NOTICE OF AN INTEGRATED ENVIRONMENTAL AUTHORISATION APPLICATION PROCESS FOR THE PROPOSED CLOSURE OF THE UNDERGROUND WORKINGS OF THE EZULWINI OPERATIONS OF SIBANYE GOLD

Application for the following:

- An Environmental Authorisation for closure of the underground workings of Sibanye Gold Limited’s (Sibanye) Ezulwini Operations, and an update to the existing Environmental Management Programme (EMPR). A Basic Assessment (BA) process in terms of the National EIA regulations of the Environmental Management Act (NEMA), Act 107 of 1998 will be followed. This BA process will include a Closure Plan and an update of the EMPR in terms of section 24N of NEMA and Regulation 37 of the 2014 EIA Regulations.

- An amendment to the Water Use Licence (WUL) in terms of sections 50(1) and 52 of the National Water Act, Act 36 of 1998 (NWA).

PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide information to Interested and Affected Parties (I&APs) regarding the proposed closure of the underground workings of the Ezulwini Operations of Sibanye Gold.

You are requested to read this document carefully as it provides you with important information relating to the following:

- Proposed closure of the underground workings;
- Integrated Basic Assessment (BA) process to be followed;
- Updating of the existing EMPR;
- Amendment to the WUL; and
- Public participation that will be undertaken for these applications.

To be registered as an Interested and Affected Party (I&AP) and to receive further information regarding the proposed project, please complete the attached registration / comment form.

Comments and queries can be directed to:

Anelle Lötter or Sibongile Bambisa
Jones & Wagener Engineering & Environmental Consultants (Pty) Ltd
P O Box 1434, Rivonia, 2128
Tel :( 011) 519 0200, Fax: (011) 519 0201
Email: anelle@jaws.co.za or sibongile@jaws.co.za
1. Background and Introduction

Sibanye reached an agreement with Gold One International Limited on the 21 August 2013 to acquire its Cooke underground and surface operations, including the Ezulwini Mine. Since the acquisition by Sibanye, the underground operations have not performed according to plan and have been unable to operate profitably. Despite a Section 189 intervention by affected stakeholders in 2015 and the implementation of agreed corrective actions, Ezulwini has continued to accumulate losses, resulting in a further Section 189 notice being issued in July 2016. Following further consultation with affected stakeholders, as prescribed under the Section 189 process, stakeholders have agreed to the closure of the underground workings at Ezulwini. The last day of operation of the underground workings was 30 September 2016. (Section 189 in terms of the Labour Relations Act is a process of consultation between an employer and its employees towards a collective agreement in the event of change in labour, e.g. retrenchments.)

2. Locality

The Ezulwini Operations, presented in Figure 1, are situated approximately 8 km south-east of the town of Westonaria, in the Gauteng Province. The locality of the mine in relation to other mines in the region is shown in Figure 1.

![Figure 1: Mine locality](image)

3. Current situation and proposal

Sibanye is applying for Environmental Authorisation and the required approvals for the closure of the underground workings of the Ezulwini Operations and consequent termination of groundwater pumping by the end of 2017.

The Ezulwini Gold Plant will continue to operate for the foreseeable future, processing existing stockpiles and ore from Cooke 3 Shaft. The opportunity for the surface operations, shown in Figure 2 below, to re-process existing gold tailings facilities is currently being assessed.
Terminating the pumping of water from the underground workings of Ezulwini (approximately 65 Mt/day) will result in the mine and adjacent dolomitic compartment re-watering over time.

**Figure 2: Aerial view of the Ezulwini Operations**

### 4. Proposed specialist investigations

Specialist investigations are conducted as part of the process to apply for Environmental Authorisation. These investigations study existing information, potential impacts that may occur with the re-watering of the underground compartment and the specialists will make recommendations on the best mitigation measures in the event of potential impacts.

The specialist investigations are underway and I&APs will have the opportunity to review and comment on these investigations. The review of the specialist studies is proposed to take place during March / April 2017. Below is a description of the specialist studies underway.

**Groundwater Study and Ground Stability Assessment**

The Ezulwini Mine currently pumps 65 Mt/day of extraneous groundwater from its underground mine workings. This water mainly originates from the overlying dolomitic aquifer, referred to as the Gemsbokfontein West Groundwater Compartment (GWGC). Ezulwini obtained a permit in 1986 to dewater the GWGC in order to allow mining activity to take place. Continued pumping of this water from the workings has placed an enormous financial burden on the mine.

