Table of Contents

Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.
4. 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.
5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
6. An incomplete report shall be rejected.
7. 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.
8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

Has a draft report for this application been submitted to all State Departments administering a law relating to a matter likely to be affected as a result of this activity? [X]

Is a list of State Departments referred to above been attached to this report? if no, state reasons for not attaching the list. [X]

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):

Midvaal Local Municipality's Henley on Klip General Landfill Site Closure Application

Select the appropriate box

The application is for an upgrade of an existing development		The application is for a new development		Other, specify		
					X	General waste landfill closure application in terms of NEMWA

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES	NO
X	

If yes, describe the legislation and the Competent Authority administering such legislation

National Environmental Management Waste Act No. 59 of 2008; GDARD Waste Management Directorate
In terms of the National Environmental Management Waste Act (Act 59 of 2008); GN718 (3 July 2009) Category A, Listed Activity 20, The decommissioning of activities listed in this Schedule.

If yes, have you applied for the authorisation(s)?	YES X	NO
If yes, have you received approval(s)? (attach in appropriate appendix) (This application)	YES	NO X

2. 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:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act No. 107 of 1998 as amended.	National & Provincial	27 November 1998
National Environmental Management: Waste Act (59 of 2008)	National & Provincial	1 July 2009
National Environmental Management: Biodiversity Act No. 10 of 2004	National & Provincial	7 June 2004
National Environmental Management: Protected Areas Act No. 57 of 2003	National & Provincial	18 February 2004
National Water Act No. 36 of 1998	National & Provincial	26 August 1998
Occupational Health and Safety Act No. 85 of 1993	National & Provincial	23 June 1993
Midvaal Local Municipality Waste By-Law	Local	

3. ALTERNATIVES

Describe the proposal and 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. The determination of whether the 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.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: 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.
Provide a description of the alternatives considered

No.	**Alternative type**, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	**Description**
1	Proposal	This is a waste management license application for the closure of the existing Henley on Klip General landfill facility
2	N/A	
3		

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

This is a closure application in terms of the National Environmental Management Waste Act (Act 59 of 2008) of the existing Midvaal Local Municipality's Henley on Klip general waste landfill facility. The closure of the landfill site according to specific environmental conditions will ensure the management and mitigation of possible future environmental impacts.

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

	Size of the activity:
Proposed activity (Existing Landfill)	16.9 Ha
Alternative 1 (if any)	n/a
Alternative 2 (if any)	n/a
	Ha

or, for linear activities:

	Length of the activity:
Proposed activity	
Alternative 1 (if any)	
Alternative 2 (if any)	
	k/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

	Size of the site/servitude:
Proposed activity (Total size)	16.9 Ha
Alternative 1 (if any)	n/a
Alternative 2 (if any)	n/a
	Ha

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?	~~YES~~	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

n/a

Include the position of the access road on the site plan.

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?	YES	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

Include the position of the access road on the site plan.

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?	YES	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

Include the position of the access road on the site plan.

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated **0** Number of times

(only complete when applicable)

6. SITE OR ROUTE PLAN

A detailed site plan is attached as **Appendix A** to this document.

7. SITE PHOTOGRAPHS

Colour photographs of the site is attached under **Appendix B.**

8. FACILITY ILLUSTRATION

The proposed Closure illustration is attached under **Appendix C.**

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Further:

Instructions for completion of Section B for linear activities

1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
2) Indicate on a plan(s) the different environments identified
3) Complete Section B for each of the above areas identified
4) Attach to this form in a chronological order
5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route | **0** | times

Instructions for completion of Section B for location/route alternatives

1) For each location/route alternative identified the entire Section B needs to be completed
2) Each alterative location/route needs to be clearly indicated at the top of the next page
3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives | **n/a** | times
(complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route ☐ (complete only when appropriate for above)

Section B – Location/route Alternative No. ☐ (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:	The Farm Slangfontein 374 IR, Portion 1320-1323, Waterford Road, Henley on Klip (Randvaal), Meyerton. Meyerton 1961

2. 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 decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:	**Latitude (S):**	**Longitude (E):**
	26° 32' 41.25	28° 5' 1.78

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
• Starting point of the activity	°	°
• Middle point of the activity	°	°
• End point of the activity	°	°

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached ☐

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

~~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

4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	~~Plain~~	Undulating plain/low hills	River front

