

# EnviroServ Waste Management (Pty) Limited

## BACKGROUND INFORMATION DOCUMENT FOR THE PROPOSED EXPANSION OF THE CHLOORKOP LANDFILL SITE, GAUTENG

June 2019

### INTRODUCTION

EnviroServ Waste Management (Pty) Limited (EnviroServ) own and operate the Chloorkop Landfill Site (CLS). The CLS is operated in terms of a waste management licence (Ref: 16/2/7/A230/D17/Z1). General wastes are received from the City of Johannesburg and the Ekurhuleni Metropolitan Municipality areas. The CLS is located in Chloorkop, Midrand and is accessed from Marsala Road. Refer to Figure 1 for the local setting of the project.

The CLS has finite airspace and will no longer be able to receive waste once it reaches capacity. EnviroServ is proposing to expand the CLS onto Erf 335, Chloorkop Extension 6, in order to provide additional airspace for ongoing general waste disposal.

### ENVIRONMENTAL AUTHORISATION PROCESS

In order for the proposed expansion of the CLS to proceed, EnviroServ must obtain a Waste Management Licence. A Basic Assessment (BA) process, in terms of the Environmental Impact Assessment Regulations 2014, is required to inform a Waste Management Licence decision from the Gauteng Department of Agriculture and Rural Development (GDARD) in terms of the National Environmental Management Waste Act (NEMWA) (No. 59 of 2008).

In addition, an application would have to be made to the Department of Water and Sanitation (DWS) for a water use licence in terms of the National Water Act (NWA) (No. 36 of 1998).

SLR Consulting (South Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed to manage the environmental regulatory processes and conduct the public participation in support of the applications for the proposed expansion of the CLS.

### PURPOSE OF THIS DOCUMENT

This background information document has been prepared by SLR to inform you about:

- \* The proposed project;
- \* The baseline environment of the project area;
- \* The BA process to be followed;
- \* Possible environmental issues; and
- \* How you can have input into the BA process.

### PURPOSE

This Background Information Document provides initial information to potential stakeholders about the application by EnviroServ and the BA process to be undertaken for the proposed CLS expansion project.

### YOUR ROLE

You have been identified as a potentially interested and/or affected party (I&AP) who would like to be informed about the proposed project and have input into the environmental process and reports.

You have an opportunity to review this Background Information Document and to provide your initial comments to SLR for incorporation in the Basic Assessment process.

You will also be given the opportunity to provide input at a public meeting, and to review and comment on the Basic Assessment Report.

All comments will be recorded and included in the reports submitted to the GDARD and DWS for decision-making.

### HOW TO RESPOND

Responses to this document can be submitted by means of the attached comments sheet and/or through communication with the person listed below.

### WHO TO CONTACT

#### SLR Consulting

Edwynn Louw

(011) 467 0945 (Tel)

(011) 467 0978 (Fax)




[elouw@slrconsulting.com](mailto:elouw@slrconsulting.com)

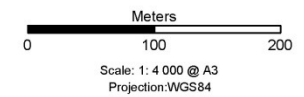
PO Box 1596, Cramerview 2060

**Please submit initial comments to SLR by 5 July 2019.  
You will also have an opportunity to comment on the  
Basic Assessment Report.**



**Legend**

-  Roads
-  Current Chloorkop Landfill boundary
-  Chloorkop Landfill Expansion Site



CHLOORKOP LANDFILL EXPANSION PROJECT

**Figure**

**General Locality**



720.05018.00046

May 2019

## PROJECT OVERVIEW

### INTRODUCTION

EnviroServ own the CLS and operate it in terms of a waste management licence (Ref: 16/2/7/A230/D17/Z1). The CLS is located in the Chloorkop Industrial area in Ekurhuleni, on Portion 63 of Klipfontein 12-IR and is accessed from Marsala Road.

General waste is received from the City of Johannesburg and Ekurhuleni Metropolitan Municipalities and private clients.

The CLS has been developed over the past two decades with six engineered waste disposal cells that form the waste body. General waste is disposed into these engineered waste disposal cells using sanitary landfill methods. The waste body covers an area of approximately 23.2 ha. In 2016 GDARD granted approval for the permitted height of the waste body to be a maximum of 25 m above ground level.

