



the DEDECT

Department:
Economic Development, Environment, Conservation and Tourism
North West Provincial Government
Republic of South Africa

Agricentre Building
Cnr. Dr. James Moroka &
Stadium Road
Private Bag X2039,
Mmabatho. 2735

**DIRECTORATE: ENVIRONMENTAL
QUALITY & PROTECTION**

Tel: (018) 389 5959/ 5156
Fax: (018) 389 5006
Smukhola@nwpg.gov.za

*Basic Assessment Report for the Closure of the Leeudoringstad Waste License Application
NWP/WM/DK3/2013/20, Maquassi Hills 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
-----	------

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:

Project Description			
The application is for a waste management licence for the closure and decommissioning of the unlicensed Leeudoringstad landfill site located in the Maquassi Hills Local Municipal area.			
NW-DEDECT Reference: NWP/WM/DK3/2013/20			
The listed activity applied for			
The listed NEM:WA activity is: Category A, Activity 14, The decommissioning of a facility for waste management activity listed in Category A or B of this schedule published in GN. 921 of 29 November 2013.			
Scope of the application			
Phase	Included in the scope of this application	Responsibility	Where/how to address
Interim operation of the landfill site	No	NW DEDECT	An interim operational license is required as: a) a waste transfer station needs to be built to accommodate the waste recyclers; and b)The used trenches that are available for waste disposal need to be used to receive some of the waste collected from the extended waste disposal area, and c) and before the waste is taken to the Wolmaransstad Licenses waste site.
Pre-closure conditions	Yes	CEM	Addressed as part of the EMPr

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.

			(Appendix F)
Closure plan/EMPr to inform closure design	Yes	CEM	Addressed as part of the EMPr (Appendix F)
Closure design and approval	No	Municipality to appoint registered Consulting Engineer	A detailed closure plan, project plan, design plan and drawings need to be done by to appointed and registered engineer, once the municipality is ready to commence with closure of the site.
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 Maquassi Hills 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 closure designs and planning when the project can be implemented. It is imperative that the NW DEDECT and the DWA sign off on these final designs. Refer to the EMPr in Appendix F.
Alternative waste disposal options – new landfill site	Not applicable	Municipality	Closure of a section of the waste disposal facility at Leeudoringstad. Sustained use of the previously used trenches that were constructed for waste disposal until these facilities have been filled with waste and capped. Construction of a waste recycling and transfer station and a waste transfer station to be constructed at Leeudoringstad.
Alternative waste	No	Municipality	The Dr Kenneth Kaunda

disposal options – transfer station			District Municipality does make provision for the construction of a waste transfer station.
Post-closure care and maintenance	Yes	CEM	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	No additional authorisations are identified during EIA.
Rezoning application	Not applicable	Municipality	No rezoning application required.

Site Location

The Leeudoringstad landfill site is located on the corner of the R504 and Leboya Street.

It is located on the Remaining Portion 54 of the farm Rietkuil 43-HP.

The SDF indicates that the bulk of the land is earmarked for urban development with housing, schools and open space.

The waste disposal zone stretches along the R504 up to the railway and all along Leboya Street. It is located to the SE of the Kgakala suburb, just across Leboya Street.

The Leeudoringstad golf course is located south of the landfill across the R504.

To the north-east of the site is vacant land zoned as agriculture earmarked for residential development, while the Kgakala Extension 1 is further, north-east, across the vacant land.

To the east, across the railway line, is Portion 19 of the farm Wildebeestkuil 59-HP which is also zoned for agricultural use.

Zonation of the land

The land is zoned for municipal use that includes waste disposal by landfill.

Land ownership

The land belongs to the Maquassi Hills Local Municipality.

Operating entity

The landfill is managed and operated by the Maquassi Hills Local Municipality.

Waste site characteristics and current operations

The waste disposal site is not formally classified, but it is estimated to be GCB- and it is 3,3ha in extent.

