



GA Environment

**BASIC ASSESSMENT AND A WASTE LICENCE APPLICATION PROCESS FOR THE
PROPOSED DECOMMISSIONING (CLOSURE) OF THE REIVILO LANDFILL;
KAGISANO MOLOPO LOCAL MUNICIPALITY, NORTHERN CAPE**

DRAFT BASIC ASSESSMENT REPORT

NOVEMBER 2015

PREPARED BY:

GA Environment (Pty) Ltd

Address: P O Box 6723
Halfway House
Midrand
1685

Tel: +27 11 312 2537

Email: environment@gaenvironment.com zphohlo@environment.gov.za

PREPARED FOR:

Department of Environmental Affairs

Environment House
473 Steve Biko
Arcadia
0083

+27 12 310 3382/3020

DRAFT BASIC ASSESSMENT REPORT (BAR)

For

**THE WASTE MANAGEMENT LICENCE APPLICATION PROCESS FOR THE PROPOSED
DECOMMISSIONING (CLOSURE) OF THE REIVILO LANDFILL; KAGISANO MOLOP LOCAL
MUNICIPALITY, NORTH WEST PROVINCE**

Prepared for:

Department of Environmental Affairs

Environment House,
473 Steve Biko,
Arcadia,
Pretoria, 0083

Submitted to:

North West Department of Rural, Environment and Agricultural Development

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

Prepared by:

GA Environment (Pty) Ltd

P.O. Box 6723
Halfway House,
MIDRAND
1685

Tel. No.: (011) 312 2537

Fax. No.: 011 805 1950

e-mail: environment@gaenvironment.com

3 December 2015

PROJECT INFORMATION

Title: Basic Assessment and a Waste Management Licence Application Process for the Proposed Decommissioning (Closure) of Reivilo Landfill; Kagisano Molopo Local Municipality, North West

Competent Authority: North West Department of Rural, Environment and Agricultural Development

Reference No.: To be added once assigned

Applicant: Department of Environmental Affairs

Environmental Consultants: GA Environment (Pty) Ltd

Compiled by: Nkhensani Khandlhela *BSc Cert.Sci.Nat.* & Hlengiwe Thusi *BSc Hons. (cum laude)*

Reviewer: Andrew Woghiren *MSc Pr.Sci.Nat*

Date: 03 December 2015



read

Department:
**Rural, Environment and Agricultural
Development**
North West Provincial Government
REPUBLIC OF SOUTH AFRICA



AgriCentre Building
Cnr. Dr. James Moroka
and Stadium Rd
Private Bag X2039,
Mmabatho 2735

CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES
DIRECTORATE: ENVIRONMENTAL QUALITY MANAGEMENT

Tel: +27 (18) 389 5156
Fax: +27(18) 389 5006
E-mail: oskosana@nwpg.gov.za
Enq: EIA Admin Officer

(For official use only)

Provincial Reference Number:
NEAS Ref Number:
Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, 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, 2014 and is meant to streamline applications.
2. This report format is current as of **December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. 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.
4. Where applicable **tick** the boxes that are applicable in the report.
5. The use of "not applicable" in the report must be done with circumspection. An incomplete report or that does not meet the requirements in terms of Regulation 19 of the NEMA EIA Regulations, 2014, will be rejected to be revised and be resubmitted.
6. The 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 signature of the Environmental Assessment Practitioner (EAP) on the report must be an original.
9. The report must be compiled by an independent EAP.
10. 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.
11. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
12. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
13. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.



14. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

1. PROJECT DESCRIPTION

- a) Describe the project in association with the listed activities applied for

1. Introduction and Background

The Department of Environmental Affairs (DEA) is assisting the Dr Ruth Segomotsi Mompati District Municipality (DRM hereafter) on behalf of the Greater Taung Local Municipality to licence various waste facilities within its jurisdiction. The Reivilo landfill is one of the landfill sites that will require a Closure Licence from the North West Department of Rural, Environment and Agricultural Development. DEA has thus appointed GA Environment (Pty) Ltd as independent Environmental Consultants, to undertake the Basic Assessment (BA) process as part of the Waste Management Licence Processes.

According to the DRM District Municipality IDP, the MEC for North West Province has adjusted the Powers and Functions in terms of Section 12 of the Municipal Systems Act, Act 32 of 2002, in order to include the local function of Solid Waste of Kagisano, Mamusa, Greater Taung, Lekwa Teemane and Molopo LM as a competency of DR Ruth S Mompati District Municipality, with effect 01 July 2008. It is thus a responsibility of the DRM Municipality to address waste management activities at Reivilo. It is also for such reasons that The DRM District Municipality proposes to close and formally decommission the existing Reivilo landfill site.

The Reivilo landfill currently receives domestic refuse from Reivilo and other surrounding areas. It must be noted that the Reivilo landfill has been operating illegally without a licence for a number of years. The landfill was designed and commissioned prior to the establishment of the Minimum Requirements for Waste Disposal by Landfill (DWAF, 1998 2nd Edition) and the promulgation of the National Environmental Management Waste Act (NEMWA hereafter), 2008 (Act No. 59 of 2008).

Reivilo landfill is on Portion 6 of the Farm Bruintjesfontein 909 HN, approximately 2 km from the western edge of the Reivilo town. The landfill is accessible from Greeff Street, a surfaced road which changes to a gravel road after crossing Nel Street. The landfill is directly accessible from Greeff Street. The landfill site falls within the jurisdiction of the Greater Taung Local Municipality. The site co-ordinates are 27°34'08.88"S; 24° 09' 25.81"E. The location of the Reivilo landfill is indicated in **Figure 1** and **Appendix 1** for an overview of the site.



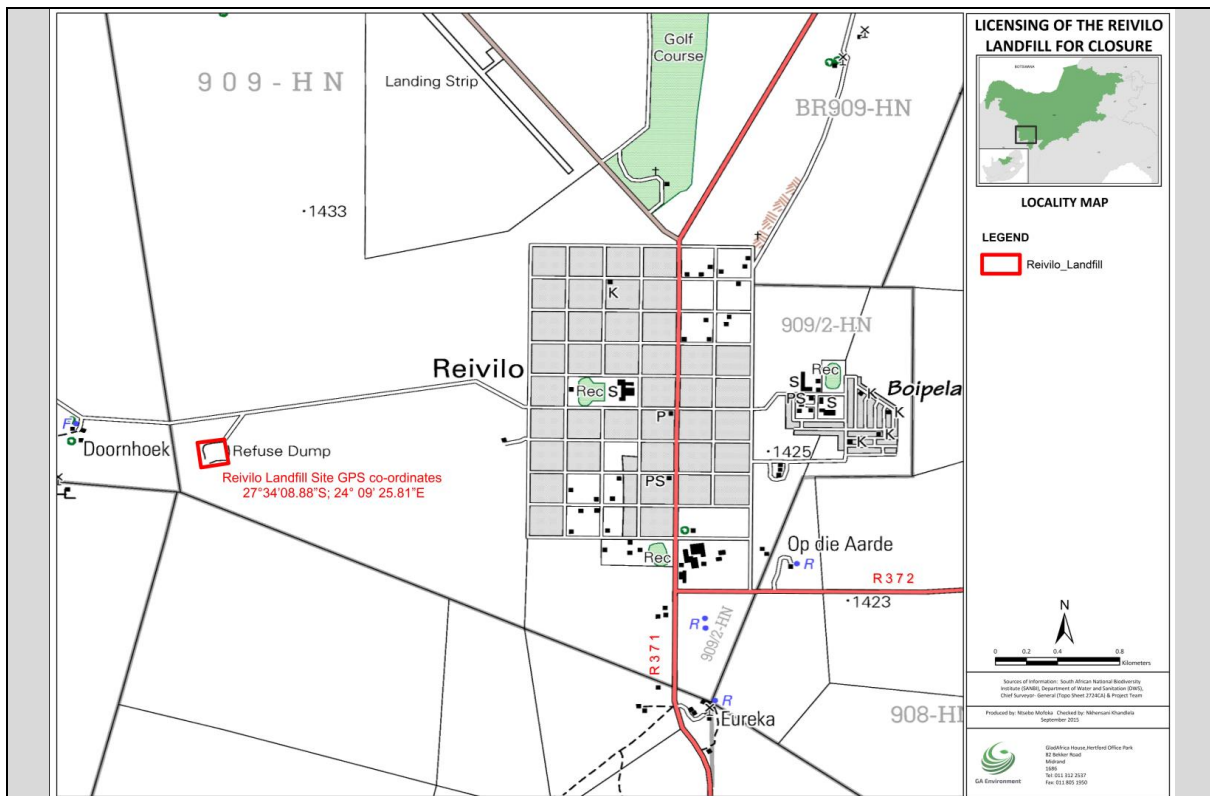


Figure 1: Locality Map of the Reivilo Landfill Site

Although the Reivilo landfill is currently operational and receiving general waste, mainly domestic waste, the DRM District Municipality is applying for a Waste Management Licence in order to formally close the facility, and to ensure that the decommissioned site is legally compliant with the NEM: WA 2008, and other key legislation. The Decommissioning (closure) Licence will be issued by the North West Department of Rural, Environment and Agricultural Development. It must be noted that the Reivilo landfill site is currently functioning beyond the recommended operational capacity and has thus reached its lifespan. It is one of the reasons that the Municipality has considered the closure of this site. It should however be understood based on the information provided by the District Municipality that the landfill will continue to receive waste and decommissioning will commence within a period of five years from the date of issue of a Waste Management Licence. The Municipality is currently investigating other viable waste disposal options .e.g. waste transfer stations, drop off facilities, construction of a regional waste site “etc.” in order to cater for the general waste that will be generated in future within the town. The scope of this Basic Assessment report is limited to the closure of the Reivilo landfill and will not include the proposed construction of the waste transfer stations or drop off facilities and other waste disposal options.

