



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

**DRAFT BASIC ASSESSMENT REPORT (BAR) AND ENVIRONMENTAL
MANAGEMENT PROGRAMME (EMPr)**

FOR

**THE LISTED ACTIVITIES ASSOCIATED WITH THE RECLAMATION
AND REHABILITATION OF THE TAILINGS RESIDUES IN RESPECT
OF PORTION OF PORTION 211 OF THE FARM MAYFAIR WEST 221
IQ: SITUATED IN THE MAGISTERIAL DISTRICT OF JOHANNESBURG**

REFERENCE NUMBER: GP/30/5/1/1/2 (000068) BP/BAR

APPLICATION FOR WASTE MANAGEMENT LICENSE:

SUBMITTED FOR WASTE MANAGEMENT LICENSE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, READ WITH THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008.

NAME OF APPLICANT: SEDIBE SERVICES (PTY) LTD

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REFERENCE NUMBER: GP/30/5/1/1/2 (000068) BP/BAR



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Prepared for: Sedibe Services (Pty) Ltd

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1. IMPORTANT NOTICE

In terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) as amended, a Basic Assessment process is required to obtain an Environmental Authorization for the activities, as per the EIA Regulations (2014) promulgated in terms of NEMA, the Minister must grant a prospecting or mining right if among others the mining “will not result in unacceptable pollution, ecological degradation or damage to the environment”.

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation, or damage to the environment.

In terms of section 16(3) (b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (c) the competent Authority must check whether the application has considered any minimum requirements applicable, or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or a permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

2.Objective of the basic assessment process

The objective of the basic assessment process is to, through a consultative process—

- (a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;
- (b) identify the alternatives considered, including the activity, location, and technology alternatives;
- (c) describe the need and desirability of the proposed alternatives,
- (d) through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:
 - (i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
 - (ii) the degree to which these impacts—
 - (aa) can be reversed;
 - (bb) may cause irreplaceable loss of resources; and
 - (cc) can be managed, avoided, or mitigated;
- (e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—
 - (i) identify and motivate a preferred site, activity, and technology alternative;
 - (ii) identify suitable measures to manage, avoid or mitigate identified impacts; and
 - (iii) identify residual risks that need to be managed and monitored.

AMD	Acid Mine Drainage
BAR	Basic Assessment Report
BID	Background Information Document
DEA	Department of Environmental Affairs
COJ	City of Johannesburg
DMRE	Department of Mineral Resources and Energy
CRR	Comments and Responses Report
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECA	Environmental Conservation Act, 1989 (Act No. 73 of 1989)
ECO	Environmental Control Officer
EO	Environmental Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
FEL	Front-End-Loader
GDP	Gross Domestic Product
GDARD	Gauteng Department of Agriculture and Rural Development
GIS	Geographic Information Systems
GNR	Government Notice Regulation
Ha	Hectares
I&APs	Interested and Affected Parties
IFC	International Finance Corporation
Km	Kilometres
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
NAAQS	National Ambient Air Quality Standards
NBA	National Biodiversity Assessment
NCR	Noise Control Regulations Act, 1989 (Act 73 of 1989)
NFA	National Forest Act, 1998 (Act No. 84 of 1998) (NFA)

NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NEM: AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM: BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM: WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
PPP	Public Participation Process
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
SANS	South African National Standards

EXECUTIVE SUMMARY

Introduction

Sedibe Services (Pty) Ltd, hereafter referred as “the applicant” or “Sedibe”, has applied for a Waste Management License for the decommissioning of the tailings residues which resulted from the previous gold mining activities. The proposed project will take place on Portion of Portion 211 of the Farm Mayfair west 221 IQ in the Magisterial District of Johannesburg, Gauteng Province. The project covers an area of approximately **45.9 ha**. The applicant intends to utilise an excavator to remove the tailings residues and load into a dump truck before it is transported to an offsite treatment facility for the processing of gold.

The applicant intends to reclaim the waste material and mitigate the environmental damage caused by the previous mining activities to restore the land to its original capabilities prior to the accumulation of tailings residues and make it available for other uses. New soil as well as overburden from other areas will then be established to the cleaned-out areas and this will allow for the vegetation and natural grasses to take effect on the contaminated areas.

The project area is located in close proximity to the residential and business areas, and the presence of gold bearing concentrates in mine residue deposits as a result of inadequate rehabilitation and closure of previous mining operations has become a source of environmental pollution that poses a health and safety risks to the surrounding communities and impedes spatial development. The waste management project will assist in managing illegal mining activities taking place in the proposed project location, furthermore, ensuring that the environmental conditions are improved.

Vahlengwe Mining Advisory and Consulting (Pty) Ltd, hereafter “Vahlengwe”, has been appointed by Sedibe Services (Pty) Ltd as the independent Environmental Assessment Practitioner (EAP) to facilitate the Environmental Authorisation: Waste Management application for its proposed reclamation and rehabilitation of mine residue deposits to comply with the requirements of the Environmental Impact Assessment Regulations, 2014 (as amended by GNR 982).

Details of the Applicant

Table 1: Details of the applicant

Name of Applicant:	Sedibe Services (Pty) Ltd		
Registration number (if any):	2024//131877/07		
Trading name (if any):	Sedibe Services (Pty) Ltd		
Responsible person: (E.g., CEO, Director, etc.)	Sedibe Soneni Leisie		
Contact person:	Sedibe Soneni Leisie		
Physical address:	12 Thaxted Avenue, Mulbarton, Johannesburg South, Gauteng		
Postal address:	12 Thaxted Avenue, Mulbarton, Johannesburg South, Gauteng		
Postal address:	12 Thaxted Avenue, Mulbarton, Johannesburg South, Gauteng		
Postal code:	2059	Cellphone:	+27 82 671 0829
Email:	maningiphuza@icloud.com		

Scope of Project

Mine residue deposits cover an extent area of approximately **45.9 ha**. The applicant intends to utilise an excavator to remove the mine residue deposits material and load into a dump truck and transported to an offsite treatment facility for the processing of gold. Consequently, no material will be processed on site. The required infrastructure includes the following:

- Administration offices;
- Ablution facilities; and
- Equipment such as the excavators, FEL and dump trucks.

Project Locality

The project site is located approximately 0,93 km Northeast of Riverlea and 2,32 km Southwest of Soweto Diepkloof Zone 3. The project site is accessed via N17 and N1 western bypass (Toll Road). The area of interest is located in the historically richest gold mining area in the world, previous mining activities has negatively impacted the environment, and it is a hot spot for illegal mining activities, it is therefore important to rehabilitate the area to ensure that the environment returns to its original state and the community is safe from illegal miners.

Environmental Consultants

Vahlangwe has been appointed as the Independent Environmental Assessment Practitioner (EAP) to undertake the Basic Assessment Process (BAR) for the Waste Management

License in terms of National Environmental Management: Waste Act, 2008 (Act 59 of 2008).

Table 2: Details of the EAPs

Company name:	Vahlengwe Mining Advisory and Consulting (Pty) Ltd
Contact person:	Sunday Mabaso
Physical address:	238 Voster Ave, Glenvista Extension 3, Glenvista, 2058
Telephone:	+2711 432 0062 / 074 569 7312
Email:	info@vahlengweadvisory.co.za

Public Participation Process Methodology

A Public Participation Process (PPP) will be undertaken as required in terms of Regulation 41 of NEMA: EIA Regulations, 2017 (as amended). During the undertakings of the PPP, the environmental and social impacts are investigated, to ensure that any stakeholders affected by the project are given an opportunity to comment, raise concerns and contribute to the assessment. This process is intended to ensure that local knowledge, needs, and values are taken into consideration throughout the process.

This Draft Basic Assessment Report is available for public comment for a period of 30 days and all comments or concerns raised will be recorded and responded to in the Comments and Responses Report (CRR). The 30-day comment period will commence from September (**2024**)

The following processes were followed to undertake the PPP:

- A Background Information Document (BID) including an I&AP registration form were distributed to various stakeholders including the I&APs via email.
- Newspaper advertisement was placed in the newspaper.
- Site notices were placed around the site ; and
- An electronic copy could be accessed and downloaded from the www.vahlengweadvisory.co.za website.
- Public meeting will be held to discuss the draft Basic Assessment Report.

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PART A:
SCOPE OF ASSSMENT AND BASIC ASSESSMENT REPORT

1. Introduction

Sedibe Services (Pty) Ltd is applying for a Waste Management License for the decommissioning of the tailings residues as a result of the previous gold mining activities in order to comply with the requirements of the EIA 2014 Regulations (as amended in 2017). The proposed reclamation and rehabilitation of existing tailings residues will take place on Portion of Portion 211 of the Farm Mayfair west 221 IQ in the Magisterial District of Johannesburg, covering an extent area of 45.9 ha.

The proposed area was previously a gold tailings residues facility. The waste facility was constructed as a result of the previous mining activities that took place years ago and was not adequately rehabilitated. The applicant intends to reclaim the tailings residues and rehabilitate the environmental damages that resulted from the previous mining activities to reserve the land for other land uses and eradicate the zama-zamas and their illegal activities from the area since they impose a safety and security threat to the neighbouring communities and municipal infrastructure.

The applicant intends to remove the tailings residues and mitigate the environmental damages that resulted from the previous mining activities to the satisfaction of the landowner. The applicant intends to restore the community safety and security by eradicating the illegal mining activities taking place on the proposed area.

The decommissioning of the tailings residues covers an extent area of 45.09 ha. The applicant intends to utilise an excavator to remove the tailings residues and load into a dump truck. Consequently, no material will be processed on site and all the material will be taken to an offsite treatment facility.

2. Contact Person and Correspondence address

2.1 Details of the EAP

Table 3: Details of EAP

Company name:	Vahlengwe Mining Advisory and Consulting (Pty) Ltd
Contact person:	Sunday Mabaso
Physical address:	238 Voster Avenue, Glenvista Extension 3, Glenvista, 2058
Telephone:	+27 11 432 0062
Email:	info@vahlengweadvisory.co.za

2.2 Expertise of the EAP

2.2.1 The qualifications of the EAP

Table 4: Expertise of the EAP

NAME	Sunday Mabaso
QAULIFICATIONS	MBA, Postgrad Certificate: Climate Change and Energy Law, Certificate: Mine Closure and Rehabilitation
RESPONSIBILITY ON PROJECT	Project Leader and Reviewer
PROFESSIONAL REGISTRATION	EAPASA (Reg. No. 2022/4485)
EXPERIENCE	<p>Sunday M. Mabaso is the Principal Consultant with more than 20 years of service at the Department of Mineral Resources and Energy of which he served seven (7) years as a Regional Manager (3 years in Northern Cape and 4 years in Gauteng). He has acquired various qualifications in mining and in 2021 completed an MBA with Milpark Business School and a Post Graduate Certificate in Climate Change and Energy Law with the University of the Witwatersrand, Mine Closure and Rehabilitation with the University of Pretoria. His experience includes monitoring and enforcing compliance with Social and Labour Plan and Mine Economics in terms of the MPRDA and the Mining Charter, Environmental Management and Waste Management in terms of NEMA and NEM: Waste Act. Sunday has recently published a paper "Legacy Gold Mine Sites & Dumps in the Witwatersrand: Challenges and Required Action" in the Journal of Natural Resources, Vol 14, 2023. https://doi.org/10.4236/nr.2023.145005</p>
NAME	Cecil Dau
QUALIFICATIONS	Bachelor of Earth Sciences in Mining and Environmental Geology
RESPONSIBILITY ON PROJECT	Report Compiler
PROFESSIONAL REGISTRATION	EAPASA Candidate (Reg. No. 2021/4434) SACNASP Candidate (154069)
EXPERIENCE	<p>Cecil Dau is an environmental professional who has more than three (3) years of experience working in the Environmental Management field. He has more than one (1) year working as an Environmental Assessment Practitioner (EAP), two (2) years working as an Environmental Officer (Intern) at Gauteng Department of Agriculture and Rural Development, where he was processing applications received in terms of Section 24G of NEMA. He also worked as a Research Assistant Graduate for Water Research Commission. He is a seasoned Environmental Assessment</p>

	Practitioner with a thorough understanding of the potential environmental and social impacts of mining activities in a variety of environmental settings. In the mining and environmental sectors, he has performed environmental assessments (BAR and S&EIR), Water Use Licence Application (WULA), and environmental compliance auditing. His core competencies include research and report writing, specialist report review and environmental impact assessment.
NAME	Dimakatso Leholi
QUALIFICATIONS	Diploma in Environmental Sciences
RESPONSIBILITY ON PROJECT	Report Compiler
PROFESSIONAL REGISTRATION	
EXPERIENCE	Dimakatso Leholi is an environmental sciences graduate who has two (2) years of experience working in the Environmental Sciences field. She has 10 months working as an Environmental Education Facilitator, 10 months as a Safety Health and Environment Consultant for a steel manufacturing company where she was implementing the ISO systems. The systems were ISO 14001 and ISO 45001 also doing monthly factory inspections. She currently has three (3) months experience as an Environmental Management Consultant intern with a thorough understanding of the potential environmental and social impacts of mining activities in a variety of environmental settings. In the mining and environmental sectors, she has performed environmental assessments (S&EIR) and environmental compliance auditing. Her core competencies include research and report writing, map making, specialist report review and environmental impact assessment.

3.Location of the overall Activity

Table 5: Details of the overall activity location

Farm Name:	Portion of Portion 211 of the Farm Mayfair west 221 IQ
Application area (Ha)	45.9 ha
Magisterial district:	City of Johannesburg
Distance and direction from nearest town	The area of interest is in Soweto/Riverlea, 0.93 km northeast of Riverlea and 2,32 km Southwest of Soweto Diepkloof Zone 3 and is accessed from N17 and N1 national road.
21-digit Surveyor General Code for each farm portion	[T0IQ0000000022400211]

4. Locality Map

(Show nearest town, scale not smaller than 1:250000).



Figure 1: Locality map of the project area

5. Description of the scope of the proposed overall activity

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1: 10 000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on site.

Sedibe Services (Pty) Ltd is applying for a Waste Management License for the decommissioning of the tailings residues resulted from the previous gold mining activities in order to comply with the requirements of the EIA 2014 Regulations (as amended in 2017). The proposed reclamation and rehabilitation of existing tailings residues will take place on Portion of Portion 211 of the Farm Mayfair west 221 IQ in the Magisterial District of City of Johannesburg, covering an extent area of 45,9 ha.

The proposed area was previously a gold mine waste facility. The waste facility was constructed as a result of the previous mining activities that took place years ago and was not adequately rehabilitated. abandoned. The applicant intends to reclaim the tailings residues and rehabilitate the environmental damages that resulted from the previous mining activities to reserve the land for other land uses and eradicate the Zama–zamas' and their illegal activities from the area since they impose a safety and security threat to the neighbouring communities and municipal infrastructure.

The decommissioning of the tailings residues covers an extent area of 45,9ha. The applicant intends to utilise an excavator to remove the tailings residues and load into a dump truck. Consequently, no material will be processed on site and all the material will be taken to an offsite treatment facility. The applicant will conduct the following activities:

- Reclamation of tailings residues; and
- Decommissioning and final Rehabilitation.

5.1. Listed and Specified Activities

Table 6: Listed and specified activities

NAME OF ACTIVITY	AERIAL EXTENT OF THE ACTIVITY (HA OR M ²)	LISTED ACTIVITY	APPLICABL E LISTING NOTICE	WASTE MANAGEMENT AUTHORISATION
Project Area	45,9 ha	<input checked="" type="checkbox"/>	GNR 983 Activity 21F , GNR 921, Activity 14	<input checked="" type="checkbox"/>
Reclamation of the decommissioning of the tailings residues	45,9 ha	<input checked="" type="checkbox"/>	GNR 983 Activity 21F , GNR 921 Category A, Activity 14	<input checked="" type="checkbox"/>

5.2. Description of the activities to be undertaken

(Describe Methodology or technology to be employed, including the type of commodity to be prospected/mined and for a linear activity, a description of the route of the activity)

Reclaiming Sequence

The applicant intends to utilise an excavator to remove the tailings residues and load into a dump truck, and treatment of materials will be conducted on site processing and refining to get gold.

The project intended activities include:

- Site clearance;
- Establishment of infrastructure (temporary site offices and portable ablution facilities);
- Waste handling; and
- Vehicle and machinery movement.

Infrastructure associated with the operation

Infrastructure will be established on site for the duration of the project. The following infrastructure will be utilised on site:

- Temporary offices and portable ablution facilities;
- Stockpile;
- Waste area; and
- Operating equipment such as the TLB, tipper truck and other auxiliary equipment; and

Operating Method

Sedibe intends to utilise the conventional loading, hauling and transportation method where an excavator will be utilised to load the material into the tipper truck which will then transport the material (waste residues including rubbles) to the relevant sites for disposal. The gold-bearing material will be processed on site. Concurrent rehabilitation will be undertaken wherein all aspects of the environment will be evaluated for residual and latent risks, and where possible, further rehabilitation processes will be implemented.

Power supply

The operational activities do not require the use of electricity since the equipment and machinery which will be used on site are diesel powered.

Water Supply

This is a small and short-term operation where the water usage will not be as much. The applicant will supply portable water on site for consumption and domestic use. The applicant will also contract a water truck for dust suppression.

Waste management

The waste that will be generated because of the reclamation and rehabilitation operations may include the general, scrap and hazardous waste such as oils (hydrocarbons). The waste is intended to be handled, separated, stored, and disposed of accordingly.

The following waste types are anticipated to be generated at the operation:

General waste will include;

- Domestic Waste (food waste/residue);
- Paper;
- Plastic;
- Cardboard;
- Tins; and
- Glass.

Hazardous Waste will include oil storages and spillages from vehicles and equipment that will require a proper clean up and disposal. It is anticipated that all general waste will be disposed of at the local municipality landfill site. All hazardous waste will be removed offsite by a hazardous waste contractor who will issue a safe disposal certificate for the removal of hazardous waste as proof of safe disposal.

Waste disposal

It is anticipated that all general waste will be disposed of at the nearest licensed landfill site. All hazardous waste will be removed offsite by a hazardous waste contractor who will issue a safe disposal certificate for the removal and safe disposal of the hazardous waste. The scrap waste will also be removed and disposed at a certified scrap facility and a certificate will be issued for safe disposal thereon.

Reclamation and Rehabilitation

Upon completion of the decommission process, the area will be assessed of any environmental damages and all disturbed areas by the current operation and the pre-existing disturbances will be rehabilitated in a manner that will satisfy the landowner's requirements and allows for other land uses.

Operation Timeframe

The final clean-up and rehabilitation of the area will be conducted over a period of **five (5) years**.

Project Activities

Table 7: Summary of the project activities

Project Phase	Associated Activities
Site Establishment	Site clearing and establishment of the infrastructure and equipment

	(mobile site offices and portable ablution)
Operational Phase	Extraction of the decommissioning of the tailings residues and treated on site for the processing of gold.
Decommissioning and closure	Decommissioning and rehabilitation of the project infrastructure
	Final rehabilitation of the overall area.

6. Policy and Legislative Context

Table 8: Details of the Policy and Legislative Context

Applicable legislation and guidelines used to compile the report	Reference where applied
<p><u>The Constitution of the Republic of South Africa, 1996</u></p> <p>Under Section 24 of the Constitution of the Republic of South Africa, 1996 (the Constitution) it is clearly stated that:</p> <p>Everyone has the right to</p> <ul style="list-style-type: none"> a) an environment that is not harmful to their health or well-being; and b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that - <ul style="list-style-type: none"> (i) Prevent pollution and ecological degradation; (ii) Promote conservation; and (iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. 	<p>Vahlengwe is undertaking an EIA process to identify and determine the potential impacts associated with the proposed Sedibe Services (Pty) Ltd, decommissioning and rehabilitation operations. Mitigation measures recommended will aim to ensure that the potential impacts are managed to acceptable levels to support the rights as enshrined in the Constitution.</p>

<p><u>National Environmental Management Act, 1998 (Act No 107 of 1998) and EIA Regulations (as amended in 2021)</u></p> <p>The National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA), as amended was set in place in accordance with Section 24 of the Constitution. Certain environmental principles under NEMA must be adhered to, to inform decision making for issues affecting the environment.</p> <p>Section 24 (1)(a) and (b) of NEMA state that:</p> <p>The potential impact on the environment and socio-economic conditions of activities that require authorisation or permission by law and which may significantly affect the environment, must be considered, investigated, and assessed prior to their implementation and reported to the organ of state charged by law with authorizing, permitting, or otherwise allowing the implementation of an activity.</p> <p>The EIA Regulations, 2017 was published under GN R 326 on 07 April 2017 (EIA Regulations) and came into effect on 07 April 2017. Together with the EIA Regulations, the Minister also published GN R 327 (Listing Notice No. 1), GN 325 (Listing Notice No. 2) and GN R 324 (Listing Notice No. 3) in terms of Sections 24(2) and 24D of the NEMA, as amended.</p>	<p>Activities associated with the proposed decommissioning and rehabilitation operations are identified as Listed Activities in the Listing Notice 1.</p> <p>A new reclamation activity has been added to Listing Notice 1 as indicated on the GNR 517 of June 2021. According to Listed Activity 21F of Listing Notice 1, "any activity, including the operation of that required for the reclamation of a residue stockpile or residue deposit, as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required for the reclamation of a residue stockpile or residue deposit," requires an environmental authorisation after a basic assessment procedure.</p>
<p><u>National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)</u></p> <p>On the 29th of November 2013, the list of waste management activities published under GN R718 of 3 July 2009 (GN R718) was repealed and replaced with a new list of waste management activities under GN R921 of 29 November 2013. Included in the new list are activities listed under Category A, B and C. These activities include inter alia the following:</p> <p><u>Category A</u> describes waste management activities requiring a Basic Assessment process to be</p>	<p>This Project triggers a Category A:</p> <ul style="list-style-type: none"> • Activity 14 – the decommission of a facility for a waste management activity listed in category A or B

carried out in accordance with the EIA Regulations supporting an application for a waste management license;

Category B describes waste management activities requiring an Environmental Impact Assessment process to be conducted in accordance with the EIA Regulations supporting a waste management license application; and

Category C describes waste management activities that do not require a WML, but these activities will have to comply with the prescribed requirements and standards as prescribed by the Minister, which includes the Norms and Standards for Storage of Waste, 2013. These activities include the storage of general waste at a facility with a capacity to store more than 100 m³ and storage of hazardous waste more than 80 m³.

7. Need and Desirability of the proposed activities.

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

- **Need**

The surface of the area where the project is to be undertaken is covered by layers of gold bearing sand and stockpile. The gold bearing concentrates of the tailing's remnants have become a source of environmental pollution gold bearing concentrates of the tailing's remnants have become a source of environmental pollution, which is posing a health and safety risks to the surrounding communities and hinder a spatial development. These tailings remnants are known to be the source of environmental pollution such as air pollution, water pollution and soil contamination. When these tailings come into contact with oxygenated rainwater, sulphuric acid is released into the environment. Acid mine drainage, as the phenomenon is called, has become a major ecological problem, because it dissolves many of the heavy elements, such as the uranium, calcium, lead, zinc, copper, arsenic and mercury found in the tailings, facilitating their passage into surface water and ground water (Brink, 1996).

Tailings are associated with air pollution in the form of dust, more especially during the windy seasons. Dust is hazardous to human and animal health for a variety of reasons. Often, the dust contains small particulate matter that, when inhaled, damages lung tissues. Moreover, the dust may contain a number of harmful compounds that can cause chemical toxicity. Tailings may include high concentrations of radioactive material, which can result in radiological pollution. The dust problem poses a substantial risk to public health and diminishes the quality of life for a huge number of residents. These tailings dump also provide a source of gold for illegal miners known as Zama- Zama's as they are accessible from the surface or at a shallow depth from the surface. The illegal miners endanger the safety and security of the local population in the Riverlea area and the surrounding communities.

The project site is situated within Riverlea. Therefore, the reclamation of the tailings residues and the rehabilitation of disturbed land will be required to restore land to its environmental capabilities, restore safety and security for the communities and reserve an opportunity for other land uses as per the landowners' and interested and affected parties' requirements. Appropriate rehabilitation and mitigation measures will be implemented in a manner that will meet the desired rehabilitation objectives.

- **Desirability**

The overall objective of this project is to undertake the decommissioning of the tailings residues and rehabilitate the disturbed land that resulted from the previous mining activities. The rehabilitation of land is extremely important and would benefit the communities in terms of the socio-economy and the environment, as the removal of the tailings residues would restore the land to its environmental capabilities and reserve the land for other uses. The eradication of illegal miners would restore safety and security in Riverlea community and other surrounding areas. The rehabilitation of the site will also help to prevent or control the spread of alien and invasive species in the area.

The project has been determined to have minimal cumulative impacts that can be mitigated to an acceptable level. Mitigation measures to be implemented throughout the rehabilitation process will serve as a method to prevent the project from having residual and latent impacts on the receiving environment.

8. Motivation for the overall preferred site, activities, and technology alternative.

- **Preferred site**

The tailings residues on the proposed site have been in existence for some years, attracting the illegal mining activities, and the land capabilities are being compromised in such a way that the land cannot be utilized for other purposes due to its current condition. The proposed project area is in close proximity to both business and residential areas and, and the presence of gold bearing concentrates of the tailings residues as a result of inadequate rehabilitation and closure of previous mining operations has become a source of environmental pollution, which is posing a health and safety risks to the surrounding communities and hinders spatial development. Tailings residues are known to be the source of environmental pollution such as air pollution, water pollution and soil contamination.

No alternative sites were investigated for this project. The tailings residues are located in the area in question. Therefore, there is no alternative site for this project.

- **Activities**

The applicant intends to utilise an excavator to remove the tailings residues and load into a dump truck to an authorised processing plant. As a result, there will be no treatment plant of the gold bearing material on the site where the project will be undertaken. The areas where the rehabilitation activities are intended include:

- Site establishment which involves erection of mobile office and portable ablution facilities

- Removal of tailings residues
- Final Rehabilitation

- **Technology alternative**

The removal of the tailings residues will mean the removal of the pollution sources of soil, surface and groundwater pollution and will release the land to be used for other possible land developments. The layout plan of the infrastructure has been planned to avoid sensitive areas as far as possible. The intended method of removal of the tailings residue is economically viable and have minimal environmental impacts.

9. Full description of the process followed to reach the proposed preferred alternatives within the site.

NB!! – This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having taken into consideration the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout.

9.1 Details of the development footprint alternatives considered.

With reference to the site plan provided as Appendix and the location of the individual activities on site, provide details of the alternatives considered with respect to:

9.1.1 The property on which or location where it is proposed to undertake the activity;

No alternative location has been evaluated in terms of this project. The tailings residues exist on the proposed site. Therefore, no other area has been identified in this regard.

9.1.2 The type of activity to be undertaken;

The applicant's intention is to reclaim the tailings residues and rehabilitate all disturbed areas as a result of the previous mining activities. The proposed project will entail a conventional method of excavation, loading and haulage to remove the tailings residues to the offsite processing plant and materials from the abandoned infrastructure to the licensed landfill facility. New soil, as well as overburden from other areas will then be established to the cleaned-out areas and this will allow for the vegetation and natural grasses to take effect to the contaminated areas.

9.1.3 The design or layout of the activity;

The layout plan is determined by the existing location of the tailings residues and the suitability of the area to place the associated infrastructure in the form of a mobile office and portable ablution facilities. There are existing access roads, which means there will be no need to establish a new road.

9.1.4 The technology to be used in the activity;

The applicant will utilise the conventional excavation method using the Tractor Loader Backhoe (TLB) to remove the tailings residues and load them into a dump truck. All waste generated from the removal of the old infrastructure will be taken to the nearest licensed landfill site. The project location will be rehabilitated to ensure that the land viable for other uses.

9.1.5 The operational aspects of the activity; and

The applicant will only be removing the material from the proposed site and transporting it to the relevant sites (processing plant and landfill). There will not be any processing of the material on site. The applicant will conduct concurrent rehabilitation while removing the material from site, and once all material is removed from site then the final rehabilitation of the site will be undertaken.

9.1.6 The option of not implementing the activity.

The option of the project not proceeding would mean that all the environmental impacts that currently exist on the land and social status would remain the same. This implies that the negative environmental and social impacts would remain and that the positive impacts after the rehabilitation would not occur. The decision to implement the project was based on the extent of the environmental and social impacts in the area and the desire to achieve the rehabilitation objectives and to make this land suitable for other alternative land use developments rather than leaving it in its current state.

The expected benefits of the proposed project include:

- Removal of the tailings residues as a source of environmental pollution and illegal mining activities in the area;
- Mitigating the social impacts resulting from criminal activities due to illegal mining; and
- Rehabilitation of the land to reserve it for other alternative land uses developments.

9.2. Details of the Public Participation Process Followed

(Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.)