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

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

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) ☐ ~~NO~~

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

c) are any caves located within a 300m radius of the site(s) | | ~~NO~~

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

d) are any sinkholes located within a 300m radius of the site(s) | | ~~NO~~

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?	~~YES~~	NO

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % =	Natural veld with scattered aliens % = 20	Natural veld with heavy alien infestation % =	~~Veld dominated by alien species % =5~~	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	~~Paved surface (hard landscaping) % = 10~~	~~Building or other structure (landfill) % = 80~~	~~Bare soil % = 5~~

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site	YES	**NO**

If YES, specify and explain:

Please refer to APPENDIX I – Motivation for not conducting Biodiversity Assessments

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.	**YES**	NO

If YES, specify and explain:

Near Threatened Plant Species in the area include*: Gnaphalium nelsonii* and *Stenostelma umbelluliferum*

Are there any special or sensitive habitats or other natural features present on the site? | | ~~NO~~

If YES, specify and explain:

Was a specialist consulted to assist with completing this section | YES | ~~NO~~

If yes complete specialist details

Name of the specialist:	n/a		
Qualification(s) of the specialist:	n/a		
Postal address:	n/a		
Postal code:	n/a		
Telephone:	n/a	Cell:	n/a
E-mail:	n/a	Fax:	n/a

Are any further specialist studies recommended by the specialist?	YES	NO
If YES, specify:		
If YES, is such a report(s) attached?	YES	NO

If YES list the specialist reports attached below

Signature of specialist: _____ Date:

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a **500m radius around the site**

1. Vacant land	**2. River, stream, wetland**	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	**7. Agriculture**	**8. Low density residential**	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial[AN]	17. Hospitality facility	18. Church	**19. Education facilities**	20. Sport facilities
21. Golf course/polo fields	22. Airport[N]	23. Train station or shunting yard[N]	24. Railway line[N]	25. Major road (4 lanes or more)[N]
26. Sewage treatment plant[A]	27. Landfill or waste treatment site[A]	28. Historical building	**29. Graveyard**	30. Archeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam[A]	**34. Small Holdings**	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X250m

NORTH

8, 34	**8, 34**	**7, 34**	**7, 34**	**7, 34**
19, 34	**2, 34**	**2, 7, 34**	**29, 2, 7, 34**	**2, 7, 34**
8, 34	**7, 34**		**7, 34**	**2, 7, 34**
8, 34	**34**	**7, 34**	**7,34**	**7, 34**
8, 34	**8, 34**	**7, 34**	**7, 8, 34**	**7, 34**

WEST

EAST

SOUTH

= Henley on Klip General Landfill Site

Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "[A]" and with an "[N]" respectively.

Have specialist reports been attached	~~YES~~	NO
If yes indicate the type of reports below		
Landfill closure report		

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

The population growth rate for the Midvaal area is considered slow. 64% of the population live in rural areas. There are low levels of socio-economic development in the rural areas, particularly in terms of literacy, education, primary health, early childhood development as well as adult basic education and training.

31% of the population is young, indicating future strain on services. The severe impact of HIV/AIDS on the population and specifically economically active component of the population has been identified.

Commercial agriculture takes up the largest area within the district and makes up ±33% of the total land usage. Agricultural activity in the district is dominated by large-scale commercial farming operations (crop production including maize, grain, sorghum, wheat, soya and dry beans, ground nuts, sunflower seeds and vegetables, and animal production including milk, beef, mutton and lamb, eggs and poultry). Sedibeng is a very important resource to Gauteng in terms of food production, and this fact should be taken into consideration in the spatial planning of the area.

The Sedibeng District Development Framework: **Henley-on-Klip**: Describes that this node has strong residential and tourism development potential. Residential uses and hospitality uses in support of the tourism industry are proposed.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alterantives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50m in length;

(c) any development or other activity which will change the character of a site-

- *(i) exceeding 5 000 m2 in extent; or*
- *(ii) involving three or more existing erven or subdivisions thereof; or*
- *(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
- *(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;*

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

	YES	NO
Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?	X	

If YES, explain:

An existing grave yard on the site. Please refer to the site photographs.

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

n/a

Will any building or structure older than 60 years be affected in any way?	YES	~~NO~~
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	~~NO~~

If yes, please attached the comments from SAHRA in the appropriate Appendix

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;

1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;

1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;

1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;

1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and

1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and

1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

The proof of the advertisement, site notice and written notice are attached under Appendix D

2. LOCAL AUTHORITY PARTICIPATION

Local 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. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority (GDARD).