The proposed activities associated with the Decommissioning (closure) of the Reivilo landfill will also include the construction of a boundary fence and the rehabilitation of landfill site as per NEM:WA, 2008 requirements. The closure and rehabilitation of the landfill will also be done in accordance with DWAF Minimum Requirements for rehabilitation, closure and end-use for landfills.

The Decommissioning of the landfill will ensure that Greater Taung Local Municipality adhere to the requirements of the NEM:WA and that the existing landfill site is rehabilitated as per the Environmental requirements. The rehabilitation of the landfill will ensure that the final condition of the



site is environmentally acceptable and that there will be no adverse long term effects on the surrounding areas.

2. Solid waste removal at Reivilo

The responsibility of solid waste removal at Reivilo rest with the District Municipality. Waste collection in the residential areas is undertaken on a weekly basis in Reivilo. Businesses are also serviced weekly with some businesses being provided with containers to store waste prior to collection. Street cleaning and emptying of waste bins in the towns is done on a weekly basis.

3. Site Status Quo

The Reivilo landfill is located on Portion 6 of the Farm Bruintjesfontein 909 HN, Reivilo. The landfill is about 2.585 hectares in size and is owned and operated by the Greater Taung Local Municipality. According to DWAF Minimum Requirements for Waste Disposal by Landfill (1998), landfill sites are classified according to the type and volume (volume = maximum amount of waste handled/treated/stored per day for which the facility was designed) of waste handled/treated/stored at the specific facility per day. Unfortunately there are no site records indicating the quantities of waste that the Reivilo landfill may have received over the period it was used. There are also no records available for amount of waste that is reclaimed from the site. However, based on the fact that the waste site is used solely for disposal of domestic waste from the surrounding towns and farms, it is assumed that the site can be classified as a Class C (GCB) as per DWAF landfill classification criteria. The site climatic water balance classification is unknown as no calculation data is available from the Municipality. Reivilo is generally a high rainfall and low evaporation rate area and thus not likely a positive water balance area. The site will most probably have been classified as a leachate generating area.

Unlike some of the landfill sites in the North West that are currently applying for a Closure licence, although unlicensed, the Reivilo landfill site was noted to be fairly managed with no major visual impacts from the site. The site is not located in close proximity to residential areas. The boundaries of the landfill site are clear as a boundary fence exists for site demarcation purposes. Although not manned, the site has a lockable access gate and waste was noted to be disposed accordingly with incidences of windblown litter noted outside the property boundaries. Burning of waste was also noted but contained within the boundaries of the site. Neither covering nor compaction of waste was observed. No reclaiming of waste was noted during the site visits. There is also no evidence of either groundwater or gas monitoring noted in the vicinity of the landfill site. No dumping of inert waste e.g. construction rubble on site was observed at the Reivilo site. Please refer to **Figures 1 and 2** below for the overview of the site.





Figure 2: The interior view of the Reivilo landfill site. **Figure 3:** Evidence of waste burning at Reivilo site.

3.2. Design requirements and End use plan

The scope of work is limited to the design of a final capping layer, adequate surface drainage design and top soiling. It is anticipated that the end-use for the Reivilo landfill site will be an open space and the Greater Taung Local Municipality will in future investigate potential uses that can be safe and suitable.

3.3. Closure and Rehabilitation Activities

The closure, rehabilitation and post-closure monitoring of the historical disposal site will be done in accordance with the Minimum Requirements for Waste Disposal by Landfill (DWAF, 1998). The proposed closure and rehabilitation is detailed in the Closure Design Report (**Appendix N**). In summary the closure/ rehabilitation will entail:

- Localized “re-capping” of selected areas where soil has eroded to expose the underlying waste body;
- Localized re-landscaping / reshaping of selected areas on site, where ponding is evident or where soil has been eroded to expose the underlying waste body. Particular attention will be given to an erosion gully on the north-eastern slope of the site;
- Implementation of erosion protection measures;
- Removal of illegally dumped waste and disposal at a licensed facility;
- Possible implementation of measures to restrict public access and prevent further illegal dumping;
- Control of alien vegetation; and
- Establishment of monitoring programme (to monitor capping integrity, erosion, subsidence, drainage, storm water management, ponding, fire and security).

In brief, the envisaged activities, depending on the site conditions, will generally include the compacting, backfilling with top soil and gravel, construction of storm water diversion channel where applicable.



b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.983, 984 and 985	Description of project activity
Category A: Activity 14: The decommissioning of a facility for a waste management activity listed in Category A or B of this schedule	The Reivilo landfill is applying for a decommissioning licence as the landfill site will cease operations due to air space constraints

c) Property description/physical address

Province	North West
District Municipality	Dr Ruth Segomotsi Mompati District Municipality
Local Municipality	Greater Taung Local Municipality
Ward Number(s)	1
Farm name and number	Farm Bruintjesfontein 909 HN
Portion number	Portion 6
21 digit Surveyor General Code	T0HN00000000090900000

Where a large number of properties are involved (e.g. linear activities) please attach a full list to this application including the same information as indicated above

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 as required by EIA Regulation, 2014 Appendix 1(h) . Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) 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.



Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds using the Hartebeeshoek94 WGS84 co-ordinate system.

a) Site alternatives (N/A as design alternatives have been considered)

List alternative sites, if applicable.

Site Alternatives	Description
Alternative Site 1 (preferred or only site alternative)	
Alternative Site 2	
Alternative Site 3	

Site Co-ordinates

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only site alternative)

27 ^o	34'	08.88"	24 ^o	09'	25.81"
0	'	"	0	'	"
0	'	"	0	'	"

Alternative S2 (if any)

Alternative S3 (if any)

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only route alternative)

N/A

• Starting point of the activity

0	'	"	0	'	"
0	'	"	0	'	"
0	'	"	0	'	"

• Middle/Additional point of the activity

• End point of the activity

Alternative S2 (if any)

• Starting point of the activity

0	'	"	0	'	"
0	'	"	0	'	"

• Middle/Additional point of the activity



- End point of the activity

0	1	2	3	4	5
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Alternative S3 (if any)

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

0	1	2	3	4	5
0	1	2	3	4	5
0	1	2	3	4	5

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

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives (N/A as design alternatives have been considered)

Alternatives	Description
Alternative 1 (preferred or only alternative)	
Alternative 2	
Alternative 3	

c) Technology alternatives: Not applicable as design alternatives have been considered

Alternatives	Description
Proposed and preferred only alternative)	

d) Other alternatives – Design (e.g. scheduling, demand, input, scale and design alternatives)

Alternatives	Description
Proposed and preferred Alternative	Closure and Rehabilitation of the Reivilo Landfill The proposed closure and rehabilitation of the unlicensed landfill would ensure that the site is environmentally and publicly acceptable and that it complies with the Minimum Requirements for Waste Disposal by Landfill, 2nd Edition (DWAF,