Waste disposal is uncontrolled with no access control or any management of waste deposited on the property. The site is not well managed with no formal method of operation. The waste site is not fenced, with no access control, while there is no control of waste disposal activities, while no records of waste management activities are kept. The site has no facilities, nor equipment to manage waste with.

The Dr Kenneth Kaunda IWMP estimates the waste generation by the Leeudoringstad and Kgakala communities to be 14 tons per day during 2012.

The waste disposal zone stretches along the R504 up to the railway and all along Leboya Street It is located to the SE of the Kgakala suburb, just across Leboya Street.

The waste disposal pattern at Leeudoringstad is quite complex as different zones of waste disposal are identifiable.

The south eastern corner of the site was earmarked and prepared for waste disposal as 8 to 10 trenches were dug with the topsoil stored in between. No waste had ever been disposed of in the trenches. The trenches do not appear to be lined. See Fig L1. Instead the waste was deposited onto the land directly to the west of the trenches and the waste frontline migrated toward Leboya Street and the suburb of Kgakala and then along the Leboya street front. The entire Leboya Street has a waste dropping front, around 20m from the street where the harvesters and recyclers operate.

Some of the waste deposited onto land immediately to the west of the trenches has been covered with soil, while the western disposal front line is not covered. The waste is being burned.

Seven distinct zones of waste disposal are noticeable. See Fig L1.

1. **Section A:** the empty trenches and soil heaps;
2. **Section B:** Waste disposed of on land and covered with soil;
3. **Section C:** The open front of waste disposal on the surface of the land with domestic waste being recovered, deposited and the balance burned. The two semi-destructed structures are located here;
4. **Section D:** The informal continuation of Section C.
5. **Section E:** Ash, rocks and building rubble were deposited onto land.
6. **Section F:** Open land, no waste deposited
7. **Section G:** Soils heaps, it is not clear if this is waste covered with soil, or just soil and rocks.

Infrastructure

The following infrastructure were observed:

- The walls of two structures remain, see Fig L1. Satellite images indicate more structures that have been demolished.
- A telephone line runs across the site.
- The partially used waste disposal trenches with air space to the south east of the site.

Closure activities

The preferred alternative is to dispose of all the waste injudiciously disposed of on land around the trenches, into the trenches. Two alternatives are proposed.

Closure alternative 1 the preferred alternative

- The existing trenches in section A of Fig L1 were constructed in the past. Some of these trenches were used in the past, but 90% of the air space was not used.
- It is proposed that the contractor should “pick up” and remove all the surface waste from sections C, D, E and B to be disposed of at section B. Section B should be shaped, sloped, compacted and capped according to the requirements given by the Department of Water Affairs’ Directorate Civil Design.
- Cover the shaped section B with the ash, soil and rocks from sections E and G.

Closure activities: Alternative 2

- That all the surface waste from sections B, C, D and E are removed and disposed of in the trenches in section A.

The final and detailed design of filling, shaping, covering and capping the trenches must be done by a registered consulting engineer. The design should ensure free drainage, storm water management and ground water monitoring.

Additional closure considerations

A key element of the civil design work is to calculate the air space offered by the trenches and also the volume of the waste and whether air space capacity exists to accommodate all the waste disposed of on land.

The SDFs and other spatial plans indicate that the area that is currently being covered by waste is earmarked for suburban development with provisions for schools and other land uses.

The Dr Kenneth Kaunda District Municipality's IWMP The community members, the officials from the Maquassi Hills Local Municipality and the Councillor of Ward 8 all envisage that a convenient, controlled and safe transfer station be constructed close to the recyclers of Kgakala.

An integrated and holistic approach to manage waste at Leeudoringstad – Kgakala is required to ensure:

- The safe and lawful interim operation of waste disposal at the facility;
- The eventual safe, lawful and sustainable closure of the waste site;
- The provision of safe, efficient and controlled was recycling and harvesting at a waste transfer station that is designed, constructed and operated in line with all the requirements;
- That land, which is currently covered by the injudicious disposal of waste on the surface of the land is unlocked for integrated development as is earmarked in the relevant SDFs; and -
- That the Maquassi Hills Local Municipality is afforded the opportunity to plan for and implement a sustainable waste management transportation system, where waste is transferred from the transfer station to the licensed waste disposal site at Wolmaransstad.

