no market for recyclables in Lehurutshe. They mainly salvage glass bottles from the landfill site, which they deposit for a glass-deposit fee.

2. FEASIBLE AND REASONABLE ALTERNATIVES

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report

the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Description of alternatives considered in this application:

The objective of this application is to apply for a waste management authorisation for an existing waste disposal facility in Lehurutshe. This means that it is not possible to provide locational alternatives as part of this application. The no-go option (i.e. retaining the *status quo*), as well as four other alternatives are proposed as part of this application.

Alternative 1: The first proposed alternative is to retain the *status quo* as far as the waste management activities at the landfill site is concerned (i.e. continue with the disposal of waste on the surface of soil). The waste management practices at the landfill site needs to be improved (i.e. the daily compaction and covering of waste). Scattered waste needs to be collected and disposed of on the working face (active part) of the landfill site, and storm water control measures to be implemented in line with the *Minimum Requirements*. Monitoring practices need to be implemented. Once the landfill site has reached its capacity, the site needs to be capped, closed and rehabilitated in line with the *Minimum Requirements* for landfill sites and other applicable legislation.

Alternative 2: Due to the risk of ground water contamination, the second proposed alternative is to cap and close the existing portion of the landfill site, and to establish a transfer station for the temporary storage, sorting and reclamation of waste on the remaining portion of the landfill site. It is proposed that non-recyclable waste from the landfill site is disposed of at the authorised landfill site in Zeerust.

Once the transfer station has been established, it is advised that the existing waste is concentrated to the working face of the landfill site and capped, closed and rehabilitated in line with the *Minimum Requirements* for landfill sites and other applicable legislation.

Alternative 3: If closure of the landfill site with the establishment of a transfer station is not an option, it is proposed that the area of the landfill site which has been used for waste disposal is capped and closed, while formally designed, lined cells/trenches are developed (in line with the *Norms and Standards for the disposal of Waste to Landfill, GN 636 of 2013*) and used for the disposal of waste in the future.

Alternative 4: The fourth suggested alternative is to retain the *status quo* as far as waste disposal practices (on surface dumping) is concerned, but to adopt a modular approach to the capping and closure of cells, where cells are capped, closed and revegetated as soon as they have reached their capacity.

No go alternative: The no-go option is included as a compulsory alternative, but it is not the recommended option, since it would imply that the unlicensed status of the landfill site would be retained (without any waste management conditions as part of licence conditions or an EMPr).

Paragraphs 3 – 13 below should be completed for each alternative.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Alternative:

Latitude (S):

Longitude (E):

Alternative S1² (preferred or only site alternative)

25°	30'00.5"	025°	58'03.49"
0	'	0	'
0	'	0	'

Alternative S2 (if any) Not Applicable

Alternative S3 (if any) Not Applicable

In the case of linear activities:

Alternative: Not Applicable

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only route alternative)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

0	'	0	'
0	'	0	'
0	'	0	'

Alternative S2 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

0	'	0	'
0	'	0	'
0	'	0	'

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

0	'	0	'
0	'	0	'
0	'	0	'

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

The size of the landfill site that requires licencing is 3.13 ha.

Alternative: :

Size of the activity:

Alternative A1³ (preferred activity alternative)

31 378 m²

² "Alternative S.." refer to site alternatives.

³ "Alternative A.." refer to activity, process, technology or other alternatives.

Alternative A2 (if any) **Not Applicable**

m ²
m ²

Alternative A3 (if any) **Not Applicable**

or, for linear activities:

Alternative: : **Not Applicable**

Length of the activity:

Alternative A1 (preferred activity alternative)

M
M
M

Alternative A2 (if any)

Alternative A3 (if any)

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur): : **Not Applicable**

Size of the site/servitude:

Alternative:

Alternative A1 (preferred activity alternative)

m ²
m ²
m ²

Alternative A2 (if any)

Alternative A3 (if any)

5. SITE ACCESS

Does ready access to the site exist?

YES X	NO
m	

If NO, what is the distance over which a new access road will be built : **Not Applicable**

Describe the type of access road planned: : **Not Applicable**

Not Applicable

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

: **Not Applicable**

6. SITE OR ROUTE PLAN :

See Maps LE01, LE02, LE03 and LE04 in Appendix A.