	<p>1998) (hereafter referred to as the Minimum Requirements), and National Norms and Standards promulgated in November 2013.</p> <p>As has already been discussed, the closure and rehabilitation of the site would entail the following:</p> <ol style="list-style-type: none"> 1. Shaping and landscaping of the waste body; 2. The construction of storm water management infrastructure; 3. Capping of the waste body in accordance with the Minimum Requirements; 4. Concrete palisade fencing; 5. The construction of gravel service / maintenance roads; 6. Vegetative cover of the final landform; 7. The construction of the required end-use infrastructure; and 8. Post closure environmental monitoring where necessary.
<p>Design Alternative 1 (Closure capping)</p>	<p>While new South African regulations for landfill capping design are still in the “works”, The Minimum Requirements for landfill still provide the specifications for closure and capping design for landfills in South Africa. The standard capping system consists of an intermediate cover layer, a clay layer and a vegetative layer. After the landfill or a single landfill cell has reached its final capacity the waste need to be covered first by an intermediate cover layer, which is insensitive to settlements of the landfill surface. The functions of this intermediate cover layer (e.g. 50 cm of soil or compost) are:</p> <ul style="list-style-type: none"> • Prevention of erosion by wind and water; • Reduction of water infiltration, and gas emissions • Promote vegetation, and • Aesthetic issues. <p>However due to the size of some the landfill sites which are to be closed, it might not warrant implementing such an expensive capping system. As an alternative to the standard capping design, natural alternatives may be considered for example, landfill covers constructed of native soils and vegetation can achieve the required level of infiltration reduction and provide significant cost savings over the current prescribed cover design.</p> <p>Two types of alternative cover designs are monolithic soil cover and capillary break cover systems. The monolithic design uses one type of soil, which is typically silty, due to its high water holding capacity and compatibility with vegetation. This design works well in arid and semi-arid sites such as the Northern Cape Province because of its high rate of evapotranspiration (between 80 percent and 100 percent).</p> <p>The capillary break system is comparable to a monolithic cover, except for a coarse-grained material layer (i.e. gravel), which is inserted about 3 feet below the topsoil layer. This lower layer disrupts soil suction, which often draws moisture downward. Although more expensive than the monolithic cover, this system can perform better in cold or wet climates.</p> <ul style="list-style-type: none"> • Alternative final covers can provide several cost-saving benefits:



	<ul style="list-style-type: none"> • On-site soils are used instead of importing large amounts of clay or buying synthetic materials. • Landfill personnel and equipment can be used to construct the alternative cover, reducing operations and construction costs. • Sites can cover as they fill, even one or two acres at a time. • Native vegetation takes hold easier because of the more natural soil conditions. • Long-term maintenance costs are lower. <p>In addition, geomembranes and compacted clay layers limit the activity possible at sites after closure and also limit how the land can be contoured or sloped. Using an alternative cover offers more flexibility. For example, a site that is currently an active landfill can be turned into a driving range or other natural recreation/greenspace areas after final closure.</p>
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<p>Alternative 2</p> <p><i>(End use Planning)</i></p>	<p>An end-use plan for the landfill site shall guide what would be the most suitable land use for the area. The choice of type of end use is dependent on the urban or rural spatial planning of the area in which the landfill is situated. The Tables below shows the end-use possibilities, categorized from low-graded re-use to high-graded end-use. The type of end-use can also related to the potential vulnerability, expressed in the average number of hours per day that people are spending at the location. The longer humans spend at or near the site, the higher the chance on potential exposure to any residual effects of the landfill site and the higher the potential vulnerability. Table 3 shows the relation between vulnerability of the type of end-se and the environmental risk-levels of the landfill.</p> <p style="text-align: center;">Table 1: End use types</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="width: 50%;">Quality of End Use</th> <th style="width: 50%;">Type of End Use</th> </tr> </thead> <tbody> <tr> <td rowspan="6" style="text-align: center; vertical-align: middle;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">Low Grade</div> <div style="margin-bottom: 10px;">↓</div> <div style="margin-top: 10px;">High grade</div> </div> </td> <td>Parking Area</td> </tr> <tr> <td>Industrial Area</td> </tr> <tr> <td>Commercial Area</td> </tr> <tr> <td>Natural Area</td> </tr> <tr> <td>Sports and Recreation</td> </tr> <tr> <td>Residential Area</td> </tr> </tbody> </table>	Quality of End Use	Type of End Use	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">Low Grade</div> <div style="margin-bottom: 10px;">↓</div> <div style="margin-top: 10px;">High grade</div> </div>	Parking Area	Industrial Area	Commercial Area	Natural Area	Sports and Recreation	Residential Area
Quality of End Use	Type of End Use									
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	Industrial Area									
	Commercial Area									
	Natural Area									
	Sports and Recreation									
	Residential Area									



Table 2: Landfill End Use Matrix		
Landfill Type	Type of End-Use	
	Low Vulnerability	High Vulnerability
Low Risk ¹		
High Risk ²		

It is obvious that in the green box situation redevelopment projects can be initiated and carried out without any problem. The red box represents the opposite situation. For example from a psychological point of view the end use of the landfill site for housing will not be feasible anyway and should in fact not be wanted. In the yellow box situation many types of end-use are possible, but the feasibility is depending on the local situation.

Impacts of the design alternatives discussed above (landfill capping and End use plan) will collectively be assessed with the decommissioning impacts as the impacts are likely to be similar.

e) No-go alternative

The no-development alternative would entail continuing with the status quo, i.e. a situation where the Reivilo landfill remains operational and un-rehabilitated. This could lead to major environmental liability, because sooner or later the Municipality must take responsibility for adequate closure and rehabilitation of the landfill in line with the legislative requirements and the DR Ruth S Mompoti District Municipality (DRM District Municipality) and Council Resolution. Moreover, the closure/decommissioning of waste facilities is a listed activity in terms the National Environmental Management Waste Act, (Act No. 59 of 2008), Government Notice 921, Listed activity, Category A (14). According to the DRM District Municipality IDP, the MEC for North West Province has adjusted the Powers and Functions in terms of Section 12 of the Municipal Systems Act, Act 32 of 2002, in order to include the local function of Solid Waste of Kagisano, Mamusa, Greater Taung, Lekwa Teemane and Molopo LM as a competency of DR Ruth S Mompoti District Municipality, with effect 01 July 2008. Adopting the “No go alternative” is also against the Council Resolution and District Municipality IDP as the disposal of waste remain one of the competencies of DR Ruth S Mompoti District Municipality.

In addition, the need to licence many of the unlicensed Waste Disposal in South Africa by the Minister of Environmental Affairs is regarded as one of key project towards a cleaner environment. This initiative will aid in achieving the Ministers service delivery agreement Outcome 10 (Output 1 to 4) deliverable target/indicator that serves to ensure that environmental assets and natural resources are

¹ Low risk site here mainly refer to Communal sites, and small sites

² High Risk sites in this case refer to Medium, Large and Hazardous landfill sites.



well protected and are continually enhanced. Further delays in implementing the project will mean that the Greater Taung Local Municipality will continue to dispose waste on an unlicensed sites thereby causing adverse environmental problems.

The failure to design and rehabilitate the site as well as implement a suitable End-use Plan is therefore not considered a viable or sustainable alternative as it does not meet either the Minimum Requirements or the DEA standards for waste site decommissioning as prescribed in the Environmental Management: Waste Act, 2009. Moreover, it does not conform to the Best Environmental Option available. The significance of the no-go alternative is therefore has far more negative impacts and implications than the preferred alternative, namely the decommissioning and closure of the site.

f) **Please motivate for preferred site, activity and technology alternative**

Proposed and preferred alternative: Closure and Rehabilitation of Reivilo Landfill

The proposed closure and rehabilitation of the unlicensed landfill would ensure that the site is environmentally and publicly acceptable and that it complies with the Minimum Requirements for Waste Disposal by Landfill, 2nd Edition (DWAF, 1998) (hereafter referred to as the Minimum Requirements), and other norms and standards.

As has already been discussed, the closure and rehabilitation of the site would entail the following:

1. Shaping and landscaping of the waste body;
2. The construction of storm water management infrastructure;
3. Capping of the waste body in accordance with the Minimum Requirements;
4. Concrete palisade fencing;
5. The construction of gravel service / maintenance roads;
6. Vegetative cover of the final landform;
7. The construction of the required end-use infrastructure; and
8. Post closure environmental monitoring where necessary.

In addition, the need to licence many of the unlicensed Waste Disposal in South Africa by the Minister of Environmental Affairs is regarded as one of key project towards a cleaner environment. Further delays in implementing the project will mean that the Greater Taung Local Municipality will continue to dispose waste on an unlicensed sites thereby causing adverse environmental problems.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Size of the activity:

Closure of Reivilo landfill (preferred activity alternative)

2.585 ha



Alternative A2 (if any)

	m ²
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Alternative A3 (if any)

	m ²
--	----------------

or, for linear activities:

Alternative:

Length of the activity:

Alternative A1 (preferred activity alternative)

	m
--	---

Alternative A2 (if any)

	m
--	---

Alternative A3 (if any)

	m
--	---

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

Size of the site/servitude:

Alternative A1 (preferred activity alternative)

	m ²
--	----------------

Alternative A2 (if any)

	m ²
--	----------------

Alternative A3 (if any)

	m ²
--	----------------

4. SITE ACCESS

Does ready access to the site exist?