Has any comment been received from the local authority?	YES	~~NO~~

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received

The applicant is the Midvaal Local Municipality
Contact person: Ms. Suku Mali
Director: Waste and Environmental Management
Contact details: Tel: 016 360 5851

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least thirty (30) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?	~~YES~~	NO

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

How will groundwater be monitored?
What is the closure plan?
Landfill gas monitoring?
What alternative sites are being considered?
When is the closure being envisaged?
What is the proposed future use?

If "NO" briefly explain why no comments have been received

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment 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 and ratepayers associations. 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.

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 –Communications to and from persons detailed in Point 2 and 3 above

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 - Other

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
4) Each alterative needs to be clearly indicated in the box below
5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives (complete only when appropriate) | **0** | times

Section D Alternative No. | 0 | (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management – N/A landfill closure application

Will the activity produce solid construction waste during the construction/initiation phase? YES / ~~NO~~
If yes, what estimated quantity will be produced per month? ___ m^3
How will the construction solid waste be disposed of (describe)?

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

Will the activity produce solid waste during its operational phase? YES / ~~NO~~
If yes, what estimated quantity will be produced per month? ___ `m^3
How will the solid waste be disposed of (describe)?

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? ~~YES~~ / NO
Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Note: 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, 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~~
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~~
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.
Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? YES / ~~**NO**~~
If yes, what estimated quantity will be produced per month? ___ m^3
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? YES / NO
Will the activity produce any effluent that will be treated and/or disposed of on site? **Yes** / ~~**NO**~~
If yes, what estimated quantity will be produced per month? ___ m^3
If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site 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**~~
If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

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

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	YES	~~NO~~
If yes, what estimated quantity will be produced per month?		m^3
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?	YES	NO
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	~~NO~~

If yes describe how it will be treated and disposed off.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	~~YES~~	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	NO

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:

Methane from waste decomposition

2. WATER USE

Indicate the source(s) of water that will be used for the activity

~~municipal~~	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water

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: liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?	YES	~~NO~~

If yes, list the permits required

If yes, have you applied for the water use permit(s)?	YES	NO
If yes, have you received approval(s)? (attached in appropriate appendix)	YES	NO

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Municipality

If power supply is not available, where will power be sourced from?

N/A

4. ENERGY EFFICIENCY

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

N/A

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

N/A

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, 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

Summarise the issues raised by interested and affected parties.

How will groundwater be monitored?
What is the closure plan?
Landfill gas monitoring?
What alternative sites are being considered?
When is the closure being envisaged?
What is the proposed future use?
Rat and fly problem

Summary of response from the practitioner to the issues raised by the interested and affected parties
(A full response must be provided in the Comments and Response Report that must be attached to this report):

The complete comments and response register is attached.
Dates for closure falls outside of the scope of the BAR, all other issues are addressed in the mitigation measures and the draft EMP.
The Municipality will investigate the viability to use the site as a transfer station for the community and to convert the existing building into a sorting and recycling facility.
As indicated in the landfill closure report:
"To minimise ingress of rain and storm water in to the waste material at the landfill site, it is recommended that an impervious cover be installed to cover the waste at the site and that any leachates and run-off water be collected in lined ponds. By keeping the waste deposited at this site in the past as dry as possible the chances of pollutants originating from this source can be minimised."
“Existing boreholes will be monitored and it is recommended that 2 more boreholes are drilled for monitoring.”
“Due to the nature of the waste disposed landfill gas volumes escaping from the landfill directly to the atmosphere would be fairly insignificant and would disperse ,especially on a small site like the H-o-K landfill site”

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

In order to determine the significance of an activity each activity will be rated. The following parameters will be used:

Consequence

- *Severity:* - how severe is the impact that the activity has on the environment?
- *Spatial Scale*: - over what area does the activity impact?
- *Duration*: - for how long does the activity have a continuous impact?

Likelihood

- *Occurrence of activity:* - what is the probability for the activity to occur?
- *Certainty of the Impact*: - How often does the activity impact on the environment?

Mitigatory potential

- Mitigation measures: - what mitigation measures are in place to prevent the impact from occurring?

Acceptability of the impact

- How acceptable is the impact?

Each parameter is rated from 1 (Lowest risk) to 5 (Highest risk).

- The factor of the Severity x Spatial Scale x Duration = the Consequence.
- The factor of the Occurrence of Activity x Certainty of Impact = the Likelihood.
- Consequence X with Likelihood = the Impact
- Impact X Mitigatory Potential = the Controlled Impact Rating.

The controlled impact rating is evaluated against the acceptability criteria to determine whether the impact is acceptable or not.