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site; See Map LE02 in Appendix A
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites; See Map LE03 and LE04 in Appendix A
- 6.4 the exact position of each element of the application as well as any other structures on the site See Map LE01 in Appendix A
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure; See Map LE01 in Appendix A
- 6.6 all trees and shrubs taller than 1.8 metres; See Map LE01 in Appendix A
- 6.7 walls and fencing including details of the height and construction material; See Map LE01 in Appendix A
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers; See Map LE01 in Appendix A
 - the 1:100 year flood line (where available or where it is required by DWA); See Map LE01 in Appendix A
 - ridges; See Map LE01 in Appendix A
 - cultural and historical features; See Map LE01 in Appendix A
 - areas with indigenous vegetation (even if it is degraded or invested with alien species); See Map LE01 in Appendix A
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and See Map LE01 in Appendix A
- 6.11 the positions from where photographs of the site were taken. See Map LE01 in Appendix A

7. SITE PHOTOGRAPHS

See Appendix B.

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

Two illustrations are provided:

- LE05 indicates the current status of waste disposal (See Appendix C).
- LE06 (a) – (c) indicates the alternatives, namely establishment of a transfer station (a); establishment of waste cells (b); or modular closure (c) (See Appendix C).

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	To be determined	
What is the expected yearly income that will be generated by or as a result of the activity?	To be determined	
Will the activity contribute to service infrastructure?	YES	NO <input checked="" type="checkbox"/>
Is the activity a public amenity?	YES	NO <input checked="" type="checkbox"/>
How many new employment opportunities will be created in the development phase of the activity?	R4.2 million ⁴	
What is the expected value of the employment opportunities during the development phase?	Not determined	
What percentage of this will accrue to previously disadvantaged individuals?	Not determined	
How many permanent new employment opportunities will be created during the operational phase of the activity?	Not determined	
What is the expected current value of the employment opportunities during the first 10 years?	Not determined	
What percentage of this will accrue to previously disadvantaged individuals?	Not determined	

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

The need for the project is vested in the following arguments:

- The landfill site was operated unlawfully in terms of a NEM:WA, NWA and land use zonation point of view as the area is zoned for agricultural use.
- The Central (now Ngaka Modiri Molema) District Municipality's IWMP (2005) and the recommend the licencing of the Lehurutshe landfill site.
- The current landfill site at Lehurutshe is not managed at all with the result that waste disposal practices might present a risk to ground water resources, located directly down-slope of the landfill site, which is the source of domestic water supply of the town of Lehurutshe.

The desirability of the project is vested in the need to:

- Manage waste more responsibly and lawfully within the Ngaka Modiri Molema District Municipality and the Ramotshere-Moiloa Local Municipality.

NEED:			
1.	Was the relevant provincial planning department involved in the application?	YES <input checked="" type="checkbox"/>	NO
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES <input checked="" type="checkbox"/> ⁵	NO
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		
	Not Applicable		

⁴ Estimated cost to upgrade the Lehurutshe landfill site to be legally compliant in accordance with the Readiness Report by Jeffares & Green (2010) . Costs include direct costs (i.e. site clearance, shaping, ground preparations etc.), ancillary items (i.e. fencing, security infrastructure, vehicle control etc.), extras (i.e. recyclables collection facility, drop-off area, etc) and indirect costs (i.e. Professional Engineer, geotechnical investigation, topographical survey etc).

⁵ The SDF dated 2004 of the North West Province was consulted.

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DESIRABILITY:			
1.	Does the proposed land use / development fit the surrounding area?	YES	NO X
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES	NO X
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	NO X
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation: The current land use zoning is agriculture, while the land is currently being used for the disposal of waste.		
5.	Will the proposed land use / development impact on the sense of place?	YES X	NO
6.	Will the proposed land use / development set a precedent?	YES	NO X
7.	Will any person's rights be affected by the proposed land use / development?	YES	NO X
8.	Will the proposed land use / development compromise the "urban edge"?	YES	NO X
9.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation. The impact of the proposed activity on the sense of place of the area will be may be negative, since the land is used for the disposal of waste.		

BENEFITS:			
1.	Will the land use / development have any benefits for society in general?	YES X	NO
2.	Explain: There is a financial benefit to the reclaimers of waste who is currently selling recyclable waste to waste recyclers.		
3.	Will the land use / development have any benefits for the local communities where it will be located?	YES X	NO
4.	Explain: There is a financial benefit to the reclaimers of waste who is currently selling recyclable waste to waste recyclers.		