### MOTIVATION

The waste body at the CLS has finite airspace, defined by the permitted footprint, height and design parameters. The CLS will not be able to receive waste once it reaches airspace capacity. Alternative airspace in the Midrand region is also limited.

Given the current and future waste generation potential of the region, there is an ongoing need for waste disposal services, even with growing levels of waste diversion. EnviroServ is proposing to expand the CLS in order to provide additional airspace for ongoing disposal of general waste.

### PROPOSED EXPANSION

The proposal is to expand the CLS onto Erf 335 of Chloorkop Extension 6, which is the immediately adjacent property, north of the CLS. The property is approximately 4 ha in extent. EnviroServ is currently engaged with the owner of the property.

The proposed concept is to establish engineered, Class B waste disposal cells for ongoing disposal of general waste. The additional waste disposal cells would join with the current CLS waste body. Supporting infrastructure would be integrated with the CLS and/or redeveloped as appropriate. Detailed designs for the waste disposal cells will be developed.

### Support Services

The primary support services and infrastructure associated with the proposed expansion of the CLS include the site entrance and access controls, weigh bridge, leachate and storm water management and landfill gas management. The support infrastructure would be upgraded to include the proposed expansion.

Access to the facility would remain via Marsala Road, off the M38 as per current operations. Potable water and electricity would be sourced from the Ekurhuleni Metropolitan

Municipality via existing connections. Effluent from the site will be disposed to the municipal sewage system.

### Operating Times and Employment

**Operating times:** As with the current operations, the CLS would operate from 07h00 – 17h00 on weekdays, 07h00 – 15h00 on Saturdays and 07h00 – 12h00 on Sundays and public holidays.

**Employment:** Construction is likely to result in up to 30 construction phase jobs. Operation of the facility would not create new employment opportunities but would extend the current CLS employment and recycling opportunities until the revised closure date.

### TIMING

Should the required authorisations be granted, it is anticipated that final design and construction of Phase 1A of the facility would take approximately seven months. Subject to waste disposal volumes, airspace capacity of the CLS expansion could be reached in three to four years.

### PROJECT ALTERNATIVES

EnviroServ has and continues to consider alternatives to the proposed project. The CLS expansion was initially proposed to extend across Anker Street onto Erf 334. The development of Erf 334 was conceived as Phase 1B which would have connected with the CLS and Phase 1A on Erf 335. Its development would have provided a substantially larger footprint and airspace for a further four to five years of disposal. Phase 1B would have required the closure or relocation of Anker Street (subject to municipal engagement and approvals). The findings of specialist investigations undertaken to inform this Basic Assessment process highlighted a number of potential development challenges and environmental sensitivities on Erf 334. As a result, EnviroServ has chosen to not include Phase 1B in this application.

Other alternatives are likely to include no expansion (i.e. closure of the CLS); a further height increase of the CLS; and developing a new landfill at an alternative location. The process of considering alternatives is on-going and will form part of this assessment process.

## REGULATORY FRAMEWORK

The proposed CLS expansion project is likely to trigger waste management activities 3, 12 and 13 of Category A as listed in terms of NEMWA. EnviroServ must apply for a Waste Management Licence from the GDARD. The application will be subject to a BA process as stipulated in the EIA Regulations, 2014

## STATUS OF EXISTING ENVIRONMENT

This section provides a basic description of the current status of the biophysical and socio-economic environment of the proposed project site (i.e. Erf 335). More detailed

information will be sourced as part of the Basic Assessment process, with input from specialists (where relevant).

**Geology:** The general geology of the area is characterized predominantly by the Johannesburg Dome Basement Granites. The geological profile in the area typically consists of soil, weathered granite, slightly weathered granite and fresh granite with occasional fracturing and joints. A number of east-west striking dolerite dykes are known.

**Climate:** The area is characterised by summer rainfall with a mean annual precipitation of 730 mm. Average annual evaporation exceeds precipitation. Average daytime temperatures are 17°C in winter and 25°C in summer. The prevailing wind direction is north to north-westerly.

**Topography:** The expansion area is flat to undulating with a slight slope to the north. The construction of buildings has altered the natural topography of much of the site.