Table 1: Rating Table

CONSEQUENCE: Table 1, Table 2 and Table 3	
TABLE 1 - SEVERITY	
How severe does the activity impact on the Environment?	
Disturbance of degraded areas, which have little conservation value. Minor change in species occurrence or variety. (Low)	1
Inactive, benign area. Very deep water tables (>50m). Plentiful and available renewable resources.	2
Disturbance of areas that have potential conservation value or are of use as resources. Complete change in species occurrence or variety. (Medium)	3
Sensitive. Threatened, protected and or endangered areas not in immediate proximity, but not far away. Close proximity of large water courses (within 1: 50 year flood line), very high water tables (<1m). Limited non-renewable resources.	4
Disturbance of pristine areas that have important conservation value. Destruction of rare or endangered species (High)	5
TABLE 2 – SPATIAL SCALE	
How big is the area that the activity is impacting on?	
Immediate Area	1
Only the site controlled by the organisation is affected. Within Site Boundary. (Low)	2
Beyond site boundary. Local area. Neighbours and surrounding properties are affected. (Medium)	3
Local/Regional. Impact of the substance is noticeable in the surrounding community or municipal region.	4
Widespread. Far beyond site boundary. National to global (High)	5
TABLE 3 - DURATION	
How long does the activity impact on the Environment?	
< Few days, no measurable sign of pollutant or its effects. Within one day there is no observable or detectable sign of the pollutant. The substance is no longer impacting on the environment.	1
Up to 1 month. Substance has dissipated or disappeared within a month of release. Minimal loss of resource, species, habitat.	2
Quickly reversible. Less than the project lifespan. Short term (0 – 5 years).	3
Reversible over time. Lifespan of the project. Medium term (5 – 15 years).	4
Permanent. Beyond decommissioning. Long term (More than 15 years).	5
LIKELIHOOD: Table 4 and Table 5	
TABLE 4 – OCCURRENCE	
What is the probability for the activity to occur?	
Negligible. Less than 1:20 chance of occurrence *(P<0.05).*	1
Occasionally. Less than 1:30 chance of occurrence	2
Low Likelihood. Less than or equal to a 50:50 chance, but at least a 1:30 chance of occurrence *(P<0.5, but >1:30).*	3
High Likelihood Greater than 50:50 chance of occurrence *(P>0.5).*	4
100% chance of occurring	5
TABLE 5 - CERTAINTY OF IMPACTS	
How often does the activity impact on the environment?	
Unsure. Less than 40% sure of a particular fact or the likelihood of an impact occurring. Rare (could happen but unlikely)	1
Possible. Only over 40% sure of a particular fact or of the likelihood of an impact occurring. Unlikely (has occurred somewhere	2
Probable. Over 70% sure of a particular fact of the likelihood of that impact occurring. Likely (known to occur)	3
Almost certain (occurs often)	4
Definite. More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment. Inevitable (Expected to happen often)	5
CALCULATIONS	
Table 1 X Table 2 X Table 3 = **Consequence** Table 4 X Table 5 = **Likelihood** **Consequence** X **Likelihood** = **Impact**	
TABLE 7 - ACCEPTABILITY OF IMPACTS	
How acceptable is the impact?	**Controlled Impact Rating**
Low (Acceptable). No risk to public health; environment.	**1 – 800**
Medium (Manageable). With regulatory controls. With project proponent's commitments.	**801 -**
High (Unacceptable). Redesign project to remove or avoid impact. Abandon project if no mitigation is possible	**- 3,125**

Developed from Combination of sources, including DEAT (2008) Guideline, Professional capacity

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts: Operational *(existing landfill facility)*	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**
DIRECT IMPACTS			
Topography			
Change in topography by compacting, infilling & capping	Low	Side slopes of a minimum of 1:3 slopes have been adopted to ensure stability of the landfill cells. Also refer to the Landfill Closure Report Appendix G	Low
Steep side slopes are potentially unstable and slumping or gully erosion caused by run-off can lead to migration of erosion features and impact areas away from the waste heap edge.	Medium	Side slopes of a minimum of 1:3 slopes have been adopted to ensure stability of the landfill cells. Also refer to the Landfill Closure Report Appendix G	Low
Geology			
Subsidence; or possible sinkhole formation	Medium	The rehabilitated landfill cells will be designed to prevent any pooling or damming of water Also refer to the Landfill Closure Report Appendix G	Low
Soil			
Soil pollution through petrochemical spillages associated with heavy vehicles used	Low	1) Petrochemical spillages to be collected in a drip tray. 2) Store excavated spill affected soil in drum. 3) Dispose or treat at a registered facility. Also refer to the Henley on Klip Also refer to the Landfill Closure Report Appendix G	Low
Loss of topsoil due to incorrect storage and usage	Medium	1) Stockpile 500 mm topsoil in berms or heaps less than 1.5m high and turn soil every six months. 2) Do not use as stormwater control feature. 3) Vegetate with diverse grass mix /local creepers / branches to control erosion. Also refer to the Landfill Closure Report Appendix G	Low
Loss of soil due to erosion of covered waste heap	Low	1) A growth of vegetation will reduce erosion of the side slopes Also refer to the Landfill Closure Report Appendix G	Low
Surface Water			
Stormwater and surface water contamination through run-off during rainfall events	Medium	1) Installation of stormwater drains, channels and evaporation pond 2) Divert stormwater runoff 3)Clean and dirty water separation Also refer to the Landfill Closure	Low