- **Public Participation Materials**

Following the legislative requirements and good practice, it is important to develop documentation, which will be easily accessible to all stakeholders who would be affected or interested in the project. The following documents have been developed and distributed to all stakeholders including the interested and affected parties. The various PPP materials which are used as part of the EIA processes are included as appendices to this report.

Background Information Document (BID):

The BID (**Appendix 3B**) aims to provide important information regarding the following:

- Project description of the proposed reclamation of the tailings residues and rehabilitation of the disturbed land resulted from the previous mining activities;
- The EIA and the PPP to be undertaken in support of the decommissioning and rehabilitation process and relevant contact details;
- Details about how stakeholders can register as an Interested and Affected Party (I&AP) and be kept informed about the Project developments; and
- The public review and comment period for the draft Basic Assessment Report (BAR).

I&APs Registration Form:

A registration form will be distributed to the community attached to the BID for the registration of the I&APs (attached as **Appendix 3B** for ease of reference).

Site notice:

An A3 sized site notices informing I&APs about the project information as per the published newspaper advert, will be developed, laminated and erected at the boundary of the proposed site as required in terms of Section 24J of NEMA read with Regulation 41 EIA regulations. Notices will be placed within the vicinity of the proposed project site at strategic locations where it was deemed to be visible to the community.

Newspaper advertisements:

A newspaper advertisement, informing all I&APs residing in the surrounding communities near the proposed area within the jurisdiction of City of Johannesburg Metropolitan Municipality will be published and include the information about Sedibe's intention to undertake the reclamation of tailings residues and the rehabilitation of the disturbed land resulted from the previous mining activities in respect of Portion of Portion 211 of the Farm Mayfair West 221 IQ in the Magisterial District of Johannesburg, Gauteng Province. The newspaper advert will be published through **The Citizen Newspaper**.

I&APs were informed to register any comments or concerns that they might have, regarding the proposed project by contacting the EAP, via email through the provided comments request form or request additional information via the telephone. The EAP details were included in the advert, Background Information Document (BID) and site notice.

Public meeting:

A public meeting will be held to facilitate discussions on the Draft Basic Assessment Report to obtain comments, issues, concerns, and inputs from the Interested and Affected Parties (I&APs), it will be held at a nearby location accessible to everyone.

9.3. Summary of issues raised by I&APs

(Complete the table summarising comments and issues raised, and reaction to those responses)

Table 9: Summary of issues raised by I&APs

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.	Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
Landowner/s				
Lawful occupier/s of the land				
Landowners or lawful occupiers on adjacent properties				
Municipal councillor				
Municipality				
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA e				
Communities				
Dept. Land Affairs				
Dept. Environmental Affairs				
Other Competent Authorities affected				

TO BE COMPLETED AFTER THE DRAFT BAR REVIEW PERIOD

9.4. The Environmental attributes associated with the alternatives.

(The environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical, and biological aspects.)

9.4.1. Baseline Environment

9.4.1.1. Type of environment affected by the proposed activity.

(Its current geographical, physical, biological, socio- economic, and cultural character).

- **Regional Setting**

The proposed project area is located within the jurisdiction of City of Johannesburg Metropolitan Municipality in the Gauteng Province. It is located approximately 0,93km northeastern of Riverlea and 2,32km southwestern of Diepkloof Zone3 Soweto. The project area is accessible via N17 and N1 Western Bypass (Toll Road) in the southerly side.

- **Climate**

The project area falls within the range of the Johannesburg weather station, which is located in the southern hemisphere. The climatic conditions in Johannesburg are categorized as mild, and generally warm and temperate. In winter, there is much less rainfall in Johannesburg than in summer. The climate is classified as Subtropical highland climate or Monsoon-influenced temperate oceanic climate (Cwb) by the Köppen-Geiger system (Köppen & Geiger, 1936). The average annual temperature is 15.9 °C whereas the annual precipitation is about 784 mm. The proposed project area is located in the southern hemisphere, where summer begins at the end of January and ends in December. January is the warmest month of the year with an average temperature of 19.7 °C whereas July is the coldest month with an average minimum temperature of 9.5 °C (see Figure 2). The month with the highest relative humidity is January (68.14 %) while the month with the lowest relative humidity is September (34.82 %). The month with the rainiest days is December (18.03 days) while the month with the least rainy days is July (0.90 days).

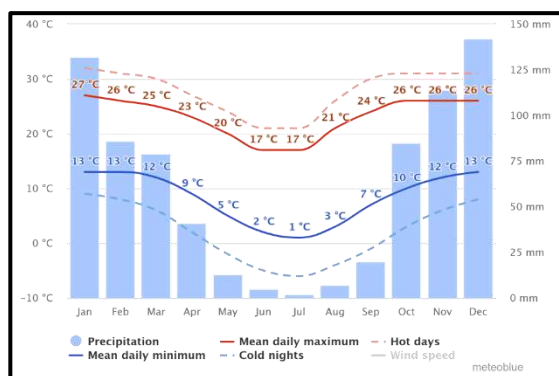


Figure 2: Climatic conditions of Johannesburg (<https://meteoblue.com/>)

The occurrence of wind in Johannesburg is high, with strong winds blowing constantly from December to April and calm winds from June to October. The strong winds blow from a South-West (SW) to North-East (NE) direction as shown in the wind rose below (Figure 3). Both the frequency and velocity of these winds are highest in these directions.

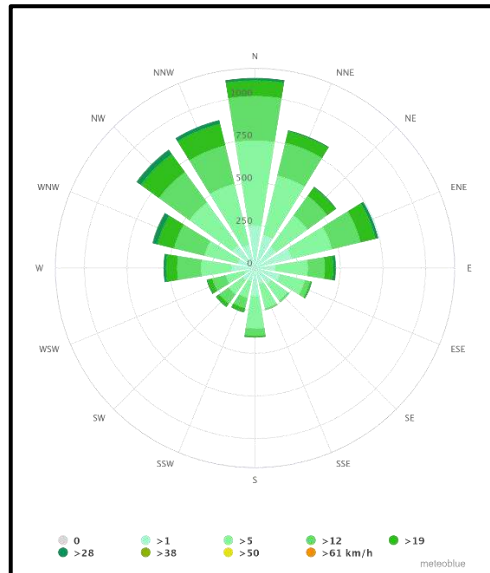


Figure 3: Wind Rose for Johannesburg (<https://www.meteoblue.com>)

- **Topography**

The project area is in the city of Johannesburg, which is situated in the Highveld, a grassy plateau that stretches across the interior of South Africa. The city is situated on the Witwatersrand or Rand, a series of low, rocky ridges that form the watershed between the outlets to the Indian and Atlantic Oceans. The city lies at an altitude of between 1,740 and 1,810 metres.

Apart from a few minor streams and artificial lakes, Johannesburg is devoid of water. The city's location is due to the presence of an even more valuable resource, gold. The city grew on the outskirts of the Witwatersrand Main Reef, a subsurface stratum of gold-bearing quartz-silica conglomerate those arcs hundreds of kilometres beneath the Highveld.

The elevation of Riverlea varies from approximately 1,624 m to 1,764 m. The average elevation on the site where the waste management license activities will be undertaken is 1.648 m as shown on Figure 4 below.

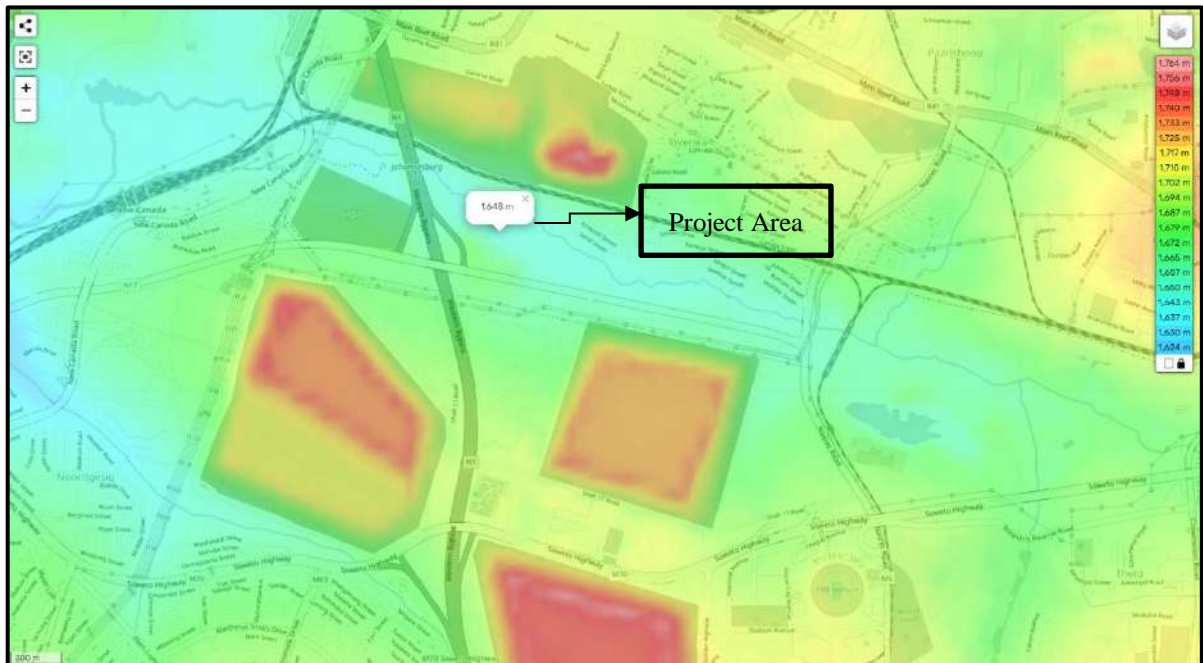


Figure 4: Topographical map of Riverlea

- **Regional Geology**

The Johannesburg Group, a geological formation in South Africa, encompasses the region around Johannesburg, including the Witwatersrand Basin. Situated on the ancient Kaapvaal Craton, the area which is characterized by a sequence of sedimentary and volcanic rocks deposited around 2.9 – 2.7 billion years ago, known as the Witwatersrand Supergroup. The formation is re-owned for its gold-bearing reefs, particularly the Main Reef and the South Reef which have been extensively mined. The rocks consist mainly of conglomerates, sandstones, and shales, with some volcanic rocks and dolomites and have been shaped by significant tectonic activity, resulting in folding and faulting. The gold deposits are often associated with paleo placers, ancient river systems that concentrated gold and other heavy materials. Additionally the dolomites in the region have been dissolved by groundwater, creating a karst landscape with sinkholes, caves and underground drainage. See figure 5 below.

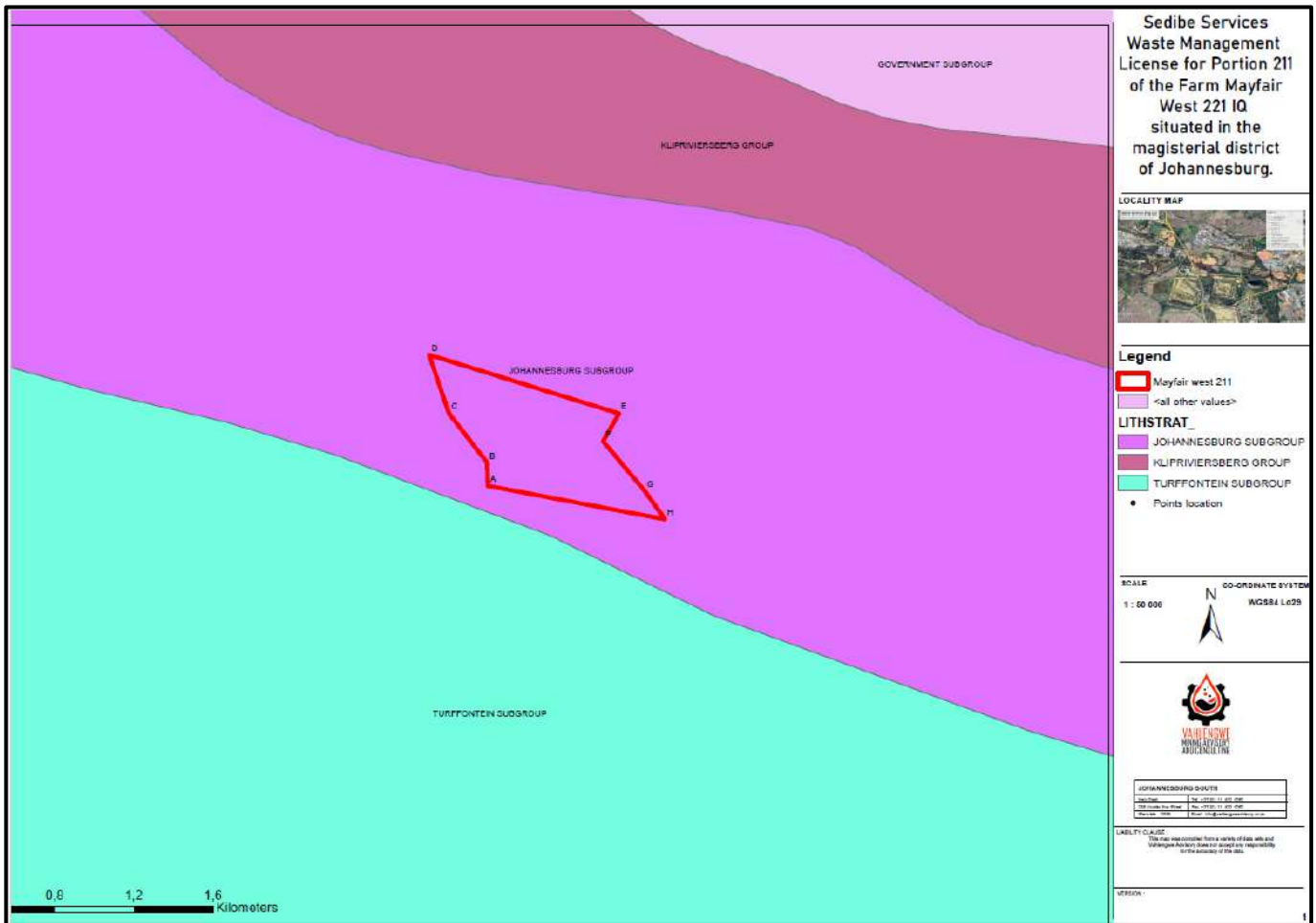


Figure 5: Geological Map

- Hydrology**

Reclamation of tailings dumps can occur in a slimes dam, involving the rehabilitation of the site to a stable and non-polluting state. Techniques used in slimes dam reclamation include capping the tailings with a layer of soil or other material, establishing vegetation to stabilize the soil and prevent erosion, adding soil amendments to improve soil quality, and implementing water management measures to prevent leachate generation. See figure 6 below that shows a slimes dam within the proposed project area.

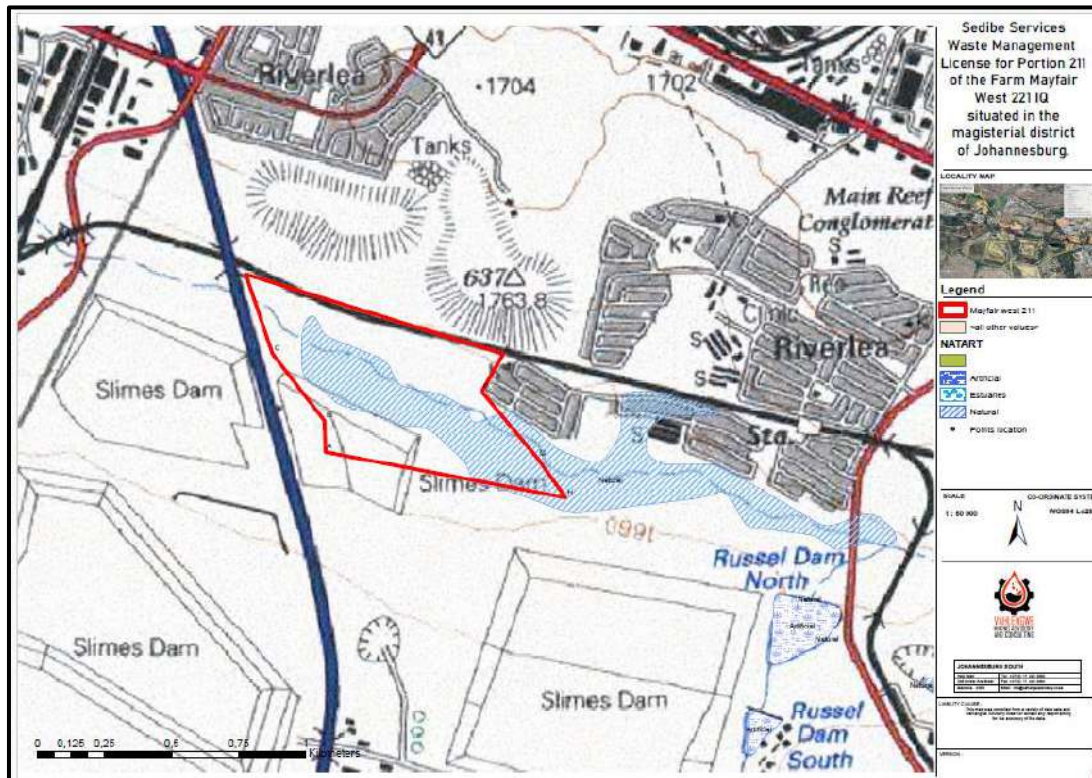


Figure 6:Hydrological Map

- **Biomes**

Figure 7 below shows that the proposed waste management license area is located within the Grassland Biome. The Grassland Biome is found chiefly on the high central plateau of South Africa, and the inland areas of KwaZulu Natal and the Eastern Cape. The topography is mainly flat and rolling but includes the escarpment itself. Altitude varies from near sea level to 2 850 m above sea level. Grasslands (also known locally as Grassveld) are dominated by a single layer of grasses. The amount of cover depends on rainfall and the degree of grazing. Trees are absent, except in a few localized habitats. Geophytes (bulbs) are often abundant. Frosts, fire and grazing maintain the grass dominance and prevent the establishment of trees.

Urbanization is a major additional influence on the loss of natural areas - the Witwatersrand is centred in this biome. The Grassland Biome is considered to have an extremely high biodiversity, second only to the Fynbos Biome. Rare plants are often found in the grasslands, especially in the escarpment area. These rare species are often endangered, comprising mainly endemic geophytes or dicotyledonous herbaceous plants. Very few grasses are rare or endangered. The scenic splendour of the escarpment region attracts many tourists.



Figure 7:Biomes

- **Bioregions**

The proposed waste management license area is in the Mesic Highveld Grassland Bioregion as depicted in Figure 8 below. Mesic Highveld Grassland is found mainly in the eastern, high rainfall regions of the Highveld, extending all the way to the northern escarpment. These are “sour” grasslands and are dominated by primarily andropogonoid grasses. The different grassland types are distinguished on the basis of geology, elevation, topography and rainfall. Shrublands are found on outcrops of rock within the bioregion, where the surface topography creates habitat in which woody vegetation is favoured above grasses.

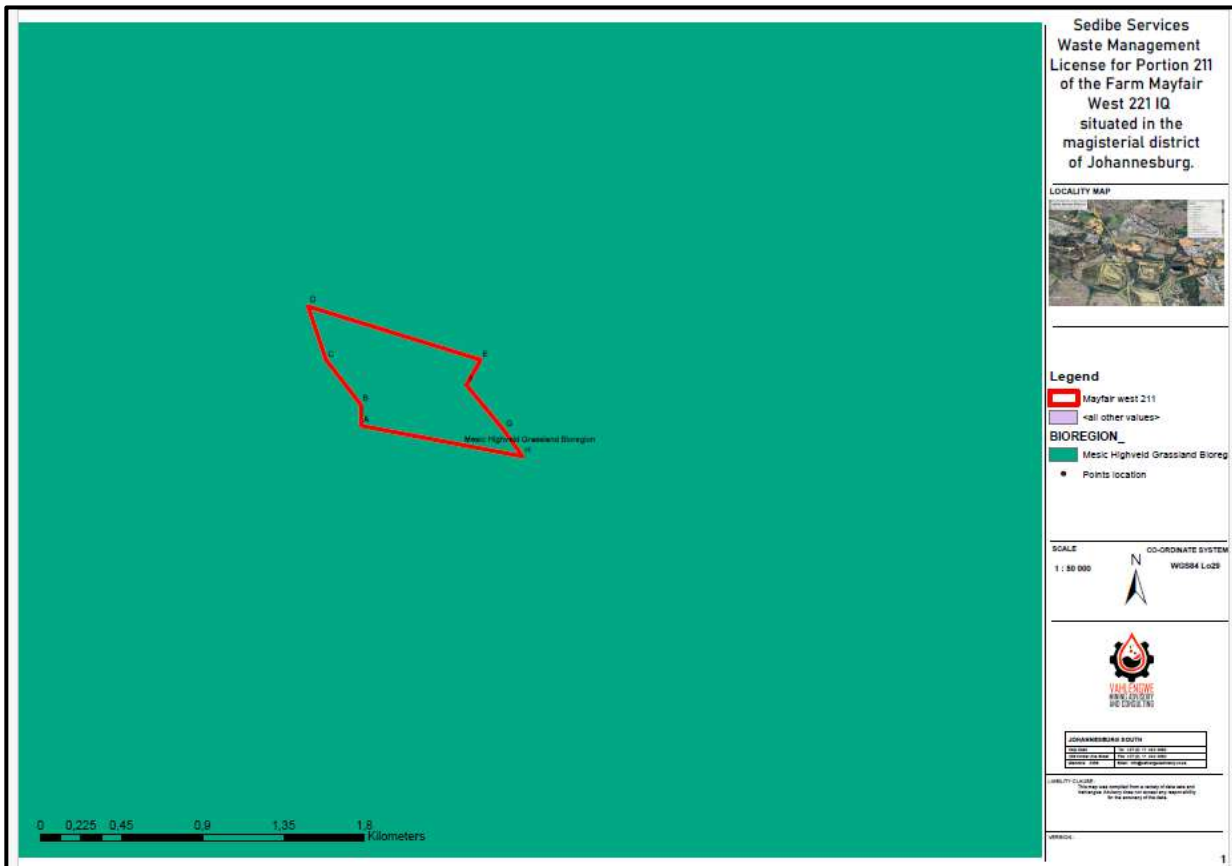


Figure 8:Bioregions

- **Vegetation Type**

The proposed project area is located within the Soweto Highveld Grassland (Figure 9). Soweto Highveld Grassland is mostly confined to the provinces of Mpumalanga and Gauteng. It is the dominant vegetation type in southwestern Mpumalanga, occurring south of the Ermelo – Johannesburg highway (N17) and west of the Ermelo – Volksrust highway (N11). 51% of the area has been transformed, mainly by agriculture, mining and urbanisation. The vegetation in this area is not formally protected and is therefore considered endangered (Warren,2009).

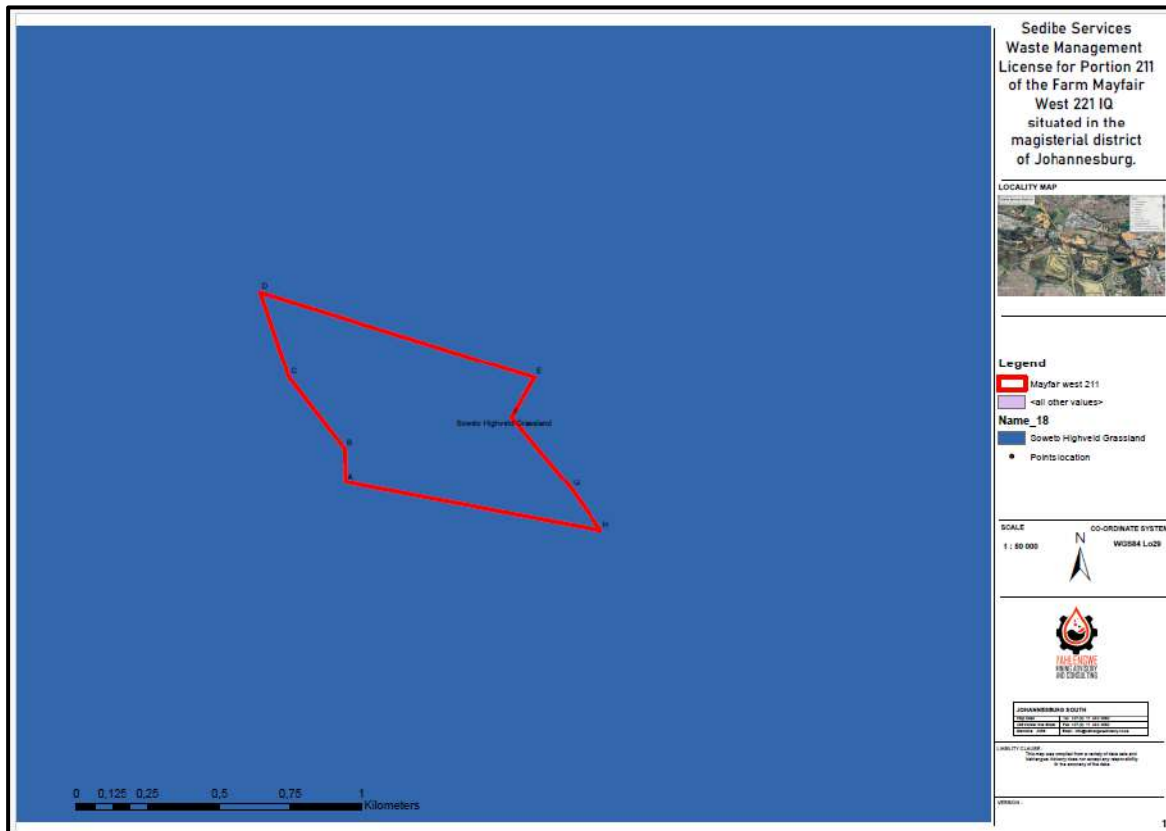


Figure 9:Vegetation type of the proposed project title

The Soweto Highveld Grassland consist of a gently to moderately undulating landscape on the Highveld plateau supporting short to medium-high, dense, tufted grassland dominated almost entirely by *Themeda triandra* and accompanied by a variety of other grasses such as *Elionurus muticus*, *Eragrostis racemosa*, *Heteropogon contortus* and *Tristachya leucothrix*. In places not disturbed, only scattered small wetlands, narrow stream alluvia, pans and occasional ridges or rocky outcrops interrupt the continuous grassland cover.

Important taxa:

Graminoids: *Andropogon appendiculatus* (d), *Brachiaria serrata* (d), *Cymbopogon pospischillii* (d), *Cynodon dactylon* (d), *Elionurus muticus* (d), *Eragrostis capensis* (d), *E. chloromelas* (d), *E. curvula* (d), *E. plana* (d), *E. planiculmis* (d), *E. racemosa* (d), *Heteropogon contortus* (d), *Hyparrhenia hirta* (d), *Setaria nigrirostris* (d), *S. sphacelata* (d), *Themeda triandra* (d), *Tristachya leucothrix* (d), *Andropogon schirensis*, *Aristida adscensionis*, *A. bipartita*, *A.*

- *congesta*, *A. junciformis* subsp. *galpinii*, *Cymbopogon caesius*, *Digitaria diagonalis*, *Diheteropogon amplectens*, *Eragrostis micrantha*, *E. superba*, *Harporchloa falx*, *Microchloa caffra*, *Paspalum dilatatum*;
- herbs: *Hermannia depressa* (d), *Acalypha angustata*, *Berkheya setifera*, *Dicoma anomala*, *Euryops gilfillanii*, *Geigeria aspera* var. *aspera*, *Graderia subintergra*, *Haplocarpha scaposa*, *Helichrysum miconiifolium*, *H. nudifolium* var. *nudifolium*, *H. rugulosum*, *Hibiscus pusillus*, *Justicia anagalloides*, *Lippia scaberrima*, *Rhynchosia effusa*, *Schistostephium crataegifolium*, *Selago densiflora*, *Senecio coronatus*, *Vernonia oligocephala*, *Wahlenbergia undulata*;
- geophytic herbs: *Haemanthus humillis* subsp. *hirsutus*, *H. montanus*;
- herbaceous climber: *Rhynchosia totta*; and
- low shrubs: *Anthospermum hispidulum*, *A. rigidum* subsp. *pumilum*, *Berkheya annectens*, *Felicia muricata*, *Ziziphus zeyheriana*.

The entire project area has been transformed because of current and past anthropogenic activities, and the resulting habitat alteration has negatively impacted the faunal richness of the area. However, the Ecological Impact assessment conducted by the SLR (2019) found that the faunal species listed below (Table 12) occur in the vicinity of the project area.

