

# PILANESBERG PLATINUM MINES (PTY) LTD

## BACKGROUND INFORMATION DOCUMENT ON THE PROPOSED ESTABLISHMENT OF A HOUSING DEVELOPMENT FOR PILANESBERG PLATINUM MINE IN THE NORTH-WEST PROVINCE

September 2013

### INTRODUCTION

Pilanesberg Platinum Mines (Pty) Ltd (PPM) proposes to construct a housing development of approximately 40 units for use by management employees and visitors. The proposed housing development will be located on the farm Witkleifontein 136JP situated to the north of the Pilanesberg National Park in the Moses Kotane Local Municipality of the Bojanala Platinum District Municipality in the North West Province. The local setting of the project, as well as the site alternatives under consideration, is shown in Figure 1.

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by PPM to manage the environmental assessment process.

### ENVIRONMENTAL APPROVAL

Prior to the commencement of the proposed project a basic assessment process must be conducted in terms of the National Environmental Management Act (NEMA), 107 of 1998. The project includes several listed activities identified in terms of Regulation 543 (18/06/2010) of the NEMA (R.544, Listing Notice 1 and R.546, Listing Notice 3). Although the proposed housing development will be located within PPM's mining right area, it is expected that the development will be fenced and the surface area excluded from PPM's mine area. In this regard, an exclusion letter will be submitted to the Department of Mineral Resources for consideration.

### PURPOSE OF THIS DOCUMENT

This document has been prepared by SLR to inform you:

- about the proposed project;
- about the environmental assessment process to be followed;
- of possible environmental impacts; and
- of how you can have input into the environmental assessment process.

### RELEVANT REFERENCE NUMBERS

DEDECT reference number: NWP/EIA/47/2013

DMR Reference Number: NW30/5/1/2/2/320MR

SLR Consulting (Africa) (Pty) Ltd

### YOUR ROLE

Public involvement is an essential part of the environmental assessment process.

You have been identified as an interested and affected party (IAP) who may want to be informed about the proposed project and have input into the environmental assessment process.

You have the opportunity to provide input through review and comment on this document and the environmental reports and interaction with the environmental team. All comments will be recorded and presented to the project team, and will be addressed as part of the Basic Assessment process.

### HOW TO RESPOND

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

If you would like your comments to be included in the draft Basic Assessment report that will be submitted for public review please submit them to SLR by

**24 October 2013**

Comments received thereafter will be included in the final Basic Assessment Report that will be submitted to the decision making authority.