Waste recyclers

The landfill site is located directly opposite Kgakala suburb. Numerous waste recyclers and harvesters operate along the uncontrolled waste off-loading front along Leboya Street. Bags with stored recovered waste at some of the houses along Leboya Street bears testament to the linkages between society and the waste disposal site.

The following points are pertinent:

- A large, un-quantified number of people harvest and recycle the waste at the Leeudoringstad disposal site.
- Closure of the site must take cognisance of this reality and the people will have to have reasonable access to the waste stream post closure, by means of a strategically positioned waste transfer station.

The community members do not use, or do not have access to reliable waste removal services. They will continue to dispose of waste across the road, despite the nuisance factor even after the site has been closed, unless a programme, supported by a reliable and affordable waste collection and disposal service is rendered to Kgakala residents

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 decommission and close the waste disposal facility at Leeudoringstad. This means that no locational or process alternatives are possible. Neither are alternatives related to closure possible as the South African authorities have strict norms and standards that govern closure that neutralises any options for exploring closing and decommissioning alternatives.

The preferred alternative is to remove the waste that is deposited on the land to the empty trenches and then cover the waste. Two approaches to this scenario are offered:

Closure alternative 1, the preferred alternative

- The existing trenches in section A of Fig L1 were constructed in the past. Some of these trenches were used in the past, but 90% of the air space was not used.
- It is proposed that the contractor should “pick up” and remove all the surface waste from sections C, D, E and B to be disposed of at section B. Section B should be shaped, sloped, compacted and capped according to the requirements given by the Department of Water Affairs’ Directorate Civil Design.
- Cover the shaped section B with the ash, soil and rocks from sections E and G.

Closure activities: Alternative 2

- That all the surface waste from sections B, C, D and E are removed and disposed of in the trenches in section A.

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.

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.

S: 27°13’52.8” E: 26°14’57.4”

Alternative:

Latitude (S): Longitude (E):

Alternative S1² (preferred or only site alternative)

27°	13'52.8	26°	14'5749
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 decommissioning and closure is: 3.36 ha.

Alternative: :

Size of the activity:

Alternative A1³ (preferred activity alternative)

33 236 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 L01, L02, L03 and L04 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 L02 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 L0 and L04 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 L01 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 L01 in Appendix A
- 6.6 all trees and shrubs taller than 1.8 metres; See Map L01 in Appendix A
- 6.7 walls and fencing including details of the height and construction material; See Map L01 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 L01 in Appendix A
 - the 1:100 year flood line (where available or where it is required by DWA); See Map L01 in Appendix A
 - ridges; See Map L01 in Appendix A
 - cultural and historical features; See Map L01 in Appendix A
 - areas with indigenous vegetation (even if it is degraded or invested with alien species); See Map L01 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 L01 in Appendix A
- 6.11 the positions from where photographs of the site were taken. See Map L01 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:

- L05 indicates the current status of waste disposal (See Appendix C).
- L06 indicates the activity post closure (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?	R2.8 million ⁴	
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?	Not determined	
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?	None	
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, but the disposal of waste is in line with the zonation requirements.
- The Kenneth Kaunda District Municipality's IWMP (2012) and the Maquassi Hills Local Municipality IWMP (2012) recommend the closure of the Leeudoringstad landfill site and the regionalisation of waste disposal at the licensed Wolmaransstad landfill site. A waste transfer station that conforms to the relevant norms and standards for the storage of waste is envisaged for the Leeudoringstad Kgakala community.
- The current landfill site at Leeudoringstad is not managed at all with the result that waste was disposed of in an uncoordinated way causing wind-blown littering.

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

- Manage waste more responsibly and lawfully within the Dr Kenneth Kaunda District Municipality and the Maquassi Hills 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 to close the Witppoort, Leeudoringstad and Leeudoringstad landfill sites. in terms of the 2012 Dr Kenneth Kaunda District Municipality District Municipality IWMP.