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
South Africa's Constitution, 1996 (Act 108 of 1996), including the Bill of Rights (Chapter 2, Section 24)	National Government	1996
National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA), including the NEMA Amendment Act, 2008 (No. 62 of 2008)	National Government, and National Department of Environmental Affairs	1998
NEMA EIA Regulations, 2010 (Government Notice Nos. 543, 544, 545 and 546)	North West Department of Economic Development, Conservation and Tourism	2010

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA) 2008	National Department of Environmental Affairs and Provincial Department of Economic Development, Conservation and Tourism	2008
List of waste management activities that have, or are likely to have a detrimental effect on the environment (GN. 921), 2013	National Department of Environmental Affairs and Department of Economic Development, Conservation and Tourism	2013
Waste Classification and Waste Management Regulations (GN 634), 2013	National Department of Environmental Affairs and Provincial Department of Agriculture, Environmental Affairs and Rural Development	2013
National Norms and Standards for Disposal of Waste to Landfill (GN 636), 2013	National Department of Environmental Affairs and Department of Economic Development, Conservation and Tourism	2013
National Norms and Standards for the Assessment of Waste for Landfill Disposal (GN 635), 2013	National Department of Environmental Affairs and Provincial Department of Economic Development, Conservation and Tourism	2013
National Norms and Standards for the Storage of Waste (GN 926), 2013	National Department of Environmental Affairs and Provincial Department of Economic Development, Conservation and Tourism	2013
Waste Information Regulations (GN 625), 2012	National Department of Environmental Affairs and Provincial Department of Economic Development, Conservation and Tourism	2012
National Waste Management Strategy, 2010	National Department of Environmental Affairs and Provincial Department of Economic Development, Conservation and Tourism	2010
Minimum requirements for waste disposal by landfill, 1998	Department of Water Affairs	1998
Minimum requirements for water monitoring at waste management facilities	Department of Water Affairs	1998
National Environment Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM: AQA)	National Department of Environmental Affairs and Provincial Department of Economic Development, Conservation and Tourism	2004
National Ambient Air Quality Standards in Terms of Section 9(1)(a) and (b) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (Government Notice No. 1210, 24 December 2009)	National Department of Environmental Affairs and Provincial Department of Economic Development, Conservation and Tourism	2009
The National Heritage Resources Act, 1999 (Act No 25 of 1999) as amended, particularly Chapter II, Section 38	South African Heritage Resource Agency	1999
The National Water Act, 1998 (Act No. 36 of 1998)	Department of Water Affairs	1998
National Water Resource Strategy, 2013	Department of Water Affairs	2013
Water Services Act, 1997 (Act No. 108 of 1997)	At local authority level	1997
Occupational Health & Safety Act, 1993 (Act No. 85 of	Department of Labour	1993

Title of legislation, policy or guideline:	Administering authority:	Date:
1993)		
Health Act, 1977 (Act 63 of 1977)	Department of Health	1977
Municipal Structures Act, 1998 (Act 117 of 1998)	Local Municipality	1998
Municipal Systems Act , 2000 (Act 32 of 2000)	Local Municipality	2000
North West Provincial Spatial Development Framework	NW Province	2008
Central District IWMP (2005)	Ngaka Modiri Molema District Municipality	2005

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO ⁶
	X
m ³	

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Not applicable

Where will the construction solid waste be disposed of (describe)? **Not applicable**

Not applicable

Will the activity produce solid waste during its operational phase?

YES ⁷	NO
X	
364 ⁸ m ³	

If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

All general waste will be disposed of at the Lehurutshe landfill site.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Not applicable

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES	NO
	X

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO
	X

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

⁶ The activity itself (landfill site) will not produce solid waste. It is an existing landfill site. Construction as part of the upgrade or expansion of the landfill site does not form part of this application.

⁷ The application involves the licencing of a landfill site for the disposal of waste to land. The operational phase will therefore not necessarily produce waste in itself. However, it involves the disposal of waste to land

⁸ The expected quantity of waste produced by operations at the landfill site is no more than 5m³ per month. It is, however, estimated that the site will receive 26 tons of waste per day. At an apparent waste density of 0.72 tons/m³, it is estimated that the site will receive up to 364 m³ of solid waste per month.