**For further information you can contact the persons listed below.**

### WHO TO CONTACT

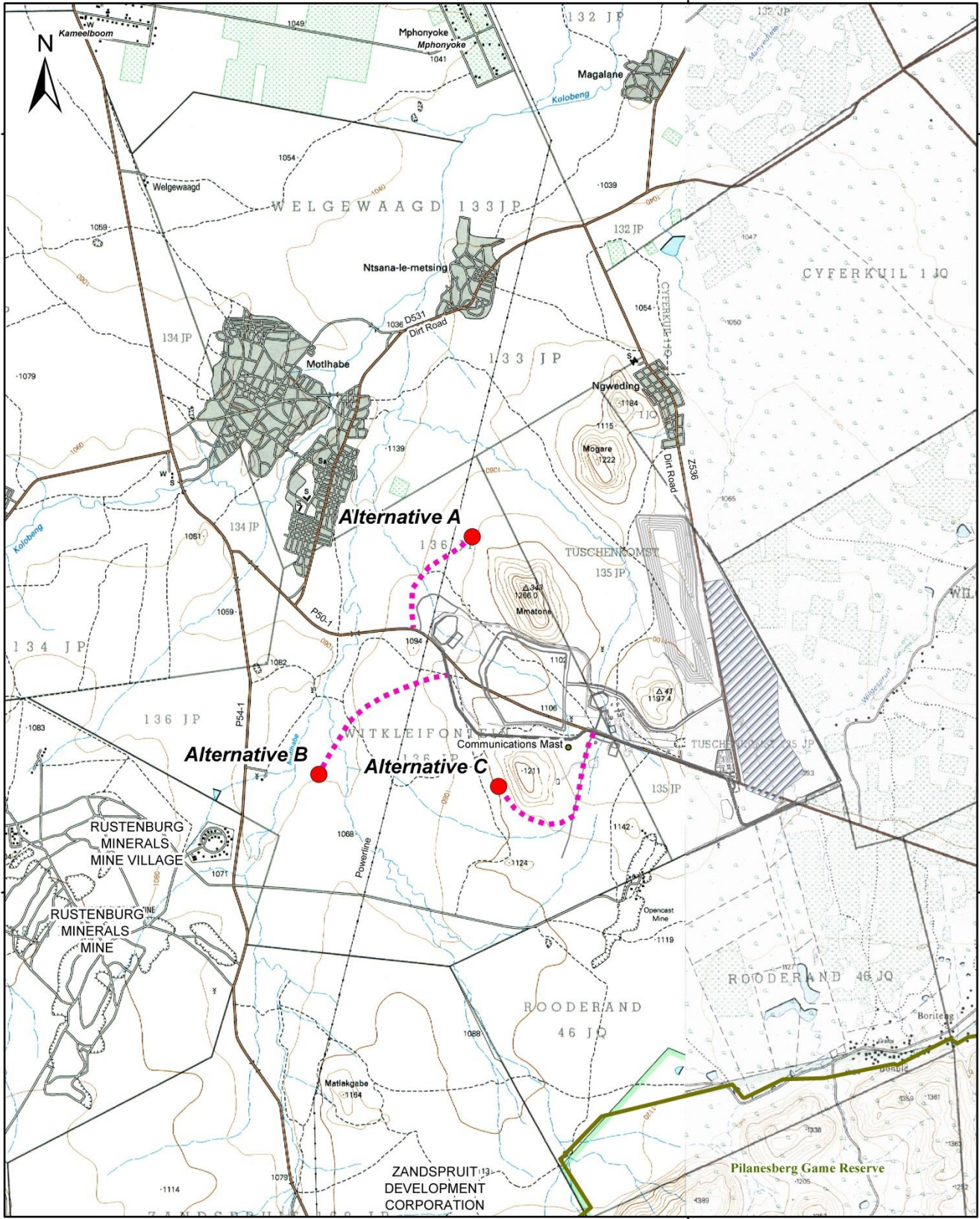
**Victoria Tucker or Fiona Bolton on**

(011) 467 0945 (tel) or

(011) 467 0978 (fax) or

[vtucker@slrconsulting.com](mailto:vtucker@slrconsulting.com) or

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**Legend**

- Approved Infrastructure
- Road, Powerline and Pipeline Servitude

PILANESBURG PLATINUM MINES (PTY) LTD

**Figure 1**  
Alternative Sites for Proposed Pilanesberg Platinum Housing Development



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Scale: 1:50 000 @ A3  
Projection: Transverse Mercator  
Datum: Haartebeeshoek, LO27

710.16002.00025 July 2013

## TECHNICAL OVERVIEW OF PROPOSED PROJECT

### PROPOSED HOUSING DEVELOPMENT PROJECT

The aim of the project is to establish a housing development for mine management employees and mine visitors. The proposed development will be located within or adjacent to PPM's mining right area and will largely utilise the mine's existing infrastructure such as roads, water and power supply, and sewage treatment facility. The development would comprise 40 housing units, with a total footprint of approximately six hectares. Other facilities to be constructed at the housing development include a recreational centre, entertainment area, laundry and various sports facilities.

#### Services

Power supply will be sourced from Eskom via the existing infrastructure at PPM. The existing 11kV power lines will be extended to service the housing development.

Sewage will be treated at the existing sewage treatment facility at PPM. Additional pipelines will be established to connect the housing development to PPM's sewage treatment facility.

Transport of construction materials to and from site will be by road.

Water for the housing development will be provided through the mine's water supply infrastructure. Potable water will be obtained from Magalies Water Board. Approximately 500L of water will be required per day during the construction phase and 350L of water will be required per day during the operational phase.

The approximate location of the road-pipeline-powerline servitude for each alternative site is shown on Figure 1.

#### Waste management

Types of wastes that could be produced by the proposed housing development include:

- Domestic waste from construction such as wooden crates, plastic wrapping, recyclable containers. Domestic waste expected during operations includes paper, recyclable containers, organic waste from the living units, entertainment area and cooking facilities.
- Industrial waste is expected to be produced during construction including, used motor oil and filters (hazardous waste) and general construction debris.

This domestic and hazardous waste will be taken to PPM on a daily basis and removed by a contractor to a licensed facility as part of the mine's waste management system.

#### Employees and creation of jobs

Approximately 30 temporary jobs will be created during the construction phase. 5-10 permanent jobs will be created by the housing development.

### PLANNED TIMING OF THE PROJECT (if approved)

Construction:	Anticipated early 2014
Occupation:	Anticipated mid 2014
Life of development:	The housing development will be used for the life of the mining operation (including neighbouring mining operations) and thereafter there is a possibility that this development will be handed over to Pilanesberg National Park or communities.