YES	NO
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If NO, what is the distance over which a new access road will be built

	m
--	---

Describe the type of access road planned:

The site is directly accessible from a municipal road. Other community access roads can be used to access the landfill.



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.

5. 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 accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s);
- the accurate indication of the site in relation to closest protected environments or national parks (i.e. within 2.5 km)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- 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, minutes and seconds using the Hartebeeshoek94 WGS84 co-ordinate system)

6. LAYOUT/ROUTE PLAN

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

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;



- the 1:100 year flood line (where available or where it is required by Department of Water and Sanitation);
- ridges;
- 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
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas and ecological support area.
- protected areas (e.g Magaliesberg Protected Environment, Pilanesberg National Park etc.)

The sensitivity map must also cover areas within 100m of the site and must be part of Appendix B.

8. SITE PHOTOGRAPHS

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 C to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix D 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.

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES	NO	Please explain
The property is currently known as Portion 6 of the Farm Bruintjiesfontein 909 HN. The Site is currently owned and managed by the Greater Taung Local Municipality.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
As mentioned, MEC has adjusted the Powers and Functions in terms of Section 12 of the Municipal Systems Act, Act 32 of 2002, in order to include the Local function of Solid Waste of Kagisano/Molopo Mamusa, Greater Taung, Lekwa Teemane LM as a competency of DR Ruth S Mompoti District Municipality, with effect 01 July 2008. It is the responsibility of the District Municipalities to ascertain that services such as waste disposal and environmental considerations are taken into account when doing their planning.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The development is outside urban edge			



(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
Based on the Council Resolution and District Municipality IDP, the management of solid waste is a function of the DR Ruth S Mompoti District Municipality with effect of 01 July 2008. The Licencing of the Reivilo landfill site is currently managed by the District Municipality.			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
The Licencing of the Reivilo landfill is currently managed by the District Municipality in accordance with the District Council resolution.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
There is no EMF that has been compiled for the area. The North West Biodiversity Conservation Assessment can be used to guide priority areas in terms of Conservation			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
Beside the North West Biodiversity Conservation Assessment and the 2015/2016 DR Ruth S Mompoti District Municipality IDP, no other plans are known to guide the development			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The proposed development is in line with the District IDP, which related to the provision of sustainable, reliable and affordable waste disposal to all residents. The Licencing of unlicensed landfill sites (including the Reivilo landfill) is a project that has included the MEC of the Environment in the province.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
The rehabilitation and post-closure monitoring of the site will contribute to the preservation of natural resources (including water, soil and biodiversity) on site and in the surrounding environment, and will reduce the risk of contaminating / degrading nearby water resources. Anticipated end use of the facility after decommissioning will benefit the community.			



5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix E.)	YES	NO	Please explain
The proposed project entails the closure and rehabilitation of a landfill site and the project will not require any capacity for services such as water and sanitation from relevant Municipalities. The District Municipality is applying for the closure on behalf of the Local Municipality			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
The proposed project entails the closure and rehabilitation of a landfill site and the project will not require any capacity for services such as water and sanitation from relevant Municipalities. The District Municipality is applying for the closure on behalf of the Greater Taung Local Municipality			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
The project is managed by the National Department of Environmental Affairs. The main objective of the Department of Environmental Affairs is to licence 58 unlicensed municipal waste disposal facilities, that are either operational or need to be licenced for closure. These disposal sites have been identified throughout various provinces within the South Africa. This is in order to eliminate waste disposal facilities that are operating illegally and are not complying with the best operational management practices. The DEA intends to assist the respective municipalities to licence waste disposal facilities that are still operating illegally. Furthermore, this will aid in achieving the Ministers service delivery agreement Outcome 10 (Output 1 to 4) deliverable target/indicator that serves to ensure that environmental assets and natural resources are well protected and are continually enhanced. The 58 sites are required to be licenced during the 2014/2015 financial year thereby providing a guiding tool that can improve the operational conditions at the facilities and identify the negative impacts and the respective mitigations.			
8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES	NO	Please explain
The current land use is waste disposal and it is the intention of the department to formally close the existing landfill in line with the applicable legislative requirements.			
9. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
As already noted, the site is currently used as a waste disposal site and the Municipality intends to close the site. It is a legislative requirement that the site be formally closed as per the NEMWA requirement.			



10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain
The objective of the site decommissioning is to rehabilitate and stabilise the site to meet the applicable Environmental requirements in terms of the applicable legislation			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
The District Municipality is currently investigating other waste disposal options in the area. It is hoped that projects such as the construction of a waste transfer station and buy back centres will be implemented following the closure of the Reivilo landfill.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
The proposed decommissioning of the Reivilo landfill will not negatively affect any person's rights. The current state of the site is a violation to human's right as the site is causing visual nuisances and other environmental problems.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
The development is outside urban edge			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain
No			
15. What will the benefits be to society in general and to the local communities?			Please explain
The rehabilitation and post-closure monitoring of the site will contribute to the preservation of natural resources (including water, soil and biodiversity) on site and in the surrounding environment, and will reduce the risk of contaminating / degrading nearby water resources.			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
It is the municipality's intention close and rehabilitate the landfill in order to prevent any contamination of the surrounding environment, and to secure proper and sustainable management of the environmental resources (soil, water, biodiversity etc) on site. The Municipality want to also ensure that the decommissioned site is legally compliant with the NEM: WA 2008, and other key legislation and other strategic documents such as the IDP and the Provincial spatial development framework.			



17. How does the project fit into the National Development Plan for 2030?	Please explain
The project is managed by the National Department of Environmental Affairs. The main objective of the Department of Environmental Affairs is to licence 58 unlicensed municipal waste disposal facilities, that are either operational or need to be licenced for closure, identified throughout various provinces within South Africa.	
18. Please describe how the general objectives of Integrated Environmental Management as set out in Section 23 of NEMA as amended have been taken into account.	
This report serves as a Basic Assessment report that will investigate all potential impacts (social, economic and environmental) that may result from the development including alternatives, assess and evaluate and further provide a mitigation plan for all identified potential impacts	
19. Please describe how the principles of environmental management as set out in Section 2 of NEMA as amended have been taken into account.	
An Ecological opinion (fauna, flora, wetland) was undertaken to advise on potential environment impacts. Identified environmental impacts were assessed and mitigation measures provided to control and manage these environmental impacts. Interested and Affected parties, land owners and relevant stakeholders were identified and involved throughout the Basic Assessment process and their comments addressed and recorded as part of this assessment.	

11. 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	Applicability to the project	Administering authority	Date
National Environmental Management Act, No. 107 of 1998 (NEMA), as amended & NEMA EIA Regulations, 2014: GN544, published in Government Gazette 38282 on 4 December 2014	A Basic Assessment Report (BAR) is required for this project.	Department of Environmental Affairs (DEA)	1998
National Environmental Management: Waste Act No. 59 of 2008: Category A – GNR 718 : Activity 14	The decommissioning of the site will require a Waste Licence as it is listed activity under this Act	Department of Environmental Affairs (DEA)	1998
National Environmental Management: Biodiversity Act, Act 10 of 2004	The North West Biodiversity Conservation Assessment can be used to guide priority areas in terms of Conservation of CBA's and ESA	Department of Environmental Affairs (DEA)	2004
National Water Act, No. 36 of 1998	The site is characterised by a single dry drainage feature in which terrestrial vegetation grows slightly more densely to become visible on	Department of Water Affairs (DWA)	1998



	aerial imagery. The drainage line is however, flat so it is unlikely to be important in terms of water flow.		
National Heritage Resources Act (Act No 25 of 1999)	Heritage Resources could be identified during site rehabilitation	South African Heritage Resources Agency	1999
National Environmental Management Act, Air Quality Act	Although not a listed activity under the NEMQA, this Act is to regulate the \ air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation	Department of Environmental Affairs (DEA)	2009

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

YES	NO
m ³	

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

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

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

Construction waste/debris should it occur will be collected by waste trucks on a weekly basis and disposed off at the nearest registered landfill site.

Will the activity produce solid waste during its operational phase?

YES	NO
m ³	

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

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

Not applicable as the proposed activity is decommissioning activity.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

--

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

--

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 NEM:WA?

YES	NO
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If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

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

YES	NO
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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. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.



b) Liquid effluent

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

YES	NO
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If YES, what estimated quantity will be produced per month?

m ³	
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Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
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If YES, describe the type of effluent and the disposal mechanism/method

None, as effluent from chemical toilets on site will be disposed of by the appointed Contractor at the Local Waste Water Treatment Works

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:

None, as effluent from chemical toilets on site will be disposed of by the appointed Contractor at the Local Waste Water Treatment Works

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?