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO X
-----	----------------

If yes, what estimated quantity will be produced per month?

m³

Will the activity produce any effluent that will be treated and/or disposed of on site?

Yes	NO X
-----	----------------

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO X
-----	----------------

If yes, provide the particulars of the facility:

Facility name:

Contact person:

Postal address:

Postal code:

Telephone:

E-mail:

Cell:	
Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Not applicable

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES X	NO
-----------------	----

If yes, is it controlled by any legislation of any sphere of government?

YES	NO X
-----	----------------

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

The following emissions are expected at the landfill site:

- Undetermined potential for landfill gas (mainly methane and carbon dioxide) to be generated, the site is small with small volumes of domestic waste been disposed of, the likelihood for the formation of methane is low.
- Emissions due to the burning of waste on the landfill site (dioxins and furans due to the uncontrolled burning of plastics and mixed waste).
- Dust emissions from the movement, deposition and covering of waste on-site, as well as dust generated from the surface of the landfill due to wind and erosion;
- Vehicles exhausts emissions.

11(d) Generation of noise

Will the activity generate noise?

YES X	NO
-----------------	----

If yes, is it controlled by any legislation of any sphere of government?

YES	NO X
-----	----------------

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Noise may be generated by vehicles and earth-moving activities during the operational, decommissioning and closure phase of the proposed activity.
 Noise levels are not expected to be significant in relation to the existing activities on site and in its surroundings.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box (es)

municipal	water board	groundwater	river, stream, dam or lake	Other	the activity will not use water ⁹ X
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

Does the activity require a water use permit from the Department of Water Affairs?

litres	
YES ¹⁰	NO
X	

Because the site is located closer than 500m from a water resource, it will be necessary to apply for a water use license in terms of section 21(c) & (i) of the NWA, 1998. This application in terms of the NWA needs to be done immediately and in addition to this application in terms of the NEMA.

Waste disposal activities to land also trigger the need for S21 (g) water use license. No application is needed for a NWA S 21(g) water use license as the DWA dispenses with this requirement by providing the relevant NEMA authority with conditions that need to be included in the NEMA environmental authorisation.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

No energy usage on-site except for the hydrocarbon use during site works.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

No energy usage on-site except for the hydrocarbon use during site works.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

⁹ The activity does not currently use water, however, should the landfill site be upgraded to include certain facilities and infrastructure (i.e. ablutions and a guard house) water will be used. Should this be necessary, the source of water supply still needs to be determined.

¹⁰ It is the duty of the Ramotshere-Moiloa Local Municipality to determine whether a water use authorisation is necessary, and to apply for a water use licence from the Department of Water Affairs or register the water use, should it be necessary. The application for any water use licences (for consumptive purposes) does not form part of the scope of this application.

The Lehurutshe landfill site is located on the Remainder of the Farm Welbedacht 39-JO. This property belongs to the Ramotshere-Moiloa Local Municipality.

The site is located off the N4 (west) on the Lehurutshe turn-off to the right. The access road to the landfill site is the first turnoff (gravel road) to the right off the Lehurutshe road. The landfill site is located 1.1 km south of Lehurutshe (Unit 1) and 1.7 km west of Lehurutshe (Unit 2). The site is bordered by vacant land, with the N4 situated approximately 200 m south of the border of the landfill site.

Three boreholes are located towards the south of the landfill site (between the landfill site and the N4). The boreholes are situated between 120 m and 200m from the southern edge of the landfill site.

There is generally insufficient surface water in the area (arid) and rural water supply is heavily reliant on ground water sources. It is suspected that the town of Lehurutshe is dependent on these boreholes for domestic water supply. The distance of the landfill site to the boreholes and potential for ground water contamination due to the activities at the landfill site is cause for concern.

The Elands River is located approximately 300 metres from the southern border of the landfill site, on the opposite (southern) side of the N4.

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.
(e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section?

YES	NO
	X

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:

The Lehurutshe landfill site is located on the Remainder of the Farm Welbedacht 39-JO (21-digit Surveyor-General number: T0JO0000000003900000). See Fig LE07.

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

Not applicable.

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

Agricultural

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to this application.