		Report Appendix G	
Ground Water			
Pools or damming of water on top of the waste heap during rainfall events could lead to leaching and groundwater pollution	Medium	The rehabilitated landfill cells will be designed to prevent any pooling or damming of water The rehabilitated landfill cells will be designed to prevent any pooling or damming of water Impervious cover be installed to cover the waste Any leachate and run-off water be collected in lined ponds Also refer to the Landfill Closure Report Appendix G	Low
Leachate from waste heap causing groundwater pollution	Medium	Site accepts dry builders rubble and general waste Groundwater monitoring boreholes Also refer to the Landfill Closure Report Appendix G	Low
Leachate form evaporation dam causing groundwater pollution	Low	The evaporation dam shall be lined with clay and a 1.5mm thick HPDE Geo-membrane to minimize seepage from the dam Also refer to the Landfill Closure Report Appendix G	Low
Fauna and Flora			
Broken fences - Domestic animals have access to landfill site	Medium	Daily inspection during site operation Regular inspection of the fence after closure Fix or replace broken fences Also refer to the Landfill Closure Report Appendix G	Low
Flies and rats – nuisance	Medium	1) Fly baits and traps must be provided in order to minimise the vector nuisance Monitoring in accordance with the EMP	Low
Air Quality			
Generation of dust during delivery of materials (infill material, sub soil, topsoil, construction material)	Low	1) Dust suppression by spraying water on roads during delivery. 2) Prevent dust from transported product by washing vehicles and covering loads. Also refer to the Landfill Closure Report Appendix G	Low
Dust generated by movement of vehicles on dirt roads	Low	1) Dust suppression by spraying water Also refer to the Landfill Closure Report Appendix G	Low
Dust generated by storage of materials (infill material, sub soil, topsoil, construction material)	Low	1) Spray storage piles. 2) Vegetate topsoil piles with diverse grass mix /local creepers / branches to control erosion. Also refer to the Landfill Closure Report Appendix G	Low
Emissions from vehicles during delivery to site and movement on site	Low	1) Equipment and vehicles to be maintained on /serviced on a regular basis.	Low

		Also refer to the Landfill Closure Report Appendix G	
Dust generated during infilling, capping and construction.	Medium	1) Dust suppression by spraying water 2) Limit infilling activities on windy days Also refer to the Landfill Closure Report Appendix G	Low
Gas emissions from landfill	Low	Gas migration monitoring on the site perimeter will be done Landfill gas volumes escaping from the landfill directly to the atmosphere would be fairly insignificant and would disperse ,especially on a small site like the H-o-K landfill site Also refer to the Landfill Closure Report Appendix G	Low
Noise			
Noise generated through movement of heavy vehicles on site	Low	Noise generating activities will be limited to normal working hours Also refer to the Landfill Closure Report Appendix G	Low
Noise generated during grading and compaction, capping and construction activities	Low	Noise generating activities will be limited to normal working hours Also refer to the Landfill Closure Report Appendix G	Low
Archaeological/ Cultural			
Damage to graveyard during grading and compaction, capping and construction activities	Medium	The existing graveyard must be properly demarcated and/or fenced to prevent damage to existing graves Also refer to the Landfill Closure Report Appendix G	Low
Restricted access to grave yard due to fencing and access control	Low	Access to the existing graveyard after closure of the landfill must be included in the final closure plan Also refer to the Landfill Closure Report Appendix G	Low
Socio-economic Structure			
Increase in traffic during delivery of materials to site	Low	Deliveries will be limited to normal working hours Also refer to the Landfill Closure Report Appendix G	Low
Additional employment opportunities during grading and compaction, capping and construction activities	Low	Positive – temporary employment opportunities Also refer to the Landfill Closure Report Appendix G	Low
Visual Aspects			
Visual intrusion impact of windblown litter from the landfill	Low	1) Effective screening by existing trees & vegetation. 2) Compaction and capping of waste Also refer to the Landfill Closure Report Appendix G	Low
Visual intrusion impact of windblown litter from the waste transport vehicles	Medium	1)	
INDIRECT IMPACT			
Soil			
Loss of topsoil (alternative area) due to insufficient availability of top soil at site	Medium	On site soil management Also refer to the Landfill Closure	Low