YES	NO
-----	----

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

YES	NO
-----	----

If YES, the applicant must 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:

During the construction phase, dust and vehicular emissions will be released as a result of earthmoving machinery. However these emissions will have a short term impact on the immediate surrounding area and thus no authorisation will be required for such emissions. Appropriate dust suppression measures must be implemented (e.g. removal of vegetation in a phased manner and using recycled water for spraying dust to reduce the impacts).

d) Waste Licence/Registration

Will any aspect of the activity produce waste that will require a waste licence/registration in terms of the NEM:WA?

YES	NO
-----	----

If YES, please submit evidence that an application for a waste licence/registration has been submitted to the competent authority



This application is a Waste Licence application for the decommissioning of the Reivilo landfill site. This application serves to address the applicable waste legislation in accordance with the National Environmental Management Waste Act No 59 of 2008. The listed categories (i.e. Activity No 14) relevant to the project are listed under category A. These activities trigger a basic assessment process and not an Environmental Impact Assessment due to the nature of the activities being applied for.

e) Generation of noise

Will the activity generate noise?

YES	NO
YES	NO

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

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 will be generated by construction vehicles and construction activities. It will however be short term, localised and will last during the construction phase. The noise levels are anticipated to be less during the day lesser during night time as required for suburban districts with little road traffic in terms of SANS 10103 thus no authorisation will be required.

In order to minimise the impacts of noise during the construction phase, construction activities should be restricted to between 07H00 and 17H00 Monday to Friday. This is required in order to avoid noise and lighting disturbances outside of normal working hours. All construction equipment must be maintained and kept in good working order to minimise associated noise impacts. If required, adequate noise suppression measures (i.e. screens, etc) must be erected around the point source of construction and/or operational noise pollution to reduce noise to an acceptable level

13. 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
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Where water is required to support some activities e.g. dust suppression during the closure and rehabilitation phase, municipal water will be used.

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:

litres	
YES	NO

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water and Sanitation?

If YES, please provide proof that the application has been submitted to the Department of Water and Sanitation.

14. ENERGY EFFICIENCY

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

Delivery Vehicles and other construction equipment will use petrol, diesel and oil. Use and number of such vehicles and machinery will be restricted to that which is absolutely necessary for the construction activities and deliveries.



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

N/A

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

YES

NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix F.



SECTION B: SITE/AREA/PROPERTY DESCRIPTION

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 B and indicate the area, as it appears on the Site Plan.
- Paragraphs 1 - 6 below must be completed for each alternative.

Current land-use zoning as per local municipality IDP/records:

Solid Waste Disposal services

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, to this application.

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

YES NO

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

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
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Alternative S2 (if any): **N/A**

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
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Alternative S3 (if any): **N/A**

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
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2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline	<input type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input type="checkbox"/>
2.3 Side slope of hill/mountain	<input type="checkbox"/>	2.6 Plain	<input checked="" type="checkbox"/>	2.9 Seafront	<input type="checkbox"/>



3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

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

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

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE



Artificial Wetland	YES	NO	UNSURE
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If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

An Ecological opinion was sourced during the Basic Assessment, the site is not expected to have any influence on regional hydrology. The region is characterised by a single dry drainage feature in which terrestrial vegetation grows slightly more densely. The drainage line is however, flat so it is unlikely to be important in terms of water flow. No other hydrological features are present within 50km of the site.

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that 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:

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland ^N
Light industrial	Sewage treatment plant ^A	Nature conservation area ^N
Medium industrial ^{AN}	Train station or shunting yard ^N	Mountain, koppie or ridge ^N
Heavy industrial ^{AN}	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building ^N
Office/consulting room	Airport ^N	Protected Area ^N
Military or police base/station/compound	Harbour	Graveyard ^N
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site ^N
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain

N/A

If any of the boxes marked with an "AN" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A



Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO
Core area of a protected area?	YES	NO
Buffer area of a protected area?	YES	NO
Planned expansion area of an existing protected area?	YES	NO
Existing offset area associated with a previous Environmental Authorisation?	YES	NO

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix B (as part of sensitivity map).

7. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the **Biodiversity-GIS Unit, Ph (021) 799 8698**. This information may be updated from time to time and it is the applicant/EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix B to this report.

- a) **Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)**

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	<i>Very little of the area has been transformed, or is threatened by transformation (Limosella Consulting, 2015). No critical biodiversity areas are known to occur in the site. The site is classified as CBA 2, as it is near its natural state and has limited disturbance.</i>

- b) **Indicate and describe the habitat condition on site**

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	0%	



Near Natural (includes areas with low to moderate level of alien invasive plants)	5%	<i>The vegetation unit on site is classified as 'Least Threatened' since very little of the area has been transformed, or is threatened by transformation.</i>
Degraded (includes areas heavily invaded by alien plants)	90%	<i>As previously described, the site has historically been used for waste disposal/dumping, and has been largely transformed by the landfill/waste dumping. Although sparse indigenous cover of vegetation is noted on site the majority of the site is heavily infested by weeds and alien species which seemed to have established over a number of years without removal and maintenance.</i>
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	0%	

c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems		
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)		
	Endangered			
	Vulnerable			
	Least Threatened			
		YES	NO	UNSURE

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

According to the information provided by the Ecological specialist, the site falls within the vegetation type Ghaap Plateau Vaalbosveld sensu Mucina and Rutherford (2006). This vegetation type is characterised by shrubs such as Tarchonanthus camphoratus and Acacia karoo. Open tress such as Olea europaea are common. This vegetation unit is classified as 'Least Threatened' since very little of the area has been transformed, or is threatened by transformation (Mucina and Rutherford, 2006). Plant species richness and density is not likely to be affected by the landfill site. The expanse of



untransformed vegetation surrounding the site lead to the suggestion that the study site is not regionally ecologically important. It is not likely to be a refuge to sensitive plant species. No critical biodiversity areas are known to occur in the site. The site is classified as CBA 2, as it is near its natural state and has limited disturbance.

It is the conclusion of the Ecological specialist that the Reivilo landfill site is impacted by existing activities of the site. A large expanse of untransformed vegetation and fauna habitat surrounds the site. The site is not considered to be regionally sensitive in terms of fauna or flora.

8. CULTURAL/HISTORICAL FEATURES

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 Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	YES	NO
	Uncertain	

No features of heritage significance was noted on site. Although the Reivilo landfill exceed 5000m² (threshold requirements in terms of Section 38 of the National Heritage Resources Act 25 of 1999), it must be noted that the change in land use will not have impact on heritage features

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

Refer to comment above

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 provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.



9. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

Reivilo is one of the smallest towns in the Northwest with a very small population falling within the boundaries of Greater Taung Local Municipality. The Greater Taung local municipality is a local municipality in the North West province of South Africa with an estimated population 177,642 which is a decline from the previous 214,765 and represents 38, 3% of the district population (the Dr Ruth S Mompoti DM population is 463,815).

According to STATSSA census 2011, the employment status for Greater Taung Local Municipality is 17%. Fifty four (54) percent of the Greater Taung population are currently working, please refer to **Figure 4**.

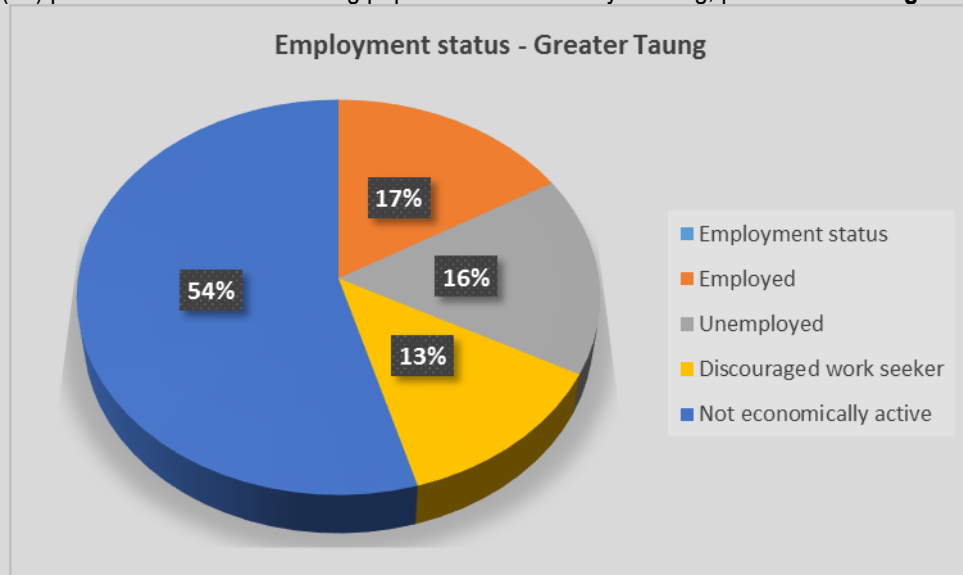


Figure 4: Employment status, Greater Taung Local Municipality (StatsSA 2011)

The general unemployment within Dr. Ruth S Mompoti district municipality is high and there are attributing factors. The overall unemployment rate for the Dr. Ruth S Mompoti district municipality for 2009 for male is (27.8%) and female (31.6%) It is anticipated that job opportunities (although at a smaller scale) will be created during the closure of the Landfill and during the implementation of waste disposal options that will be considered by the Municipality.