**Soils and land capability:** The local granite has undergone extensive weathering, which has resulted in a deep soil profile in places. Several sand mining operations in the area have mined the weathered product. The agricultural potential of the site is deemed very low. Being within the buffer zone of the CLS, the site is not suitable for residential development. The zoning is Industrial 1.

**Biodiversity (terrestrial):** The project area was historically covered by Egoli Granite Grassland vegetation. This has been transformed through historic and current disturbances and now comprises mostly alien and invasive trees, scrub, reeds and grass. There is no indigenous vegetation remaining on Erf 335. The potential for the site to harbour red data species of conservation importance is extremely low.

According to the Gauteng Conservation Plan (V3.3) the site and surrounds are not associated with any areas or features of conservation concern, namely Critical Biodiversity Areas, Ecological Support Areas, wetlands, rivers or ridges. The vegetation type is considered as an endangered ecosystem in terms of National Environmental Management: Biodiversity Act (No. 10 of 2004).

**Surface water:** The site is located in the Crocodile and Marico Water Management Area, within quaternary catchment A21C. There are indications of a water course arising on the adjacent Erf 334. The water is likely runoff from Marsala Road and drains to the Jukskei River, approximately five kilometres to the north-west.

**Aquatic environment:** There are no aquatic features on Erf 335. The presence of a possible watercourse and wetland areas on Erf 334 are noted.

**Groundwater:** The groundwater level is relatively shallow, averaging ~ 5.0 m below surface. Flow is mainly towards the northwest at an average gradient of 4.7%. There are two

local aquifers: a weathered, shallow and undefined sandy primary aquifer in the granite soils; and a deeper, fractured aquifer. There is likely hydraulic connection between the primary and secondary aquifers. There are no known groundwater users in the immediate vicinity of the site.

**Air quality:** Air quality in the Ekurhuleni region is known to be poor as the Ekurhuleni Metropolitan Municipal area is home to a large percentage of the industry in Gauteng. The region falls within the Highveld Priority Area and Ekurhuleni has developed an Air Quality Management Plan for the Metropolitan area. The largest contributors to air quality pollution levels are industrial activities, household energy consumption, transportation systems and mining. The CLS is a local source of particulates, gaseous pollutants and odours. Monitoring is undertaken of a variety of sources and emission concentrations to assess risks.

**Noise:** The greater area is likely to be subjected to elevated noise levels due to frequent heavy motor vehicle traffic along Marsala Road and Anker Streets. The current baseline noise level for the site and surrounds is considered typical of a light industrial setting.

**Visual:** The natural visual character of the area has been heavily influenced by the CLS, adjacent quarrying, cement and aggregate production, various light industrial uses, road, powerline and residential related activities.

**Traffic:** Heavy trucks frequent the CLS and the adjacent sand and cement works and form the primary traffic volumes along Marsala Road, the direct access route to the site.

**Heritage and cultural resources:** No heritage resources are known from the proposed project area.

**Socio-economic:** Gauteng faces a number of economic challenges, including high poverty levels, inequalities in terms of incomes and opportunities and youth unemployment. Waste management is also a growing challenge in Gauteng due to the increasing and affluent population and declining airspace in existing landfills.

**Land use:** Erf 335 is let to various tenants who operate recycling facilities and a diesel depot. There are a number of buildings and boundary walls on the property. The ground surface is generally bare and vegetation is largely limited to exotic trees.

The nearest formal and informal residences are to Erf 335 are Klipfontein View (to the west at 400 m), Commercia (to the north at 580 m) and Chloorkop (to the east at 690 m).

Erf 334 is currently open space with secondary vegetation and is not subject to any formal use. Historic dumping of rubble material and current illegal dumping are the primary uses. Adjacent land use includes open space, the CLS, the Klipfontein Sands Quarry, light industrial facilities and Anker Street.

**POTENTIAL ENVIRONMENTAL AND SOCIO-ECONOMIC ISSUES AND SPECIALIST INPUT**

A preliminary list of potential issues that have been identified and will be investigated as part of the BA process are tabulated below. Where specialist input is required, this has also been indicated. Relevant issues gathered during the BA process will inform the identification and assessment of impacts.