		Report Appendix G	
Fauna and Flora			
Potential increase in feral animals e.g. cats, mice, rats.	Medium	1) Capping and covering of waste heap 2) Ensure no edible waste is left on site which can be accessed by animals. Also refer to the Landfill Closure Report Appendix G	Low
Air Quality			
Dust generated from closure activities is a threat to public areas beyond the landfill area.	Low	1) Dust suppression by spraying water on roads. 2) Spraying covered waste heap. 3) Prevent dust from transported product by washing vehicles and covering loads. Also refer to the Landfill Closure Report Appendix G	Low
Visual Aspects			
Visual intrusion impact of landfill on nearby roads, homesteads, settlements.	Low	1) Effective screening by existing trees & vegetation. 2) Establishment of grass cover on waste heap. Also refer to the Landfill Closure Report Appendix G	Low
Socio-economic			
Truck increased traffic and damage to roads	Low	Waste transport trucks will adhere to relevant road and transport legislation and regulations Keep to speed limits	Low

Alternative 1

Potential impacts:	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**

Alternative 2

Potential impacts:	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Henley on Klip Closure Report (July 2012) – Envitech Environmental Solutions – **Appendix G**

3. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts: Landfill Closure	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Topography			
Change in topography by compacting, infilling & capping	Low	Side slopes of a minimum of 1:3 slopes have been adopted to ensure stability of the landfill cells. Also refer to the Landfill Closure Report Appendix G	Low
Steep side slopes are potentially unstable and slumping or gully erosion caused by run-off can lead to migration of erosion features and impact areas away from the waste heap edge.	Medium	Side slopes of a minimum of 1:3 slopes have been adopted to ensure stability of the landfill cells. Also refer to the Landfill Closure Report Appendix G	Low
Geology			
Subsidence; or sinkhole formation	Medium	Landfill site closure application The rehabilitated landfill cells will be designed to prevent any pooling or damming of water Also refer to the Landfill Closure Report Appendix G	Low
Soil			
Soil pollution through petrochemical spillages associated with heavy vehicles used during upgrading of the roads, compacting & construction of stormwater facilities	Low	1) Petrochemical spillages to be collected in a drip tray. 2) Store excavated spill affected soil in drum. 3) Dispose at a registered facility. Also refer to the Landfill Closure Report Appendix G	Low
Loss of topsoil due to incorrect storage and usage	Medium	1) Stockpile 500 mm topsoil in berms or heaps less than 1.5m high and turn soil every six months. 2) Do not use as stormwater control feature. 3) Vegetate with diverse grass mix /local creepers / branches to control erosion. Also refer to the Landfill Closure Report Appendix G	Low
Loss of soil due to erosion of covered waste heap	Medium	1) A growth of vegetation will reduce erosion of the side slopes Also refer to the Landfill Closure Report Appendix G	Low
Soil pollution through use and mixing of cement during construction of stormwater facilities	Low	Mixing of cement only allowed in dedicated areas Also refer to the Landfill Closure Report Appendix G	Low
Soil pollution due to dam leachate	Medium	The evaporation dam shall be lined	Low