Economic profile of local municipality:

The Taung Irrigation and Farming Scheme was identified as one of the major anchor projects which provide a large number of job opportunities and establish \pm 713 farmers within the Greater Taung Local municipality. Other projects also identified include the Taung Marble and Slate as well as SMME development. Large-scale irrigation farming can provide the opportunities for the establishment of agro-industries.



The GTLM economic profile shows that approximately 55% of the study area population falls within the economically active segment of the population. However, this figure does not include housewives, students, pensioners and people who are not looking for work, and who therefore do not contribute to employment in the area.

Level of education:

There is a large youth population which requires schools and other educational facilities in the municipality the municipality has a Workplace Skills Plan and Programme which will assist to improve the municipality's education rate. Workplace Skills Plan and Programme is as follows:

Annual Target	Quarter 1	Quarter 2	Quarter 3	Quarter 4
To provide Training for 210 officials by 30 April 2015 as per WSP.	Train 10 officials in end user computing with Taung Enrichment Centre			Train 12 officials in health and safety compliance training
Awarding of 30 higher educational study bursaries to unemployed youth by 30 March 2015		Advertise bursaries	Select and award 30 bursaries to successful candidates	
Placement of 6 work integrated learners by 30 September 2014	Place 6 WIIL from education institutions at the Municipality			
Implement 4 Learner ships for 126 unemployed by 30 June 2015 funded by LGSETA	Enroll the 70 learners on ongoing Learner ships namely the Horticulture and Environmental Learner ship			Implement the New horticulture and Construction learner ships for 56 unemployed

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?
 What is the expected yearly income that will be generated by or as a result of the activity?
 Will the activity contribute to service infrastructure?
 Is the activity a public amenity?
 How many new employment opportunities will be created in the development and construction phase of the activity/ies?
 What is the expected value of the employment opportunities during the development and construction phase?
 What percentage of this will accrue to previously disadvantaged individuals?
 How many permanent new employment opportunities will be created during the operational phase of the activity?
 What is the expected current value of the employment opportunities during the first 10 years?
 What percentage of this will accrue to previously disadvantaged individuals?

R±7 Million
None as this is a site closure
YES NO
YES NO
Not determined, local labour will be sourced
Not determined, local labour will be sourced
Not determined, Contractor is expected to adhere to applicable legislation
Operation phase not applicable
Unknown
Unknown



10. SPECIALIST(S) CONSULTATION

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

YES	NO
-----	----

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix F. All specialist reports must be contained in Appendix G and must meet the requirement in Appendix 6 of EIA Regulations, 2014.



SECTION C: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, 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. 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

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts 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. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A (2) of this report.

Planning and Design Phases: The planning and design phase of the landfill closure are not expected to result in any negative impacts because the closure and end-use planning, as well as other studies will inform the structures to be built rather than cause direct impacts. This statement assumes that the rehabilitation plans and end-use design/purpose is not fatally flawed. As all rehabilitation plans and designs are subject to review and final authorisation by the Department, it is reasonable to assume that there will be no fatal flaws in the design.

Direct impacts: (Construction phase): Impacts from Construction and operational phase are not applicable as the site will be decommissioned. Although the site is severely transformed by several anthropogenic activities and in an extremely degraded state, it is unlikely that the site rehabilitation could degrade the area further if adequate management measures are implemented. An Ecological opinion (Appendix D) has been undertaken to identify potential stability issues that may emanate from this site decommissioning. The impacts that are likely to occur during the rehabilitation phases are assessed and presented in the Tables overleaf.

For the purposes of this assessment, this impact assessment will only focus on the impacts that are likely to occur during the decommissioning phase of the Reivilo landfill. Impacts from the design alternatives considered (Landfill capping and End use) will collectively be assessed with the decommissioning impacts as the impacts are likely to be similar. It must also be noted that, the phrase 'decommissioning' and 'construction' will be used interchangeably as it is understood that although the landfill site will be decommissioned, construction activities such as levelling, capping, slope shaping etc. related to the 'decommissioning' 'closure' will be undertaken.



Decommissioning phase - Reivilo Landfill site				
Potential impacts:	Description	Significance rating of impacts: (without mitigation)	Proposed mitigation: Construction and operation phase	Significance rating of impacts after mitigation:
1. Impacts on flora	<p>Direct impacts</p> <p>Removal and clearing of alien vegetation and other species not suitable for the rehabilitation of the landfill site. Vegetation was noted to have been established within the active disposal site and outside the boundaries of landfill site.</p> <p>The closure phase will involve rehabilitation and management of impacted areas, and if implemented correctly, is likely to have positive impacts on the remaining natural vegetation</p>	Low	<ol style="list-style-type: none"> 1. Clearing of vegetation should be minimal within and outside the landfill boundaries. 2. Rehabilitation / restoration of indigenous vegetative cover and grassland during and after rehabilitation; 3. Management of point discharges during rehabilitation activities to avoid unnecessary soil erosion; 4. Implement alien plant control activities; 5. Implementation of best management practices regarding stormwater and earthworks; 6. Provision of adequate sanitation facilities located outside of the wetland/riparian area or its associated buffer zone during construction activities; 7. Implementation of appropriate stormwater management around the excavation to prevent the ingress of run-off into the excavation; and particularly; 8. Prevention of erosion, and where necessary rehabilitation of eroded areas. 	Low
	Indirect Impacts	Low	<ol style="list-style-type: none"> 1. Control and manage alien invasives 	Low



	Establishment of alien and invasive species in disturbed areas		<p>2. Attention must be given to newly re-shaped/recapped areas, and any other areas disturbed during closure operations which may be vulnerable to infestation by invasive and alien plant species.</p> <p>3. Monitoring programme be implemented to enforce continual eradication of alien and invasive plant species</p>	
	<p>Cumulative impacts</p> <p>Vegetation loss in the area from other dev developmental projects</p>	Low	<p>1. Control and manage the removal of vegetation</p> <p>2. Vegetation removal to be undertaken in consultation with the ECO</p>	Low
2.Impacts on fauna	<p>Direct Impacts</p> <p>Faunal species cohabiting in the area will be disturbed during the rehabilitation activities e.g. Killing and snaring of mammal and reptile species by labourers.</p>	Moderate	<p>1. Intentional killing of faunal species should be avoided by means of awareness programmes presented to the labour force. The labour force should be made aware of the conservation issues pertaining to the species occurring on the study site</p> <p>2. All construction activities must be limited to daylight hours</p> <p>3. Minimisation of disturbance of trees and construction footprint</p> <p>4. Prevention of runaway fires.</p>	Low
	<p>Indirect Impacts</p> <p>Disturbances of faunal species across extended temporal scales will eventually affect any population's ability to sustain itself, and will more than likely result in total abandonment of a particular area.</p>	Low	Implement mitigation measures outlined above	Low
	<p>Cumulative impacts</p> <p>Disturbances of faunal species across extended temporal scales will eventually affect any population's ability to sustain</p>	Low	Implement mitigation measures outlined above	Low



	itself, and will more than likely result in total abandonment of a particular area.			
3. Noise impacts	Direct impacts Rehabilitation activities and Vehicles transporting materials to and from the site will potentially cause an additional noise burden to adjacent residents (± 1 km from the site) as well as along internal access roads.	Medium	1. Construction activities to be limited to office hours on weekdays as far as possible. 2. The contractor must ensure that noise levels remain within acceptable limits	Low
	Indirect impacts None	N/A		N/A
	Cumulative impacts None	N/A		N/A
4. Impacts on ground water: Groundwater contamination during the rehabilitation activities. <i>(The risk of landfill leachate contaminating surface and groundwater resources, thereby reducing the quality of groundwater in the area)</i>	Direct impacts Excavation and Capping activities during site rehabilitation may trigger groundwater seepage into the excavated area Hydrocarbon leakages from plant vehicles and poor management of sources of hydrocarbon leakages has a potential to pollute underground and surrounding resources	Medium	1. Storm-water management measures to prevent ponding and to encourage storm water to flow around/ off the site, must be implemented on site. 2. Measures to prevent ongoing illegal dumping of waste must be implemented 3. Adhere to all the mitigation highlighted in the Closure plan 4. Construction vehicles are to be maintained in good working order, to reduce the probability of leakage of fuels and lubricants. 5. All cement mixing must occur on impervious surfaces and within controlled bermed areas. 6. Oil residue must be treated with oil absorbent such as Drizit or similar and this material removed to a licensed waste disposal site. 7. Contractor/s must provide regularly serviced portable chemical toilets for construction	Low