Table 10: Summary of Fauna Biodiversity Findings (SLR,2019)

Fauna Species	Finding
Mammals	Only signs (i.e., spoor and faeces) of common mammal species, e.g., <i>Cryptomys hottentotus</i> (Common Mole Rat) and <i>Canis mesomelas</i> (Black Backed Jackal) were observed during the field assessments. Common species, such as domestic dogs etc. also occur in the project area.
Avifauna	Avifaunal diversity was intermediate and comprised mainly of common species adapted to high levels of anthropogenic activities/change. Species include <i>Streptopelia capicola</i> (Cape Turtle Dove), <i>Ardea melanocephala</i> (Blackheaded Heron) and <i>Ploceus velatus</i> (Southern Masked- weaver).

Amphibians	No amphibians were observed during the field assessment. Species likely to inhabit the riverine areas include <i>Cacosternum boettgeri</i> (Common Caco) and <i>Schismaderma carens</i> (Red Toad).
Reptiles	A low reptile diversity was observed during the field assessment. Only common species, e.g., <i>Trachylepsis punctatissima</i> (Montane Speckled Skink) was observed during the summer and winter field assessments.
Insecta	Overall, insect diversity is intermediate. This may be attributed to the anthropogenic activities such as alien and Invasive plant proliferation and uncontrolled veld fires. Only common insect species of the area were observed.
Arachnids	While very few arachnid species were observed, this is likely due to the secretive nature of many arachnid species. It is expected that the project area is likely to be inhabited by a number of common arachnid species, such as <i>Olurunia ocellate</i> (Grass Funnel-web Spider).

- **Conservation Plan**

According to the Gauteng Provincial Biodiversity Conservation Plan (C-Plan), the proposed project site falls within an Ecological Support Area and Important Area of biodiversity importance as depicted on the map below (Figure 10). The map is intended to inform land use planning, environmental impact assessment and authorisations, and natural resource management by a variety of sectors whose policies and decisions affect biodiversity.

Ecological Support Areas are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of Critical Biodiversity Areas and/or in delivering ecosystem services. Critical Biodiversity Areas and Ecological Support Areas may be terrestrial or aquatic.

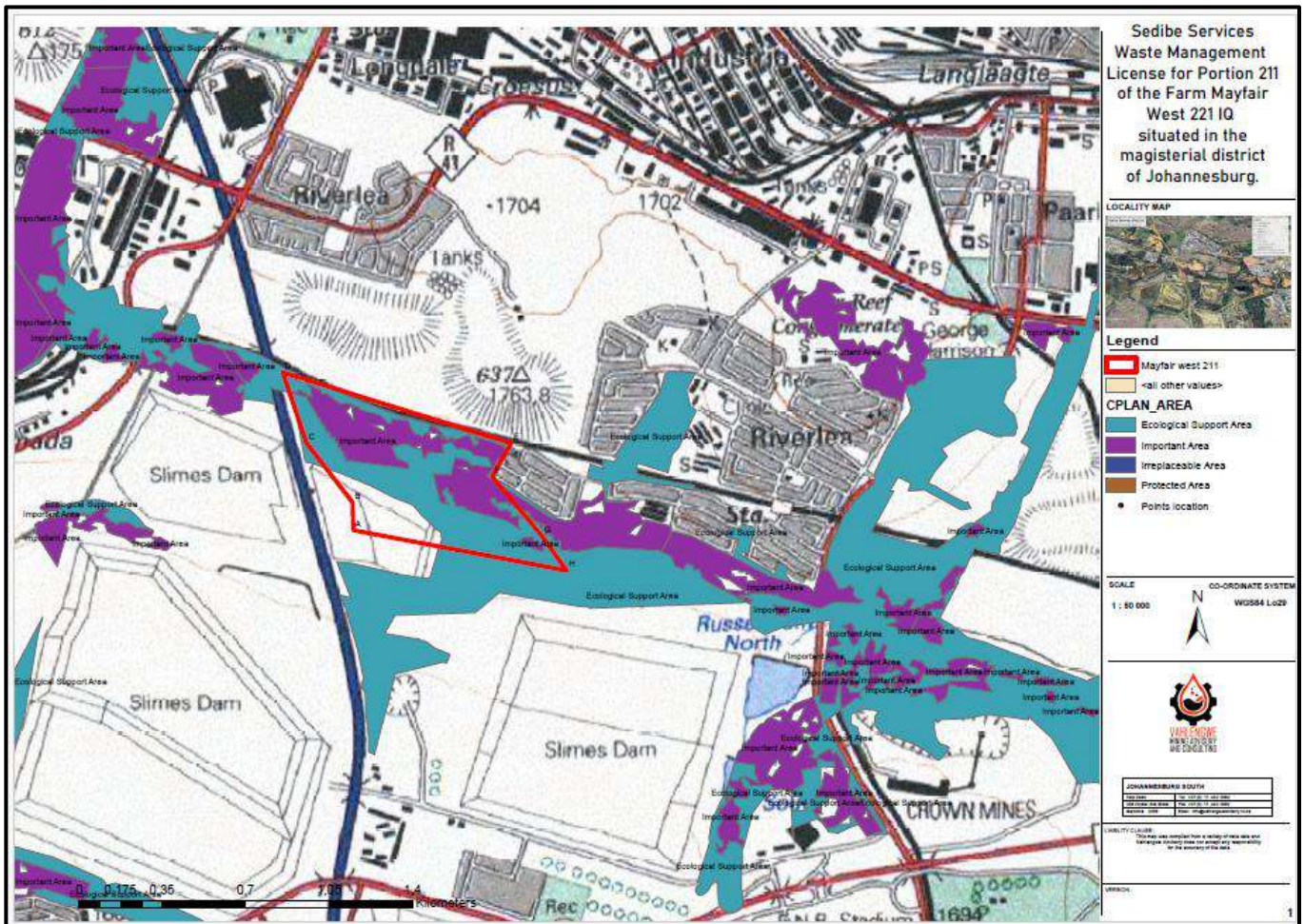


Figure 10: Conservation Plan map of the proposed project site

- **Socio-Economic Status**

The project area is located in the Gauteng Province, under the City of Johannesburg. It is located at an elevation of 1,648 m in South Africa's eastern plateau known as the Highveld. The former Central Business District is located on the south side of the Witwatersrand. The Witwatersrand River forms the watershed between the Limpopo and Vaal Rivers, and the land slopes north and south. To the north and west, the city is hilly, while the east is flatter.

Johannesburg is the largest and most populous city in South Africa. It is the provincial capital of Gauteng, the wealthiest province in South Africa, with the highest GDP of any metropolitan region in Sub-Saharan Africa. Due to its location on the mineral-rich Witwatersrand range of hills, Johannesburg is the centre of an extensive gold and diamond trade.

- **Demographics and Population Statistics**

According to the 2011 census, the City of Johannesburg Local Municipality has a total population of 4,4 million of which 76,4% are Black African, 12,3% are white people, 5,6% are coloured people, and 4,9% are Indian/Asian (see Table 13 and Figure 11). Of those 20 years and older 3,4% have completed primary school, 32,4% have completed secondary education, 34,9% have completed high school, 19,2% have tertiary education, and 2,9% of those 20 years and older have no form of schooling (Figure 12).

Table 11: Population profile of CoJ (Source: Stats SA 2011 Census)

Group	Percentage
Black African	76,4%
Coloured	5,6%
Indian/Asian	4,9%
White	12,3%
Other	0,8%

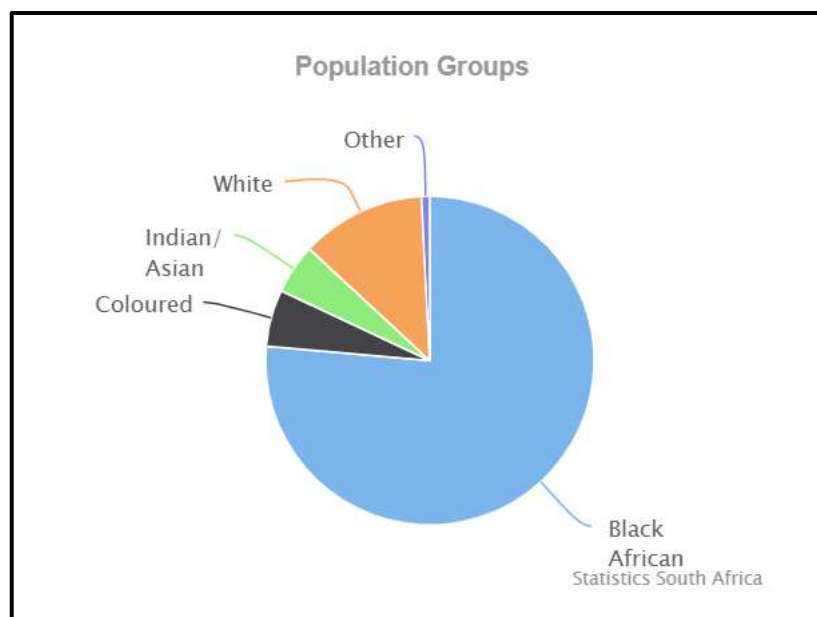


Figure 11: Population groups of the CoJ (Source: Stats SA 2011 Census)

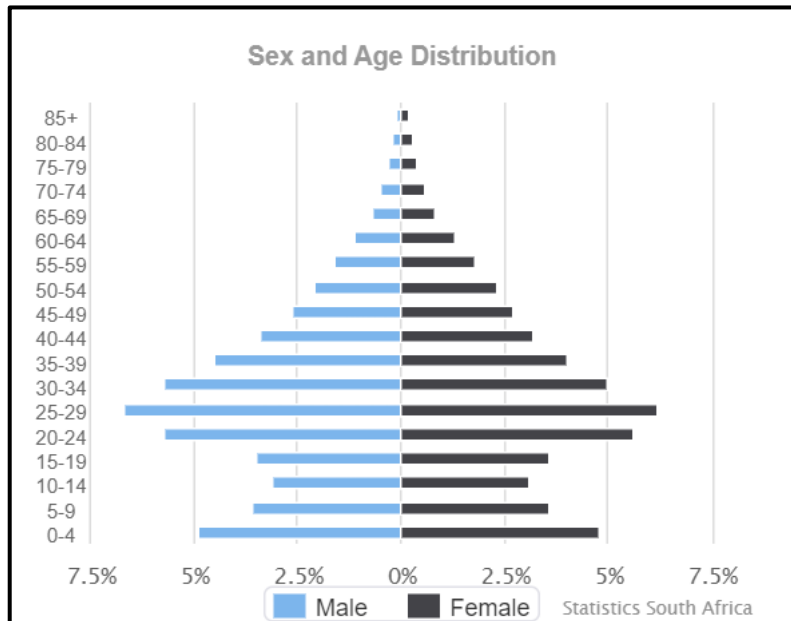


Figure 12: Sex and Age Distribution of the CoJ (Source: Stats SA 2011 Census)

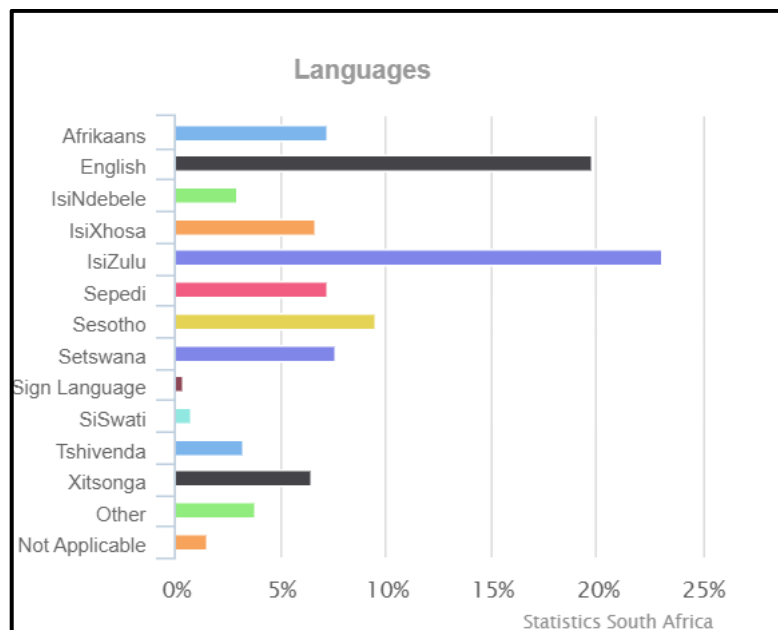


Figure 13: Education level at the CoJ (Source: Stats SA 2011 Census)

There are 1 434 856 households in the municipality with an average household size of 2,8 persons per household. 64,7% of households have access to piped water, 26,9% have water in their yard and only 1,4% of households do not have access piped water (Figure 14).

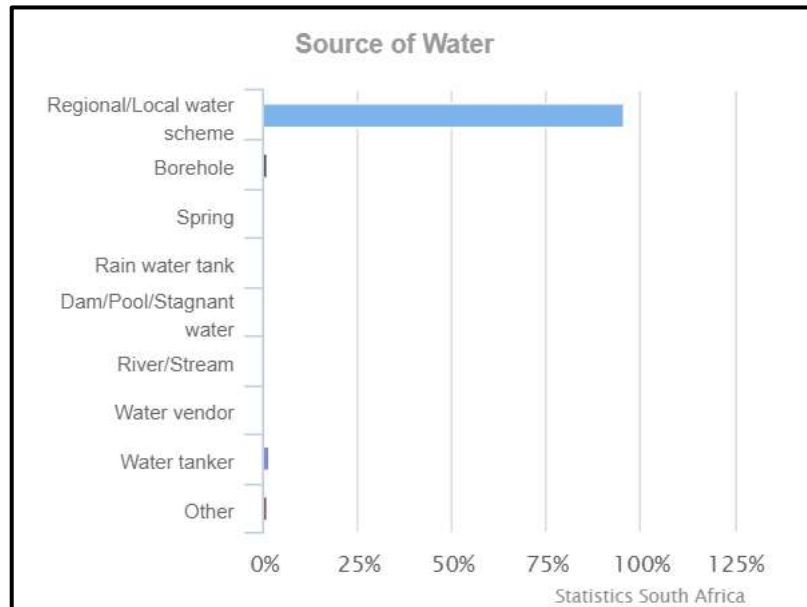


Figure 14: Sources of Water at the CoJ (Source: Stats SA 2011 Census)

There are 2 261 490 economically active (employed or unemployed but looking for work) people in the City of Johannesburg; of these 25,0% are unemployed. Of the 1 228 666 economically active youth (15–35 years) in the area, 31,5% are unemployed (Figure 15).

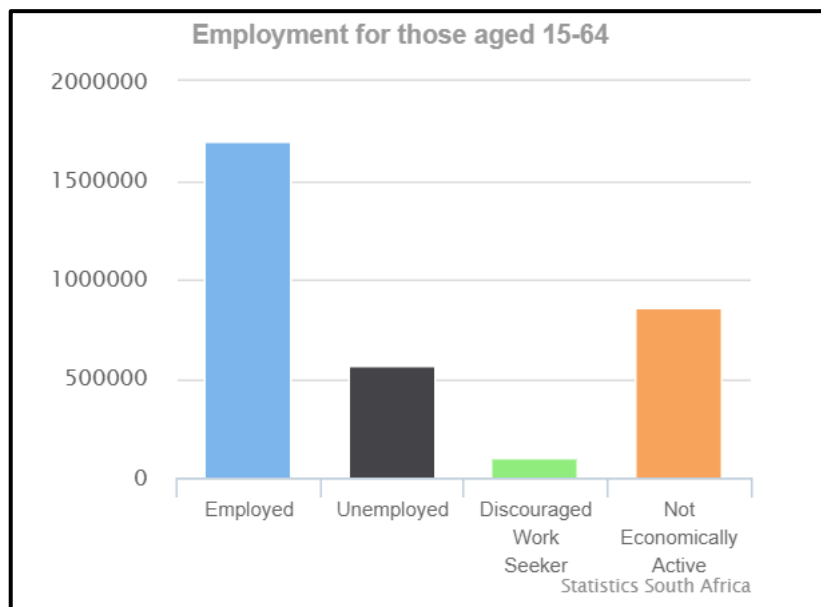


Figure 15: CoJ Employment status (Source: Stats SA 2011 Census)

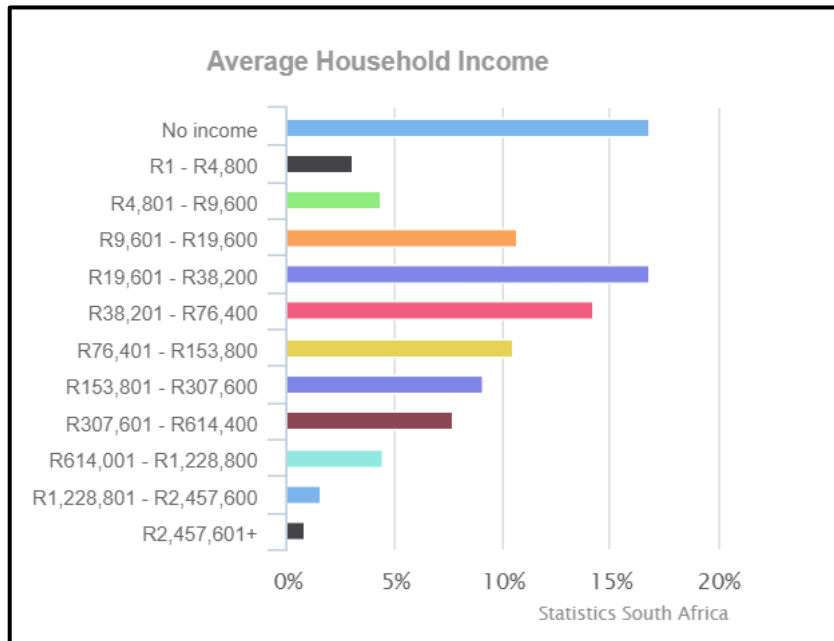


Figure 16: CoJ Household Annual Income (Source: Stats SA 2011 Census)

9.4.1.2 Description of the current land uses

The applicant intends to clean and rehabilitate the area to the satisfactory standard to ensure that the land can be reserved for other socio-economic development activities in the area. There are various land uses on the surrounding areas of the proposed area.

- **Residential**

There are various residential areas in the proximity to the proposed site. All the surrounding settlements will be notified of the proposed project. Written notices will be also given in accordance with section 47D of the Act, however there was no completed I&AP forms returned nor was the request for the registration of the I&APs received from the public.

- **Industries**

The proposed project area is not surrounded by an industrial area.

9.4.1.3 Description of specific environmental features and infrastructure on the site.

The proposed project area is located within the jurisdiction of City of Johannesburg Metropolitan Municipality in the Gauteng Province. The area of interest is in Soweto/Riverlea, 0.93 km northeast of Riverlea and 2,32 km southwestern of Soweto Diepkloof Zone 3 and is accessed via N17 and N1 Western

Bypass national road. The area of interest is in the north of the richest gold mining area in the world, previous mining activities has negatively impacted the environment, and it is a hot spot for illegal mining activities, it is therefore important to rehabilitate the area to ensure that the environment returns to its original state and the community is safe from illegal miners.

9.4.1.4 Environmental and current land use map.

(Show all environmental and current land use features)

The environmental and current land use of the proposed area is shown on the map below (Figure 17).

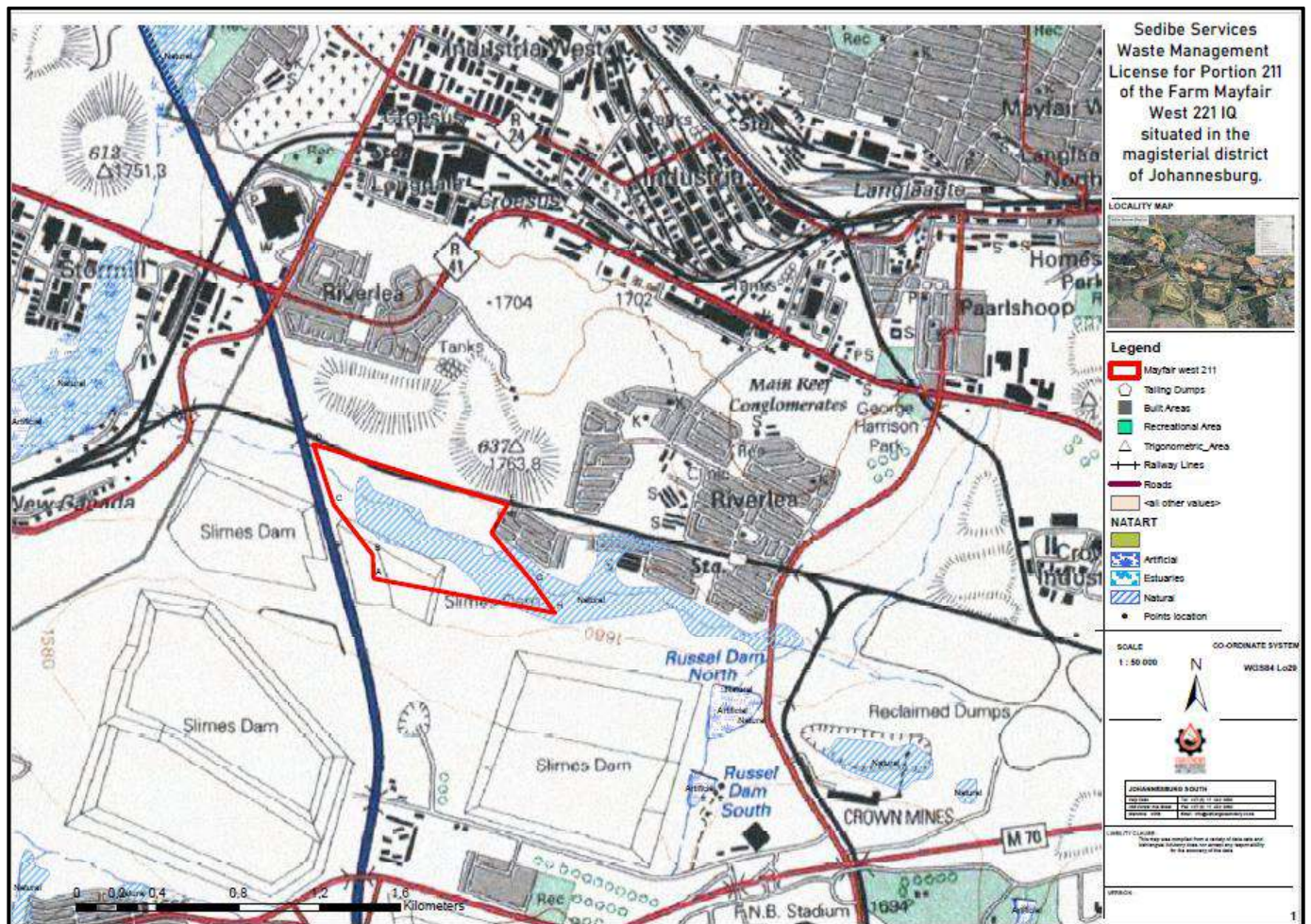


Figure 17: Land Use Map of the project area

9.4.2 Impacts and risks identified including the nature, significance, consequence, extent, duration, and probability of the impacts, including the degree to which these impacts.

Project activities

During the site establishment phase the following activities will take place on site:

Project Phase	Associated Activities	Potential Impacts
Construction Phase	Site clearance (for infrastructure);	<ul style="list-style-type: none"> • Visual • Air Quality/Dust • Noise • Topography • Vegetation • Animal Life • Land use and capability • Groundwater Quality • Socio-economic • Health and safety
	Establishment of infrastructure (temporary site offices, and portable ablution facilities)	
	Removal of abandoned old infrastructure	
Operational Phase (Reclamation)	Vegetation clearance to access the tailings residues material.	
	Waste removal within the project area	
	Waste handling (transportation and stockpiling).	
	Material take-off and transportation to the offsite treatment facility.	
Decommissioning and final rehabilitation	Close-up or infilling of trenches and voids.	
	Final rehabilitation of the overall area.	

Various phases of the mining related activities from site establishment decommission and rehabilitation are associated with environmental impacts that may be major positive, negative, and cumulative. The potential impacts are discussed per environmental feature/ aspect below.

- **Visual**

Visual disturbance due to material stockpile and movement of vehicles and equipment.

VISUAL IMPACT		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (Site, Neighboring, Local, Regional, International)	Neighboring	Neighboring
Duration (Short term, Medium term, Long term, Permanent)	Short term	Short term
Magnitude (Major, Moderate, Minor)	Moderate	Minor
Probability (Definite, Probable, Likely, Unlikely)	Probable	Probable
Significance Rating (Negligible, Low, Medium, High)	Medium	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
<ul style="list-style-type: none"> • Implementation of the operating time schedule management measures. 		

- **Dust**

Dust may be generated during the operational process on site.

AIR QUALITY/DUST IMPACT		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Neighboring	Site
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Short term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Minor	Minor
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Likely	Likely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Low	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
<ul style="list-style-type: none"> • Dust control measures such as dust suppression should be implemented to reduce the impact of dust generation during the construction phase. 		

- **Topography**

The removal of tailings residues will result in the re-establishment of the original topography of the area.

IMPACTS ON TOPOGRAPHY		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Positive	Positive
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Site	Site
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Permanent	Permanent
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate +	Major +
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	Probable
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Medium
Reversibility: (Reversible or Irreversible)	No	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation measures:		
<ul style="list-style-type: none"> • Operation sites must be clearly demarcated to control movement of personnel and vehicles, providing clear boundaries for construction sites to limit the spread of impacts. • Temporary erosion control measures such as the runoff berms must be implemented to reduce flow velocity should be implemented around the operation areas. 		

- **Heritage Resources**

The removal of tailings residues will result in the re-establishment of the original topography of the area.

IMPACTS ON HERITAGE RESOURCES		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Positive	Positive
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Site	Site
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Short term	Long term
Magnitude (<i>Major, Moderate, Minor</i>)	Minor	Minor
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Unlikely	Unlikely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Negligible	Negligible
Reversibility: (Reversible or Irreversible)	Yes	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation measures:		
<ul style="list-style-type: none"> • Relevant authorities will be notified should the heritage resources be discovered. • Area must be clearly demarcated to control movement of personnel. 		

- **Noise**

Noise may be generated from the operation.

NOISE IMPACTS		
	Impact Rating Without Mitigation	Impact Rating With Mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Site	Site
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Short term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Minor	Minor
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Likely	Likely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Negligible	Negligible
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	Yes	
Mitigation measures:		
<ul style="list-style-type: none"> • Schedule restrictions: Limit noisy activities during sensitive hours. • Noise monitoring: Regularly monitor noise levels. 		

- **Traffic**

Project activities will generate very limited additional traffic. Vehicles and trucks will access the site via existing roads.

TRAFFIC IMPACTS

	Impact Rating Without Mitigation	Impact Rating With Mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Site	Site
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Short term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Minor	Minor
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Likely	Likely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Negligible	Negligible
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	Yes	
Mitigation measures:		
<ul style="list-style-type: none"> Implement the traffic control and management measures. 		

- Flora and Fauna**

The vegetation clearance due to the associated site establishment activities to access the tailings residues will allow for increased surface water runoff, which may lead to soil erosion and loss of topsoil. This is however not envisaged to be a significant impact as the area is already disturbed.

IMPACTS ON FLORA AND FAUNA		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Medium term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate	Moderate
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	Likely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation measures:		
<ul style="list-style-type: none"> Limit vegetation clearing to minimize habitat destruction. Develop plans to manage and maintain habitats. 		

IMPACTS ON FLORA AND FAUNA (POSITIVE)		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Positive	Positive
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Long term	Long term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate	Moderate
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Likely	Likely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Low	Low
Reversibility: (Reversible or Irreversible)	Irreversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation measures:		
<ul style="list-style-type: none"> Regeneration of vegetation once the tailings residues are cleared up. 		

• **Soils and Land Capability**

The soil and land capability of the area has already been disturbed due to the tailings residues which are attracting illegal mining activities. A change in soil capability will consequently affect the end land use if not properly mitigated. The movement of heavy vehicles in the operational area will result in soil compaction, water runoff and soil erosion especially during the rainy season. Temporary storage of hazardous products may cause the pollution of soil through hydrocarbon spillages.

IMPACTS ON SOILS AND LAND CAPABILITY		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Site	Site
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Medium term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Major	Moderate
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	Likely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Low
Reversibility: (Reversible or Irreversible)	Yes	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
<ul style="list-style-type: none"> • Proper management and clean-up of the hydrocarbon spills to minimize soil contamination. • Implementation of proper management measure when removing the waste material to ensure that the soil quality is sustained for other land uses. • Run on/run-off control by implementing measures to prevent stormwater contamination. 		

The current state of the land is not suitable for any socio-economic land uses due to the presence of the tailings residues. Therefore, the proposed activity has a potential positive impact on the land uses and land capability since this project intends to clean and rehabilitate the area to a state that will be suitable for the other land uses.