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

DESIRABILITY:			
1.	Does the proposed land use / development fit the surrounding area?	YES X	NO
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES X	NO
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES X	NO
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation: The impact of the proposed activity on the sense of place of the area will be positive as the area will be released for sensible urban and residential development.		
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 positive as the area will be released for sensible urban and residential development.		

BENEFITS:			
1.	Will the land use / development have any benefits for society in general?	YES X	NO
2.	Explain: The benefits accrue to the adjacent land owners as the risk of fire and exposure of cattle to wind-blown plastic will be eliminated.		
3.	Will the land use / development have any benefits for the local communities where it will be located?	YES X	NO
4.	Explain: Yes the community members at Kgakala will benefit if the Leeudoringstad landfill site is closed and a waste transfer station is built close to Kgakala. This waste transfer station needs to be managed to ensure that the waste handlers are controlled and protected from hazards posed by the waste, including pathogens. The golf course opposite the land fill site will also benefit as wind-blown litter impacts negatively on the aesthetics of the course.		

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

Title of legislation, policy or guideline:	Administering authority:	Date:
NEMA EIA Regulations, 2010 (Government Notice Nos. 543, 544, 545 and 546)	North West Department of Economic Development, Conservation and Tourism	2010
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA) 2008	National Department of Environmental Affairs and Provincial Department of Agriculture, Environmental Affairs and Rural Development	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 Provincial Department of Agriculture, Environmental Affairs and Rural Development	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 Provincial Department of Agriculture, Environmental Affairs and Rural Development	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 Agriculture, Environmental Affairs and Rural Development	2013
National Norms and Standards for the Storage of Waste (GN 926), 2013	National Department of Environmental Affairs and Provincial Department of Agriculture, Environmental Affairs and Rural Development	2013
Waste Information Regulations (GN 625), 2012	National Department of Environmental Affairs and Provincial Department of Agriculture, Environmental Affairs and Rural Development	2012
National Waste Management Strategy, 2010	National Department of Environmental Affairs and Provincial Department of Agriculture, Environmental Affairs and Rural Development	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 Agriculture, Environmental Affairs and Rural Development	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 Agriculture, Environmental Affairs and Rural Development	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

Title of legislation, policy or guideline:	Administering authority:	Date:
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 1993)	Department of Labour	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
The Maquassi Hills Local Municipality IWMP (2012)	Maquassi Hills Local Municipality	2012
Dr Kenneth Kaunda District Municipality IWMP (2013)	Dr Kenneth Kaunda District Municipality	2012
Maquassi Hills Local Municipality LUMS	Local Municipality	2007

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)?

--

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	NO X
m ³	

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

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

Not applicable

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, however, the application is for the closure of a landfill site which received solid waste during its operational phase.

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.
- 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 exhaust 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 decommissioning and closure phase of the proposed activity.
Work on site must be limited to office hours.

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 X
-----------	-------------	-------------	----------------------------	-------	--

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	NO X

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

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

The Leeudoringstad landfill site is located on the corner of the R504 and Leboya Street. It is located on the Remaining Portion 54 of the farm Rietkuil 43-HP and it is zoned for municipal use. This zonation allows for general waste landfilling activities. The SDF indicates that the bulk of the land is earmarked for urban development with housing, schools and open space. The waste disposal zone stretches along the R504 up to the railway and all along Leboya Street. It is located to the SE of the Kgakala suburb, just across Leboya Street. The Leeudoringstad golf course is located south of the landfill across the R504. To the north-east of the site is vacant land zoned as agriculture earmarked for residential development, while the Kgakala Extension 1 is further, north-east, across the vacant land. To the east, across the railway line is Portion 19 of the farm Wildebeestkuil 59-HP which is also zoned for agricultural use.

Important notes:

- 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):

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

- 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 Leeudoringstad landfill site is located on the corner of the R504 and Leboya Street. It is located on the Remaining Portion 54 of the farm Rietkuil 43-HP and it is zoned for municipal use. This zonation allows for general waste landfilling activities. The SDF indicates that the bulk of the land is earmarked for urban development with housing, schools and open space.