			workers at a distance no more than 200 m from the site rehabilitation 8. No materials may be discharged from the construction camps.	
5. Noise impacts	Vehicles transporting materials to and from the site will potentially cause an additional noise burden to adjacent residents (± 1 km from the site) as well as along internal access roads.	Low	<ol style="list-style-type: none"> 1. Construction activities to be limited to office hours on weekdays as far as possible. 2. The contractor must ensure that noise levels remain within acceptable limits 3. Maintenance of equipment and operational procedures: Proper design and maintenance of silencers on diesel-powered equipment 	Low
	Indirect Impacts None	N/A		N/A
	Cumulative impacts The noise will be cumulative to the impacts already	Low	Adhere to noise mitigation measures already discussed	Low
6. Impact on dust and air quality: The influx of pollutants will occur due to the establishment of the construction camp and the movement of people and vehicles on site. Excavated and stockpiled material that is vulnerable to wind has the potential to contribute to the influx of pollutants in the air.	Construction machinery and heavy vehicles are likely to generate dust which is likely to be perceptible by adjacent residents. Trucks may potentially distribute dust along internal access roads	Low	<ol style="list-style-type: none"> 1. Continuous watering of the site should be carried out to prevent dust pollution during windy and dry conditions. 2. A continuous dust monitoring process needs to be undertaken during construction. 3. Speed restriction of 20km/h must be implemented for all construction vehicles. 4. All vehicles transporting friable materials such as sand, rubble etc must be covered by a tarpaulin or wet down. 5. Construction work to be undertaken during weekdays as far as practical. 	Low



	Indirect Impacts None	N/A		N/A
	Cumulative impacts Dust and other air quality impacts resulting from the rehabilitation activities will be cumulative to the impacts already occurring.	Low	Adhere to dust mitigation measures already discussed	Low
7.Impact on visual and aesthetic quality: (Construction waste or building rubble during rehabilitation and closure works) but the closure of the landfill site will reduce the visual nuisances caused by the existing landfill	Stockpiled materials; workforce; and rehabilitation activities may add to the existing visual impacts <i>from surrounding activities</i> in the area.	Low	<ol style="list-style-type: none"> 1. Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or after the construction period. All waste/litter/rubbish etc must be disposed of at an approved dumping site as approved by the Local Municipality. 2. No wastes may remain on the construction site for more than two weeks. 3. Supply sufficient garbage bins throughout the site and empty regularly. 4. Ensure good housekeeping is implemented at all times. 5. Keep the property neat and litter free at all times and maintain the landscaped areas. 6. Indigenous vegetation should be used to create habitats that attract the natural fauna in the area as far as possible 7. The Construction camp must be contained to prevent any visual intrusion and be kept in a clean and orderly state at all times. 8. When vertical structures or surfaces are lit 	Low



			such as building facades or signs, direct the light downwards.	
	Indirect Impacts The rehabilitation of the landfill site will reduce/eliminate the impact from the existing visual nuisances causing by waste dumping	Low	Adhere to visual mitigation measures already discussed	Low
	Cumulative impacts None			Low
8.Impact on socio-economics:	Influx of workers in the area may raise concerns from neighbouring residents	Medium	<ol style="list-style-type: none"> 1. All adjacent landowners must be informed of the construction processes prior to commencement of construction activities. 2. Adjacent land owners must be informed timeously of any service stoppages in their areas. 3. Notification must include possible timeframes for stoppages. 4. Consequences of such stoppages must be clearly indicated to all surrounding/affected land owners. 5. Affected land owners must be timeously informed of any/all maintenance of the bulk water services supply which may result in service stoppages to their properties. Again this must include possible timeframes so alternatives can be provided. 	Low
	Indirect Impacts (None)	Low	1. Control and manage alien invasives	Low
	Cumulative impacts (None)	Low	3. Control and manage the removal of vegetation	Low



			4. Vegetation removal to be undertaken in consultation with the ECO	
9.Impacts on traffic and local roads	Direct impacts 1. Traffic will be congested as a result of construction activities. 2. Construction machinery and heavy vehicles are likely to generate dust which is likely to be perceptible by adjacent land owners. Trucks may potentially distribute dust along internal access roads.	Medium	1. Vehicular movement beyond the property boundaries may not occur during peak hour traffic times (07h30 – 08h30 and 16h00 – 17h00). 2. It must be ensured that a backlog of traffic does not develop at the access points during peak hours through the upgrade to the road system and the implementation of an efficient and effective access control system. 3. Speed restriction of 20km/h must be implemented for all construction vehicles. 4. Implement dust suppression measures (wetting or application of soil binding compound) in all areas that will be affected by construction activities and where dust will be generated	Low
	Indirect Impacts	N/A		N/A
	Cumulative impacts	N/A		N/A
10. Health and Safety impacts	Impacts/injuries to humans entering the site unnoticed	Medium	1.Signs in appropriate local languages must be erected on site to warn people entering the sites of the potential risks 2. The site and excavations must be fenced off and demarcated using danger tape to ensure that no animals or residents enter the area. 3. Safety clothes and equipment must be worn at all times.	Low



			4. No fires are allowed at or around the construction site.	
	<i>Indirect Impacts</i>	N/A		N/A
	<i>Cumulative impacts</i>	N/A		N/A
11. Impact on socio-economics:	<ul style="list-style-type: none"> - Local residents are likely to get some of the unskilled labour employment opportunities during the site closure - Reclaimers are likely to lose some revenue from recyclable materials once the site is closed 	<p>Medium +</p> <p>Medium</p>	<ol style="list-style-type: none"> 1. The rehabilitation phase will provide direct temporary employment for locals, and indirect employment through demand for construction materials, and support services, as well as empowerment and skills transfer opportunities. 2. Municipality to investigate other waste disposal options e.g. waste transfer stations and buy back centres in order to enhance the reclaimers 's market and municipality to initiate projects that encourage and promote recycling 3. The construction of the regional landfill site must be complete and must absorb the reclaimers 4. The rehabilitation phase must be designed to accommodate labour intensive tasks as possible 5. Labour must be sourced from the local people especially youth, people with disabilities and women 	Low
	<i>Indirect Impacts</i>	Low		Low
	<i>Cumulative impacts</i>	Low		Low



12.Impacts on unknown and existing cultural and heritage resources	Exposure of unknown heritage features beneath the earth surface	Medium	<ol style="list-style-type: none"> 1. The construction team should be made aware of this. Should any archaeological material or human remains be accidentally unearthed during the course of construction 2. Construction personnel must be alert and inform local Council should they come across any features of heritage value and must cease construction activities immediately 3. No heritage feature can be removed, destroyed and/or interfered with on site without the permission of an accredited archaeologist 	Low
	<i>Indirect Impacts</i>	Low		Low
	<i>Cumulative impacts</i>	Low		Low
Operational phase impacts: <i>No operational phase impacts are expected to occur as the site decommissioning is proposed</i>				

A complete impact assessment which include process undertaken to identify, assess and rank the impacts, the activity will impose on the site through the life of the activity in terms of EIA Regulation 2014, Appendix 1(i) and (j) of GN R.982 must be included as Appendix H.



2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

The decommissioning and closure of the Reivilo landfill site which is to be authorised is expected to improve the current site condition which has created a visual and other environmental nuisances over the years. Once rehabilitated, the site can therefore be closed and the potential for other end uses can be investigated.

Based on the summary of environmental observations presented, it is a conclusion of this BA that the proposed project will have moderate to low impacts on the bio-physical environment, all of which can be fully mitigated and managed, and where possible prevented. The proposed development will have an impact of low significance as there are no sensitive environments (e.g. wetlands, protected areas and areas of significant natural habitat) located in close proximity to the site. The Ecological opinion undertaken during the Basic Assessment did not identify areas of ecological sensitivities within the boundaries of the site. The rehabilitation on site to compensate for construction related impacts will likely have limited effects with regards to restoring the maintenance of a natural biodiversity, as the original ecosystem's and inherent species have been completely lost. No unacceptably impacts of unacceptably high significance are foreseen once proper mitigation measures have been implemented.

The Site rehabilitation plan has been compiled and has outlined all applicable mitigation measures and procedures that must be implemented during the rehabilitation of the site. It is crucial that the site management requirements and procedures outlined in this report be implemented as an attempt to restore functionality of the disturbed site.