Cessation of mining and the termination of pumping of the groundwater will result in the mine workings re-watering and groundwater levels in the dewatered GWGC returning to normal levels over time. Previous groundwater modelling (Rison Consulting, 1999) indicated that re-watering of the mine workings will occur in approximately 1 year and that the dolomite aquifer will recharge in 4-7 years. These models will be confirmed in the new Groundwater Impact Study to be conducted. The planned closure of the mine and termination of pumping requires a groundwater study and a ground stability assessment to be done in order to:
• Confirm how long it will take to re-water the mine and recharge the dolomite aquifer;
• Assess the potential for decanting on surface at the Gemsbokfontein Eye, once the underground workings have re-watered and the impact of water exposed to the underground workings on the dolomite groundwater quality;
• Determine the decant volume at the Gemsbokfontein Eye. This volume is currently estimated to be in the order of 13 Mt/day;
• Model the expected water quality of decant at the Gemsbokfontein Eye; and
• Investigate the impact on the stability and the possibility of sinkhole formation resulting from the rewatering process and recharging of the dolomite aquifer.

Furthermore, an ongoing, focussed monitoring programme will be developed and implemented in order to validate the findings of the specialist studies. A critical element will be the ongoing assessment of groundwater quality and water table levels.

Surface water impact assessment

Currently, Ezulwini Mine pumps underground fissure water into the Peter Wright Dam (approximately 55 Mt/day). The cessation of pumping will have an impact on the dam and the Klein Wes Rietpruit through the decrease in flow, while water from the Gemsbokfontein Eye will discharge into the Wonderfonteinspruit once the dolomitic aquifer has recharged.

The impact of the proposed mining closure on the hydrological regime of the Peter Wright Dam, and the associated impact on the downstream watercourse in terms of surface water will be assessed. For the surface water assessment of the Peter Wright Dam (see Figure 2), the following work will be undertaken:

• Delineation of the surface catchments to the Peter Wright Dam using the contour and mine infrastructure plans;
• Analysis of the daily rainfall data and surface runoff;
• Estimation of the surface runoff to the Peter Wright Dam will be calculated using the SCS rainfall-runoff model;
• Assessment of inflows and outflows of the Peter Wright Dam using a daily dam water balance, stage curves, dam capacity and pumping data; and
• Assessment of the impacts associated with the closure of the Ezulwini underground workings and cessation of pumping to the dam and its impact on the downstream watercourse in terms of water quality and quantity.

Socio-Economic Impact Assessment

The socio-economic impacts and risks related to the closure of the underground operations of the Ezulwini Mine will also be investigated and assessed. Socio-economic impacts include inter alia issues such as potential job losses, as well as changes in corporate social investment funding and potential residual external factors (e.g. water pollution and availability) that might affect the local community. The socio-economic impact assessment will focus on the following:

• Identification of major socio-economic issues in the local area;
• Identification of the potential local socio-economic risks due to the proposed mine closure, including demographic patterns, loss of direct and indirect jobs, impact on local community networks, potential residual environmental impacts on livelihoods and potential residual environmental impacts and remaining mining infrastructure on community health;
• Developing mitigation measures to potentially reduce the socio-economic impact of the closure of the Ezulwini Mine.

LEGAL FRAMEWORK FOR THE APPLICABLE PROCESSES

The Environmental Authorisation application and Closure Plan approval required for the closure of the underground workings require a Basic Assessment (BA) process to be followed. The Basic Assessment will be conducted as per the Environmental Impact Assessment (EIA) Regulations promulgated in December 2014, in terms of the National Environmental Management Act 107 of 1998 (NEMA). In terms of the 2014 Environmental Impact Assessment (EIA)
regulations, the following activity will be included in the application for authorisation from the Department of Mineral Resources (DMR) in terms of Listing Notice 1 of 2014:

<table>
<thead>
<tr>
<th>Activity No</th>
<th>Description</th>
</tr>
</thead>
</table>
| 22          | The decommissioning of any activity requiring -  
            i. a closure certificate in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002); or  
            ii. a prospecting right, mining right, mining permit, production right or exploration right, where the throughput of the activity has reduced by 90% or more over a period of 5 years excluding where the competent authority has in writing agreed that such reduction in throughput does not constitute closure. |

In association with the BA process, which includes the development of a Closure Plan, the existing and approved EMPR will also be amended to dovetail with the Closure Plan.

The EMPR will be amended in accordance with section 24N of NEMA and Regulation 37 of the 2014 EIA Regulations (GN R982 of 4 December 2014) and Interested and Affected Parties will also have the opportunity to comment on the proposed amendments to the EMPR before submission to the DMR for consideration.