### MOTIVATION FOR THE PROPOSED PROJECT

The proposed PPM housing development will create accessible accommodation for PPM management employees and visitors to the mine. Currently these employees and visitors commute to the mine on a daily basis as there are limited suitable accommodation options in the area. The housing development would prevent the need for employees to travel long distances before and after working hours and therefore reduce the potential for safety and road related incidents. Furthermore, the project will create temporary jobs opportunities during the construction phase and will have a positive impact on both indirect businesses and employment for a short term.

### ALTERNATIVES CONSIDERED

Three sites for the proposed housing development and associated servitude corridors are currently under consideration. The sites are included in Figure 1 as Alternatives A, B and C. Alternative C is the preferred site.



## PRE-PROJECT ENVIRONMENTAL BASELINE

A summarised description of the baseline environment relevant to the project site is provided below to give context to understanding potential impacts as they relate to the proposed development. This baseline description is derived from specialist studies and environmental impact assessments (EIAs) undertaken for the mine over the past few years.

<b>Topography:</b>	The topographic relief of the proposed project area is characterised by a combination of flat plains and isolated koppies. Topographic elevation varies between 1040 to 1080 metres above mean sea level (mamsl). There are several isolated koppies in the east and north-east of the proposed project site (see Figure 1). These vary between 1197 and 1266 mamsl. To the south of the proposed project is the Pilanesberg Mountain Range and the associated hills that vary between 1 330 and 1 534mamsl.
<b>Surface and Groundwater:</b>	The site falls into the upper reaches of quaternary catchment A24D of the Crocodile River. The non-perennial stream that drains the majority of the site is the Motlhabe River which is a tributary of the perennial stream Kolobeng. All the surface water courses are non-perennial, flowing for a few days only after heavy rainfall periods.
<b>Climate:</b>	The proposed project area falls within the Highveld Climatic Zone. The average annual precipitation ranges from 500mm to 700mm and is generally in the form of thunderstorms. Temperatures are generally mild, but low minima can be experienced in winter due to clear night skies. Generally winds are light, but south-westerly winds associated with thunderstorms are typically strong and gusty.
<b>Air:</b>	Major sources of air pollution in the immediate vicinity of the project site include emissions from various mining operations, vehicle tailpipe emissions, domestic fuel burning, biomass burning, and various miscellaneous fugitive dust sources such as agricultural activities, wind erosion of open areas, and vehicle entrainment of dust along unpaved roads.
<b>Biodiversity:</b>	The proposed project area is situated within two types of habitat - the Dwaalboom Thornveld and the Mabeskraal Ridge Bushveld. The Dwaalboom Thornveld is considered to be least threatened, while the Mabeskraal Ridge Bushveld is considered to be one of the critically important habitat types of the province. The Mabeskraal Ridge Bushveld is a very limited type, restricted to a few ridges and hills in a vast plain with clay soils. The Mining and Biodiversity Guidelines indicate that the majority of Witkleifontein 136JP is of high biodiversity importance, and that the western portion of the farm, along the Motlhabe River, is of highest biodiversity importance. A large number of faunal species have been determined to potentially occur on site due to the close proximity of the site to Pilanesberg National Park.
<b>Soils and Land Capability:</b>	The relevant soils are dominated by deep, black swelling clays. The soils have been classified as having limited arable and wilderness potential.
<b>Land Use:</b>	The farm Witkleifontein 136JP is currently used for community activities, such as livestock grazing and subsistence farming, as well as mining activities relating to PPM's operation.
<b>Noise:</b>	Ambient noise levels are typical of a rural environment, however noise levels would have changed due to existing mining operations in the area.
<b>Visual:</b>	The overriding visual characteristic is that of a rural environment, however the visual resource has been altered by the existing mining operations in the area.
<b>Heritage and Cultural Resources:</b>	PPM and the proposed project area are located in the Central Bankeveld, which contains numerous centuries-old remains of ancient Tswana spheres of influence. In many cases these resources are found at the base of hills and koppies, as is the case at PPM.
<b>Socio-economic:</b>	Motlhabe, Ntswana-le-Metsing and Ngweding are located within a 4km radius of the proposed housing development. In the wider area, education levels are relatively low, unemployment rates are high.

## POTENTIAL ENVIRONMENTAL IMPACTS

The list below is based on issues typically associated with projects of this nature as well as issues raised by various IAPs during previous environmental assessments in the region. Any additional issues raised by IAPs during the environmental assessment process will be added to the list. Specialist studies covering the area where the proposed housing development would be located were undertaken for PPM's previous EIA/EMP reports and will be used as far as possible in this environmental assessment.