<b>BIOPHYSICAL/SOCIO-ECONOMIC ASPECT</b>	<b>POTENTIAL IMPACT</b>	<b>SPECIALIST INPUT (WHERE RELEVANT)</b>
<b>Geology and topography</b>	<b>Local geological risks to landfill:</b> Local geological conditions may pose risks to the stability of the landfill site. The expansion of the waste body would alter local topography.	Geotechnical investigation
<b>Soils and land capability</b>	<b>Loss of soil and land capability:</b> The expansion of the waste body would affect soil resources through physical disturbance (erosion and compaction) and/or pollution, by the placement of infrastructure.	Soils study
<b>Biodiversity</b>	<b>Loss of biodiversity (terrestrial and aquatic):</b> The expansion of the waste body has limited potential to disturb and/or destroy vegetation, terrestrial and aquatic habitat units and related ecosystem functionality.	Biodiversity study (terrestrial and aquatic)
<b>Surface water</b>	<b>Alteration of natural drainage patterns and pollution:</b> The expansion of the waste body has the potential to alter surface drainage patterns through the placement of infrastructure and to pollute surface water resources. If wetlands are present they would be at risk.	Hydrological study and storm water management plan
<b>Groundwater</b>	<b>Groundwater contamination:</b> The operation of the waste body has the potential to contaminate groundwater resources.	Geohydrological study
<b>Air</b>	<b>Air quality:</b> The operation of the waste body has the potential to have a negative impact on ambient air quality. The emissions may pose risk or nuisance (dust and odour) to third party receptors.	Air quality study
<b>Noise</b>	<b>Disturbing noise levels:</b> The operation of the waste body has the potential to elevate noise levels through construction and operational activities. This could affect receptors.	Will be addressed by project team.
<b>Visual</b>	<b>Negative visual views:</b> The development of the waste body has the potential to create visual impacts.	Visual study
<b>Traffic</b>	<b>Road disturbance and traffic safety:</b> The operation of the waste body has the potential to alter traffic volumes and patterns along existing roads resulting in safety risks to road users.	Traffic study
<b>Heritage and cultural resources</b>	<b>Loss of heritage and cultural resources:</b> The expansion of the waste body has the potential to affect heritage or cultural resources.	Heritage study
<b>Socio-economic</b>	<b>Positive and negative socio-economic impact:</b> The expansion of the waste body has the potential for positive and negative socio-economic impacts.	Socio-economic study
<b>Land use</b>	<b>Change in land use:</b> The expansion of the waste body would alter local land use and the buffer zone. This has the potential to impact on adjacent receptors and future land uses.	Air quality study and addressed by project team.

## ENVIRONMENTAL AUTHORISATION PROCESS

The BA regulatory process that will be followed:

- provides information on the project;
- documents the affected environment in which it is being undertaken;
- identifies, in consultation with interested and/or affected parties (I&APs), the potential negative as well as positive impacts of the proposed project; and
- reports on management measures required to mitigate impacts to an acceptable level.

The likely process steps and timeframes are provided below. The steps are in accordance with the EIA Regulations, 2014, as amended. I&APs and other stakeholders registered on the project's database will receive notification of report review periods in advance.

### STEPS IN THE AUTHORISATION PROCESS

#### PHASE I - Pre-application (April to July 2019)

- Pre-application meeting with the GDARD;
- Notify other commenting authorities and I&APs of project and BA process (via social scan, newspaper advertisements, site notices and this BID);
- Commence with specialist studies;
- Public information-sharing meeting with I&APs;
- Commence with compilation of BA Report.

#### PHASE II –Application & BA (July to September 2019)

- Submission of NEMWA application to the GDARD;
- Complete specialist studies;
- Complete BA Report;
- Submit BA Report to I&APs, GDARD and commenting authorities for review;
- Public review of BA Report (30 days);
- Update the BA Report with any comments received during the review period;
- Submit BA Report to the GDARD for decision-making;
- Review of the BA Report by the GDARD (107 days);
- GDARD either grants or refuses the waste management licence; and
- Circulate GDARD decision to registered I&APs.

#### PHASE III – WULA (June to October 2019)

- Pre-application meeting with the DWS;
- Complete specialist studies;
- Submission of NWA application to the DWS
- Compile WULA forms and reports and submit to DWS, I&APs and other commenting authorities for review;
- Public review of WULA (30 days);
- Update the WULA with any comments received during the review period;
- Submit WULA forms and report to the DWS;
- Review of the WULA by the DWS (107 days);
- DWS either grants or refuses the WULA.