		with clay and a 1.5mm thick HPDE Geo-membrane to minimize seepage from the dam Also refer to the Landfill Closure Report Appendix G	
Surface Water			
Stormwater and surface water contamination through run-off during rainfall events	Medium	Installation of stormwater drains, channels and evaporation pond Also refer to the Landfill Closure Report Appendix G	Low
Ground Water			
Pooling or damming of water on top of the waste heap during rainfall events could lead to leaching and groundwater pollution	Medium	The rehabilitated landfill cells will be designed to prevent any pooling or damming of water Impervious cover be installed to cover the waste Any leachate and run-off water be collected in lined ponds Also refer to the Landfill Closure Report Appendix G	Low
Leachate from waste heap causing groundwater pollution	Medium	Impervious cover be installed to cover the waste Any leachate and run-off water be collected in lined ponds Also refer to the Landfill Closure Report Appendix G	Low
Leachate form evaporation dam causing groundwater pollution	Low	The evaporation dam shall be lined with clay and a 1.5mm thick HPDE Geo-membrane to minimize seepage from the dam Also refer to the Landfill Closure Report Appendix G	Low
Fauna and Flora			
Introduction of invasive species through application of incorrect seedmix for vegetation cover	Medium	Indigenous grass seed mix Alien and invasive plant management and monitoring program Also refer to the Landfill Closure Report Appendix G	Low
Loss of vegetation cover due to erosion of covered waste heap	Medium	Gentle slope also encourages the growth of vegetation Also refer to the Landfill Closure Report Appendix G	Low
Establishment of healthy grass community on site through introduction of vegetation cover on waste heap	Positive	Also refer to the Landfill Closure Report Appendix G	Low
Restriction of movement of domestic animals by fences and access control	Low	Fences must be maintained to prevent access of domestic animals for at least the 1st 5 years of closure Also refer to the Landfill Closure Report Appendix G	Low
Archaeological/ Cultural			
Damage to graveyard during grading and compaction, capping and construction activities	Medium	The existing graveyard must be demarcated and/or fenced to prevent damage to existing graves Also refer to the Landfill Closure	Low

		Report Appendix G	
Restricted access to grave yard due to fencing and access control	Low	Access to the existing graveyard after closure of the landfill must be included in the final closure plan	Low
Socio-economic Structure			
Increase in traffic during delivery of materials to site	Low	Deliveries will be limited to normal working hours Also refer to the Landfill Closure Report Appendix G	Low
Additional employment opportunities during grading and compaction, capping and construction activities	Positive	Temporary employment Also refer to the Landfill Closure Report Appendix G	Low
Noise generated through movement of heavy vehicles on site	Low	Deliveries will be limited to normal working hours Also refer to the Landfill Closure Report Appendix G	Low
Noise generated during grading and compaction, capping and construction activities	Low	Deliveries will be limited to normal working hours Also refer to the Landfill Closure Report Appendix G	Low
Air Quality			
Generation of dust during delivery of materials (infill material, sub soil, topsoil, construction material)	Low	1) Dust suppression by spraying water on roads during delivery. 2) Prevent dust from transported product by washing vehicles and covering loads. Also refer to the Landfill Closure Report Appendix G	Low
Dust generated by movement of vehicles on dirt roads	Low	1) Dust suppression by spraying water Also refer to the Landfill Closure Report Appendix G	Low
Dust generated by storage of materials (infill material, sub soil, topsoil, construction material)	Low	1) Spray storage piles. 2) Vegetate topsoil piles with diverse grass mix /local creepers / branches to control erosion. Also refer to the Landfill Closure Report Appendix G	Low
Emissions from vehicles during delivery to site and movement on site	Low	1) Equipment and vehicles to be maintained on /serviced a regular basis. Also refer to the Landfill Closure Report Appendix G	Low
Dust generated during infilling, capping and construction.	Low	1) Dust suppression by spraying water Also refer to the Landfill Closure Report Appendix G	Low
Gas emissions from landfill	Low	Gas migration monitoring on the site perimeter will be done Landfill gas volumes escaping from the landfill directly to the atmosphere would be fairly insignificant and would disperse ,especially on a small site like the H-o-K landfill site Also refer to the Landfill Closure Report Appendix G	Low

INDIRECT IMPACTS			
Socio-economic Structure			
Loss of local domestic landfill site for local community	Medium	Investigate a recycling and waste transfer facility as future development of the site Also refer to the Landfill Closure Report Appendix G	Low
Considerable multiplier effect through downstream service industries such as construction, equipment/vehicle hire, and material suppliers.	Positive	Socio economic development	Low
Soil			
Loss of topsoil (alternative area) due to insufficient availability of top soil at site	Medium	On site soil management Also refer to the Landfill Closure Report Appendix G	Low
Fauna And Flora			
Potential increase in feral animals e.g. cats, rats.	Medium	1) Capping and covering of waste heap 2) Ensure no edible waste, or other garbage is left on site which can be accessed by animals. Also refer to the Landfill Closure Report Appendix G	Low
Potential increase in nuisance e.g. flies	Medium	1) Capping and covering of waste heap 2) Ensure no edible waste, or other garbage is left on site 3) Fly baits and traps will be provided in order to minimise the vector nuisance Also refer to the Landfill Closure Report Appendix G	Low
Air Quality			
Dust generated from closure activities is a threat to public areas beyond the landfill area.	Low	1) Dust suppression by spraying water on roads. 2) Spraying covered waste heap. 3) Prevent dust from transported product by washing vehicles and covering loads. Also refer to the Landfill Closure Report Appendix G	Low
Visual Aspects			
Visual intrusion impact of landfill on nearby roads, homesteads, settlements.	Low	1) Effective screening by existing trees & vegetation. 2) Establishment of grass cover on waste heap Also refer to the Landfill Closure Report Appendix G	Low