Is a change of land-use or a consent use application required?

YES X	NO
YES	NO X

Must a building plan be submitted to the local authority?

Locality map:

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:

- an indication of the project site position as well as the positions of the alternative sites, if any; (See Map LE07 and LE08 in Appendix A)
- road access from all major roads in the area; (See Map LE07 and LE08 in Appendix A)
- road names or numbers of all major roads as well as the roads that provide access to the site(s); (See Map LE07 and LE08 in Appendix A)
- all roads within a 1km radius of the site or alternative sites; and (See Map LE07 and LE08 in Appendix A)
- a north arrow; (See Map LE07 and LE08 in Appendix A)
- a legend; and (See Map LE07 and LE08 in Appendix A)
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection) (See Map LE07 and M08 in Appendix A).

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 1:20 X	–	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	-----------------------	---	-------------	-------------	--------------	-------------	---------------------

Alternative S2 (if any):

Flat	1:50 1:20	–	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	--------------	---	-------------	-------------	--------------	-------------	---------------------

Alternative S3 (if any):

Flat	1:50 1:20	-	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	--------------	---	-------------	-------------	--------------	-------------	---------------------

2. LOCATION IN LANDSCAPE

The site is located in an area of undulating plains/low hills.

The surrounding land is being zoned for agricultural use. While the vegetation at the landfill site is dominated by alien species, the surrounding land is covered by vegetation which is natural to the area.

Indicate the landform(s) that best describes the site:

NB: Indicate by highlighting/ticking

2.1 Ridgeline

2.2 Plateau

2.3 Side slope of hill/mountain

2.4 Closed valley

2.5 Open valley

2.6 Plain

2.7 Undulating plain / low hills x

2.8 Dune

2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

The vegetation type is classified as Vegetation Unit and Topographical Features SVcb 3, Zeerust Thornveld.

The vegetation is mainly deciduous, open to dense short thorny woodland, dominated by *Acacia* species with herbaceous layer of mainly grasses. SANBI does not classify the area as sensitive from a biodiversity perspective.

The area is underlain by mostly shales of the Transvaal Supergroup (Pretoria shale, slate and hornfels with diabase sills), while the soils are mostly deep, red-yellow, apedal, freely drained with high base status (> 300 mm deep). The soil is expected to be a Clovelly soil.

A large reservoir of subterranean water, in the form of fractured aquifers, occurs in the Lehurutshe district and parts of the district have hydrogeological potential. Since the aquifers are semi-confined, the pressure in the aquifer exceeds that of the general air pressure outside and causes groundwater to rise in a borehole or spring.

Due to the arid nature of the Lehurutshe area (where evaporation rate exceeds the annual rainfall by 300%), the town of Lehurutshe is largely dependent on groundwater for domestic water supply. Although the chemical composition of the groundwater may not be optimal for domestic use and successful livestock production (Water Research Commission, 2000), groundwater is of critical importance for rural communities in the drier regions and often the only available water resource. Groundwater recharge in the area is expected to be between 8.1 – 32 mm per annum.

The depth of the groundwater table in the area of the landfill site varies from 0.61 – 91.44 m (see Figure LE09)

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES ¹¹ X	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO ¹² X	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO X	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO X	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO X	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO X	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO X	YES	NO	YES	NO
An area sensitive to erosion	YES	NO X	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the

¹¹ The depth of the groundwater table in the area of the landfill site varies from 0.61 – 91.44 m.

¹² The landfill site is located on shale. The surrounding area is located on dolomites.

project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUND COVER

Indicate the types of groundcover present on the site:

The vegetation type is classified as Vegetation Unit and Topographical Features SVcb 3, Zeerust Thornveld.

The vegetation is mainly deciduous, open to dense short thorny woodland, dominated by *Acacia* species with herbaceous layer of mainly grasses. SANBI does not classify the area as sensitive from a biodiversity perspective.

The area is underlain by mostly shales of the Transvaal Supergroup (Pretoria shale, slate and hornfels with diabase sills), while the soils are mostly deep, red-yellow, apedal, freely drained with high base status (>300 mm deep). The soil is expected to be a Clovelly soil.

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s). See Fig LE01 in Appendix A.

The site and the surrounding area are not classified by SANBI to be of special importance. The site may act as a biodiversity corridor. In terms of its conservation status, the site is considered to be least threatened.