	POTENTIAL ISSUES	PROPOSED STUDY TEAM
<b>Topography</b>	<ul style="list-style-type: none"> <li>▪ Hazardous excavations during construction phase</li> <li>▪ Potential change in topography caused by housing development</li> </ul>	SLR
<b>Soils</b>	<ul style="list-style-type: none"> <li>▪ Erosion of soils and soil contamination</li> <li>▪ Potential change in soil profile and soil compaction</li> </ul>	SLR
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>▪ Loss of habitat, natural vegetation and animal life</li> <li>▪ General disturbance to wildlife</li> </ul>	SLR
<b>Air quality</b>	<ul style="list-style-type: none"> <li>▪ Air pollution (dust) from construction activities</li> </ul>	SLR
<b>Surface water</b>	<ul style="list-style-type: none"> <li>▪ Changes to drainage patterns</li> <li>▪ Surface water contamination</li> </ul>	SLR
<b>Groundwater</b>	<ul style="list-style-type: none"> <li>▪ Contamination of groundwater</li> </ul>	SLR
<b>Traffic</b>	<ul style="list-style-type: none"> <li>▪ Increased traffic volumes and road safety during construction</li> </ul>	SLR
<b>Noise</b>	<ul style="list-style-type: none"> <li>▪ Increased ambient noise levels resulting from construction activities</li> </ul>	SLR
<b>Visual aspects</b>	<ul style="list-style-type: none"> <li>▪ Visual light disturbance at night</li> <li>▪ Changes to the visual landscape</li> </ul>	SLR
<b>Heritage</b>	<ul style="list-style-type: none"> <li>▪ Loss of heritage resources</li> </ul>	Julius Pistorius
<b>Palaeontology</b>	<ul style="list-style-type: none"> <li>▪ Loss of fossil resources</li> </ul>	SLR
<b>Socio economic</b>	<ul style="list-style-type: none"> <li>▪ Disruption of existing land uses</li> <li>▪ Temporary employment opportunities</li> </ul>	SLR

## BASIC ASSESSMENT PROCESS

The environmental assessment process provides:

- Information on the proposed project and the environment in which it is being undertaken;
- Identifies, in consultation with IAPs, the potential negative as well as positive impacts of the proposed project; and
- Reports on management measures required to mitigate such impacts to an acceptable level.

### STEPS IN THE ASSESSMENT PROCESS

<b>PHASE 1 – Application Phase (July – September 2013)</b>
<p style="text-align: center;">Visit the environmental setting and identify potential impacts</p> <p style="text-align: center;">Submit application to DEDECT and receive official reference number</p> <p style="text-align: center;">Submission of exclusion letter to DMR</p>
<b>PHASE II – Public involvement and Reporting (July to January 2013)</b>
<p style="text-align: center;">Notify IAPs and other regulatory authorities of the proposed project (<i>via telephone calls, newspaper advertisements, site notices, this document, newsletters</i>)</p> <p style="text-align: center;">Focus group meeting with community stakeholder committee (as part of PPM’s on-going quarterly stakeholder meetings) (July 2013)</p> <p style="text-align: center;">Compile draft basic assessment report (BAR) and make it available for comment by regulatory authorities and other IAPs (end November for a period of 30 days)</p> <p style="text-align: center;">Receive comments in writing</p> <p style="text-align: center;">Notify IAPs of availability of final BAR for review including IAP comments</p> <p style="text-align: center;">Submit final BAR, including IAP and other authorities’ comments, to DEDECT (January 2014).</p>
<b>PHASE III – Record of Decision (First quarter 2014)</b>
Inform IAPs about DEDECT decision

### ENVIRONMENTAL PERMISSIONS TO BE OBTAINED

- Environmental authorisation (DEDECT)
  - Protected plant species removal permit (DAFF) (if applicable)
- Any additional permits or licenses required for the development will be identified during the course of the basic assessment process.

### PARTIES INVOLVED IN THE ASSESSMENT PROCESS INCLUDE:

#### PROJECT PROPONENT

- Pilanesberg Platinum Mines (Pty) Ltd

#### PROJECT TEAM

- SLR
- Specialist consultants, where required

#### IAPS

- Landowners and land users
- Surrounding landowners/users
- Surrounding communities
- Surrounding industries
- Non-government organisations and associations in the area.

#### REGULATORY AUTHORITIES

- North West Department of Economic Development, Environment, Conservation and Tourism (DEDECT)
- Department of Water Affairs (DWA)
- Department of Mineral Resources (DMR)
- South Africa Heritage Resource Agency (SAHRA)
- Department of Rural Development and Land Reform (DRDLR)
- Department of Agriculture (DA)
- North West Parks and Tourism Board (NWPTB)

#### LOCAL AUTHORITIES

- Moses Kotane Local Municipality
- Bojanala Platinum District Municipality
- Ward councillors

**Please let us know if there are any additional parties that should be involved.**