Application for the amendment of the existing Water Use Licence (WUL) for the Ezulwini Operations will be made to the Department of Water and Sanitation (DWS) in terms of sections 50(1) and 52 of the National Water Act 36 of 1998, as pumping of water from underground to surface will be significantly reduced. The Water Use Licence Amendment Application (WULAA) will be included in this public consultation process.

Application for an Environmental Authorisation for the closure of the underground workings and the cessation of pumping of underground water is processed by the Department of Mineral Resources (DMR) as the Competent Authority, while the application for a WUL amendment will be processed through the Department of Water and Sanitation (DWS): Gauteng Region / Proto CMA as the lead authority. Other authorities such as the Gauteng Department of Agriculture and Rural Development (GDARD) and the local and district municipalities will be asked for their comments.

**INTEGRATED ENVIRONMENTAL AUTHORISATION APPLICATION AND THE PUBLIC PARTICIPATION PROCESSES**

During this integrated BA process, the potential impact of the proposed closure of the underground workings of the Ezulwini Operations will be identified and assessed. As part of the integrated BA process and the amendment of the WUL, the public has the opportunity to participate in the study. Interested and Affected Parties will receive project information for review and comments. Comments will be considered and responded to as the study unfolds.

Figure 3 illustrates the steps to be taken in the application for environmental authorisation.

A Consultation Basic Assessment Report, including the draft Closure Plan and draft EMPR Amendment, will be made available for public comment during the first quarter of 2017. A Draft WUL Amendment Application will also be made available for public review.

**PUBLIC COMMENT IS IMPORTANT**

Public comment on the proposed process and specifically on this BID is important and will be considered in the compilation of the final BA Report, the Closure Plan, EMPR Amendment and WUL amendment application.

The Consultation Basic Assessment Report, the draft Closure Plan, draft EMPR Amendment and draft WUL amendment application will be available for public review for a period of 30 days. Interested and affected parties are requested to complete the registration sheet below so that they may be included in this study.

Interested and affected parties may comment in the following ways:

- by completing a comment sheet (attached to this notice); writing a letter, sending an email or phoning the Jones and Wagener public participation office (Anelle Lötter or Sibongile Bambisa).
Comments made by Interested and Affected Parties will be recorded in a “Comments and Response Report” which will form part of the Final Basic Assessment Report, the EMPR amendment and/or WUL Amendment Applications.

Interested and Affected Parties are invited to participate freely and to submit any comments or information they feel may be useful to the process. In order to register as an Interested and Affected Party and to ensure that you receive updated project information, we request that you please complete the registration and comment form attached to this notice.

Figure 3: Overview of the integrated environmental authorisation process to be followed

Comments and queries can be directed to:

Anelle Lötter or Sibongile Bambisa
Jones & Wagener Engineering & Environmental Consultants (Pty) Ltd
P O Box 1434, Rivonia, 2128
Tel :(011) 519 0200, Fax: (011) 519 0201
Email: Anelle Lötter: anelle@jaws.co.za
Sibongile Bambisa: sibongile@jaws.co.za
**CLOSURE OF UNDERGROUND WORKINGS OF THE EZULWINI OPERATIONS**

**REGISTRATION AND COMMENT FORM**

Please complete this form and return it to Jones and Wagener to ensure that you are registered as an Interested and Affected Party. By answering the questions below you will help us to develop a better understanding of your information requirements and concerns regarding the proposed project. Additional pages may be attached to the registration form should this be required.

<table>
<thead>
<tr>
<th>Personal information</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name and Surname:</td>
</tr>
<tr>
<td>Please indicate whether you are registering as a Community / Organisation / Farm or Business and provide the name:</td>
</tr>
<tr>
<td>Physical address:</td>
</tr>
<tr>
<td>Telephone:</td>
</tr>
<tr>
<td>Email:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General interest in the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have any comments regarding the proposed closure of the underground workings of the Ezulwini Operations:</td>
</tr>
</tbody>
</table>

| Do you have any specific concerns associated with this project (for example: water, pollution, socio-economic): |

| If you know of anyone who should be informed about the project, please provide their contact details: |
| First Name and Surname: |
| Community / Organisation / Farm: |
| Address: |
| Telephone: |
| Fax: |
| Cell: |
| Email: |

<table>
<thead>
<tr>
<th>Method of correspondence</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your preferred method of correspondence?</td>
</tr>
<tr>
<td>Email □</td>
</tr>
</tbody>
</table>

Kindly complete this form and return to:
Anelle Lötter / Sibongile Bambisa, Jones & Wagener Engineering & Environmental Consultants (Pty) Ltd
P O Box 1434, Rivonia, 2128, Tel: (012) 667 4860, Fax: (012) 667 6128, Email: anelle@jaws.co.za / sibongile@jaws.co.za