Alternative B

N/A

Alternative C

N/A

No-go alternative (compulsory)

The no-development alternative would entail continuing with the status quo, i.e. a situation where the Reivilo landfill remains unclosed and un-rehabilitated. This could lead to major environmental liability, because sooner or later the Municipality must take responsibility for adequate closure and rehabilitation of the landfill in line with the legislative requirements. Moreover, the closure/decommissioning of waste facilities is a listed activity in terms the National Environmental Management Waste Act, (Act No. 59 of 2008), Government Notice 921, Listed activity, Category A (14). Adopting the "No go alternative" is also against the District Municipality's competencies and IDP requirements. It is the District Municipality's responsibility to ensure that that Improved integrated waste management systems such as the legally permitted disposal facilities exist within each Municipality. The need to licence many of the unlicensed Waste Disposal in South Africa by the Minister of Environmental Affairs is regarded as one of key project towards a cleaner environment. This initiative will aid in achieving the Ministers service delivery agreement Outcome 10 (Output 1 to



4) deliverable target/indicator that serves to ensure that environmental assets and natural resources are well protected and are continually enhanced. Further delays in implementing the project will mean that the Greater Taung Local Municipality will continue to dispose waste on an unlicensed sites thereby causing adverse environmental problems. Further delays in implementing the project will mean that the Dr Ruth S Mompati District Municipality will continue to dispose waste on an unlicensed sites thereby causing adverse environmental problems.

The failure to design and rehabilitate the Site as well as implement a suitable End-use Plan is therefore not considered a viable or sustainable alternative as it does not meet either the Minimum Requirements or the DEA standards for waste site decommissioning as prescribed in the Environmental Management: Waste Act, 2009. Moreover, it does not conform to the Best Environmental Option available. The significance of the no-go alternative is therefore has far more negative impacts and implications than the preferred alternative, namely the decommissioning and closure of the site.

SECTION D: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Stellander	
Date published	23 September 2015	
Site notice position	Latitude	Longitude
	27°34'08.88"S	24° 09' 25.81"E
Date placed	23 September 2015	

Include proof of the placement of the relevant advertisements and notices in Appendix I1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN R.982.

Key stakeholders (other than organs of state) identified in terms of Regulation 40(2)(d) of GN R.982:

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Mr C Prinsloo	Resident Farm Doornhoek	0726321528
Ms W Vorster	Resident Reivilo	084 302 8443
Ms H Oberholzer	Resident Reivilo	072 133 8070
Mr NG Kerk	Secretary	053 953 0100
Mr Hennie Kriel	Resident	082 516 5297 ngkerkreivilo@yahoo.com
Mrs Sybil Fourie	Land owner	053 953 0203

It must be noted that notification letters were also distributed to residents located in the last section of houses before the Reivilo landfill. Besides Mr Prinsloo mentioned above, there are no other adjacent



landowners in close proximity to the Reivilo landfill site. Please also refer to the project database (Appendix I5) for a complete list of stakeholders registers on the project.

Include proof that the key stakeholder received written notification of the proposed activities as Appendix I2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Only 05 registrations were received from the various stakeholders from the community. These registrations have been entered on the project database. No comments have been received to date. It is anticipated that more comments will be received during the review of this draft Basic Assessment report.

Summary of main issues raised by I&APs	Summary of response from EAP
<i>None</i>	<i>None</i>

Although there were no formal submissions of issues regarding the Reivilo landfill, GA Environment was advised by the municipality that one of the farmers has previously complained about the extent of windblown litter emanating from the landfill site.

4. COMMENTS AND RESPONSE REPORT

Beside the registrations received from various stakeholders from Reivilo, no comments have been received to date. It is anticipated that more comments will be received during the review of this draft Basic Assessment report.

The practitioner must make report (s) available to I&APs record all comments received from I&APs and respond to each comment before 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 the Final BAR as Appendix I3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders. Key stakeholders identified in terms of Regulation 7(1) and (2) and Regulation 40(2) (a)-(c) of GN R.982:



Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail
Greater Taung LM Councillor Ward 1	Cllor Andrew Scholtz	053 994 9600		
Greater Taung LM Councillor Ward 1	Cllor Mika Moeti	053 994 9600		moeti@taunglm.co.za
Greater Taung LM Municipal Manager				
Greater Taung LM Waste Management Officer	Mr Christian Oosthuizen	0539270260	0539270366	oosthuizen@bophirima.co.za
Department of Water and Sanitation	Mr Philani Msimango	053836 7649		msimangop@dws.gov.za

Include proof that the Authorities and Organs of State received written notification and draft reports of the proposed activities as Appendix I4.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) 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. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as Appendix I5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix I6.



SECTION E. 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

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).

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.

This BAR has provided a comprehensive assessment of the potential minimal environmental impacts associated with the closure of the Reivilo landfill. These impacts have been identified by the Environmental team. The key findings of the BA are discussed in this Report. The proposed development will have an impact of low significance as there are no sensitive environments (e.g. wetlands, protected areas and areas of significant natural habitat) located in close proximity to the site. The Ecological opinion undertaken during the Basic Assessment did not identify areas of ecological sensitivities within the boundaries of the site. The rehabilitation on site to compensate for construction related impacts will likely have limited effects with regards to restoring the maintenance of a natural biodiversity, as the original ecosystem's and inherent species have been completely lost. No unacceptably impacts of unacceptably high significance are foreseen once proper mitigation measures have been implemented.

The closure of Reivilo landfill site is therefore the only alternative option in this BAR based on the minimal impacts of the proposed project on the bio-physical environment to be affected by the project and project costs. It is therefore recommended that the environmental authorities the development subject to the following conditions:

- The District and Local Municipality must initiate projects to raise awareness on waste management in communities*
- The District Municipality must prioritise the implementation of alternative waste disposal options (construction of waste transfer stations, buy-back centres etc.)*
- Existing reclaimers working on the landfill be formerly incorporated into future waste disposal options that will be considered in the area;*
- Compliance with the mitigation measures outlined in this BA report , EMPr; and Closure Plan*
- Implementing and adhering to the rehabilitation procedures and measures outlined in the Closure and Rehabilitation plan ;*
- Adhering to the mitigation measures outlined in the Ecological opinion report compiled by Limosella Consulting;*
- The municipality must initiate clean up campaigns to ensure that all waste noted outside the active dumping site is removed and dumped within the active area.*
- Rehabilitation activities planned for landfill should be done with care to minimize any accidental spills of hazardous and harmful materials. Swift reaction and remedial actions will limit the local risk of polluting to groundwater and environment.*
- Regular/applicable monitoring and evaluation of the Reivilo landfill for environmental*



compliance;

- An independent ECO should be present during rehabilitation of the site to ensure the rehabilitation is undertaken in an environmental sensitive manner
- Compliance with all legal requirements in relation to environmental management and conditions of the authorisation issued by DEA.

Accordingly and based on the specialist assessment and environmental assessment of the conditions observed at the Reivilo landfill, the proposed decommissioning of the Reivilo landfill has emerged as the most viable option as triggered the NEMWA regulations. It is therefore a recommendation of this Basic Assessment that the decommissioning of the Reivilo landfill is authorized and the project be granted a positive authorisation.

The EMPr that meet the requirements of EIA Regulation, 2014, Appendix 4, must be attached as Appendix J.

Is an EMPr attached?

YES	NO
-----	----

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix K

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix F

Any other information relevant to this application and not previously included must be attached in Appendix L.

SECTION F: AFFIRMATION BY EAP

I **---HLENGIWE THUSI---**(name of person representing EAP) of **----GA ENVIRONMENT (PTY) LTD--**-(name of company) declare that the information provided is correct and relevant to the activity/ project and that, the information was made available to interested and affected parties for their comments. All specialist (s) reports are relevant for the competent authority to make informed decision.

SIGNATURE OF EAP

DATE



SECTION F: APPENDICES

The following appendices must be attached:

Appendix A: A3 Locality Map

Appendix B: Layout Plan and Sensitivity Maps

Appendix C: Photographs

Appendix D: Facility illustration(s)

Appendix E: Confirmation of services by Municipality (servitude and infrastructure planning)

Appendix F: Details and expertise of Specialist and Declaration of Interest

Appendix G: Specialist reports (including terms of reference)

Appendix H: Impact Assessment

Appendix I: Public Participation

Appendix J: Environmental Management Programme (EMPr)

Appendix K: Details of EAP and expertise

Appendix L: Any other Information

Appendix M: Financial Provision (if applicable)

Appendix N: Closure Plan (where applicable) as described in Appendix 5 of EIA Regulations, 2014