The waste disposal zone stretches along the R504 up to the railway and all along Leboya Street. It is located to the SE of the Kgakala suburb, just across Leboya Street.

The Leeudoringstad golf course is located south of the landfill across the R504.

To the north-east of the site is vacant land zoned as agriculture earmarked for residential development, while the Kgakala Extension 1 is further, north-east, across the vacant land. To the east, across the railway line is Portion 19 of the farm Wildebeestkuil 59-HP which is also zoned for agricultural use.

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

It is located on the Remaining Portion 54 of the farm Rietkuil 43-HP

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:

Municipal use.

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	NO X
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 L07 and L08 in Appendix A)
- road access from all major roads in the area; (See Map L07 and L08 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 L07 and L08 in Appendix A)
- all roads within a 1km radius of the site or alternative sites; and (See Map L07 and L08 in Appendix A)
- a north arrow; (See Map L07 and L08 in Appendix A)
- a legend; and (See Map L07 and L08 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 L07 and L08 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 on a flat plain.

The surrounding land is being zoned for municipal use and the predominant vegetation is perennial grazing grass with invaders on the disturbed areas.

No real sensitive environmental features are observed on site. It appears as if the ground water table is deeper than two meters as the trenches to the west of the site are almost dry, despite heavy recent rain.

Sensitive features relate to the proximity of Kgakala across Leboya Street to the west and the golf course to the south.

Some trenches are filled with water after heavy rain.

The site and the surrounding area are not classified by SANBI to be of special importance.

The North West SDF classified the area as CBA T2 (terrestrial) and CBA A1(aquatic).

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 X

2.7 Undulating plain / low hills

2.8 Dune

2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE (SEE FIGURE L09)

The vegetation type is classified as Vegetation Unit and Topographical Features Gh10, Vaal- Vet Grassland. The vegetation is mainly low tussock grass land with *Themeda triandra* dominating. SANBI does not classify the area as sensitive from a biodiversity perspective.

The vegetation type is classified as Vegetation Unit and Topographical Features Gh10, Vaal- Vet Grassland. The vegetation is mainly low tussock grass land with *Themeda triandra* dominating. SANBI does not classify the area as sensitive from a biodiversity perspective.

The area is underlain by the sandstones and shales of the Karoo Supergroup, while the soil is Glenrosa.

No ground water quality information is available for the Leeudoringstad landfill site and immediate surroundings.

The depth of the groundwater table in the area of the landfill site varies from 3.6m to 12 m.

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	NO X	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO 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 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 Gh10, Vaal- Vet Grassland. The vegetation is mainly low tussock grass land with *Themeda triandra* dominating. SANBI does not classify the area as sensitive from a biodiversity perspectives. The NW SDF classifies the area around the landfill as CBA T2 and CBA A1. The area is underlain by the sandstones and shales of the Karoo Supergroup, while the soil is Glenrosa.

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s). See Fig L01 in Appendix A.

The site and the surrounding area is not classified by SANBI to be of special importance.

Natural veld - good condition ^E X	Natural veld with scattered aliens ^E	Natural veld with heavy infestation ^E	Natural veld with alien	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 Leeudoringstad landfill site is located on the corner of the R504 and Leboya Street.

It is located on the Remaining Portion 54 of the farm Rietkuil 43-HP and it is zoned for municipal use. This zonation allows for general waste landfilling activities. The SDF indicates that the bulk of the land is earmarked for urban development with housing, schools and open space.

The waste disposal zone stretches along the R504 up to the railway and all along Leboya Street It is located to the SE of the Kgakala suburb, just across Leboya Street.

The Leeudoringstad golf course is located south of the landfill across the R504.

To the north-east of the site is vacant land zoned as agriculture earmarked for residential development, while the Kgakala Extension 1 is further, north-east, across the vacant land.

To the east, across the railway line is Portion 19 of the farm Wildebeestkuil 59-HP which is also zoned for agricultural use.