IMPACTS ON LAND USE AND CAPABILITY		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Positive	Positive
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Site	Site
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Short term	Medium term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate	Major
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Likely	Probable
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Low	Medium
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
<ul style="list-style-type: none"> • Implementation of proper management measure when removing the waste material to ensure that the soil quality is sustained for other land uses. 		

- **Surface and Groundwater resources**

There is a water resource within the project area, therefore the activities that will be conducted will not have an impact on the water resource. The removal of the tailings residues may expose the toxic elements that may react with rainwater and create Acid Mine Drainage that may flow into nearby surface water resources.

IMPACTS ON SURFACE AND GROUNDWATER RESOURCES (NEGATIVE)		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Medium term	Medium term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate	Moderate
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	Likely
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	Yes	
Mitigation Measures:		
<ul style="list-style-type: none"> • Implementation of hydrocarbons spillage management and clean-up to minimize soil contamination that could also lead to surface water pollution. • Implementation of temporary erosion control measures such as the runoff berms to reduce flow velocity. • Clearance of vegetation must be limited as far as possible. 		

The occurrence of the tailings residues results in contamination of groundwater through seepage during rainy seasons, containing high sulphates and metals. The rehabilitation activities will prevent further seepage of hazardous substances to the subsurface. The overall groundwater quality is expected to improve post the decommission operations as the source of contamination would have been removed.

IMPACTS ON SURFACE AND GROUNDWATER RESOURCES (POSITIVE)		
	Impact Rating Without Mitigation	Impact Rating with Mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, medium term, long term, Permanent</i>)	Medium term	Long term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate	Moderate
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	<i>Probable</i>	<i>Probable</i>
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Medium
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation measures:		
<ul style="list-style-type: none"> • Management measures and removal of the source of toxic elements from the waste material into the water resources. 		

- **Socio-Economic**

The effect of this project activity for employment and socio-economic regime would be positive but limited in extent and duration. Employment opportunities in the form of direct employment within a project, and indirect employment will be through procurement of local goods and services. The potential employment opportunities will, therefore, improve livelihoods and alleviate poverty within the host community.

SOCIO-ECONOMIC IMPACTS (POSITIVE IMPACTS)		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Positive	Positive
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, medium term, long term, Permanent</i>)	Medium term	Medium term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate +	Moderate +
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	Probable
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Medium
Reversibility: (Reversible or Irreversible)	Not applicable	
Irreplaceable loss of resources: (Yes or No)	Not applicable	
Residual impacts:		
<ul style="list-style-type: none"> • The creation of employment and business opportunities and training. • Skills transfer and enhancement to workers. • Improved economic development. 		

However, the project also has negative socio-economic impacts on the host community where-in there might be an influx of people approaching the project site seeking employment opportunities. The community may have too much expectation on job creation by the proposed project, and if their expectations are not met, this may result to risks of violent marches and vandalism of project property. This may cause conflict between the host community members and the employed personnel from areas outside the host community, as well as foreigners.

SOCIO-ECONOMIC IMPACTS (NEGATIVE IMPACTS)		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, medium term, Long term, Permanent</i>)	Medium term	Medium term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate +	Moderate +
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	Probable
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Medium
Reversibility: (Reversible or Irreversible)	Not applicable	
Irreplaceable loss of resources: (Yes or No)	Not applicable	
Mitigation Measures:		
<ul style="list-style-type: none"> • Prioritizing the sourcing available skills from the host community. • Transparency of the project manager with the community members about the employment opportunities and what the project can provide in terms of the community expectations. • Community engagement for the community to understand the magnitude of the operation and the employment requirements of the project. 		

- **Safety**

The proposed project will have a safety and security benefits for the adjacent communities since the removal of the tailings residues will ultimately eradicate the illegal mining activities and associated criminal activities.

SAFETY IMPACTS (POSITIVE IMPACTS)		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Position	Position
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, medium term, Long term, Permanent</i>)	Short term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	<i>Minor</i>	Moderate
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	<i>Likely</i>	Probable
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Low	Medium
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation measures:		
<ul style="list-style-type: none"> • The removal of the source of gold-bearing material attracting illegal miners and associated criminal activities. • Removal of the safety threats posed by the waste dumps. 		

SAFETY IMPACTS (NEGATIVE IMPACTS)		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, medium term, Long term, Permanent</i>)	Short term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate	<i>Minor</i>
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	<i>Likely</i>
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Impact Status: (positive or negative)	Yes	
Mitigation measures:		
<ul style="list-style-type: none"> • Safety signs and barricades must be placed around the operation site to ensure the safety of the workers and the public. • Site security should be employed on site to control access to the operation site and ensure protection of the project parameters. • All project infrastructure should be placed in a secured area to prevent unauthorized access and potential safety risks. 		

- **Health**

The proposed project is associated with the creation of dust that contains fine particulate matter with hazardous substances that can result in respiratory diseases to the workers. The presence of the tailings residues already has the same impact to the surrounding communities, especially during windy seasons. Exposure to hazardous particulate matter affects lung development on children, including reversible deficits

in lung function as well as chronically reduced lung growth rate and a deficit in long-term lung function. Thus, the removal of the tailings residues would eliminate the health risk to the communities.

IMPACTS ON HEALTH		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Short term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Moderate	<i>Minor</i>
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Probable	<i>Likely</i>
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Medium	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Impact Status: (positive or negative)	Yes	
Mitigation measures:		
<ul style="list-style-type: none"> • Provision of appropriate PPE for workers to prevent and minimize impacts on their health. • Dust suppression techniques should be used to limit the amount of dust created. • Implementation of dust fallout monitoring. • Make provision of the complaints register at an accessible point on site for the community. • Regular medical check-ups for workers. 		

IMPACTS ON HEALTH (POSITIVE)		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Position	Position
Extent (<i>Site, Neighboring, Local, Regional, International</i>)	Local	Local
Duration (<i>Short term, Medium term, Long term, Permanent</i>)	Short term	Short term
Magnitude (<i>Major, Moderate, Minor</i>)	Minor	Moderate
Probability (<i>Definite, Probable, Likely, Unlikely</i>)	Likely	Probable
Significance Rating (<i>Negligible, Low, Medium, High</i>)	Low	Medium
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation measures:		
<ul style="list-style-type: none"> • Removal of toxic dust particles from the waste dump material. • Implementation of health mitigation measures to improve community health. 		

Decommissioning and Closure Phase

The project is the decommissioning of the tailings residues as an operation. Therefore, this section will be assessing the potential residual impacts associated with the project activities on the key aspects of the environment.

- **Residual Impacts**

Residual impacts refer to the net impacts after practicable mitigation, considering the background environmental conditions and impacts from existing and near future projects. Potential residual impacts exist for the proposed project, and these are discussed herewith.

- **Topography**

No significant residual impacts are envisaged.

- **Soils, Land Use, Land Capability**

No significant closure and decommissioning residual impacts are envisaged on the soils, land use and land capability. Land will be restored and reserved for the residential development post closure.

- **Fauna and Flora**

No significant residual impacts are envisaged. However, there is a risk of alien invasive vegetation encroaching on the cleared areas.

- **Surface Water**

Proper removal of the tailings residues, proper rehabilitation will have no significant residual impacts on the surface water drainage.

- **Safety**

The community will remain with the perceptions of unsafety of the area. The illegal miners may return in the area in search of potential gold bearing material residues knowing the history of the area.

- **Groundwater**

The continuous groundwater pollution sources would be removed. Therefore, no significant residual impacts are envisaged.

- **Air Quality**

No significant residual impacts are envisaged.

- **Noise**

No significant residual impacts are envisaged.

- **Traffic**

No significant residual impacts are envisaged.

- **Waste**

No significant residual impacts are envisaged.

- **Visual**

No significant residual impacts are envisaged.

- **Heritage**

No significant residual impacts are envisaged.

- **Socio-Economic**

The residual impacts associated with the overall project has the positive and negative impacts. The positive residual impacts include:

- Improved economic development;
- Portable skills transfer; and
- Increased capacity to develop and maintain livelihood strategies.

The negative residual impacts include:

- Job losses and insecurities; and
- Increased poverty.

9.4.3. Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks;

(Describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined to decide the extent to which the initial site layout needs revision).

Criteria to Consider when Determining Severity of impacts:

The ranking of impacts/determination of significance is estimated using two criteria, namely Consequence and Probability. These consider the contributing factors / criteria listed in the legislation. The definitions of each are provided below.

Significance of the impact is an indication of the importance of the impact in terms of both the physical extent and the time scale. It indicates the level of mitigation required. The significance of an impact resulting from an aspect is expressed as a combination of the following:

- **Nature** of impact: An indication of the extent of the damage (negative impacts) or benefit (positive impacts) the impact inflicts on natural, cultural, and/or social functions (environment).
- **Extent** of impact: A spatial indication of the area impacted (i.e., how far from activity the impact is realised).
- **Duration** of impact: A temporal indication of the how long the effects of the impact will persist, assuming the activity creating the impact ceases. For example, the impact of noise is short lived (impact ceases when activity ceases) whereas the impact of removing topsoil exists for a much longer period.
- **Magnitude/Severity** of an impact determines to what extent will the environment be destroyed or its functions be altered by the activity.

Table 12: Environmental impact assessment criteria

Extent of Impact:		
Site	The impacted area will only extend as far as the activity being conducted, e.g., the activity footprint.	1
Neighboring	Impact occurs within 5km radius of the site.	2
Local	Impact occurs within a 20km radius of the site.	3
Regional	Impact occurs within a 100km radius of the site.	4
National	Impact occurs within South Africa.	5
Duration of Impact:		
Short-term	The impact will either disappear with mitigation or will be mitigated through the natural processes in shorter time span.	2
Medium-term	The impact will last up to the end of the project phases, where after it will be negated. The impact will cease within 5 years if the activity is stopped.	3
Long-term	The impact will last for the entire operational phase and after the operational life of the operation but will be mitigated by direct human action or by natural processes thereafter.	4
Permanent	Intervention will not occur in such a way or in such a time span. that the impact can be considered transient.	5
Probability of the Occurrence of the impact:		
Unlikely	The possibility of the impact materializing is exceptionally low either because of design or historic experience.	1
Likely	The possibility of the impact materializing will occur to the extent that provision must be made thereof.	2
Probable	There is a distinct possibility that the impact will occur.	4
Definite	The impact will occur regardless of any prevention measures.	5
Magnitude of the impacts:		
Minor	The impact alters the affected environment in such a way that the natural processes are not affected.	2
Moderate	The affected environment is altered; however, the functions and processes continue in a modified way.	6
Major	Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.	8
Significance of the impact: Sum (Duration, Extent, Magnitude) x Probability		
Negligible	The impact is non-existent or unsubstantial and is of no or little importance to any stakeholder and can be ignored.	< 20
Low	The impact is limited in extent, with low to medium intensity and whatever the probability of the occurrence may be, the impact will not have a material effect on the decision and is likely to require the management intervention with increased costs.	< 40
Moderate	The impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.	< 60
High	The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation	> 60

The proposed activities will have insignificant impacts and will occur for a short period of time. The probability of the impacts was also determined, and most of these activities can be controlled and impacts can be reduced or avoided. The probability was determined by examining other activities of a similar nature. Since the negative effects of planned activities can be controlled, avoided, or minimized, the project activities' layout does not need to be revised.

Project Activities

The operational phase has different activities and objectives of the project, and will therefore, have different impacts on the environmental attributes as compared to the construction phase.

The activities to be undertaken on site during the operational phase include:

- Site clearance (for infrastructure);
- Establishment of infrastructure (temporary site offices, and portable ablution facilities);
- Removal of abandoned old infrastructure;
- Vegetation clearance to access the tailings residue;
- Waste removal within the project area;
- Waste handling (transportation and stockpiling).;
- Close-up or infilling of trenches and voids; and
- Final rehabilitation of the overall area.

Table 13: Impacts and risks identified

Element	Impacts	Pre-mitigation							
		Extent	Duration	Magnitude	Probability	Significance	Rating	Reversibility	Replaceability
Soils and Land Capability	Soil erosion Soil contamination due to the hydrocarbons Soil compaction due to the operating equipment. Degraded land due to presence of tailings residues.	Site (1)	Short term (2)	Major (8)	Probable (4)	Moderate	44 -	Reversible	Replaceable
Topography	The removal of tailings residues may alter the man-made topography to its natural state.	Site (1)	Permanent (5)	Moderate (6)	Probable (4)	Moderate	48 +	Irreversible	Irreplaceable
Vegetation	Loss of biodiversity Loss of Habitat Alien species invasion	Site (1)	Short term (2)	Moderate (6)	Probable (4)	Low	36 -	Reversible	Replaceable
Animal life	Loss of animal life and disruption to animal activities. Loss of habitat Animal migration	Site (1)	Medium term (3)	Moderate (6)	Probable (4)	Moderate	40 -	Reversible	Replaceable
Surface Water	Generation of AMD and contaminating local surface water resources	Local (3)	Medium term (3)	Moderate (6)	Likely (2)	Low	24 -	Irreversible	Replaceable
Ground water	No groundwater will be used or abstracted during the operations. Groundwater contamination due to toxic elements from the waste dumps and possible seepage of hydrocarbons from the operation.	Local (3)	Medium term (3)	Moderate (6)	Probable (4)	Moderate	48 -	Irreversible	Replaceable
Air Quality/ Dust	Dust generation by vehicle movement during the operational phase	Neighbouring (2)	Short term (2)	Minor (2)	Probable (4)	Low	24 -	Irreversible	Replaceable
Noise	Noise nuisance will be created by vehicle movement o and during the excavation, loading and haulage of materials	Neighbouring (2)	Short term (2)	Minor (2)	Likely (2)	Negligible	12 -	Irreversible	Replaceable
Cultural Heritage	Impacts on cultural and heritage resources if any exists.	Site (1)	Short term (2)	Minor (2)	Unlikely (1)	Negligible	5 -	Reversible	Irreplaceable
Visual	The operation activities may change the visual character of the property by the removal of tailings residues. There will be visual nuisance of the operating equipment and vehicles.	Neighbouring (2)	Short term (2)	Moderate (6)	Probable (4)	Medium	40 -	Reversible	Irreplaceable
Socio-economic	Influx of jobseekers. Over-expectations on job creation which may lead to violent marches. Conflict between the host community members and the employed personnel from areas outside the host community.	Local (3)	Medium term (3)	Moderate (6)	Likely (2)	Low	24 -	Reversible	Replaceable
Safety	Occupational injuries. Equipment theft and property vandalism.	Neighbouring (2)	Medium term (3)	Moderate (6)	Likely (2)	Low	22 -	Reversible	Replaceable
Health	Health impact due to dust inhalation	Neighbouring (2)	Medium term (3)	Moderate (6)	Likely (2)	Low	22 -	Reversible	Replaceable
Waste Generation	Waste nuisance and littering	Site (1)	Short term (2)	Minor (2)	Likely (2)	Low	10 -	Reversible	Replaceable

	Generation of hazardous waste due to hydrocarbons storage								
Traffic impacts	Traffic due to moving vehicles and transportation trucks in and out of the site.	Site (1)	Short term (2)	Minor (2)	Likely (2)	Low	10 -	Reversible	Replaceable

9.4.4. The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected.

(Provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties)

The impacts assessed has highlighted potential risks, important management strategies and control measures associated with the project. It is considered there are opportunities to substantially enhance and improve the current and on-going impacts by undertaking a well-planned and effective decommissioning and rehabilitation of the tailings residues operation. The project has associated positive and negative impacts, and such impacts are described in the table below:

Table 14: Summary of positive and negative impacts of the proposed activity.

Impact	Pre-Mitigation	Operation	Decommission	Post-Decommission	Post-Mitigation	Operation	Decommission	Post-Decommission
Positive (+)	Medium	-Employment opportunities	-	-	Medium	-Improved health and safety for the locals -Improved topography	-Availability of land use -Improved groundwater quality -Improved health safety of the locals -Improved soil quality	-Improved soils and land capability -Land reservation for other land uses -Vegetation regeneration Improved biodiversity and ecological processes -Improved visibility and environmental beauty -Improved soils and land capability -Improved water quality on surface and groundwater resources -Disturbance to surface water drainage system
Positive (+)	Low	-Job security and skills development	-Job opportunities and skills development -Improved soils and land capability -Land reservation for other land uses		Low	-Improved visibility and environmental beauty -Improved soils and land capability -Employment opportunities and socio-economic empowerment	-Improved surface water drainage and water quality -Improved health and safety	
Negative (-)	Low	-Visual nuisance to moving equipment and vehicles.	-Visual nuisance to moving equipment and vehicles.	-Job insecurities	Low		-Alien vegetation species invasion -Soil erosion and	-Habitat disturbance -Vegetation disturbances due to vegetation

9.4.5. The possible mitigation measures that could be applied and the level of risk.

(With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/ discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

Aspects	Pre mitigation impacts	Mitigation	Impact (post-mitigation)						Post mitigation impacts
			Scale	Duration	Magnitude	Probability	Significance	Reversibility	
Vegetation	<ul style="list-style-type: none"> -Disturbed sites and species of ecological importance. -Loss of indigenous vegetation and biodiversity. -Invasion of the alien vegetation species. 	<ul style="list-style-type: none"> -Removal of vegetation must be undertaken in a phased approach to limit the number of plain areas at a time. -Implementing the alien invasive vegetation management plan. 	Site (1)	Medium term (3)	Moderate (6)	Probable (4)	Medium + (40)	Reversible	<ul style="list-style-type: none"> -Regeneration of vegetation post decommissioning. -Remediated sites and re-establishment of species of ecological importance.
Soil and land capability	<ul style="list-style-type: none"> -The extraction of the tailings residue material may result to an increased surface water runoff which may lead to soil erosion, generation of AMDs, loss of soil nutrients and changes in soil properties. -The movement of heavy vehicles in the operation area will result in compaction of soil. -The equipment and vehicles may contaminate the soil due to oil spillages. -Land incapable for other uses due to the existence of the waste dump material. 	<ul style="list-style-type: none"> -Temporary erosion control measures such as runoff berms that reduce flow velocity should be implemented around operational areas. -Roads must be maintained regularly of eroded shoulders. -Vehicle movement should be restricted to designated areas and access roads to minimise as much as possible the impact on soils. -A cleaned-up of any hydro-carbon spills on soil must be undertaken by trained personnel using commercially available emergency clean-up kits and properly disposed. -Implementation of the Bioremediation where necessary to improve soil capabilities. 	Site (1)	Long term (4)	Moderate (6)	Probable (4)	Medium + (44)	Reversible	<ul style="list-style-type: none"> -Improved land capability for other uses. -Improved soil properties and the potential for the host communities to benefit from shared land management responsibilities
Visual	<ul style="list-style-type: none"> -Visual disturbance due to site operations. -Dust generation. 	<ul style="list-style-type: none"> -Use of barricade fence covers where possible to minimise the visual impact. -Implementation of the dust management measures. 	Local (2)	Long term (4)	Moderate (6)	Probable (4)	Medium + (48)	Reversible	<ul style="list-style-type: none"> -Improved environmental aesthetic due to the removal of the waste material.

	-Disrupted environmental aesthetic due to the presence of the tailings residues.	-Removal of the tailings residues.							
Topography	-The removal of tailings residues may alter the man-made topography to its natural state.	-Temporary erosion control measures such as the runoff berms must be implemented to reduce flow velocity should be implemented around the operation areas.	Site (1)	Long term (2)	Minor (2)	Likely (2)	Negligible – (5)	Reversible	Topography returned to its natural state
Animal life	-Disrupted the animal life and activities due to the existence of tailings residues. -Disruption of animal life due to the ongoing operation activities. -Displaced animal habitat by the existence of tailings residues.	-Conduct environmental awareness and training for workers about the animal life on site. -Killing of animals on site will be strictly prohibited and whenever animal is found must be safely removed from the operation. -Cautious implementation of the waste material management measure.	Local (2)	Medium term (3)	Moderate (6)	Likely (2)	Low + (22)	Irreversible	-Re-establishment of new migration corridors, and access to nesting and refuge areas. -Replaced animal habitat.
Surface Water	-Exposed toxic elements may react with rainwater and generate AMD that may flow into nearby surface water resources. -Disrupted natural surface water drainage. -Sedimentation and siltation of water courses	-Implementation of temporary erosion control measures such as the runoff berms must be implemented to reduce flow velocity should be implemented. -Remedy the possible effects of alteration to natural drainage lines. -Implementing the hydrocarbon spillages management plan, -Management measures and removal of the source of toxic elements. -Management measures and removal of the source of toxic elements from the waste material into the water resources.	Local (2)	Long term (4)	Moderate (6)	Likely (2)	Low + (24)	Irreversible	Reduced generation of AMD due to the removal of the waste material with toxic elements. Restored natural surface water drainage.
Groundwater	-Degradation of groundwater quality due contaminated by the seepage of toxic elements from the waste material and hydrocarbon from the oil spills.	-Implement procedures to prevent and minimise hydrocarbon spills by cleaning after the oil spills on site, placing of a drip tray beneath the stationary equipment and placing or storing hydrocarbon (fuel) on concrete bunded area. -Ensure regular maintenance and servicing of equipment to prevent oil spillages from equipment.	Local (2)	Long term (4)	Moderate (6)	Likely (2)	Low + (24)	Irreversible	Improved groundwater quality post the decommission operations as the source of contamination will be removed

		-Management measures and removal of the source of toxic elements from the waste material into the water resources.							
Dust/Air Quality	<p>-Dust generation by the movement of heavy vehicles during the material extraction activities.</p> <p>-Heavy dust deposition can have detrimental effects on plants if the leaves are smothered to the extent where transpiration and photosynthesis are affected.</p> <p>-Health impacts on people in proximity to the project site due to fine particulate emissions during construction and operational phases.</p>	<p>Speed limits should be enforced to reduce dust created by moving vehicles.</p> <p>Haul roads in use will be subjected to dust suppression management measures.</p> <p>Implement concurrent rehabilitation activities to minimise the number of exposed surfaces that would result in dust generation.</p> <p>Ensure that all the loaded trucks are covered with a sheet during transportation.</p> <p>Ensure that none of the haul vehicles transporting material from the operation are visually overloaded.</p>	Site (1)	Short term (2)	Minor (2)	Unlikely (1)	Negligible – (5)	Reversible	No further generation of dust post the decommissioning activities
Noise	<p>-Increase in ambient noise levels during the operational activities.</p> <p>-Disturbances to faunal species due to the noise from the operations.</p>	<p>-Silencers should be fitted on all engines.</p> <p>-Develop effective complaints register that can be monitored regularly and accessible to the interested and affected party.</p> <p>-Operation must be restricted to the following hours of operation:</p> <ul style="list-style-type: none"> • Monday to Friday – 07h00 to 17h00. • Saturday – 07h00 to 16h00. <p>-No operation will be undertaken on Sundays (only maintenance) and public holidays.</p> <p>-Implement noise monitoring.</p> <p>-Ensure noise emissions are minimised by regularly servicing all vehicles and placing silencers on their engines.</p>	Site (1)	Short term (2)	Minor (2)	Unlikely (1)	Negligible – (5)	Reversible	No further noise generation post the decommissioning activities
Cultural Heritage	There are no known important heritage resources on the site.	<p>-Conduct Identification of all possible sites of archaeological value.</p> <p>-Identified sites must be clearly demarcated as no-go areas.</p>	Site (1)	Short term (2)	Minor (2)	Unlikely (1)	Negligible – (5)	Irreversible	Not Applicable

		-If any heritage resources, including fossils, graves, or human remains, are encountered with, these must be reported to the authorities.							
Socio-economic	-Employment opportunities for people from the local communities of which will have the potential to considerably improve the livelihoods and income stability of employees and their dependants. -Knowledge and skills transfer. Empowerment of the local businesses due to procurement of goods and services	-Establish targets for employment and training. -Effective implementation of training and skills development initiatives. -Prioritizing the sourcing available skills from the host community. -Transparency with the community members about the employment opportunities and what the project can provide in terms of the community expectations. -Community engagement for the community to understand the magnitude of the operation and the employment requirements of the project. -Ensure that goods and services are procured from within the local area as far as possible.	Local (2)	Short term (2)	Minor (2)	Likely (2)	Negligible + (12)	Irreversible	-The creation of employment and business opportunities and training. -Skills transfer and enhancement to workers. -Improved economic development.
Safety impacts	-Occupational injuries. -Illegal mining activities that are also associated with criminal activities may affect the project and the surrounding communities due to theft of equipment and the damage of infrastructure.	-Ensure that there is a controlled access to the site by deploying security personnel who would also conduct security patrols to monitor the perimeters of the project site. -Consult with the local police branch to establish standard operating procedures for the control and/or removal of loiterers. -Safety signs and barricades must be placed around the operation site to ensure safety of the workers and the public. -All project infrastructure should be placed in a secured area to prevent unauthorized access and potential safety risks.	Local (2)	Long term (4)	Moderate (6)	Likely (4)	Low + (24)	Reversible	-The removal of the source of gold-bearing material attracting illegal miners and associated criminal activities. -Removal of the safety threats posed by the tailings residues.

		-Operational sites must be clearly demarcated to control movement of personnel and vehicles and provide clear boundaries to limit the spread of impacts.							
Health Impacts	The dust potentially containing hazardous substances and particulate matter, which can be inhaled, causing respiratory diseases.	<p>-Make available, maintain, and effectively implement a grievance/complaint register.</p> <p>-Provision of appropriate personal protective equipment (PPE).</p> <p>-Placing of safety signs around the operation area.</p> <p>-Induction should be conducted to all employees or sub-contractors entering site to ensure the awareness of the developed health and safety plan;</p> <p>-Daily inspections and observations of on-site activities shall be conducted;</p> <p>-All incidents to be reported, recorded, investigated, and mitigated.</p> <p>-Safety signs to be provided in areas considered as high-risk areas;</p> <p>-Provided adequate first aid services on site; and</p> <p>-Promote ongoing health and safety awareness campaigns.</p>	Local (2)	Long term (4)	Moderate (6)	Likely (4)	Low + (24)	Reversible	<p>-Removal of toxic dust particles from the waste material.</p> <p>-Implementation of health mitigation measures to improve community health.</p>
Waste	<p>-Generation of various types of waste including the general waste, hazardous and scrap/metal waste.</p> <p>-If this waste is not stored correctly, can lead to environmental pollution including soil and water resources contamination.</p>	<p>-Classification and separation of the waste into general or hazardous must be implemented onsite into different coloured and labelled bins.</p> <p>-Uncontrolled disposal of waste must strictly be prohibited on site.</p>	Site (1)	Short term (2)	Major (2)	Unlikely (1)	Negligible – (5)	Reversible	Ceased generation of waste from the operation on site
Traffic	<p>-Addition of traffic to the existing local traffic.</p> <p>-Impacts on surface quality of the road impacted resulting from vehicle movement.</p>	<p>-Implement the traffic control and management measures.</p> <p>-Vehicles and trucks will access the site via existing roads.</p>	Site (1)	Short term (2)	Major (2)	Unlikely (1)	Negligible – (5)	Reversible	Ceased addition of traffic to the existing local traffic.

		<p>-Management and maintenance of the sections of existing road surfaces which have been impacted on by the vehicle movement.</p> <p>-Existing road surfaces must be utilised and maintained within baseline levels.</p>							
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9.4.6. Motivation where no alternative sites were considered.

The interest of this project is the removal of the tailings residues for the purposes of reclamation of gold ore. The applicant intends to clean and rehabilitate the area to the satisfactory standard to ensure that the land can be reserved for other socio-economic development activities within the area. Therefore, this project has no alternative site.

9.4.7. Statement motivating the alternative development location within the overall site.

(Provide a statement motivating the final site layout that is proposed)

The site layout plan was determined with consideration of spatial information and the observations made during site visits. To determine the final site layout, security measures were considered in relation to the illegal mining activities which are happening within the area. The EMPr will propose, among other things, the rehabilitation of tailings residues on the site, the restoration of ecological status of the area of interest prior to mining operations, and the improvement of alternative land uses post the decommissioning and rehabilitation.

9.5. Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site.

(In respect of the final site layout plan) through the life of the activity. (Including (i) a description of all environmental issues and risks that are identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.)

The purpose of the EIA Phase was to investigate the potential negative and positive impacts of the proposed project activities on the environment. The potential impacts were quantified to assess the significance that an impact may pose on the receiving environment. The objectives of the EIA process were to:

- Ensure that the potential biophysical and socio-economic impacts of the proposed project, are taken into consideration during the decision-making process;
- Ensure that the project activities undertaken do not have a substantial detrimental impact on the environment by presenting management and mitigation measures that will avoid and/or

reduce those impacts;

- Ensure that I&APs are informed about the proposed project and the public participation process to be followed;
- Ensure that I&APs are given an opportunity to raise concerns; and
- Provide a process aimed at enabling authorities to make an informed decision, especially in respect of their obligation to take environmental and social considerations into account when making those decisions.