Alternative 1

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:

Alternative 2

Potential impacts:	Significance	Proposed mitigation:	Significance rating

	rating of impacts:		**of impacts after mitigation:**

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Henley on Klip Closure Report (July 2012) – Envitech Environmental Solutions Appendix G

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

Land Capability: Backfilled areas could be too unstable to support post-landfill land use objectives compatible with surrounding areas.

Land Use: Change in land use due to closure of landfill site; Loss of local domestic landfill site and increase pressure on other domestic landfill sites.

Socio-economic Structure: Increase in unemployment due to loss of employment caused by the closure of landfill site.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal 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.

Proposal

In this Basic Assessment Report an assessment is provided of the potential environmental impacts on the environmental components of the biophysical and the social environment. It is believed that the information presented illustrates the most important elements of information gained throughout the process.
The findings conclude that there are no environmental fatal flaws that should prevent the proposed project from proceeding, provided that the recommended mitigation and management measures are implemented.

It is the opinion of the Environmental Assessment Practitioner (EAP) that the landfill closure project will prevent future impacts the existing landfill facility can have on the environment, provided that the mitigation suggested is implemented. Closure mitigation measures can prevent surface and groundwater pollution. The design of the proposed closed landfill offer significant mitigatory components that are incorporated at design phase resulting in an upfront reduction of potential impacts.

A summary of the most negative and positive impacts are listed in order to develop mitigation measures.
Negative:

- Surface water pollution
- Groundwater pollution
- Sinkhole formation

The positive impacts might contribute to the sustainability of the project.
Positive

- Improved aesthetic environment
- Reduce traffic of heavy trucks in urban area
- Proper closure and implementation of mitigation measure will reduce the risk of sinkhole formation
- Reduce the risk of surface water pollution

Alternative 1

Alternative 2

No-go (compulsory)

Should the activity not be implemented (i.e. the landfill is not to undergo decommissioning, closure and rehabilitation), certain impacts to the surrounding receiving environment may become a reality. These impacts may include:
The landfill is located on dolomitic rock increasing the risk of sinkhole formation;
Visual impacts (landfill sites are by its very nature not aesthetic);
Pollution of surrounding surface and groundwater resources ; and
Health impacts (waste disposal sites attract disease-carrying vermin such as rats and mice which may transfer diseases to humans residing in the vicinity of the landfill site.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

Impacts of concern include:

- Sinkhole formation (located on dolomitic rock)
- Groundwater pollution (located on dolomitic rock)
- Loss of top soil
- Surface water pollution (located close to surface water stream)
- Damage to the existing graveyard
- Increase in nuisance animals (rats)
- Introduction of alien or invasive plants

With the implementation of proper mitigation measures these impacts will be low

For alternative:

n/a

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

Proper closure of the existing landfill will prevent future impacts on the surface water resources
Proper closure and capping will reduce litter and windblown litter
Site closure will reduce the traffic of heavy vehicles in the urban area of Henley on Klip
Ensure the implementation of proper groundwater monitoring to manage the impact of the site
Proper closure and capping will reduce the risk of sinkholes and groundwater pollution

7. RECOMMENDATION OF PRACTITIONER

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 require further assessment before a decision can be made (list the aspects that require further assessment):

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:

Design measures for rehabilitation must allow for permanent storm water diversion;

The rehabilitated landfill site must be inspected on an annual basis with regards to:

- Cover integrity;
- Access control and maintenance of the fence
- Drainage integrity; and
- Any build-up of landfill gasses.

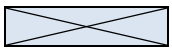
Sufficient measures must be put in place to prevent any further illegal dumping on the closed landfill site

Protection and management of the existing graveyard, ensuring the closure activities do not damage

the graveyard
All trucks adhere to the road and transport legislation and regulations
Use of indigenous vegetation and management and control of alien vegetation
The final shaping and capping of the landfill should be carried out as per the Closure Design (closure report Appendix G).
Ongoing monitoring of groundwater
Landfill gas migration monitoring on the site perimeter
Ongoing inspection and monitoring in accordance with the EMPr

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

If the EAP answers yes to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached 

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information (n/a)

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports (Closure Report)

Appendix H: EMPr

Appendix I: Other information

Biodiversity Motivation
Waste License Application form