## NOTICE OF PUBLIC MEETING

**The following public information meeting has been arranged:**

DATE	TIME	VENUE
20 June 2019 (Thursday)	4pm*	Get Informed Youth Development Centre, Corner SM Songo & Edward Avenues, Chloorkop

\* Please endeavour to arrive earlier in order to complete the meeting attendance register

**You are invited to attend**

### PARTIES INVOLVED IN THE BA PROCESS

#### DECISION MAKING AUTHORITIES

- \* Gauteng Department of Agriculture and Rural Development (GDARD);
- \* Department of Water and Sanitation (DWS).

#### COMMENTING AUTHORITIES

- \* South Africa Heritage Resource Agency;
- \* Department of Agriculture, Forestry and Fisheries;
- \* Gauteng Department of Roads and Transport; and
- \* Gauteng Department of Rural Development and Land Reform, including land claims commissioner.

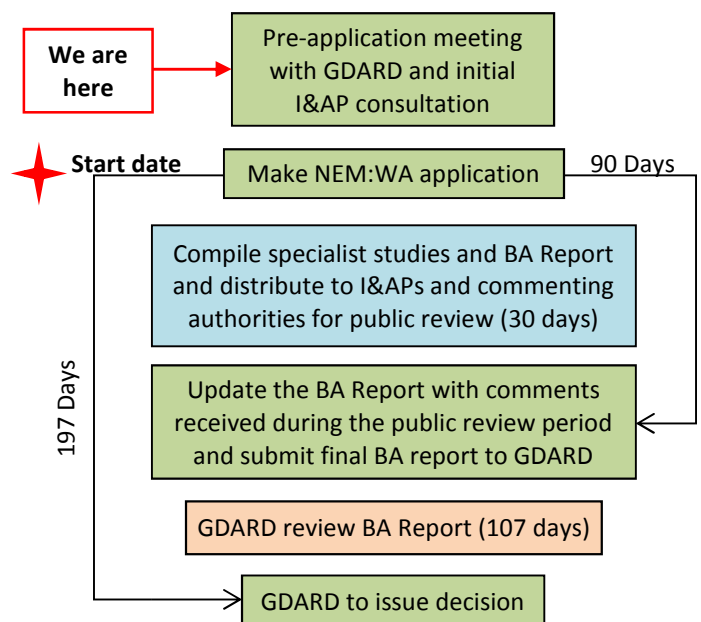
#### LOCAL AUTHORITIES

- \* Ekurhuleni Metropolitan Municipality;
- \* City of Johannesburg; and
- \* Ward Councillors.

#### I&APs

- \* Adjacent land owners and surrounding communities, land users and owners;
- \* Non-governmental organisations and associations; and
- \* Parastatals.

Please let us know of additional parties that should be involved.



**ENVIROSERV WASTE MANAGEMENT (PTY) LIMITED**

**BACKGROUND INFORMATION DOCUMENT FOR THE PROPOSED EXPANSION OF THE CHLOORKOP LANDFILL SITE, GAUTENG  
REGISTRATION AND RESPONSE FORM FOR INTERESTED AND AFFECTED PARTIES**

**June 2019**

<b>DATE</b>		<b>TIME</b>	
<b>PARTICULARS OF THE INTERESTED AND AFFECTED PARTY</b>			
<b>NAME</b>			
<b>POSTAL ADDRESS</b>			
		<b>POSTAL CODE</b>	
<b>STREET ADDRESS</b>			
		<b>CODE</b>	
<b>WORK/ DAY TELEPHONE NUMBER</b>		<b>WORK/ DAY FAX NUMBER</b>	
<b>CELL PHONE NUMBER</b>		<b>E-MAIL ADDRESS</b>	

**PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT**

**PLEASE WRITE YOUR COMMENTS AND QUESTIONS HERE**

Please return completed forms to:  
**SLR Consulting, attention: Edwynn Louw**  
**(011) 467 0945 (Tel), ( 011) 467 0978 (Fax)**  
[elouw@slrconsulting.com](mailto:elouw@slrconsulting.com)  
**PO Box 1596, Cramerview 2060**

Please submit initial comments to SLR by 5 July 2019. You will also have an opportunity to comment on the Basic Assessment Report.