The EIA process assessed the overall aspects affected by the proposed project in relation to the activities to be conducted. An assessment has been conducted to determine the sensitivity of the proposed area to make sound decision on the consideration and implementation of the mitigation measures of the impacts posed by the proposed activity.

The ranking of risks is estimated using two criteria, namely consequence and significance. Using the significance criteria, impacts can be assigned a rating of a potential risk, uncertain risk, and significant risk.

Table 15: Significant risks rating system

Rating	Significant Risks	Description
3	Potential	<ul style="list-style-type: none"> • The extent is national to international, • The duration is long term to permanent, • The magnitude will be high and above the acceptable standard, and • Requires extensive intervention to mitigate the impacts.
2	Uncertain	<ul style="list-style-type: none"> • The extent is local to regional, • The duration is medium to long term, • The magnitude is above the acceptable standard, and • The environmental impacts are uncertain and may require some interventions to limit the impacts in future.
1	Insignificant	<ul style="list-style-type: none"> • The extent is site specific, • The duration is temporary, • The magnitude is within the acceptable standard, and • The environmental is ecologically and physically stable and no further interventions will be required in future.

The probability of occurrence has been categorised within the context of reasonable timeframes and frequencies given the nature of the anticipated project life. The following table defines the levels of likelihood and severity for the types of consequences that comprise the risk rating determination:

Table 16:Severity of the consequence rating system

Rating	Severity	Description
5	Critical	Risks significantly exceed the risk acceptance threshold and necessitate comprehensive control measures as well as additional urgent and immediate attention to the identification and implementation of risk-reduction measures
4	Major	Risks that likely to exceed the risk acceptance threshold, and while proactive control measures have been planned or implemented, a very close monitoring regime and additional actions to reduce risk are required.
3	Significance	Risks that are effectively positioned on the risk acceptance threshold, these risks are likely to necessitate active monitoring.
2	Moderate	Risks with relatively low likelihood and low to mid-level consequence scenarios.
1	Minor	Risks unlikely to rare events with minor consequences and in essence relate to situations around very low probabilities of relatively minor impacts occurring.

Table 17:Likelihood of the consequence rating system

Rating	Likelihood	Definitions
5	Almost certain	The event is expected to occur in most circumstances (The event is likely to occur once per year).
4	Likely	The event will probably occur in most circumstances (The event is likely to occur once every 1 – 2 years).
3	Possible	The event might occur at some time (The event is likely to occur once every 2 – 5 years).
2	Unlikely	The event could occur at some time (The event is likely to occur once every 5 – 10 years).
1	Rare	The event may occur only in exceptional circumstances (The event is unlikely to occur in any 10-year period).

Risks can therefore be classified in different ratings in terms of the severity of consequence and the likelihood of consequence as described below.

Table 18:Description of risk classifications

Risk rating	Description
Extreme	These are unacceptable risks that are primarily critical in nature in terms of the extent and long-term environmental harm, permanent sacred site damage, fatality, and massive economic impacts that are effectively regarded as a possibility to almost certain to occur.
High	Typically refer to significant to critical consequences, such as significant environmental or heritage damage, as well as significant safety, social, or economic consequences that are likely to cut across the possible to almost certain likelihood ratings.
Medium	As the classification suggests, medium level risks encompass a range of risk combinations ranging from relatively low consequence / high likelihood to mid-level consequence / low likelihood scenarios across environmental, social, and economic domains.
Low	These risks are below the risk acceptance threshold and although they may require additional monitoring in certain cases are not considered to require active management.
Very Low	Impacts risks that are below the risk acceptance threshold and would at the most require additional monitoring and in many cases would not require active management.

Risk Analysis Matrix

The risk controls are linked to the level of risk and the opportunity for risk reduction to meet the project rehabilitation objectives and goals, which are linked to an environmentally and socially responsible operation, and these requirements are part of the regulatory obligations and impact assessment guidelines. The table below summarizes the qualitative risk matrix used, as well as the risk levels for the various consequence and likelihood combinations.

Table 19: Risk Analysis Matrix

		Severity of Consequence				
		Critical (5)	Major (4)	Significant (3)	Moderate (2)	Minor (1)
Likelihood of Consequence	Almost Certain (5)	Extreme	Extreme	High	High	Medium
	Likely (4)	Extreme	High	High	Medium	Medium
	Possible (3)	Extreme	High	Medium	Medium	Low
	Unlikely (2)	High	Medium	Medium	Low	Very Low
	Rare (1)	Medium	Medium	Low	Low	Very Low

The impact assessment will focus on the activities of the project since they will have the potential to impact on the biophysical and the social environment of the proposed area. The impact assessment is furthermore separated into three (3) distinct phases, namely:

Construction Phase;

- Site clearance (for infrastructure);
- Establishment of infrastructure (temporary site offices, and portable ablution facilities);

Operation phase (Reclamation); and

- Vegetation clearance to access the waste dump material.
- Waste removal from different points within the project sites.
- Waste handling (transportation and stockpiling).
- Material take-off and transportation to the offsite treatment facility.

Decommissioning and final rehabilitation.

- Decommissioning and rehabilitation of the old infrastructure.
- Final rehabilitation of the overall area

Table 20: Identified and assessed impacts and risks the activity will impose on the preferred site

Aspect	Impact	Mitigation Measures	*Si	*L	*Se	*R
Vegetation	<ul style="list-style-type: none"> Disturbed sites and species of ecological importance. Disturbed vegetation cover. Disturbed sites and species of ecological importance. Loss of indigenous vegetation and biodiversity. Invasion of the alien vegetation species. 	<ul style="list-style-type: none"> Removal of vegetation in a phased approach. Implementation of the alien invasive vegetation species management plan. 	Pre – Mitigation			
			1	3	1	L (-)
			Post – Mitigation			
			2	3	3	M (+)
Animal Life	<ul style="list-style-type: none"> Disrupted the animal life and activities due to the existence of the tailings residues. Disruption of animal life due to the ongoing operations. Displaced animal habitat. 	<ul style="list-style-type: none"> Conduct environmental awareness and training about the animal life on site. Restrictions on the killing of animals on site. Cautious implementation of the waste material management measure. 	Pre – Mitigation			
			1	3	1	L (-)
			Post – Mitigation			
			2	3	3	M (+)
Soils and Land Capability	<ul style="list-style-type: none"> Soil erosion, generation of AMDs, loss of soil nutrients and changes in soil properties. Soil compaction. Soil contamination due to oil spillages. Land incapable for other uses due to the existence of the waste material. 	<ul style="list-style-type: none"> Temporary erosion control measures. Regular road maintenance. Vehicle movement should be restricted to designated areas and access roads. A cleaned-up of any hydro-carbon spills. Implementation of the Bioremediation. Fuel storage areas on concrete and bunded surfaces. 	Pre – Mitigation			
			2	3	3	M (-)
			Post – Mitigation			
			1	3	1	L (+)
Surface water	<ul style="list-style-type: none"> Exposed toxic elements may react with rainwater and generate AMD. Disrupted natural drainage and runoff. Sedimentation and siltation of water courses Degradation of surface water quality 	<ul style="list-style-type: none"> Remedy the effects of alteration to natural drainage lines. Implementing the hydrocarbon spillages management plan. Implement the erosion control measures. Management measures and removal of the source of toxic elements. 	Pre – Mitigation			
			2	2	2	L (-)
			Post – Mitigation			
			2	3	1	L (+)
Groundwater	<ul style="list-style-type: none"> Degradation of groundwater quality due contaminated by the seepage of toxic elements from the waste material and hydrocarbon from the oil spills. 	<ul style="list-style-type: none"> Remediate using commercially available emergency clean up kits. Regular maintenance and servicing of equipment. Management measures and removal of the source of toxic elements. 	Pre – Mitigation			
			2	2	2	L (-)
			Post – Mitigation			
			2	3	1	L (+)
Noise	<ul style="list-style-type: none"> Increase in ambient noise levels during the operational phase; Disturbances to faunal species during the operational phase. 	<ul style="list-style-type: none"> Limiting the site establishment activities working hours to daylight hours (07h00 to 17h00) and not undertaking such activities at all on Sundays and public holidays. No operation will be undertaken on Sundays (only maintenance) and public holidays. Implement noise monitoring. Ensure noise emissions are minimised by regularly servicing all vehicles and placing silencers on their engines. 	Pre – Mitigation			
			1	2	2	L (-)
			Post – Mitigation			
			1	2	1	VL (-)
Air Quality/Dust	<ul style="list-style-type: none"> Possible dust generation because of vehicles movements during the operations Detrimental effects on plants. Health impacts on animals and people. 	<ul style="list-style-type: none"> Implementation of dust control measures such as dust suppression and dust fall-out monitoring. Enforcing the speed limits to reduce dust created by moving vehicles; 	Pre – Mitigation			
			1	2	2	L (-)
			Post – Mitigation			
			1	2	1	VL (-)
Visual	<ul style="list-style-type: none"> Visual disturbance due to site operations. Dust generation. 	<ul style="list-style-type: none"> Use of barricade fence covers where possible to minimise the visual impact. 	Pre – Mitigation			
			2	3	3	M (-)

	<ul style="list-style-type: none"> Disrupted environmental aesthetic due to the presence of the waste material. 	<ul style="list-style-type: none"> Implementation of the dust management measures. Removal of the waste material. 	Post – Mitigation 2 2 3 M (+)
Socio-economic	<ul style="list-style-type: none"> Employment opportunities. Knowledge and skills transfer. Empowerment of the local businesses. 	<ul style="list-style-type: none"> Establish targets for employment and training. Effective implementation of training and skills development initiatives. Prioritizing the sourcing available skills from the host community. Transparency with the community members about the availability of employment opportunities. Community engagement. Ensure that goods and services are procured from within the local area as far as possible. 	Pre – Mitigation 2 3 1 L (+) Post – Mitigation 2 2 1 VL (-)
Cultural and Heritage Resources	<ul style="list-style-type: none"> There are no known important heritage resources on the site. 	<ul style="list-style-type: none"> Conduct Identification of all possible sites of archaeological value. Identified sites must be clearly demarcated as no-go areas. Reporting of any heritage resources encountered to the relevant authorities. 	Pre and post mitigation 1 1 1 VL
Waste	<ul style="list-style-type: none"> Generation of various types of waste. Environmental pollution including soil and water resources contamination. 	<ul style="list-style-type: none"> Classification and separation of the waste. Prohibition of uncontrolled disposal of waste on site. 	Pre – Mitigation 1 3 1 L (-) Post – Mitigation 1 2 1 VL (-)
Safety	<ul style="list-style-type: none"> Occupational injuries. Illegal mining activities that are also associated with criminal activities. 	<ul style="list-style-type: none"> Ensure that there is a controlled access to the site. Consult with the local police branch to establish standard operating procedures for the control and/or removal of loiterers. Safety signs and barricades must be placed around the operation site. All project infrastructure should be placed in a secured area. Operational sites must be clearly demarcated. 	Pre – Mitigation 2 3 2 M (-) Post – Mitigation 2 3 1 L (+)
Health	<ul style="list-style-type: none"> The dust potentially containing hazardous substances and particulate matter, which can be inhaled, causing respiratory diseases. 	<ul style="list-style-type: none"> Make available, maintain, and effectively implement a grievance/complaint register. Provision of appropriate personal protective equipment (PPE). Placing of safety signs around the operation area. Induction should be conducted to all employees or sub-contractors entering site to ensure the awareness of the developed health and safety plan; Daily inspections and observations of on-site activities shall be conducted; All incidents to be reported, recorded, investigated, and mitigated. Safety signs to be provided in areas considered as high-risk areas; Provided adequate first aid services on site; and Promote ongoing health and safety awareness campaigns. 	Pre – Mitigation 2 3 2 M (-) Post – Mitigation 2 3 1 L (+)
Traffic	<ul style="list-style-type: none"> Addition of traffic to the existing local traffic. Impacts on surface quality of the road impacted resulting from vehicle movement 	<ul style="list-style-type: none"> Vehicles and trucks will access the site via existing roads. Management and maintenance of the sections of existing road surfaces which have been impacted on by the vehicle movement. 	Pre – Mitigation 1 3 1 L (-) Post – Mitigation 1 2 1 VL (-)

		<ul style="list-style-type: none"> Existing road surfaces must be utilised and maintained within baseline levels. 				
Topography	<ul style="list-style-type: none"> The removal of the waste dumps may alter the man-made topography to its natural state. 	<ul style="list-style-type: none"> Temporary erosion control measures such as the runoff berms must be implemented to reduce flow velocity should be implemented around the operation areas. 	Pre – Mitigation			
			1	3	1	L (-)
			Post – Mitigation			
			1	2	1	VL (+)
<p>*Si – Significance *L – Likelihood of consequences *R – Residual Risks *Se – Consequences VL – Very Low; L – Low; M – Medium; H - High</p>						

Method of assessing the environmental aspects:

- **Surface Water**

A site visit was undertaken to assess and verify the hydrological characteristics on site in relation to proposed activities. The orientation of watercourses in relation to the proposed activities and how this can influence surface water quality conditions within the resources in the vicinity of the area is also assessed. The site assessments help in recommendations of mitigation measures which include storm water management and water quality monitoring.

- **Cultural and Heritage Resources**

There are no known important heritage resources on the site. Relevant authorities will be informed, should there be any discovered heritage resources. Necessary measures will be taken to avoid impacts on such resources.

Personnel will be educated and made aware of consequences of unlawful removal of cultural and historical remains and artefacts associated with heritage sites. It will be emphasised that archaeological artefacts such as potsherds, stone tools, grinding stones, etc. must be left in situ and undisturbed until such time the relevant authorities act upon the discovery.

A barricade fence or tape will be put around the discovered heritage resource and maintain a safe distance of at least 50 metres between the identified heritage resource and the activities being undertaken. If any heritage resources are discovered because of the set-up activities, such activities will cease with immediate effect and a qualified archaeologist will be commissioned to assess their significance and determine appropriate mitigation measures.

- **Noise**

Considering the size and magnitude of the proposed project and the type of equipment to be used, the noise impact is assessed as being "LOW". However, the mitigation measures have been put in place to sustain the low significance of the impact by limiting the site activities to daylight hours (06h00 to 18h00) and not undertaking such activities at all on Sundays and public holidays. The vehicles on site will be limited to an excavator/ FEL and load truck.

- **Visual**

The visual impact of the decommission activities is assessed as being of medium significance before mitigation. The impact can be reduced to low significance to the locations of visual receptors on the project areas and adjacent properties.

- **Dust fall**

A dust fallout monitoring programme will be implemented during the operation of the project to ensure that the dust generated on the site is within the standard rates as contemplated in the National Dust Control Regulations (GN R. 827 of 1 November 2013), the implementation of dust control measures and continuous ambient air quality monitoring for PM10. The impact of dust generation by vehicles moving over unpaved areas is assessed as being of medium significance before mitigation. The impact can be reduced to one of low significance by subjecting the routes to dust suppression and enforcement of low vehicle speeds (20 Km/h).

- **Soil and vegetation disturbance**

The scope of the proposed focuses on the removal of the tailings residues and rehabilitation of all disturbed areas, therefore there will not be any disturbance on fresh soil. The vegetation disturbance will result from the site establishment. The impact in the proposed area is assessed as being of medium significance before mitigation. The impact can be reduced to one of low significance by limiting the activities and clearance to the smallest area possible, that is necessary and concurrent rehabilitation be implemented to avoid any major environmental degradation or a delay in the rehabilitation activities. Furthermore, that no clear scraping be carried out unless necessary.

- **Soil and groundwater contamination**

The proposed project activities could have the impact of soil contamination and possibly groundwater with hydrocarbons of a medium significance before mitigation. The impact can be reduced to one of low significance by placing the fuel storages on bunded areas, placing drip trays under stationary vehicles, necessary vehicle maintenance and cleaning up after any oil spill incident. Therefore, proper training on oil spills clean-up must be provided to the personnel and there must always be a spill kit on site.

- **Health and Safety**

The tailings residues resulted from the processing of gold and therefore contains toxic substances that can be harmful to human health if ingested or inhaled. The tailings residues are near the residential and business area, and therefore, the community might be subjected to health risks from inhaling the particulate matter from the tailings residues.

The presence of the tailings residues has an impact on the health and safety aspects on the surrounding communities. The tailings residues contain gold-bearing material which attract the influx of the illegal miners and that also increases the criminal activities associated with the illegal mining activities which also place a burden on the law enforcement. The communities are subjected to these activities and pose danger to their livelihoods. The removal of the tailings residues will eradicate the illegal mining activities and its associated criminal activities, therefore restoring the safety on the communities.

- **Socio-economic conditions**

Positive impacts

The proposed project is expected to be operational for approximately five years depending on the need to continue with the activities to achieve the rehabilitation objectives and meet the landowner's requirements. The positive impacts relate to the creation of jobs, business opportunities and skills development.

Negative impacts

The negative impacts are associated with population influx as job seekers move into the area which may result in conflict between residents and job seekers, increase in crime and other social issues.

- **Public Participation Process followed:**

The public participation process will be undertaken in accordance with the NEMA and aligned with the regulatory requirements in terms of Chapter 6 of the EIA Regulations, 2014 (as amended). Below is the summarised public participation process.

Table 21: Summary of the PPP followed.

Activity	Details
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Distribution of BID and the I&AP registration form	A Background Information Document (BID) including an I&AP registration form will be distributed to various stakeholders including the I&APs via email.
Placing of newspaper advertisement	Newspaper advertisement will be placed in the Citizen newspaper.;
Putting up of site notices	Site notices will be placed around the site and;
Announcement of Draft BAR	An electronic copy could be accessed and downloaded from the www.vahlangweadvisory.co.za website.
Public meeting	A public meeting with the Interested and Affected parties will be held to discuss the draft Basic Assessment Report.
Announcement of Final Basic Assessment Report	The final report will be made available through Vahlangwe Mining and Advisory Consulting website (www.vahlangweadvisory.co.za).

10. Assessment of each identified potentially significant impact and risk

(This section of the report must consider all the known typical impacts of each of the activities (including those that could or should have been identified by knowledgeable persons) and not only those that were raised by registered interested and affected parties).

Table 22: Assessment of the potentially significant impact and risk.

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
-Vegetation clearance to access the tailings residues. -Waste removal from within the project sites. -Waste handling (Stockpiling, haulage, and transportation). -Material take-off and transportation to the offsite treatment facility.	-Disturbed sites and species of ecological importance. -Disturbed vegetation cover. -Disturbed sites and species of ecological importance. -Loss of indigenous vegetation and biodiversity. -Invasion of the alien vegetation species.	Vegetation (flora)	Operational and decommissioning	Low (-)	-Removal of vegetation in a phased approach. -Implementation of the alien invasive vegetation species management plan.	Medium (+)
-Decommissioning and final rehabilitation of the overall area.	-Disrupted the animal life and activities due to the existence of the tailings residues. -Disruption of animal life due to the ongoing operations. -Displaced animal habitat.	Animal life (fauna)	Operational and decommissioning	Medium (-)	Conduct environmental awareness and training about the animal life on site. -Restrictions on the killing of animals on site. -Cautious implementation of the waste material management measure.	Low (+)
	-Soil erosion, generation of AMDs, loss of soil nutrients and changes in soil properties. -Soil compaction. -Soil contamination due to oil spillages. -Land incapable for other uses due to the existence of the tailings residues.	Soil and land capability	Operational and decommissioning	Medium (-)	-Temporary erosion control measures. -Vehicle movement should be restricted to designated areas and access roads. -A cleaned-up of any hydro-carbon spills. -Implementation of the Bioremediation. -Fuel storage areas on concrete and bunded surfaces.	Medium (+)
	-Exposed toxic elements may react with rainwater and generate AMD. -Disrupted natural drainage and runoff.	Surface water resources	Operational, and Decommissioning	Low (-)	-Implementation of temporary erosion control measures. -Management measures and removal of the source of toxic elements.	Low (+)

	<p>-Increase in ambient noise levels during the project activities.</p> <p>-Disturbances to faunal species during the project activities.</p>	Noise pollution	Operational, and Decommissioning	Negligible	<p>-Limiting the site activities working hours to daylight hours (07h00 to 17h00) and not undertaking such activities at all on Sundays and public holidays.</p> <p>-No operation will be undertaken on Sundays (only maintenance) and public holidays.</p> <p>-Implement noise monitoring.</p> <p>-Ensure noise emissions are minimised by regularly servicing all vehicles and placing silencers on their engines.</p>	Negligible
	-The removal of the tailings residues may alter the man-made topography to its natural state.	Topography	Operational, and Decommissioning	Low (-)	<p>-Temporary erosion control measures such as the runoff berms must be implemented to reduce flow velocity around the operation areas.</p> <p>-Conducting concurrent rehabilitation in all disturbed areas.</p>	Negligible
	<p>Possible dust generation in some areas during the operational phase</p> <p>-Detrimental effects on plants.</p> <p>-Health impacts on animals and people.</p>	Air Quality/Dust generation	Operational, and Decommissioning	Negligible	<p>-Implementation of dust control measures such as dust suppression and dust fall-out monitoring.</p> <p>-Enforcing the speed limits to reduce dust created by moving vehicles;</p>	Negligible
	<p>-Visual disturbance due to site operations.</p> <p>-Dust generation.</p> <p>-Disrupted environmental aesthetic due to the presence of the waste material.</p>	Visual and Environment aesthetic	Operational, and Decommissioning	Medium (-)	<p>-Use of barricade fence covers where possible to minimise the visual impact.</p> <p>-Implementation of the dust management measures. Removal of the waste material.</p>	Medium (+)
	-Degradation of groundwater quality due contamination by the seepage of toxic elements from the waste material and hydrocarbon from the oil spills.	Groundwater quality	Operational, and Decommissioning	Low (-)	<p>-Remediate using commercially available emergency clean up kits.</p> <p>-Regular maintenance and servicing of equipment.</p> <p>-Management measures and removal of the source of toxic elements.</p>	Low (+)

	<ul style="list-style-type: none"> -Sedimentation and siltation of water courses -Alteration of natural drainage patterns -Contamination of water resources -Degradation of surface water quality 	Surface water quality	Operational, and Decommissioning	Low (-)	<ul style="list-style-type: none"> -Remedy the possible effects of alteration to natural drainage lines. -Implementing the hydrocarbon spillages management plan, -Implement the erosion control measures. -Management measures and removal of the source of toxic elements. 	Low (+)
	<ul style="list-style-type: none"> -Occupational injuries. -Illegal mining activities that are also associated with criminal activities. 	Safety	Operational, and Decommissioning	Low (-)	<ul style="list-style-type: none"> -Ensure that there is a controlled access to the site. -Consult with the local police branch to establish standard operating procedures for the control and/or removal of loiterers. -Safety signs and barricades must be placed around the operation site. -All project infrastructure should be placed in a secured area. -Operational sites must be clearly demarcated. 	Low (+)
<ul style="list-style-type: none"> -Vegetation clearance to access the tailings residues. -Waste removal from different points within the project sites. -Waste handling (transportation and stockpiling). -Material primary processing. -Material take-off and transportation to the offsite treatment facility. -Decommissioning and rehabilitation of the previous mining infrastructure. -Final rehabilitation of the overall area. 	<ul style="list-style-type: none"> -The dust potentially containing hazardous substances and particulate matter, which can be inhaled, causing respiratory diseases. 	Health	Operational, and Decommissioning	Low (-)	<ul style="list-style-type: none"> -Make available, maintain, and effectively implement a grievance/complaint register. -Provision of appropriate personal protective equipment (PPE). -Placing of safety signs around the operation area. -Induction should be conducted to all employees or sub-contractors entering site to ensure the awareness of the developed health and safety plan. -Daily inspections and observations of on-site activities shall be conducted. -All incidents to be reported, recorded, investigated, and mitigated. -Safety signs to be provided in areas considered as high-risk areas. -Provided adequate first aid services on site; and -Promote ongoing health and safety awareness campaigns. 	Low (+)

	<ul style="list-style-type: none"> -Employment opportunities. -Knowledge and skills transfer. -Empowerment of the local businesses. 	Socio-economic	Operational, and Decommissioning	Low (+)	<ul style="list-style-type: none"> -Establish targets for employment and training. -Effective implementation of training and skills development initiatives. -Prioritizing the sourcing available skills from the host community. -Transparency with the community members about the availability of employment opportunities. Community engagement. -Ensure that goods and services are procured from within the local area as far as possible. 	Negligible +
<ul style="list-style-type: none"> -Vegetation clearance to access the tailings residues. -Waste removal from different points within the project sites. -Waste handling (transportation and stockpiling). -Material take-off and transportation to the offsite treatment facility. -Decommissioning and final rehabilitation of the overall area. 	<ul style="list-style-type: none"> -Degradation of cultural significance heritage resources. 	Heritage resources	Operational, and Decommissioning	Negligible	<ul style="list-style-type: none"> -Conduct Identification of all possible sites of archaeological value. -Identified sites must be clearly demarcated as no-go areas. 	Negligible
	<ul style="list-style-type: none"> - Addition of traffic to the existing local traffic. -Impacts on surface quality of the road impacted resulting from vehicle movement 	Traffic	Operational, and Decommissioning	Negligible	<ul style="list-style-type: none"> -Vehicles and trucks will access the site via existing roads. -Existing road surfaces must be utilised and maintained within baseline levels. 	Negligible
	<ul style="list-style-type: none"> -Soil contamination -Contamination of water resources -Impacts on human health 	Waste generation	Operational, and Decommissioning	Negligible	<ul style="list-style-type: none"> -Promoting the reduction, re-use, or recycle of waste where prevention is not possible; -Disposal of waste to local waste disposal sites; -Littering should be strictly prohibited; and -Implement waste classification and separation system. 	Negligible

11.Summary of specialist reports.

(This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form):

There are intended specialists' studies to be conducted in this regard.

Table 23:Summary of specialist reports

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X where applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Attach copies of Specialist Reports as **Appendices**

A Screening Report for an Environmental Authorization was generated from the DFFE Web-based Environmental Screening Tool (Appendix). The following is a summary of the environmental sensitivities at the site where the proposed activities are to be undertaken. Consequently, the decommissioning and rehabilitation and all the associated activities will be undertaken on an area where there are no sensitivities.

Table 24: Environmental Sensitivity of the proposed area

THEME	Very sensitivity	High	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme				X	
Animal Species Theme				X	
Aquatic Biodiversity Theme	X				
Archaeological and Cultural Heritage Theme	X				
Civil Aviation Theme				X	
Defence Theme					X
Palaeontology Theme					X
Plant Species Theme				X	
Terrestrial Biodiversity Theme	X				

12. Environmental impact statement

12.1 Summary of the key findings of the environmental impact assessment.

The proposed project involves the reclamation of tailings residue and the rehabilitation of the overall footprint to restore the land to how it was before the mining activities. This proposed project will take place on a land that was previously mined and abandoned, resulting in significant disturbance. Depending on the type of physical environment, the magnitude of the activity, and the perceptions and values of each affected party, the nature of the impacts can vary substantially.

The method of assessment employed was to identify all potential impacts in a reasonable and practicable manner. As a basis for assessing potential impacts, the proposed project, the similar projects and all the associated activities and infrastructure were used as a reference. The reclamation, decommissioning, and rehabilitation undertakings are likely to have the positive impact on the biophysical and socio-economic environment of the community as the impacted aspects of the environment will be remediated to an acceptable level.

The storage of materials and equipment on-site, the movement of machines and vehicles, the removal of vegetation and basal cover will certainly alter the general topography and visual

environment of the proposed area. To manage these impacts, all proposed and other reasonable measures should be implemented. The on-site decommissioning and rehabilitation would result in soil erosion. If appropriate management strategies are not implemented, soil erosion and dust are likely to be potential negligible impacts.

Due to the machinery, equipment, and vehicles that will be utilised on the site during operations, there will be noise pollution. These impacts are likely to affect the nearby local communities. To effectively manage these types of impacts, all proposed and other reasonable mitigating measures must be implemented.

It is expected that environmental impacts on groundwater will result from the presence of potential contaminants on the site. On a local scale, the significance is expected to be low, posing a low risk of groundwater contamination; however, this impact may become moderate on a regional scale. Since proposed activities will take place above groundwater levels, dewatering of groundwater is expected to be of a very low risk. Monitoring and implementation of the recommended mitigation measures can ameliorate the potential hydrogeological impacts on the environment.

In conclusion, it must be acknowledged that all activities have environmental and socioeconomic impacts. Consequently, the destruction of natural environmental features in the proposed area is inevitable. However, the significance of the impacts will be influenced by the effectiveness of the implemented mitigation measures and the rehabilitation and closure programme for the area of interest.