NB: Indicate by highlighting/ticking

5.1 Natural area

5.2 Low density residential

5.3 Medium density residential X

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 **X**
- 5.24 Major road (4 lanes or more)^N
- 5.25 Airport^N
- 5.26 Harbour
- 5.27 Sport facilities
- 5.28 Golf course **X**
- 5.29 Polo fields
- 5.30 Filling station^H
- 5.31 Landfill or waste treatment site **X**
- 5.32 Plantation
- 5.33 Agriculture
- 5.34 River, stream or wetland
- 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?

Closure of the Leeudoringstad landfill site will not impact on the railway line.

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.

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

If YES, specify: **Not Applicable**

6. CULTURAL/HISTORICAL FEATURES

<p>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</p>	<p>YES</p>	<p>NO⁷ X</p>
<p>Archaeological or palaeontological sites, on or close (within 20m) to the site?</p>	<p>No X</p>	
<p>If YES, explain:</p>	<p>Not Applicable</p>	
<p>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.</p>		
<p>Briefly explain the findings of the specialist:</p>	<p>Not Applicable</p>	
<p>Will any building or structure older than 60 years be affected in any way?</p>	<p>YES</p>	<p>NO X</p>
<p>Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?</p>	<p>YES</p>	<p>NO X</p>

⁷ According to the South African Heritage Resource Information System (SAHRIS) there are no declared archaeological or paleontological sites with 20 metres from the site.

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.

In terms of section 38 of the National Heritage Resources Act (25 of 1999), the activities related to the closure of the existing waste disposal site at Leeudoringstad will exceed 5000m² in extent. Although the proposed closure 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. The closure of the landfill site will in fact have a positive impact on the character of the site.

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 sub-regulation 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);
- Dr. Kenneth Kaunda District Municipality
- Maquassi Hills 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);
- Dr. Kenneth Kaunda District Municipality
- Maquassi Hills 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 Dr Kenneth Kaunda Metropolitan Municipality

- The officials confirmed that this application is in line with DM's IWMP.*

The Maquassi Hills Local Municipality

- The officials confirmed that this application is in line with DM's IWMP.*

The Councillor of Ward 8 is concerned that the members of Ward 8 of Kgakala will lose access to the waste resource and hence their only source of income.

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) – Immediate closure of the landfill site

Two scenarios have been chosen for the closure of the site

Alternative A1 involves the following:

- The existing trenches in section A of Fig L1 were constructed in the past. Some of these trenches were used in the past, but 90% of the air space was not used.
- It is proposed that the contractor should “pick up” and remove all the surface waste from sections C, D, E and B to be disposed of at section B. Section B should be shaped, sloped, compacted and capped according to the requirements given by the Department of Water Affairs’ Directorate Civil Design.
- Cover the shaped section B with the ash, soil and rocks from sections E and G.
- The available airspace of Section A should then be utilised on an intermediate basis for municipal waste disposal purposes.

Alternative A2 involves the following:

- That all the surface waste from sections B, C, D and E are removed and disposed of in the trenches in section A.
- Section A should then be capped and shaped in order to establish a suitable area for the development of recreational facilities.

The direct and indirect impacts, discussed below, associated with Alternative A1 will be similar

compared to that of Alternative A2. However, the cumulative economic impacts associated with the two alternatives will differ and will be discussed in the section that follows.

Direct impacts:

- The provision and operation of on-site staff facilities and activities may have negative impacts with a low significance on soil and air pollution, habitat transformation, social impacts and sense of place (due to safety aspects and nuisance), infrastructural impacts and use of resources. The aforementioned may also result in a medium impact on the quality of surface water runoff. Impacts related to pre-closure activities are, however, expected to be of a short duration (less than 30 days) and restricted to a small part of the site.
- The management of vehicles, machinery & equipment (especially due to the use of hydrocarbons) may have negative impacts of a medium significance on soil pollution, and community safety impacts (due to the operation of machinery and equipment) during the closure phase and noise. This may also result in a high impact on the quality of surface water runoff.
- Negative impacts related to activities during earthworks and levelling of the site are expected to be low.
- Management of existing waste (historical disposal on landfill) - i.e. moving scattered waste to dedicated areas of the landfill site, filling trenches etc. is expected to have positive impacts on the potential for future surface water pollution. Short-term negative impacts of a low significance are expected as it relates to soil and air pollution.
- The capping and closing of cells, re-vegetation of the landfill site and removal of alien and invasive vegetation are expected to have positive impacts on the land-use potential and it is expected that the potential for surface water, groundwater and air pollution will be significantly reduced. A concern regarding the capping of cells is the use of clay/impervious material and topsoil, which may be a limited and expensive resource in the area.
- The establishment of infrastructure for the management of storm water and the installation of monitoring infrastructure is expected to have long-term positive impacts on the surrounding environment;
- Preventing the disposal of waste on the closed landfill site will have net positive impacts on the surrounding environment.
- Establishment and active management and maintenance of the end-land use will have a positive impact on the land-use potential of the site.

Indirect impacts:

- The authorisation of the landfill site will have an indirect positive impact, which will allow the municipality to apply for funding (from MISA or the DEA for example) to rehabilitate and actively manage the waste disposal site;
- The closure of the landfill site requires a Section 21 (c) & (i) water use licence in terms of the National Water Act (36 of 1998), since the site is located less than 500 metres from a wetland. Non-compliance to the requirements of the National Water Act (36 of 1998) may

be a risk to the municipality, as far as legal compliance is concerned.

Cumulative impacts:

The table below illustrates a comparative analysis of the cumulative socio-economic impacts associated with **Alternative A1 and A2**. From the analysis it is clear that Alternative A1 has several benefits compared to Alternative A2. Although Alternative A2 will involve the provision of land for recreational development, there will be no airspace available for intermediate municipal waste disposal. Therefore, Alternative A2 is the preferred option.

Strategic impact identification for the two scenarios for the Leeudoringstad landfill site	
Alternative A1 (Intermediate utilisation of airspace in established trenches)	Alternative A2 (Closure of entire facility with no intermediate utilisation of airspace)
Availability of existing airspace to lawfully dispose-off waste generated by the Leeudoringstad community for the immediate to medium terms.	Loss of airspace to dispose-off waste generated by the Leeudoringstad community.
Cost effective availability of land for lawful waste disposal capacity until the regional landfill facility and transfer station have been constructed.	No intermediate facility available for waste disposal until the regional landfill facility and transfer station have been constructed.
Prevention of continuous waste disposal on current (active) waste deposition site.	Potential for the continuous unlawful waste disposal on the current (active) waste deposition site.
Intermediate loss of land for residential and recreational development. However, the rehabilitated area can be used for the development of a sports or recreational facility.	Release of the land to the east of the capped cell for residential and recreational development.
Effective and efficient use of municipal assets.	Fruitless and wasteful use of municipal assets.
The movement of covered waste is eliminated.	Moving the waste deposited in section B to the trenches may not be the preferred strategy of the DWA. The DWA expressed the need to minimise movement and relocation of waste.

Alternative (no-go alternative) – Maintaining the *status quo* at the unauthorised waste disposal facility

Direct impacts:

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;
- Mobility (transportation and pedestrian) 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 A1 (preferred option – closure of the landfill site)

Although activities related to the closure 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 closure of the Leeudoringstad landfill site, including the gain in land-use potential (recreational use for the local community), 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.

Two alternatives have been examined for the closure of the site. Alternative A1 involves the

intermediate utilisation of airspace in established trenches and poses significant medium-term economic benefits until a regional landfill facility has been established. The second alternative involves the closure of the entire landfill facility with no intermediate utilisation of the available airspace that the established trenches provide. Therefore, it is highly recommended that Alternative A1 should be regarded as the preferred option for the closure of the landfill site.

Alternative A (site/layout alternatives)

Not Applicable.

No-go alternative (compulsory)

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

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 option (closure of the landfill site), 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

Is an EMPr attached?

YES	NO
X	

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)