Natural veld - good condition ^E	Natural veld with scattered aliens ^E X	Natural veld with heavy infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

The site is located off the N4 (west) on the Lehurutshe turn-off to the right. The access road to the landfill site is the first turnoff (gravel road) to the right off the Lehurutshe road. The landfill site is located 1.1 km south of Lehurutshe (Unit 1) and 1.7 km west of Lehurutshe (Unit 2). The site is bordered by vacant land, with the N4 situated approximately 200 m south of the border of the landfill site.

Three boreholes are located towards the south of the landfill site (between the landfill site and the N4). The boreholes are situated between 120 m and 200m from the southern edge of the landfill site.

The Elands River is located approximately 300 metres from the southern border of the landfill site, on the opposite (southern) side of the N4.

NB: Indicate by highlighting/ticking

5.1 Natural area X

5.2 Low density residential

5.3 Medium density residential

5.4 High density residential

5.5 Informal residential^A

5.6 Retail commercial & warehousing

5.7 Light industrial

5.8 Medium industrial^{AN}

5.9 Heavy industrial^{AN}

5.10 Power station

5.11 Office/consulting room

5.12 Military or police base/station/compound

5.13 Spoil heap or slimes dam^A

5.14 Quarry, sand or borrow pit

5.15 Dam or reservoir

5.16 Hospital/medical centre

5.17 School

5.18 Tertiary education facility

5.19 Church

5.20 Old age home

5.21 Sewage treatment plant^A

5.22 Train station or shunting yard^N

5.23 Railway line^N

5.24 Major road (4 lanes or more)^N X

5.25 Airport^N

5.26 Harbour

5.27 Sport facilities

5.28 Golf course

5.29 Polo fields

5.30 Filling station^H

5.31 Landfill or waste treatment site

5.32 Plantation

5.33 Agriculture

5.34 River, stream or wetland¹³ **X**

5.35 Nature conservation area

5.36 Mountain, koppie or ridge

5.37 Museum

5.38 Historical building

5.39 Protected Area

5.40 Graveyard

5.41 Archaeological site

5.42 Other land uses (specify)

If any of the features marked with an "N" are highlighted or ticked, how this impact will / be impacted upon by the proposed activity?

The Lehurutshe landfill site is located approximately 200 m north of the N4. The landfill site has no direct access road to/from the N4. The site is not expected to have any major impacts on the road. The formation of smoke due to burning of waste on the landfill site may present a safety risk to road users due to poor visibility. The burning of waste is, therefore, prohibited on the landfill site (refer to Appendix F – EMP).

If any of the features marked with an "An" are highlighted or ticked, how will this impact / be impacted upon by the proposed activity?

If YES, specify and explain:

If YES, specify:

Not Applicable

If any of the features marked with an "H" are highlighted or ticked, how will this impact / be impacted upon by the proposed activity.

¹³ The Elands River is located approximately 300 metres from the southern border of the landfill site, on the opposite (southern) side of the N4.

If YES, specify and explain: **Not Applicable**

If YES, specify: **Not Applicable**

6. CULTURAL/HISTORICAL FEATURES

<i>Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including</i>	YES	NO ¹⁴
		X
<i>Archaeological or palaeontological sites, on or close (within 20m) to the site?</i>	No X ¹⁵	
<i>If YES, explain:</i>	Not Applicable	
<i>If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.</i>		
<i>Briefly explain the findings of the specialist:</i>	Not Applicable	
<i>Will any building or structure older than 60 years be affected in any way?</i>	YES	NO ¹⁶
		X
<i>Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?</i>	YES	NO
		X

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

¹⁴ According to the South African Heritage Resource Information System (SAHRIS) there are no declared archaeological or paleontological sites with 20 metres from the site.

¹⁵ According to the Council of Geoscience's fossil sensitivity map the area where the landfill site is located are expected to have a low sensitivity as far as palaeontological sensitivity is concerned. No palaeontological studies are required, however, a protocol for finds is required.

¹⁶ There are two old, dilapidated structures on the site. It is, however, uncertain whether these structures are older than 60 years. It might be necessary to consult a heritage specialist, should the municipality consider demolishing these structures.