12.2 Final Site Map

(Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers.)

Attach as **Appendix**.



Figure 18: Site Plan Map

12.3 Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.

Table 24: Summary of the positive and negative impacts and risks.

Activity	Positive Impact	Negative Impact
Removal of the tailings residues.	<ul style="list-style-type: none"> • Topology of the area will be re-altered to its natural topology before the accumulation of the tailings residues. • Visual disturbance of obstruction due to the presence of the tailings residues will be removed and the beauty of the environment would be restored. • Safety of the community may with the removal of the gold bearing waste material as the cause of illegal mining activities. • Community health may improve as the source of toxic dust will be removed from the community. 	<ul style="list-style-type: none"> • Noise generated from the working machinery such as the excavator, TLB and haul trucks during removal of the tailings residues activities. • Biodiversity distraction due to vegetation clearance to access the tailings residues. • Soil compaction and soil erosion due to the movement of heavy vehicles in the operation area. Soil contamination due to hydrocarbon spillages from the fuel storages and vehicles leakages. • Visual disturbance may occur due to the movement of vehicle and equipment, and the material handling operations. • Dust generation due to the material handlings operations and movement of vehicles. • Health of the communities and workforce may be impacted due to the inhalation of the dust particles that may cause respiratory diseases. • Activation of the toxic elements on the waste material that may result to surface and groundwater contamination.
Infrastructure establishment with the installation of mobile offices and portable	<ul style="list-style-type: none"> • Provision of security and storage for general contractors and other employees to secure their belongings as well as locker rooms to keep documents, tools, 	<ul style="list-style-type: none"> • Safety may be compromised with the risk of theft and vandalism for possible stealing of valuable items. • Waste generation.

ablutions.	<p>technology, clothes, and other important materials safe.</p> <ul style="list-style-type: none"> • Provision of a safe space to conduct administration required to continue with the operation 	
Stockpiling of the tailings residues before taken to an off-site processing plant		<ul style="list-style-type: none"> • Dust generation due to the material handlings operations and movement of vehicles. • Noise generation due to moving vehicles • Health of the communities and workforce may be impacted due to the inhalation of the dust particles that may cause respiratory diseases. • Soils contamination due to waste material.
Operation and administration	<ul style="list-style-type: none"> • The Socio-economy empowerment due to improved value of the land and its capabilities. • Direct and/or indirect employment of individuals from local communities • Procurement of the available goods and services from the local SMME's. • Proper implementation of waste management practices. 	<ul style="list-style-type: none"> • Waste generation that may lead to environmental pollution and degradation. • Safety and security of the equipment may be compromised due to opportunists intending on stealing and selling of equipment.
Decommissioning and rehabilitation of the tailings residues footprint	<ul style="list-style-type: none"> • The topography of the area will be restored to its original state. • Improved Land capability and reserve the land for other land use activities which would bring socio-economic development within the area. • Vegetation regeneration improved biodiversity and ecological processes. • Soils and land capabilities will be improved with the potential for the host communities to benefit from shared land management responsibilities. 	<ul style="list-style-type: none"> • Noise generated from the working machinery such as the excavator, TLB and haul trucks during removal of the tailings residues. • Soil compaction and soil erosion due to the movement of heavy vehicles in the operation area. Soil contamination due to hydrocarbon spillages from the fuel storages and vehicles. • Visual disturbance may occur due to the movement of vehicle and equipment, and the material handling operations. • Dust creation due to the material handlings operations.

12.4 Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr; Based on the assessment and where applicable the recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr as well as for inclusion as conditions of Authorisation.

The objectives of the EMPr will be to:

- Provide sufficient information to strategically plan the waste management activities as to avoid unnecessary social and environmental impacts.
- Ensure that the waste management activities are conducted in a sustainable manner.
- Develop an approach that will ensure compliance with relevant legislations; and
- Provide a management plan that is effective and practical for implementation.

Through the implementation of the proposed mitigation measures it is anticipated that the identified environmental impacts can be managed and mitigated effectively.

- Heritage/cultural resources can be managed by avoidance of known resources and through consultation with landowners/stakeholders. Contractor personnel will also be briefed of these sensitivities and consequences of any damage/removal of such features.
- Noise generation can be managed through consultation and restriction of operating hours and by maintaining equipment and applying noise abatement equipment if necessary.
- Visual intrusion can be managed through consultation with landowners/stakeholders and by use of shades (natural vegetation or shade cloth etc.).
- Dust generation can be managed by limiting as far as possible the exposure of surfaces, application of dust suppression methods on exposed surfaces and use of water during the removal of tailings residues.
- Soil disturbance and clearance of vegetation will be limited to the absolute minimum required and disturbed areas will be re-vegetated with locally indigenous species as soon as possible.
- Protecting biodiversity through environmental training and awareness.
- Manage as far as possible the soil, surface water and groundwater contamination by hydrocarbons by conducting proper vehicle maintenance, refueling with care to minimize the chance of spillages and by having a spill kit available on each site where the activities are in progress.
- Conduct an appropriate public consultation and conflict resolution during stakeholder consultation phases. All project personnel will be made aware of the local conditions and sensitivities in the project area and that they always treat residents with respect and courtesy.

12.5 Aspects for inclusion as conditions of Authorization.

(Any aspects which must be made conditions of the Environmental Authorization)

It is the opinion of the EAP that the following conditions should form part of the Authorization:

- Maintain a buffer of 100m from sensitive areas.
- Maintain a minimum 500m (preferably 1000m) buffer from any infrastructure.
- Landowners and land occupiers should be engaged (re-consulted) at least 1 month prior to any site activities being undertaken.
- Comply with the principles of the NEMA.
- Conduct waste management activities in a sustainable manner to protect the natural environmental resources.
- Implement concurrent rehabilitation to minimize the impact of the project activities and the period required to complete the rehabilitation process.

12.6 Description of any assumptions, uncertainties, and gaps in knowledge.

(Which relate to the assessment and mitigation measures proposed)

There is a gap in knowledge of the existence of any heritage resources. The area is known to be previously mined of gold, however the realistic extent of the impact of the previous mining activities that took place over the proposed area is uncertain. The specific focus will be given to ecological and heritage assessment to ensure that valued ecological components, threatened species and Heritage artefacts are not inadvertently damaged. In addition, landowners will be engaged about the progress of the operation.

12.7 Reasoned opinion as to whether the proposed activity should or should not be authorized.

12.7.1 Reasons why the activity should be authorized or not.

The applicant is committed to conducting the waste management activities in a sustainable manner and to comply with the prescribed environmental legislations to protect the environment and manage as far as possible the impacts associated with the project. Therefore, the applicant will ensure that:

- The environmental impacts associated with the project activities are minimal provided that the proposed mitigation is implemented.
- With appropriate care and consideration, the impacts resulting from the project activities can be suitably avoided, minimized, or mitigated.
- With implementing the appropriate rehabilitation activities, the impacts associated with the project activities can be reversed; and

- The decommissioning and rehabilitation of the tailings residues would revive the ecological capabilities of the area and enhance its capacity for other land uses.

12.7.2 Conditions that must be included in the Authorization.

The following conditions could form part of the Authorization:

- Maintain a buffer of 100m from sensitive areas.
- Maintain a minimum 500m (preferably 1000m) buffer from any infrastructure.
- Landowners and land occupiers should be engaged (re-consulted) at least 1 month prior to any site activities being undertaken.
- Comply with the principles of the NEMA.
- Conduct waste management activities in a sustainable manner to protect the natural environmental resources.
- Implement concurrent rehabilitation to minimize the impact of the project activities and the period required to complete the rehabilitation process.

12.8 Period for which Environmental Authorization is required.

Authorization is required for the duration of waste management activities for up to five years.

12.9 Undertaking:

Confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the Basic Assessment Report and the Environmental Management Programme Report.

The undertaking is provided at the end of the EMPr.

12.10. Financial Provision:

(State the amount that is required to both manage and rehabilitate the environment in respect of rehabilitation.)

Not Applicable since the project entails the reclamation and decommissioning of the tailings residues, and the rehabilitation of the waste dump footprint.

12.10.1 Explain how the aforesaid amount was derived.

Not Applicable.

12.10.2 Confirm that this amount can be provided for from operating expenditure.

(Confirm that the amount is anticipated to be an operating cost and is provided for as such in the Mining work programme, Financial and Technical Competence Report or Prospecting Work Programme as the case may be).

Not Applicable.

12.11. Specific Information required by the Competent Authority.

12.11.1. Compliance with the provisions of sections 24(4) (a) and (b) read with section 24.(3) (a) and (7) of the National Environmental Management Act (Act 107 of 1998). the EIA report must include the: -

12.11.1.1 Impact on the socio-economic conditions of any directly affected person.

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling, or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an Appendix.

The purpose of the consultation is to provide the interested and affected people with the opportunity to raise any potential concerns. A public participation process was initiated with the intent to consult with the I&APs including the landowners and the nearby communities. A public participation report will be attached on the final BAR and EMPr to be submitted to the DMRE for decision making.

12.11.1.2 Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act.

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(i)(vi) and (vii) of that Act, attach the investigation report as Appendix 2.19.2 and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

There are no known Heritage Resources identified on site. An Environmental Screening Tool was used to determine the necessity to conduct heritage studies. Although the screening report indicates a very high sensitivity on the Archaeological and Cultural Heritage Theme, the

area is extremely disturbed because of anthropogenic activities. Mitigation measures are proposed in case there could be any heritage resources encountered during the waste management activities. No project activities will be conducted within 50m of any identified heritage site during the reclamation of the tailings residues and rehabilitation of the disturbed land.

12.2 Other matters required in terms of sections 24(4) (a) and (b) of the Act.

(The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub- regulation 22(2)(h), exist. The EAP must attach such motivation as an Appendix).

The proposed project area has been mined out and left deserted without being properly rehabilitated. The gold bearing concentrates of the tailings residues are environmental pollution sources, health and safety risks to the surrounding communities and a limitation to spatial improvement because of the uranium content. These tailings residues additionally contain iron sulphide minerals, which react with oxygen at some stage in rainy seasons to form sulphuric acid, posing major water resources pollution on the immediate environment and downstream areas due to AMD. Furthermore, the toxic elements in these tailings residues may additionally seep into the floor and contaminate ground water. These tailings residues additionally grant a supply of gold for illegal miners acknowledged as Zama- Zama's as they are reachable from the surface or at a shallow depth from the surface.

The main aim of this initiative is to rectify the biophysical environmental damage caused by past mining operations by reclaiming and decommissioning the tailings residues and rehabilitating the whole footprint. It is crucial to rehabilitate the disturbed land as it would have a positive impact on the socio-economic and biophysical environmental aspects of the communities. The removal of tailings residues would restore the land's environmental abilities and expand its potential for other purposes.

13. Undertakings

The EAP herewith confirms;

- the correctness of the information provided in the reports
- the inclusion of comments and inputs from stakeholders and I&APs;
- the inclusion of inputs and recommendations from the specialist reports where relevant; and
- that the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.



Signature of the environmental assessment practitioner:

Vahlangwe Mining Advisory and Consulting

Name of company:

September 2024

Date:

-END-

Draft BAR/EMPr
GP/30/5/1/1/2(000068) BP/BAR
Sedibe Services (Pty) Ltd

Appendix 1:

CV of the EAPs

SUNDAY MISHACK MABASO

12 Thaxted Ave Mulbarton 2190 · 0745697312/0824614251

Email - sunday@vahleingweadvisory.co.za · [LinkedIn Profile](#) - Sunday Mabaso · [Twitter @Sun.dayMabaso](#)

BIOGRAPHY

Mr. Sunday Mabaso is the founder and CEO of Vahleingwe Mining Advisory and Consulting. He's got extensive experience in mineral regulation gained from spending over 20 years (2000 – 2021) with the Department of Mineral Resources and Energy (DMRE) where he served his last seven years as Regional Manager (3 years in Northern Cape and 4 years in Gauteng) before his resignation to advance his career in business. In 2020 was nominated to the Task Team that developed the "South Africa's Exploration Implementation Plan" where he served to its completion and officially gazetted by Minister of Mineral Resources and Energy in 2022.

He holds a National Diploma in Mine Surveying and a National Higher Diploma in Mineral Resource Management from Technikon Witwatersrand in 1999 and 2000 respectively, a Graduate Diploma (GDE) in Mining Engineering from University of Witwatersrand in 2009 and a Master of Business Administration (MBA) from Milpark Business School in 2021. Sunday also completed a Post Graduate Certificate in Climate Change and Energy Law from University of the Witwatersrand in 2021, a Certificate in Energy Efficiency and Sustainability from the University of Cape Town (UCT) in 2022 and Certificate in Mine Closure and Land Rehabilitation from University of Pretoria (UP) in 2022.

Sunday is a registered member of the Institute of Directors of South Africa (IoDSA), the Southern Institute of Mining and Metallurgy (SAIMM) and is an Environmental Assessment Practitioner registered with EAPASA, also a member of the International Association of Impact Assessment South Africa (IAIASa). A committee member of the Environmental, Social and Governance (SAMESG) working group of the SAMCODES Standard Committee (SSC) responsible for developing the South African Mineral Reporting Codes. He has authored opinion and journal articles about South African mining legislation with interests focused on social and environmental impacts on mine communities affected by mining operations, past and present. Some of his articles are published in academic journals and books internationally.

PUBLICATIONS

Mabaso, SM. (2023) Legacy Gold Mine Sites & Dumps in the Witwatersrand: Challenges and Required Action. *Natural Resources*, 14, 65-77. <https://doi.org/10.4236/nr.2023.145005>

Mabaso, SM. (2023). Social and Environmental Challenges caused by Legacy Gold Mining in Johannesburg: Government's Action Plan. eBook: ISBN: 978-81-19491-53-7. DOI: 10.9734/bpi/npgees/v9/10672F

Ramontja, T. and Mabaso, S. 2022. *Evolution of South Africa's Mining Regulatory Framework as it Relates to the Empowerment and Participation of Mining Communities*. https://doi.org/10.1007/978-3-031-07048-8_6

PROFESSIONAL AFFILIATIONS

- EAPASA: Environmental Assessment Practitioner (EAP) No 2022/4485
- International Association of Impact Assessment South Africa (IAIASa) No 7442
- Southern Institute of Mining and Metallurgy (SAIMM) No 709244
- Institute of Directors in South Africa (M.Inst.D)
- Land Rehabilitation Society of Southern Africa (LaRSSA)
- International Society for Development and Sustainability (ISDS)

COMMITTEES

- South African Mineral Reporting Codes (SAMCODES) Standards Committee, 2016 to 2021
- SAMCODES-ESG Subcommittee – 2021 to date

EXPERIENCE

01 MAY 2021 – DATE

FOUNDER AND CEO: VAHLENGWE MINING ADVISORY AND CONSULTING

CORE SERVICES

- MPRDA and NEMA
- Mining Charter
- Environmental, Social and Governance - ESG
- Mine Closure and Rehabilitation
- Waste Management
- Carbon Tax Reporting
- Compliance Inspections
- Assistance to junior and small-scale miners

01 AUGUST 2014 – 30 APRIL 2021

REGIONAL MANAGER, DEPARTMENT OF MINERAL RESOURCES AND ENERGY

(NORTHERN CAPE –AUGUST 2014 TO APRIL 2017 AND GAUTENG – MAY 2017 TO APRIL 2021)

- Effective implementation and administration of the MPRDA
- Implementation and administration of Environmental Management policies and regulations in terms of NEMA and NEM: Waste Act
- Implementation and administration of Social and Labour Plans in terms of MPRDA
- Evaluation of Mining and Prospecting Work Programs and monitoring compliance
- Management of Land Use in mining areas to promote development and coexistence.
- Management of community development through implementation of the Mining Charter
- Promoting participation of Historically Disadvantaged South Africans in the mining economy and the value chain
- Management of relations and conflict resolutions between mining communities and mining companies
- Management of Financial and Administrative systems and procedures in the Regional Office
- Provide support and advisory to the Deputy Director General in the department

01 APRIL 2007 – 31 JULY 2014

DEPUTY DIRECTOR: MINE ECONOMICS, DEPARTMENT OF MINERAL RESOURCES

- Adjudication of mineral rights applications and manage sustainability of mining operations in line with the Mining/Prospecting Work programs.
- Monitor compliance through inspections and issuing of compliance directives.
- Assisting junior coal miners to access export markets through the Quattro Task team.
- Assist new entrants and junior miners in the mining industry.
- Conduct asset and mineral valuations for tax purposes and Section 11 applications

01 DECEMBER 2000 – 31 MARCH 2007

INSPECTOR OF MINES, DEPARTMENT OF MINERALS AND ENERGY

- Monitor compliance with the Mine Health and Safety Act in the mines.
- Provide technical advice on conflict between land development and mining operations.

25 JANUARY 2000 – 30 NOVEMBER 2000

MINE SURVEYOR, TAVISTOCK COLLIERIES

05 AUGUST 1994 – 31 DECEMBER 2000

LEARNER OFFICIAL AND BURSAR, TAVISTOCK COLLIERIES

EDUCATION

FEBRUARY 2018 TO JULY 2021

MASTER OF BUSINESS ADMINISTRATION, MILPARK BUSINESS SCHOOL

- Advanced Business Research Methodology
- Business Ethics and Corporate Governance
- Business in Emerging Markets
- Business Report Writing, Quantitative Analysis and Presentation Skills
- Dissertation
- General Management Environment

- Global Trade (Macro-economic – BRICS – Developing Markets)
- Integrated Business Strategy
- Leadership and Change Management
- Management Accounting and Finance (part 1)
- Management Accounting and Finance (part 2)
- Marketing and Sales Management
- Operations and Technology Management
- People Management
- Social Responsibility and Environmental Management

JUNE 2022 TO NOVEMBER 2022

CERTIFICATE: MINE CLOSURE AND LAND REHABILITATION, UNIVERSITY OF RETORIA (UP)

- Closure Design
- Regional Planning considerations and operational mitigation
- Land preparation and soil management
- Land cover/surface stabilization-economic value
- Maintenance and land management systems
- Identifying closure planning challenges and problem areas
- Mine closure planning consideration
- Closure document required Baseline environment and closure risks
- Closure success criteria and rehabilitation monitoring
- Financial provisioning and social planning

OCTOBER 2021 TO DECEMBER 2021

CERTIFICATE: ENERGY EFFICIENCY AND SUSTAINABILITY, UNIVERSITY OF CAPE TOWN (UCT)

- Energy -importance, Strategy and Challenges
- Energy Metrics, Economics and Efficiency
- Energy-efficient and Sustainable Buildings
- Energy-efficiency management and technologies in buildings
- Energy-efficiency management and technologies in industrial sector
- Energy auditing
- Energy measurement verification and management systems

MARCH 2021 TO JULY 2021

POST GRADUATE CERTIFICATE: CLIMATE CHANGE AND ENERGY LAW, UNIVERSITY OF WITWATERSRAND

- Climate Change and Energy
- Energy Law Concepts and Economics
- Theories of Energy and Climate Regulation
- Sources of Energy: Fossil Fuels
- Sources of Energy: Petroleum Sector
- Sources of Energy: Gas Sector
- The South African Electricity Supply Industry
- Climate Change Law and Policy Framework
- Energy, Climate Change & Just Transition
- Nuclear as a Source of Electricity

- Energy Efficiency and Demand Side Management
- Regulation of Energy Procurement

OCTOBER 2014 TO JANUARY 2015

**CERTIFICATE IN BASIC TRAINING FOR ENVIRONMENTAL MINERAL RESOURCE INSPECTORS,
UNIVERSITY OF PRETORIA**

- Constitutional Background
- NEMA and MPRDA framework legislation
- Sustainable Development
- EIA process, Scoping reports, and review of EA applications and Integrated EAs
- WASTE Act
- The Air Quality Act
- The Environmental Conservation Act
- The National Water Act
- The Integrated Coastal Management Act
- The Biodiversity Act
- The Protected Areas Act
- Administrative Law
- Criminal Enforcement
- Special forms of Liability
- Powers of Environmental Mineral Resources Inspectors-EMRI
- Ethics, Health and Safety and relevant issues
- Sampling
- Inspections
- Investigations
- Appeals
- Exemptions and exceptional circumstances

MARCH 2006 TO NOVEMBER 2008

GRADUATE DIPLOMA IN MINING ENGINEERING, UNIVERSITY OF WITWATERSRAND

- Mineral Economics
- Mineral Policy and Investment
- Compliance and Reporting Rules in the Mining Industry
- Economic Geology of South African Coal
- Coal extraction and Exploitation
- Coal and the Environment

JULY 1999 TO JULY 2000

**NATIONAL HIGHER DIPLOMA, MINERAL RESOURCE MANAGEMENT, TECHNIKON
WITWATERSRAND**

JULY 1996 TO MAY 1999

NATIONAL DIPLOMA, MINE SURVEYING, TECHNIKON WITWATERSRAND

SKILLS

- In-depth understanding of the mining industry and its economic value chain
- In-depth understanding of the regulatory and compliance regime in the mining industry
- In-depth understanding of the value of mining in the South African and Global economy
- Good communication skills
- Conflict resolution
- Good decision making
- Ability to work under pressure.
- Time management
- Good Leadership and management

PERSONAL INFORMATION

I'm a male South African Tsonga speaking citizen, born on 29 November 1976 in Bushbuckridge, Mpumalanga Province where I started my primary schooling at Mpikaniso Primary school in 1983 and matriculated at Orhovelani High School in 1993.

I'm currently married with four children and residing in Mulbarton, Johannesburg South since June 2017 after my transfer from the Kimberly as the Regional Manager of the Northern Cape to the Johannesburg office where I also served as Regional Manager for the Gauteng Region until 30 April 2021 upon resignation.

COMMUNITY INVOLVEMENT AND PERSONAL HOBBIES

I'm currently involved in community development projects in Bushbuckridge through career guidance, cultural activities, and sport to guide the youth to focus on their vision and education goals as part of giving back to my community and assist the future generation. I have sponsored soccer kits, traditional dancing activities and motivational seminars in my village since 2009.

My personal hobbies include playing golf, watching, and following soccer, rugby, and other national sporting codes. Mentoring my kids through schoolwork and sport. I spend more time outside work with my family to groom my kids to become better citizens and leaders of the future generation.

REFERENCES

Mr Mosa Mabuza
Chief Executive Officer
Council for Geoscience
012 841 1911
082449 8650
mmabuza@geoscience.org.za

Dr Thibedi Ramontja
Former Director General: DMRE
Currently Director: School of Mining
University of Witwatersrand
083 388 9122
thibedi.ramontja@wits.ac.za /
Ramontja2@gmail.com

Dr Tania Marshall
Director: School of Mining
University of Witwatersrand
082 611 3388
marshall.tania@gmail.com

**Environmental Assessment
Practitioners Association
of South Africa**



Registration No. 2022/4485

Herewith certifies that

Sunday Mishack Mabaso

is registered as an

Environmental Assessment Practitioner

***Registered in accordance with the prescribed criteria of Regulation 15. (1)
of the Section 24H Registration Authority Regulations
(Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the
National Environmental Management Act (NEMA), Act No. 107 of 1998, as
amended).***

Effective: 01 March 2024

Expires: 28 February 2025

Chairperson

Registrar





CURRICULUM VITAE

NAME : Cecil Dau
DATE OF BIRTH : 29 July 1992
PROFESSION/ SPECIALISATION : Environmental Consultant
NATIONALITY : South African
YEARS' EXPERIENCE : 3 Years
LANGUAGES : English, Tshivenda
CIVIL STATUS : Single

KEY QUALIFICATIONS

Cecil Dau holds a Bachelor of Earth Sciences (Honours) in Mining and Environmental Geology from University of Venda and he is currently enrolled for Bachelor of Science (Honours) in Environmental Management with the University of South Africa. Mr C. Dau has also completed a short course on environmental impact assessment with the University of North West's Centre for Environmental Management. He is a seasoned environmental consultant with a thorough understanding of the potential environmental and social impacts of mining activities in a variety of environmental settings. In the mining and environmental sectors, he has performed environmental assessments (BAR and S&EIR), WULA, and environmental compliance auditing. His core competencies include research and report writing, specialist report review and environmental impact assessment.

EXPERIENCE

[Environmental Consultant]
[August 2022– Present]

[Vahlegwe Mining Advisory and Consulting]

Duties Include:

- Conduct the Environmental Impact Assessment (BAR and S&EIR) and Environmental Management Plan/Programme for prospecting, mining rights and mining permits
- Coordinate the project Public Participation Process
- GIS functions
- Conduct mining and environmental compliance audits and write reports thereon.
- Write the annual reports for the projects
- To maintain a proper filing system
- To give regular updates to clients on the progress of the work being carried out on the projects.

[Research Assistant Graduate]
[December 2021– July 2022]

[Water Research Commission]

Duties Include:

- Performed Geographic Information System analysis for Bathymetric Survey research.
- Literature reviews and data mining from websites or documents from different sources.
- Contributed as an assistant in laboratorial analyses in the lab.
- Organised and processed results, report to senior researcher and any other ad-hoc duties as assigned by senior researcher.
- Participated in professional development activities i.e. attended courses such as GIS.

CURRICULUM VITAE

**[Environmental Officer Intern]
[April 2018– March 2020]**

[GDARD/ Enforcement S24G]

Duties Include:

- Processing of applications received in terms of Section 24G NEMA.
- Issued S24G decisions in terms of S24G (2) (whether to authorise for the continuation of the listed activity, or direct to cease and rehabilitate).
- Issued Compliance Notices where there is non-compliance to the directive issued in terms of S24G (2) of NEMA.
- Reviewed and approve Environmental Rehabilitation Plans.
- Conducted Compliance Monitoring of issued Directives (S24G (1) and S24G (2))/Compliance Notices/Rehabilitation Plans.
- Referred matter to Prosecutions where there is failure to comply with any stage of the S24G process.
- Provided appeal responses to appeals lodged against Compliance Notices/Directives/Admin Fines issued by the sub-directorate.
- Responded to queries from the Public regarding the S24G process/applications.

EDUCATION

Institution : University of South Africa
Qualification : **Bachelor of Science Honours in Environmental Management**
Status : **In-Progress**

Institution : University of Venda
Qualification : **Bachelor of Earth Sciences Honours in Mining and Environmental Geology**
Status : **Completed**

N/B-Also holding my Environmental Impact Assessment for Reviews (CEM) from the North West University.

PROFESSIONAL AFFILIATIONS

Candidate Environmental Assessment Practitioner- Environmental Assessment Practitioners Association of South Africa

Registration Number: **2021/4434**

Candidate Natural Scientist – South African Council for Natural Scientific Professions (SACNASP)

Registration Number: **154069**

**Environmental Assessment
Practitioners Association
of South Africa**



Registration No. 2021/4434

Herewith certifies that

Cecil Dau

is registered as an

**Candidate Environmental Assessment
Practitioner**

***Registered in accordance with the prescribed criteria of Regulation 15. (1)
of the Section 24H Registration Authority Regulations
(Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the
National Environmental Management Act (NEMA), Act No. 107 of 1998, as
amended).***

Effective: 01 March 2023

Expires: 29 February 2024

Chairperson

Registrar



DIMAKATSO ELIZABETH LEHOLI – ENVIRONMENTAL SCIENCES GRADUATE

Residential Address:

3371 Tshitwe Street

Sebokeng Unit 13

Vereeniging

1983

Contact Details:

068 581 8581

Email address:

dimakatso0205@gmail.com

OBJECTIVE

Opportunity to protect and conserve the ecosystem, seeking an organization that is going to grow my broad understanding of major environmental issues, as well as theoretical ideas underpinning sustainable development. The ability to effectively analyse and manage environmental and developmental issues.

SKILLS

- Time Management
- Microsoft skills
- Critical thinking skills
- Laboratory skills
- Teamwork

EDUCATION

Qualification Name: Diploma in Environmental Sciences

NQF Level:6

University: Tshwane University of Technology

Graduation Date:15 May 2023

Course Modules: Applied Environmental Practice, Computer Literacy, General Chemistry, General Mathematics, General Physics, Information Literacy, Life Skills, Environmental Biology, Environmental Earth Studies, Environmental Management & Environmental Legal Practice

Qualification Name: Matric

DIMAKATSO ELIZABETH LEHOLI – ENVIRONMENTAL SCIENCES GRADUATE

Name of school: Mohaladitoe Secondary School

Date achieved: December 2019

Subjects: English First Additional Language, Sesotho Home Language, Life Orientation, Mathematics, Physical Sciences, Life Sciences and Economics.

WORK EXPERIENCE:

Job Title: Safety Officer Intern

Company: Supergrid Manufacturing

Employment Date: 03 July 2023- 29 March 2024

Key Achievements:

- Incident Investigation
- Risk Assessment.
- Safety Inspections.
- Assisting with Toolbox talk meetings.
- Assisting the health and safety officer.