In terms of section 38 of the National Heritage Resources Act (25 of 1999), the activities related to the licencing of the existing waste disposal site at Lehurutshe for continued operation will exceed 5000m² in extent. Although the proposed operation of the landfill site may impact or change the end land-use of the sites, it is argued that the proposed activities will not impact or change the character of the sites, since the landfill site is an existing waste disposal site with existing activities and impacts.

According to the South African Heritage Resource Information System (SAHRIS) there are no declared archaeological or paleontological sites with 20 metres from the site. According to the Council of Geoscience's fossil sensitivity map the area where the landfill site is located are expected to have a low sensitivity as far as palaeontological sensitivity is concerned. No palaeontological studies are required, however, a protocol for finds is required. There are two old, dilapidated structures on the site. It is, however, uncertain whether these structures are older than 60 years. It might be necessary to consult a heritage specialist, should the municipality consider demolishing these structures.

The application has been submitted to the SAHRIS platform for consideration.

SECTION C: PUBLIC PARTICIPATION

The entire public participation process, outcomes and evidence are recorded in Appendix G1.

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;

- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (iv) the manner in which and the person to whom representations in respect of the application may be made

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

List of authorities informed:

- North-West Department of Economic Development, Environment, Conservation and Tourism (DEDECT);
- NW Department of Local Government and Traditional Affairs
- Department of Water Affairs (National and Regional Offices);
- Department of Agriculture, Forestry and Fisheries (DAFF);
- The South African Heritage Resource Authority (SAHRA);
- Ngaka Modiri Molema District Municipality
- Ramotshere-Moiloa Local Municipality;

See the list of I&AP's attached to **Appendix G1**.

List of authorities from whom comments have been received:

- North-West Department of Economic Development, Environment, Conservation and Tourism (DEDECT);
- NW Department of Local Government and Traditional Affairs
- Department of Water Affairs (National and Regional Offices);
- Department of Agriculture, Forestry and Fisheries (DAFF);
- Ngaka Modiri Molema District Municipality
- Ramotshere-Moiloa Local Municipality;

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?

YES	NO
X	

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Verbal comments were received from DAFF are:

- The DAFF wishes to be informed of the process and detail and that it will only comment on an application if land zoned for, or used as agricultural land is rezoned or used for any purpose other than agriculture.
- The DAFF also recommended that the site should not be rezoned from agricultural to municipal if the post closure land use reverts back to agriculture.

The NW Department of Local Government and Traditional Affairs

- Members of the department requested to be registered for the project.

The Department of Water Affairs

- Members of the Head Office and the relevant regional office provided specifications for closing GCB waste sites.

The Ramotshere-Moiloa Local Municipality

- The officials confirmed that this application is in line with the local municipality's intention to licence the site for continued operation.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

See Appendix E.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

See Appendix E.

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

See Appendix G2(a) for Impact identification matrix and Appendix G2(b) for impact assessment matrix.

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Alternative (preferred alternative) – Continued operations of the landfill site with the implementation of waste management practices and pollution prevention measures.

Direct impacts:

- Operation of re-engineered (with pollution prevention measures - best option) with high positive impacts on water quality, soil quality, social impacts and infrastructure.
- Maintenance of structures responsible for pollution prevention with high positive impacts on water quality, soil quality, social impacts and infrastructure.
- Covering and compaction of waste with medium positive impacts on air pollution, and impacts of low negative significance on land use potential and affecting the hydrology (run-off) of the area;

Indirect impacts:

- Pest and invader plant control with positive impacts on land use potential, but potential negative impacts on water, soil and air quality due to the use and application of pesticides.
- Maintenance of no-go areas for the protection of natural and sensitive features with high positive impacts on water quality, soil quality, social impacts and infrastructure.

Cumulative impacts:

- Waste disposal to land (solid waste) with potential impacts on water, soil, biodiversity and social impacts;
- Liquid waste management with potential impacts on water, soil, biodiversity and social impacts.

Alternative (worst-case scenario) – Continuing with current, uncontrolled waste disposal practices at the Lehurutshe landfill site

Direct impacts with a high significance

- Ground water contamination;

- Surface water contamination;
- Soil deterioration and contamination;
- No change/gain in land-use potential.

Direct impacts with a medium significance

- Air pollution due to dust and the potential for the burning of waste on site; and
- Habitat and associated biodiversity loss due to the potential extension of the footprint of the landfill site.

Direct impacts with a low significance

- Infrastructural impacts;and
- Use of resources (soil as cover material, hydrocarbons, resources).

Indirect impacts:

- Habitat transformation (due to alien and invasive infestation if it is not controlled);
- Heritage impacts (conservation);
- Social impacts (health, safety, nuisance) and impacts on the sense of place; and
- Non-compliance risks due to the landfill site not being authorised.

Cumulative impacts:

- *Not applicable.*

Alternative (no go alternative) – Maintaining the unauthorised status of the Lehurutshe landfill site

Direct impacts with a high significance

- Ground water contamination;
- Surface water contamination;
- Soil deterioration and contamination;
- No change/gain in land-use potential; and
- Non-compliance to legal requirements.

Direct impacts with a medium significance

- Air pollution due to dust and the potential for the burning of waste on site; and
- Habitat and associated biodiversity loss due to the potential extension of the footprint of the landfill site.

Direct impacts with a low significance

- Infrastructural impacts; and
- Use of resources (soil as cover material, hydrocarbons, resources).

Indirect impacts:

- Habitat transformation (due to alien and invasive infestation if it is not controlled);
- Heritage impacts (conservation);
- Social impacts (health, safety, nuisance) and impacts on the sense of place; and
- Non-compliance risks due to the landfill site not being authorised.

Cumulative impacts:

Not applicable.

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred option – continued operations of the landfill site with implementation of waste management and pollution prevention infrastructure)

The preferred alternative involves the upgrade of the existing, unauthorised site with waste management and pollution prevention infrastructure complying with the Minimum Requirements for disposal of waste to landfill. It is proposed that this site be upgraded to prevent the pollution of surface and ground water (i.e. storm water control measures and lining, if required). Considering that the site is an existing landfill site, it is proposed that the existing site be used for the upgrade, since there is an existing footprint and enough airspace available on the proposed site to service the area for approximately 5 to 10 years.

The waste management practices at the landfill site needs to be improved (i.e. the daily compaction and covering of waste). Scattered waste needs to be collected and disposed of on the working face (active part) of the landfill site, and storm water control measures to be implemented in line with the *Minimum Requirements*. Monitoring practices need to be implemented. Once the landfill site has reached its capacity, the site needs to be capped, closed and rehabilitated in line with the *Minimum Requirements* for landfill sites and other applicable legislation.

Although activities related to the upgrade and operation of the landfill site may have a potentially adverse impacts of a low to medium significance on surface and ground water pollution, air quality and the quality of soil (erosion and degradation), these impacts are envisaged to be immediate to the site and of a short term.

The positive impacts associated with the licencing and upgrade of the Lehurutshe landfill site, including the establishment of stormwater management- and monitoring measures, and positive social (health and safety, and sense of place) will have long-term, highly positive impacts on a local to regional scale.

Alternative A (worst case scenario – Continuing with current, uncontrolled waste disposal practices at the Lehurutshe landfill site)

The suggested alternative involves the *status quo* as far as waste disposal practices (on surface dumping) are concerned, without any waste management practices (compaction or covering of waste) and pollution control measures. This alternative is considered to be the worst alternative, especially as far as impacts on soil, ground water and surface water pollution is concerned. These impacts are considered to be of high significance (negative) and may have long-term and regional adverse impacts on the environment.

No-go alternative (Maintaining the status quo)

The no-go alternative is not a viable proposition as the site is currently not licensed. The objective of the project is to authorise the site for continued operations.

Maintaining the *status quo* involves the continuation of an unlawful waste management activity without any requirements or commitment to rehabilitate or manage the landfill site in accordance with an EMP or licence conditions.

In terms of the impact identification and assessment matrices (Appendix G2) the number of activities related to the no-go option seems less as compared to the preferred, however, in terms of the severity, duration and likelihood of impacts, the continued negative nature of the impacts related to the no-go option are much more significant and severe than the option to close the landfill site.

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES	NO
X	

If “NO”, indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

Not Applicable

If “YES”, please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

See Appendix F

YES	NO
X	

Is an EMPr attached?

The EMPr must be attached as Appendix F.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports **Not Applicable**

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G1: The public participation process

Appendix G2: Impact identification and impact evaluation matrices

Appendix G3: Waste management licence application form (as submitted to NW DEDECT)