Job Title: Environmental Education Facilitator

Company: Johannesburg City Parks and Zoo

Employment Date: 15 August 2022- 13 February 2023

Key Achievements:

- Conduct environmental awareness activities in municipalities, advocacy groups and schools.
- Promote conservation of natural resources, air quality, waste management, sustainability and climate change education.
- Deliver presentations in schools or host groups at sites such as nature reserves.
- Participate in clean up campaigns partnering with different municipalities within Gauteng.
- Host exhibitions on environmental issues.
- Assist schools with implementing environmental projects.

ACHIEVEMENTS:

Organisation: TUT Green Arcadia

Title: Participating Member

Year: 2020-2021

DIMAKATSO ELIZABETH LEHOLI – ENVIRONMENTAL SCIENCES GRADUATE

Key Achievements:

-TUT Campus Cleanup

-Nursery Construction

-iNaturalist City Challenge

-Spekboom Planting

-Exhibitions: Energy efficiency day, World water week, World Environmental day International Day for Climate Action

REFERENCES:

Mentor: Shadrack Mulaudzi

Company: Supergrid Manufacturing

Position: Safety Health and Environmental Officer

Contact Details:064 926 8227

Mentor: Mosa Rametse

Company: Johannesburg City Parks and Zoo

Position: Environmental Education Specialist

Contact Details:072 152 7003

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Sedibe Services (Pty) Ltd



Appendix 2: Maps

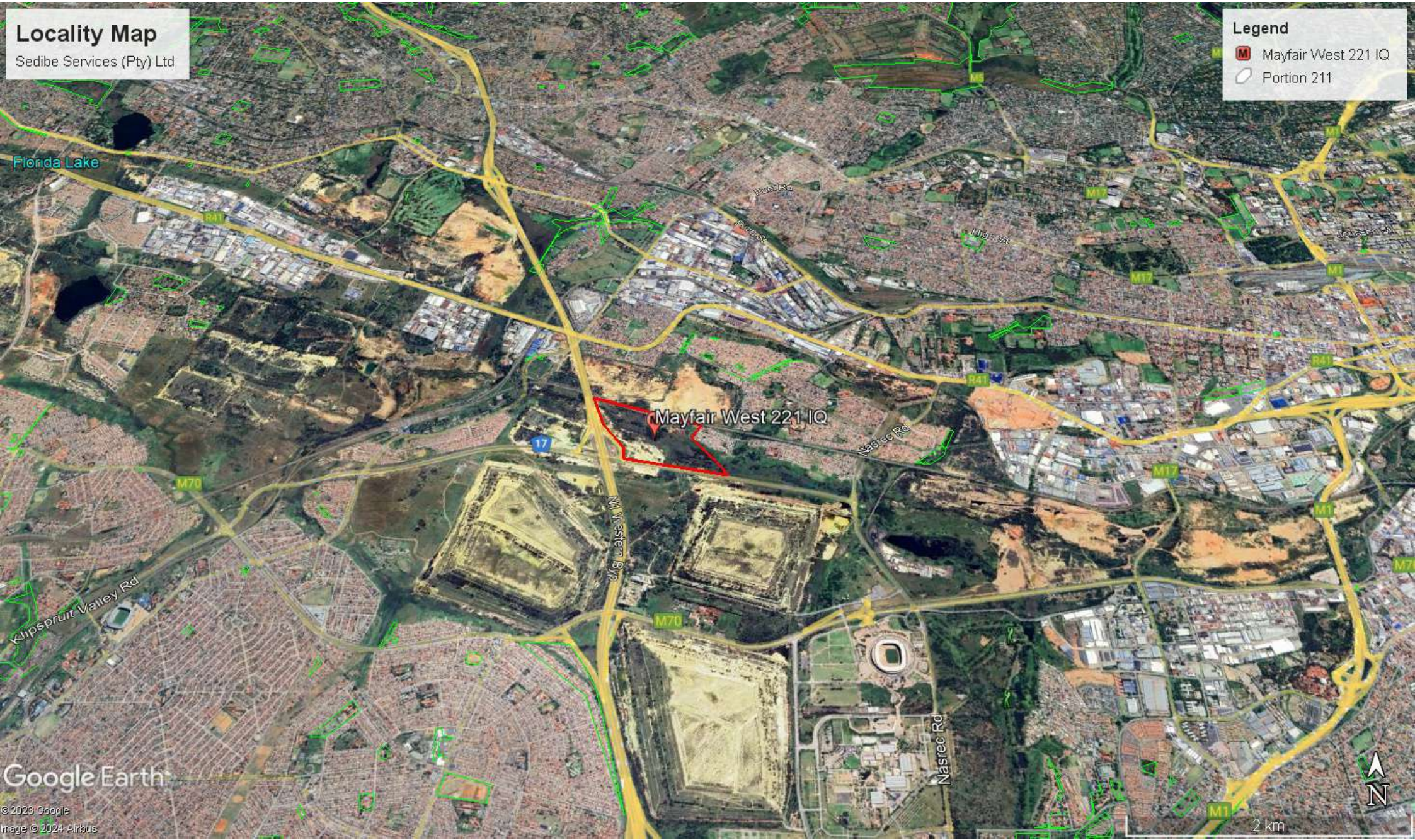
Appendix2A: Locality Map

Locality Map

Sedibe Services (Pty) Ltd

Legend

-  Mayfair West 221 IQ
-  Portion 211



Florida Lake

Mayfair West 221 IQ

Klipspruit Valley Rd

N. Maseko St

Nasrec Rd

Google Earth

© 2023 Google
Image © 2024 Airbus

2 km



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Sedibe Services (Pty) Ltd

Appendix 2B:

Site Plan Map

Site Plan Map

Portion of Portion 211 of the Farm Mayfairwest 221 IQ in the Magisterial District of Johannesburg, Gauteng Province.

Legend

- Waste Management License Area



Google Earth

© 2023 Google
Image © 2024 Airbus

600 m

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Sedibe Services (Pty) Ltd

Appendix 2C:

Environmental and Land Use Map

**Sedibe Services
Waste Management
License for Portion 211
of the Farm Mayfair
West 221 IQ
situated in the
magisterial district
of Johannesburg.**

LOCALITY MAP



Legend

- Mayfair west 211
 - Tailing Dumps
 - Built Areas
 - Recreational Area
 - Trigonometric Area
 - Railway Lines
 - Roads
 - <all other values>
- NATART**
- Artificial
 - Estuaries
 - Natural
 - Points location

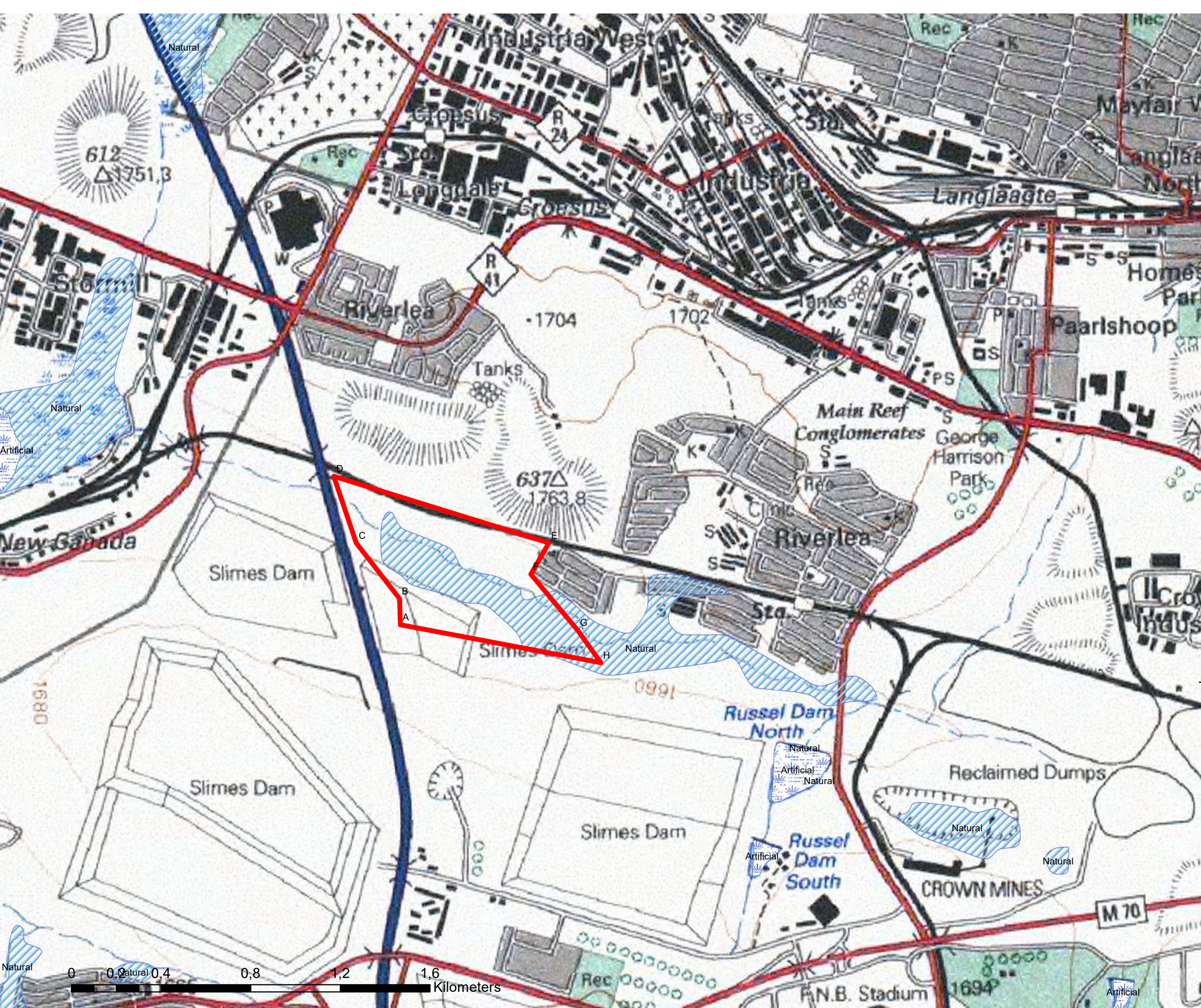
SCALE 1 : 50 000 CO-ORDINATE SYSTEM WGS84 L029



JOHANNESBURG SOUTH	
Help Desk	Tel +27 (0) 11 432 0062
238 Vorster Ave Street	Fax +27 (0) 11 432 0062
Glenvista 2058	Email info@vahleengweadvisory.co.za

LIABILITY CLAUSE :
This map was compiled from a variety of data sets and Vahleengwe Advisory does not accept any responsibility for the accuracy of the data.

VERSION :



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Sedibe Services (Pty) Ltd

Appendix 3: Public Participation Process

Appendix 3A: Newspaper Advert

Legals

Legals@citizen.co.za

TAPSCOTT STREET, UNITAS PARK, 1942. Description of account: Magistrate's Office. Master's office: GAUTENG DI VISION, JOHANNESBURG. Advertiser Name: FRANCIS MALEFANE LEHOBO. Advertiser Address: 7 DOODLES TAPSCOTT STREET, UNITAS PARK, 1942. Advertiser Email: lehobom@gmail.com. Advertiser Telephone: 0813950083. TP021071

CONSULTING (PTY) LTD (IN LIQUIDATION) T802/22 Notice is hereby given that a Second Meeting of creditors and contributors in the above matter will be held before the Master of the High Court, Pretoria, on 14TH OCTOBER 2024 at 10H00 for the following reasons: 1. To submit claims for approval 2. To vote for the acceptance of the Liquidators report 3. To vote for the acceptance of the Resolutions. HELENA PRETORIUS o.b.o. TRUSTEE ARDBEG TRUSTEES PRETORIA Helena @ardberg.co.za TP021098

REFERENCE NO.: GP 30/5/1/1/2 (000068) BP/BAR Notice is hereby given in the intent to conduct Environmental Authorization process for an application of a waste management license of waste rock and tailings residues for Sedibe Services (Pty) Ltd in terms of National Environmental Management Act-NEMA (Act 107 of 1998) as amended, and the Environmental Impact Assessment (EIA) Regulations, 2014. Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Section 39 to 44 of GNR 982(amended). The EIA process would be undertaken in terms of these guidelines and to be submitted to the Competent Authority Department of Mineral Resources and Energy (DMRE). THE ABOVE ACTIVITIES TRIGGERS: GN R 921 (as amended) Category A; Activity 14: The decommissioning of a facility for a waste management process set out in the Environmental Impact Assessment Regulations made under section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as part of a waste management licence application contemplated in section 45 read with section 20(b) of this Act. PROPOSED SITE LOCATION: Proposed project is located in respect of Portion of Portion 211 of farm Mayfair West 221 IQ in the Magisterial District of Johannesburg, Gauteng Province. PUBLIC MEETING: Public meeting will be held to facilitate discussions on the Draft Basic Assessment Report to obtain comments and inputs from the Interested and Affected Parties (I&APs), therefore you are requested to register your names as I&APs within 15 days, thus, on/before the 11th of October 2024. You are further requested to submit your comments within 30 days from the date this notice was published. Take note that your comments must be submitted on or before the 26th of October 2024 to the details below: Consultant: Vahlengwe Mining Advisory and Consulting Contact person: Sunday Mabaso Postal address: 238 Voster Ave, Glenvista Extension 3, Johannesburg South, 2058 Contact: +27 11 432 0062 E-mail: info@vahlengweadvisory.co.za TP021000

REFERENCE NO.: GP 30/5/1/1/2 (000071) BP/BAR Notice is hereby given in the intent to conduct Environmental Authorization process for an application of a waste management license of waste rock and tailings residues for Sedibe Services (Pty) Ltd in terms of National Environmental Management Act-NEMA, 2008 (Act 59 of 2008) (as amended), and the Environmental Impact Assessment (EIA) Regulations, 2014 (GNR 326) and Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Regulation 39 to 44 of GNR 326. In terms of these guidelines, an EIA process would be undertaken and would be submitted to the Competent Authority (Department of Mineral Resources and Energy (DMRE)). THE ABOVE ACTIVITIES TRIGGERS: GN R 327 (Listing Notice No. 1); Activity 21F: Any activity including the operation of that activity required for the reclamation of a residue stockpile or a residue deposit as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required for the reclamation of a residue stockpile or a residue deposit. Category A (13): The decommissioning of a facility for a waste management activity listed in category A or B of this schedule. PROPOSED SITE LOCATION: The proposed reclamation and rehabilitation of existing mine waste residue will take place on Portion 16 and Portion 149 of the Farm Paardekraal 226 IQ in the Magisterial District of Johannesburg, Gauteng Province. PUBLIC MEETING: Public meeting will be held to facilitate discussions on the Draft Basic Assessment Report to obtain comments and inputs from the Interested and Affected Parties (I&APs), therefore you are requested to register your names as I&APs within 15 days, thus, on/before 11st October 2024. You are further requested to submit your comments within 30 days from the date this notice was published. Take note that your comments must be submitted on or before the 26th October 2024 to the details below: Consultant: Vahlengwe Mining Advisory and Consulting Contact person: Sunday Mabaso Postal address: 238 Voster Ave, Glenvista Extension 3, Johannesburg South, 2058 Contact: +27 11 432 0062 E-mail: info@vahlengweadvisory.co.za TP021002

JOHANNESBURG, GAUTENG PROVINCE. DMRE REFERENCE NO.: GP 30/5/1/1/2 (000070) BP/BAR Notice is hereby given in the intent to conduct Environmental Authorization process for an application of a waste management license of waste rock and tailings residues for Sedibe Services (Pty) Ltd in terms of National Environmental Management Act-NEMA, 2008 (Act 59 of 2008) (as amended), and the Environmental Impact Assessment (EIA) Regulations, 2014 (GNR 326) and Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Regulation 39 to 44 of GNR 326. In terms of these guidelines, an EIA process would be undertaken and would be submitted to the Competent Authority (Department of Mineral Resources and Energy (DMRE)). THE ABOVE ACTIVITIES TRIGGERS: GN R 327 (Listing Notice No. 1); Activity 21F: Any activity including the operation of that activity required for the reclamation of a residue stockpile or a residue deposit as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required for the reclamation of a residue stockpile or a residue deposit. Category A (13): The decommissioning of a facility for a waste management activity listed in category A or B of this schedule. PROPOSED SITE LOCATION: The proposed reclamation and rehabilitation of existing mine waste residue will take place on Portion 64, Portion of Portion 2 and Portion of Portion 202 of the Farm Paardekraal 226 IQ in the Magisterial District of Johannesburg, Gauteng Province. PUBLIC MEETING: Public meeting will be held to facilitate discussions on the Draft Basic Assessment Report to obtain comments and inputs from the Interested and Affected Parties (I&APs), therefore you are requested to register your names as I&APs within 15 days, thus, on/before 11st October 2024. You are further requested to submit your comments within 30 days from the date this notice was published. Take note that your comments must be submitted on or before the 26th October 2024 to the details below: Consultant: Vahlengwe Mining Advisory and Consulting Contact person: Sunday Mabaso Postal address: 238 Voster Ave, Glenvista Extension 3, Johannesburg South, 2058 Contact: +27 11 432 0062 E-mail: info@vahlengweadvisory.co.za TP021001

NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) (AS AMENDED), EIA REGULATIONS, 2014, ON PORTION 380 OF THE FARM MAYFAIR WEST 221 IQ, SITUATED IN THE MAGISTRAL DISTRICT OF JOHANNESBURG, GAUTENG PROVINCE. DMRE REFERENCE NO.: GP 30/5/1/1/2 (000069) BP/BAR Notice is hereby given in the intent to conduct Environmental Authorization process for an application of a waste management license of waste rock and tailings residues for Sedibe Services (Pty) Ltd in terms of National Environmental Management Act-NEMA (Act 107 of 1998) as amended, and the Environmental Impact Assessment (EIA) Regulations, 2014. Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Section 39 to 44 of GNR 982(amended). The EIA process would be undertaken in terms of these guidelines and to be submitted to the Competent Authority Department of Mineral Resources and Energy (DMRE). THE ABOVE ACTIVITIES TRIGGERS: GN R 921 (as amended) Category A; Activity 14: The decommissioning of a facility for a waste management activity listed in Category A or B of this schedule, must conduct a basic assessment process set out in the Environmental Impact Assessment Regulations made under section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as part of a waste management licence application contemplated in section 45 read with section 20(b) of this Act. PROPOSED SITE LOCATION: Proposed project is located in respect of Portion 380 of farm Mayfair West 221 IQ in the Magisterial District of Johannesburg, Gauteng Province. PUBLIC MEETING: Public meeting will be held to facilitate discussions on the Draft Basic Assessment Report to obtain comments and inputs from the Interested and Affected Parties (I&APs), therefore you are requested to register your names as I&APs within 15 days, thus, on/before the 30th of August 2024. You are further requested to submit your comments within 30 days from the date this notice was published. Take note that your comments must be submitted on or before the 14th of September 2024 to the details below: Consultant: Vahlengwe Mining Advisory and Consulting Contact person: Sunday Mabaso Postal address: 238 Voster Ave, Glenvista Extension 3, Johannesburg South, 2058 Contact: +27 11 432 0062 E-mail: info@vahlengweadvisory.co.za TP021045

published. Take note that your comments must be submitted on or before the 14th of September 2024 to the details below: Consultant: Vahlengwe Mining Advisory and Consulting Contact person: Sunday Mabaso Postal address: 238 Voster Ave, Glenvista Extension 3, Johannesburg South, 2058 Contact: +27 11 432 0062 E-mail: info@vahlengweadvisory.co.za TP021112

Rietfontein, Pretoria E-Mail: deline@tbcprok.co.za Tel: 012 331 7829/7806 Ref: CRT/DdP /K12023K TP021045

85 MISCELLANEOUS SALE IN EXECUTION

LEDWABA A and LEDWABA R P / LEDWABA NDLOVU ROYAL FAMILY (CASE NO: 10458/2022) DUE TO A TECHNICAL ERROR, THIS ADVERT DID NOT APPEAR ON THE 27-9-2024

IN THE HIGH COURT OF SOUTH AFRICA LIMPOPO DIVISION, POLOKWANE CASE NO: 10458/2022 IN THE MATTER BETWEEN: ANDRIES MALESELA LEDWABA PLAINTIFF AND RANGOATO PRESCILLA LEDWABA 1ST DEFENDANT LEDWABA NDLOVU ROYAL FAMILY 2ND DEFENDANT (LESIBANA JACOB LEDWABA) NOTICE OF SALE IN PERSUANCE OF A JUDGMENT OF THE abovementioned Court and a Writ for Execution, the following property will be sold in execution on Friday, on the 04 /10/2024 at 11h00 at MAGISTRATE LEBOWAKGOMO PREMISES, by the Sheriff of the High Court, Acting Sheriff or Deputy Sheriff Lepelle Nkupi to the highest bidder (list): 1st Defendant's properties (1st Defendant's properties) 1 TV PLASMA SAMSUNG 3 3 PIECE ROOM DIVIDER 1 TABLE 12 CHAIRS 1 FRIDGE 1 MICROWAVE DEFY 2nd defendant's properties 2 FRIDGE STAND AND DEEP FRIDGE 1 DINING ROOM TABLE 6 DINING ROOM CHAIRS 3 3 PIECE OF DINNING ROOM SUITS 1 COFFEE TABLE 4 COUCHES 3 3 PIECE TV STAND 1 MICRO WAVE DEFY 1 TOYOTA COROLA WITH REG NO: CCB 846 L CONDITIONS OF SALE The items are offered for cash to the highest bidder without any warranties and/or representations. DATED AND SIGNED AT POLOKWANE ON THIS THE DAY OF September 2024 HLM MAMABOLO ATTORNEYS PLAINTIFF'S ATTORNEY 30 A VOORTREKKER STREET P.O.BOX 2110 POLOKWANE 0700 TEL NO: (015) 297 7005 FAX NO. 015 297 6938 Ref: MR MAMABOLO/CIV/2022 TP021065

SALE IN EXECUTION

83 JOHANNESBURG SALE IN EXECUTION

BOTHA H E / BOCKER J C & 6 OTHERS AUCTION

IN THE HIGH COURT OF SOUTH AFRICA GAUTENG DIVISION, PRETORIA Case Number: 71125/2017 in the matter between: HENDRIK EGNATIUS BOTHA EXECUTION CREDITOR KAREN BOTHA JACOMINA CHRISTINA BOCKER HENDRIK EGNATIUS BOTHA N.O. KAREN BOTHA N.O. KYLA BOTHA GAEBY BOTHA STEPHANUS RUDOLPH KRUGER AND THE MASTER OF THE HIGH COURT N.O. EXECUTION DEBTOR NOTICE OF SALE IN EXECUTION IN PERSUANCE OF AN ORDER OF THE abovementioned Court, dated 19 September 2018, and a subsequent Writ of Execution, dated 9 July 2024, the following property will be sold in execution on 15 October 2024, at 11h00, at 7th Floor, Wachthuis, 231 Pretorius Street, Pretoria, by the Acting Sheriff of the Magistrates Court, Pretoria, to the highest bidder: 1.40 x Printers R 30, 000.00 2.30 x Computers: R 40, 000.00 Total :R 70, 000.00 *Terms of sale: Cash only and voetstoots. THUS done and signed at Pretoria on this 25th day of September 2024. ATTORNEYS FOR JUDGEMENT CREDITOR MATHYS KROG ATTORNEYS 237 Soutpansberg Road Rietondale, Pretoria Ref: M.Krog/yvl/B.1989 C/O TAUTE, BOWLER & CILLIERS INC. 827 25th Avenue, TP021065



BREYTENBACH J M Estate of the Late JEAN MADGE BREYTENBACH, died on 24 April 2023, Identity Number 461224 0037 08 3, of 12 Spencer Road, Farramere, Benoni, Johannesburg, married out of community of property to Jacob Christiaan Breytenbach, born on 30 September 1945, Identity Number 450930 5044 08 9. ESTATE NUMBER: 014276/2023 The First & Final Liquidation and Distribution Account in the above estate will lie for inspection at the offices of the Master of the High Court, JOHANNESBURG and the Magistrate, Benoni (GP), for twenty-one (21) days from date of publication hereof. FNB Fiduciary (Pty) Ltd P O Box 52297 Saxonwold 2132 Thora Potgieter +27 87 730 6522 TP020914

NOTICES

67 LIQUIDATION

BASIL FAKTOR OPTOMETRIST INC Due to a technical error this advert did not appear on 27 September 2024. BASIL FAKTOR OPTOMETRIST INC T2231/2019 Notice is hereby given that the First and Final Liquidation Account will lie open for inspection for 14 days from the 27 of September 2024 to the 14th of October 2024, at the Master of the High Court, Pretoria. HELENA PRETORIUS o.b.o. TRUSTEE ARDBEG TRUSTEES PRETORIA Helena @ardberg.co.za TP021097

MAKGOROKGORO TRADING ENTERPRICES Due to a technical error this advert did not appear on 27 September 2024. MAKGOROKGORO TRADING ENTERPRICES (IN LIQUIDATION) T1063/2021 Notice is hereby given that a Second Meeting of creditors and contributors in the above matter will be held before the Master of the High Court, Pretoria, on 9th of OCTOBER 2024 at 10H00 for the following reasons: 1. To submit claims for approval 2. To vote for the acceptance of the Liquidators report 3. To vote for the acceptance of the Resolutions. HELENA PRETORIUS o.b.o. TRUSTEE ARDBEG TRUSTEES PRETORIA Helena @ardberg.co.za TP021095

MICROMATICA 898 (PTY) LTD Due to a technical error this advert did not appear on 27 September 2024. MICROMATICA 898 (PTY) LTD (IN LIQUIDATION) T0141/2024 Notice is hereby given that a Second Meeting of creditors and contributors in the above matter will be held before the Master of the High Court, Pretoria, on 9TH OCTOBER 2024 at 10H00 for the following reasons: 1. To submit claims for approval 2. To vote for the acceptance of the Liquidators report 3. To vote for the acceptance of the Resolutions. HELENA PRETORIUS o.b.o. TRUSTEE ARDBEG TRUSTEES PRETORIA Helena @ardberg.co.za TP021096

SABALALA DEVELOPMENT CONSULTING (PTY) LTD Due to a technical error this advert did not appear on 27 September 2024. SABALALA DEVELOPMENT

SETEMIO TRADING ENTERPRICES CC Due to a technical error this advert did not appear on 27 September 2024. SETEMIO TRADING ENTERPRICES CC (IN LIQUIDATION) G00666/2022 Notice is hereby given that a Second Meeting of creditors and contributors in the above matter will be held before the Master of the High Court, Johannesburg, on 16TH OCTOBER at 09H00 for the following reasons: 1. To submit claims for approval 2. To vote for the acceptance of the Liquidators report 3. To vote for the acceptance of the Resolutions. HELENA PRETORIUS o.b.o. TRUSTEE ARDBEG TRUSTEES PRETORIA Helena @ardberg.co.za TP021094

SJ DRILLING SUPPLIES (PTY) LTD Due to a technical error this advert did not appear on 27 September 2024. SJ DRILLING SUPPLIES (PTY) LTD (IN LIQUIDATION) T915/2023 Notice is hereby given that a Second Meeting of creditors and contributors in the above matter will be held before the Master of the High Court, Pretoria, on 9TH OCTOBER 2024 at 10H00 for the following reasons: 1. To submit claims for approval 2. To vote for the acceptance of the Liquidators report 3. To vote for the acceptance of the Resolutions. HELENA PRETORIUS o.b.o. TRUSTEE ARDBEG TRUSTEES PRETORIA Helena @ardberg.co.za TP021093

WATERPROOF DIRECT CC Due to a technical error this advert did not appear on 27 September 2024. WATERPROOF DIRECT CC (IN LIQUIDATION) G000493/2021 Notice is hereby given that a Second Meeting of creditors and contributors in the above matter will be held before the Master of the High Court, Johannesburg, on 16th October 2024 at 09H00 for the following reasons: 1. To submit claims for approval 2. To vote for the acceptance of the Liquidators report 3. To vote for the acceptance of the Resolutions. HELENA PRETORIUS o.b.o. TRUSTEE ARDBEG TRUSTEES PRETORIA Helena @ardberg.co.za TP021092

MUNICIPAL NOTICE

80 GENERAL

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT (BAR) AND ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr). NOTICE OF ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED WASTE LICENSE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (AS AMENDED), EIA REGULATIONS, 2014, ON PORTION OF PORTION 211 OF THE FARM MAYFAIR WEST 221 IQ, SITUATED IN THE MAGISTRAL DISTRICT OF JOHANNESBURG, GAUTENG PROVINCE. DMRE

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT. NOTICE OF ENVIRONMENTAL AUTHORISATION FOR WASTE MANAGEMENT LICENSE APPLICATION, SEDIBE SERVICES (PTY) LTD IN RESPECT OF PORTION 16 AND PORTION 149 OF THE FARM PAARDEKRAAL 226 IQ, SITUATED IN THE MAGISTERIAL DISTRICT OF JOHANNESBURG, GAUTENG PROVINCE. DMRE

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT. NOTICE OF ENVIRONMENTAL AUTHORISATION FOR WASTE MANAGEMENT LICENSE APPLICATION, SEDIBE SERVICES (PTY) LTD IN RESPECT OF PORTION 64, PORTION OF PORTION 2, AND PORTION OF PORTION 202 OF THE FARM PAARDEKRAAL 226 IQ, SITUATED IN THE MAGISTERIAL DISTRICT OF

PORTION 380 OF THE FARM MAYFAIR WEST 221 IQ NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT (BAR) AND ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr). NOTICE OF ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED WASTE LICENSE IN TERMS OF THE

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Draft BAR/EMPr
GP/30/5/1/1/2(000068) BP/BAR
Sedibe Services (Pty) Ltd

Appendix 3B:

Background Information Document

Interested and Affected Parties Registration Form

**BACKGROUND INFORMATION DOCUMENT FOR THE
BASIC ASSESSMENT REPORT FOR THE LISTED ACTIVITIES ASSOCIATED WITH THE
RECLAMATION AND REHABILITATION OF THE TAILINGS RESIDUES IN RESPECT OF
PORTION OF PORTION 211 OF THE FARM MAYFAIR WEST 221 IQ: SITUATED IN THE
MAGISTERIAL DISTRICT OF JOHANNESBURG METROPOLITAN MUNICIPALITY,
GAUTENG PROVINCE.**

DMR REFERENCE NO.: GP/30/5/1/1/2(000068) BP/BAR

PURPOSE OF THIS DOCUMENT

This Background Information Document (BID) has been prepared as part of the notification and consultation process required in terms of the National Environmental Management Act (NEMA) (Act 107 of 1998). It describes the following:

- Background information regarding the proposed project;
- Information about the site and the proposal being considered;
- Public participation process; and
- Suggestions on how the stakeholders including the I&APs can participate on the process.

APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONERS

Vahlegwe Mining Advisory and Consulting has been appointed as the Independent Environmental Assessment Practitioner (EAP) to undertake the Basic Assessment Process (BAR) for the Waste Management License in terms of National Environmental Management: Waste Act, 2008 (Act 59 of 2008).

PROJECTION LOCATION

Proposed project is located in respect of Portion of Portion 211 of the Farm Mayfair West 221 IQ within the administrative district of City of Johannesburg Metropolitan Municipality, Gauteng Province.



Figure 1: Locality map of the proposed area

PROJECT DESCRIPTION

The area for the Waste Management License applied for is situated in respect of Portion of Portion 211 of the Farm Mayfair West 221 IQ within the administrative district of City of Johannesburg Metropolitan Municipality, Gauteng Province. Vahlengwe Mining Advisory and Consulting (Pty) Ltd will compile the Basic Assessment Report and Environmental Management Programme for the Waste Management License application and facilitate the PPP. The application includes the reclamation and decommissioning of tailings residues.

PUBLIC PARTICIPATION PROCESS.

The purpose of public consultation process is to enable landowners, lawful occupiers, directly affected individuals, and/or other Interested and Affected Parties (I&APs) to raise any issues, concerns and or comments regarding the waste management activities. A proof of consultation report will be developed and submitted to the Department of Mineral Resources and Energy (DMRE). The proposed project requires Environmental Impact Assessment process in terms of the National Environmental Management: Waste Act 59 of 2008 (as amended).

Following step will be followed while conducting public participation:

- Issuing of notification of this project to:
- Owners and occupiers of the properties as well as those adjacent to the site
- Municipal Councillor
- The municipality which has jurisdiction, and any organ of state having jurisdiction
- Placing an advert in a newspaper

- Placing a site notice
- Meetings with landowners and key I&APs, as required
- Public review of Basic Assessment Report and Environmental Management Programme

PUBLIC INVOLVEMENT

Public involvement is an essential component of the process. It addresses the right of Interested and affected Parties (I&APs) to be informed of the proposed activities. All Interested and Affected parties (I&APs) are invited to submit their issues, concerns, and comments regarding the proposed waste management license activities to Sedibe Services (Pty) Ltd via email, registered post or telephonically. The Interested and Affected parties (I&APS) Form is made available below for you to fill in your personal details and comments, kindly do so and submit it back to us.

HOW TO OBTAIN FURTHER INFORMATION.

Registering as I&APs will ensure that you are placed on a database to be informed of any progress regarding the project. You can do so by filling in the form below and return it to the relevant person listed below. We encourage the I&APs to review the information presented to you in this Background Information Document (BID) and to register as an I&AP for the attached respondent sheet and return it to us.

PUBLIC CONSULTATION CONTACTS:

Name: Sunday Mabaso

Postal address: 238 Voster Ave, Glenvista Ext 3, Glenvista, 2058

Contact: +27 11 432 0062

E-mail: info@vahlengweadvisory.co.za

APPLICANT CONTACTS

Name: Sedibe Soneni Leisie

Postal Address: 12 Thaxted Avenue, Mulbarton, Johannesburg South, Gauteng

Tel: +27 82 671 0829

E-mail: maningiphuza@icloud.com

Interested & Affected Party Registration Form

GP/30/5/1/1/2(000068) BP/BAR

Sedibe Services (Pty) Ltd

SEDIBE SERVICES (PTY) LTD

Interested & Affected Party Registration Form

Project Reference No.: GP/30/5/1/1/2(000068) BP/BAR

Name and Surname	
Physical Address	
Contact Details	Telephone No.: Fax No.: Cell No.: E-mail Address:
Please indicate any issues, comments and concerns with regard to the proposed project	
Please indicate in which aspects you would require more information	
Please indicate any I&APs whom you think should be contacted	
To be registered as an I&AP for this project mail, or e-mail the completed registration form to: Sunday Mabaso Postal address: 238 Voster Ave, Glenvista Ext 3, Glenvista, 2058 Contact : +27 11 432 0062 E-mail : info@vahlengweadvisory.co.za	

Draft BAR/EMPr
GP/30/5/1/1/2(000068) BP/BAR
Sedibe Services (Pty) Ltd

Appendix 3C:

Site Notice

SEDIBE SERVICES (PTY) LTD

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT.

NOTICE OF ENVIRONMENTAL AUTHORISATION FOR WASTE MANAGEMENT LICENSE APPLICATION, SEDIBE SERVICES (PTY) LTD IN RESPECT OF PORTION OF PORTION 211 OF THE FARM MAYFAIR WEST 221 IQ: SITUATED IN THE MAGISTERIAL DISTRICT OF JOHANNESBURG, GAUTENG PROVINCE

DMR REFERENCE NO: GP/30/5/1/1/2(000068) BP/BAR

Notice is hereby given in the intent to conduct Environmental Authorization process for the Waste Management Licence Application, for Sedibe Services (Pty) Ltd in terms of National Environmental Management: Waste Act NEMWA, 2008 (Act 59 of 2008) (as amended), and the Environmental Impact Assessment (EIA) Regulations, 2014 (GNR 982) (as amended) and Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Regulation 39 to 44 of GNR 982 (as amended). In terms of these guidelines, an EIA process would be undertaken and would be submitted to the Competent Authority (Department of Mineral Resources and Energy (DMRE)).

THE ABOVE ACTIVITIES TRIGGERS:

Activity 21F of GN R 983 (Listing Notice No. 1) (as amended): Any activity including the operation of that activity required for the reclamation of a residue stockpile or a residue deposit as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required for the reclamation of a residue stockpile or a residue deposit.

Category A (Activity 14): The decommission of a facility for a waste management activity listed in category A or B of this schedule.

PROPOSED SITE LOCATION.

Proposed project is located in respect of Portion of Portion 211 of the Farm Mayfair West 221 IQ within the administrative District of City of Johannesburg Metropolitan Municipality, Gauteng Province.

APPLICANT DETAILS:

Name : Sedibe Soneni Leisie
Postal Address : 12 Thaxted Avenue, Mulbarton, Johannesburg South, Gauteng
Tel : +27 82 671 0829
E-mail : maningiphuza@icloud.com

SITE CO-ORDINATES

Midpoint Coordinates: -26.215716°,27.963760°



Figure 1: Locality map of the proposed area

PUBLIC MEETING:

Public meeting will be held to facilitate discussions on the Draft BAR/EMPr to obtain comments and inputs from the Interested and Affected Parties (I&APs), therefore you are requested to register your names as I&APs within 15 days, thus, on/before **October 11, 2024**. You are further requested to submit your comments within 30 days from the date this notice was published. Take note that your comments must be submitted on or before **October 26, 2024**, to the details below:

Consultant : **Vahlegwe Mining Advisory and Consulting**
Contact person : Sunday Mabaso
Postal address : 238 Voster Ave, Glenvista Extension 3, Johannesburg South, 2058
Contact : +27 11 432 0062
E-mail : info@vahlegweadvisory.co.za



Address: 238 Voster Avenue, Glenvista, 2058

Tel: +27 11 432 0062

E-mail: info@vahlegweadvisory.co.za

Draft BAR/EMPr
GP/30/5/1/1/2(000068) BP/BAR
Sedibe Services (Pty) Ltd

Appendix 4:

Environmental Sensitivity Screening Report

**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS
REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE
ENVIRONMENTAL SENSITIVITY**

EIA Reference number: 000068 BP

Project name: Waste Management License

Project title: Waste Management License

Date screening report generated: 25/09/2024 20:25:48

Applicant: Sedibe Services

Compiler: Dimakatso Leholi

Compiler signature:
.....

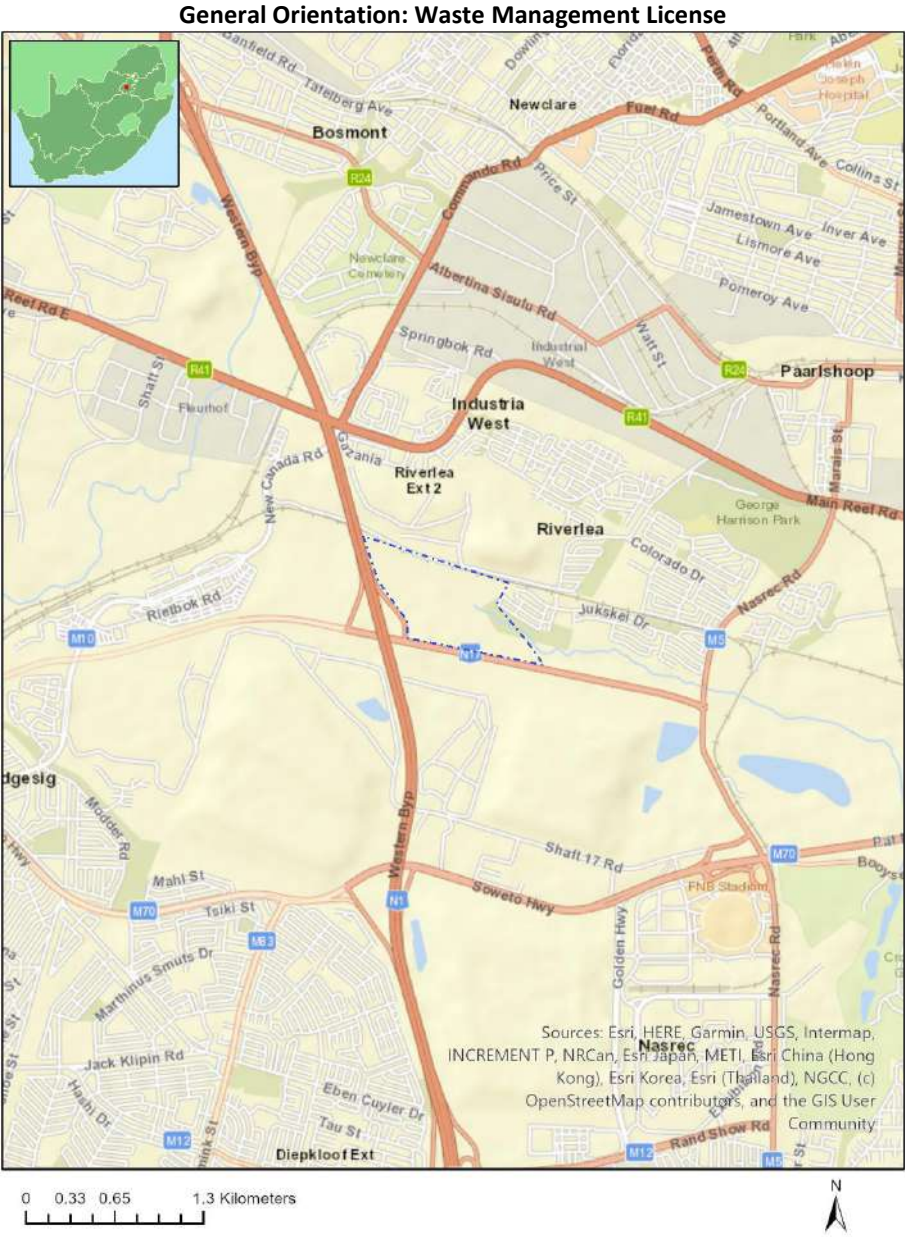
Application Category: Mining|Beneficiation|Mineral

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Proposed Project Location

Orientation map 1: General location



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	RIVERLEA	733	0	26°12'56.21S	27°58'2.98E	Erven
2	MAYFAIR WEST	221	0	26°12'44.46S	27°59'17.04E	Farm
3		224	211	26°12'54.23S	27°57'48.18E	Farm Portion
4		224	187	26°12'46.16S	27°57'40E	Farm Portion
5		224	1	26°12'48.67S	27°57'43.88E	Farm Portion
6		224	364	26°12'55.13S	27°57'29.41E	Farm Portion
7		224	380	26°13'9.55S	27°57'48.51E	Farm Portion
8		224	212	26°13'3.54S	27°58'25.18E	Farm Portion
9	RIVERLEA	1000	0	26°12'59.73S	27°58'1.92E	Public Place
10	RIVERLEA	1001	0	26°13'3.41S	27°58'7.77E	Public Place

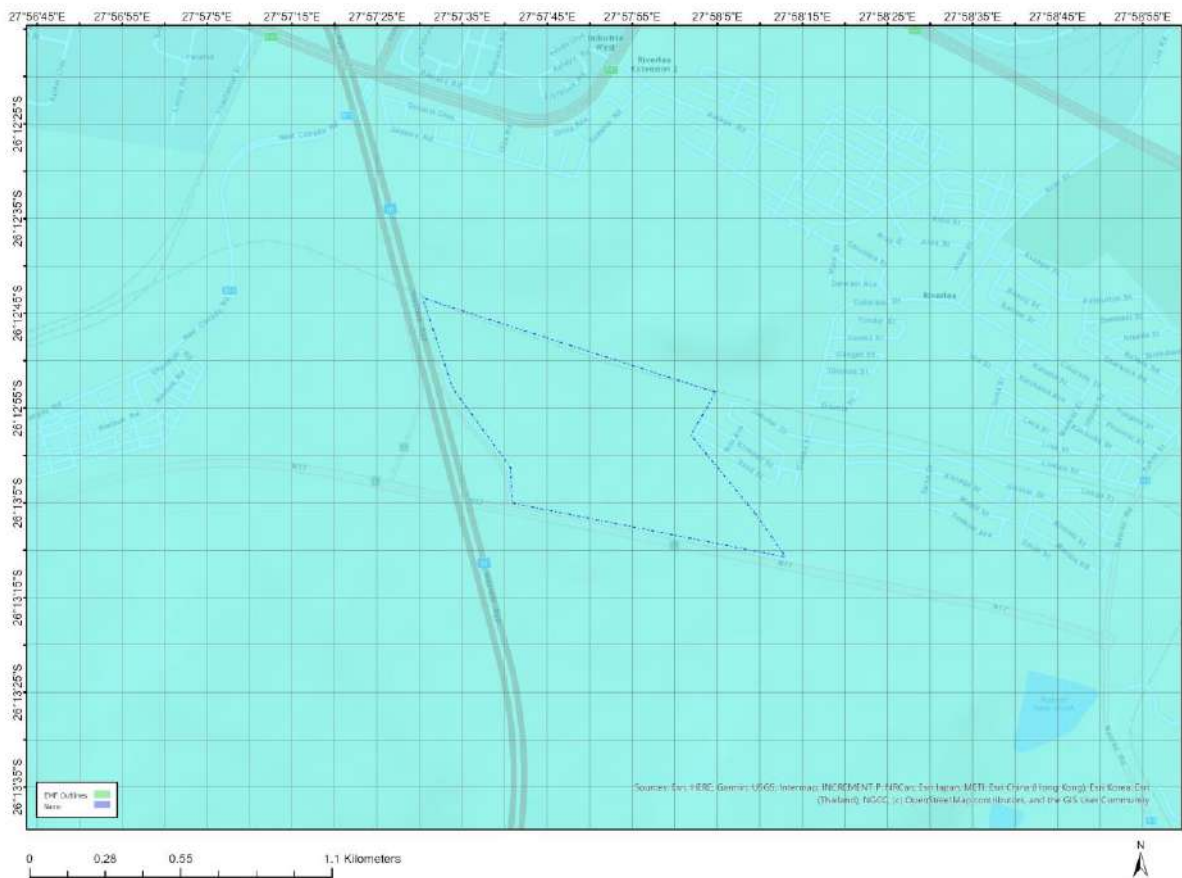
Development footprint¹ vertices:
No development footprint(s) specified.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

¹ “development footprint”, means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	14/12/16/3/3/2/375/AM1	Solar PV	Approved	21.1
2	002/15-16/E0152	Solar PV	Approved	11.5
3	12/12/20/2537/AM3	Solar PV	Approved	27
4	14/12/16/3/3/2/825	Solar PV	Approved	28.8
5	12/12/20/2539	Solar PV	Approved	26.8
6	12/12/20/2539/AM1	Solar PV	Approved	26.8
7	12/12/20/2537/AM1	Solar PV	Approved	27
8	12/12/20/2530	Solar PV	Approved	0.3
9	12/12/20/2551	Solar PV	Approved	1.6

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Gauteng EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/GPEMF_2021_Gazette_and_summary.pdf

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

Mining | Beneficiation | Mineral.

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Central corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf
Strategic Gas Pipeline Corridors-Phase 3: Richards Bay to Gauteng	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf
Gauteng EMF-Urban development zone 1	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Zone1_2021.pdf

Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme			X	
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme	X			
Civil Aviation Theme			X	
Defence Theme				X
Paleontology Theme				X
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

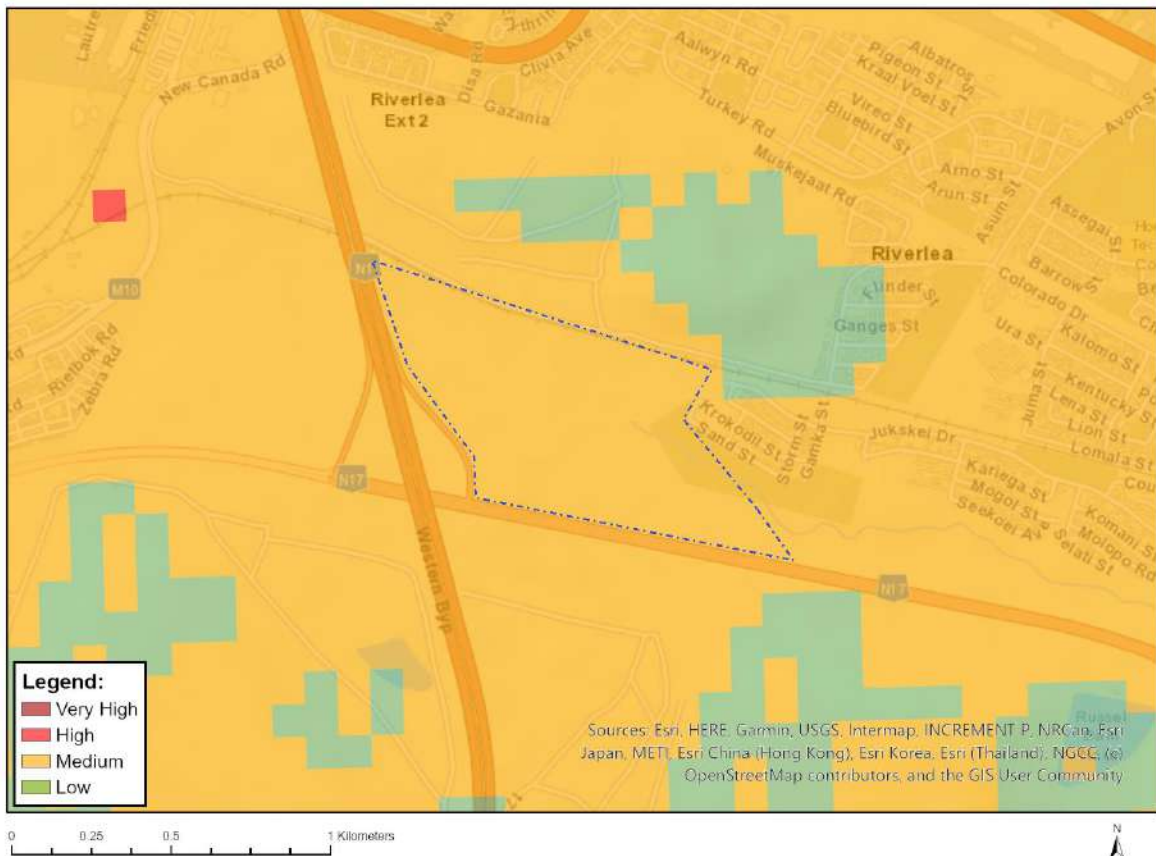
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf

	Cultural Heritage Impact Assessment	ssmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Terrestrial Biodiversity Assessment Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Aquatic Biodiversity Assessment Protocols.pdf
6	Hydrology Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
7	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Noise Impacts Assessment Protocol.pdf
8	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
9	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
10	Climate Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
11	Health Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
12	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
13	Ambient Air Quality Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
14	Air Quality Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
15	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Plant Species Assessment Protocols.pdf
16	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Animal Species Assessment Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

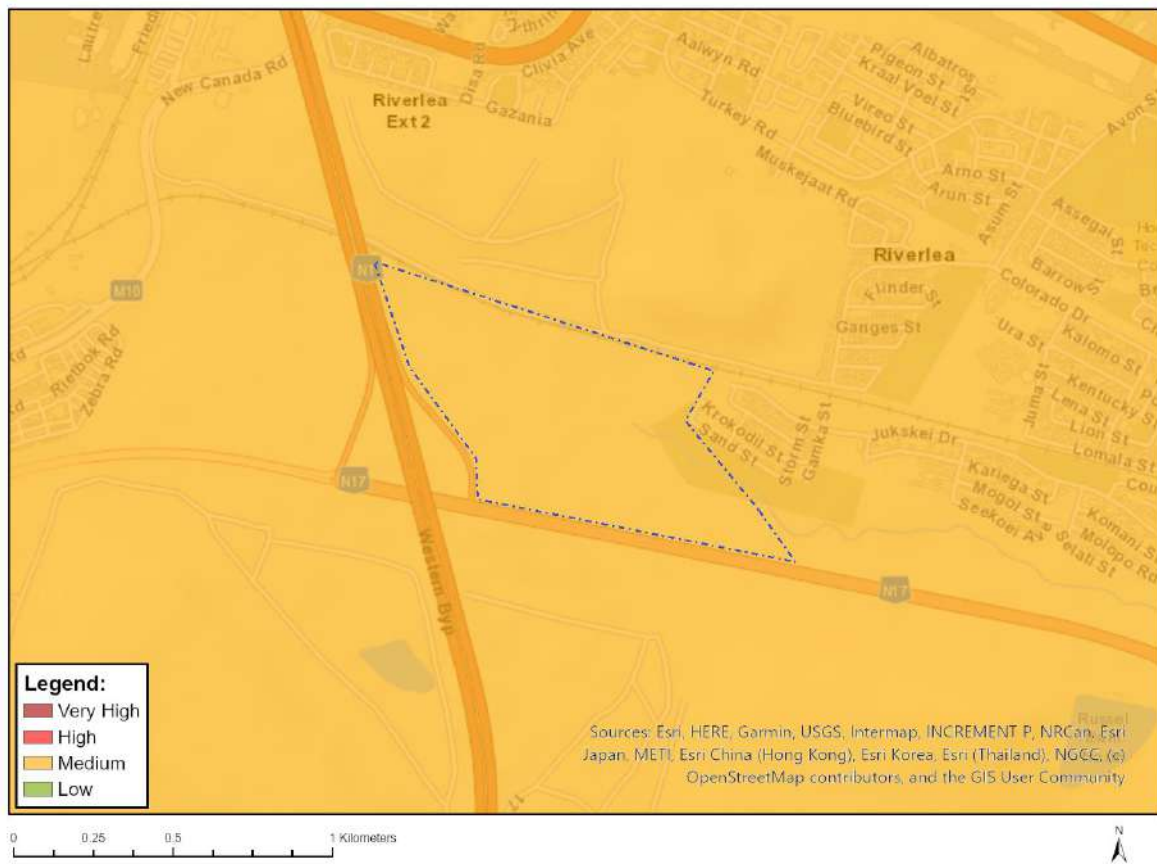


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Insecta-Aloeides dentatis dentatis
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Dasymys robertsii
Medium	Mammalia-Hydrictis maculicollis
Medium	Invertebrate-Clonia uvarovi

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

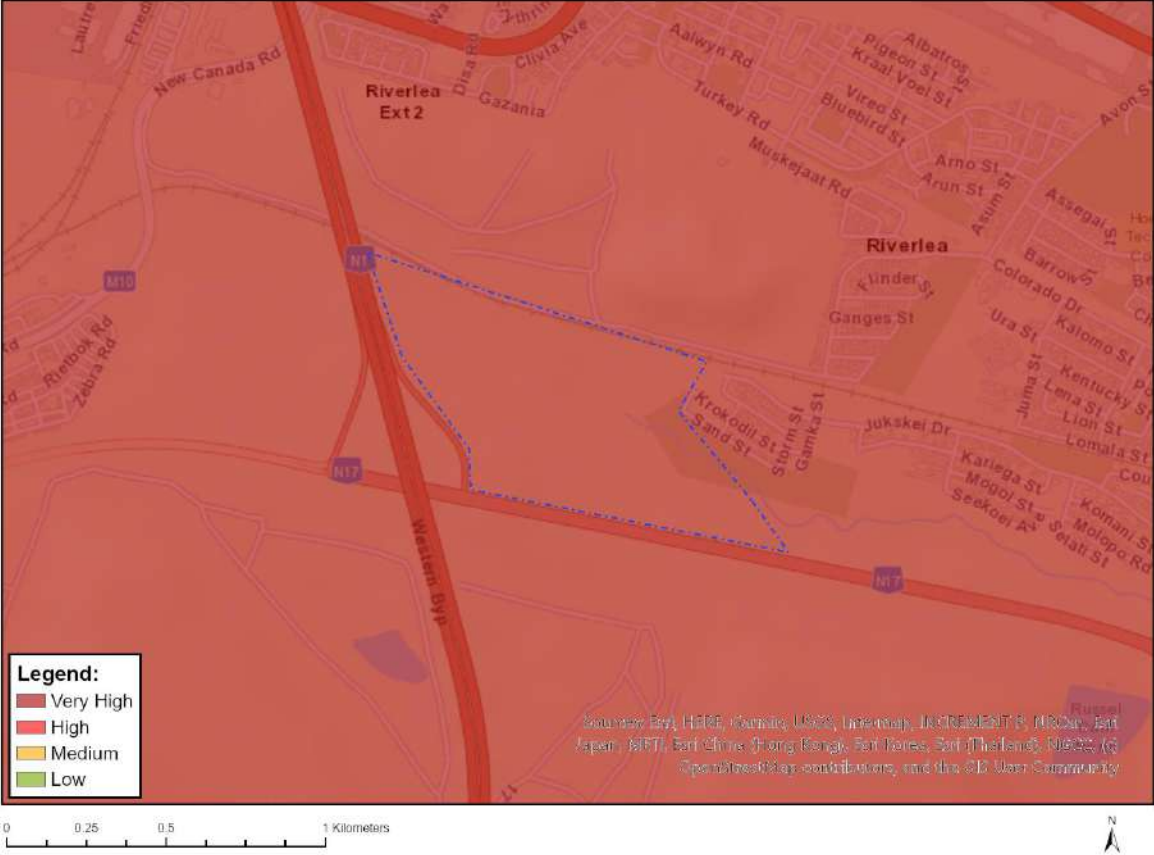


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Wetlands_Dry Highveld Grassland Bioregion (Valley-bottom)

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

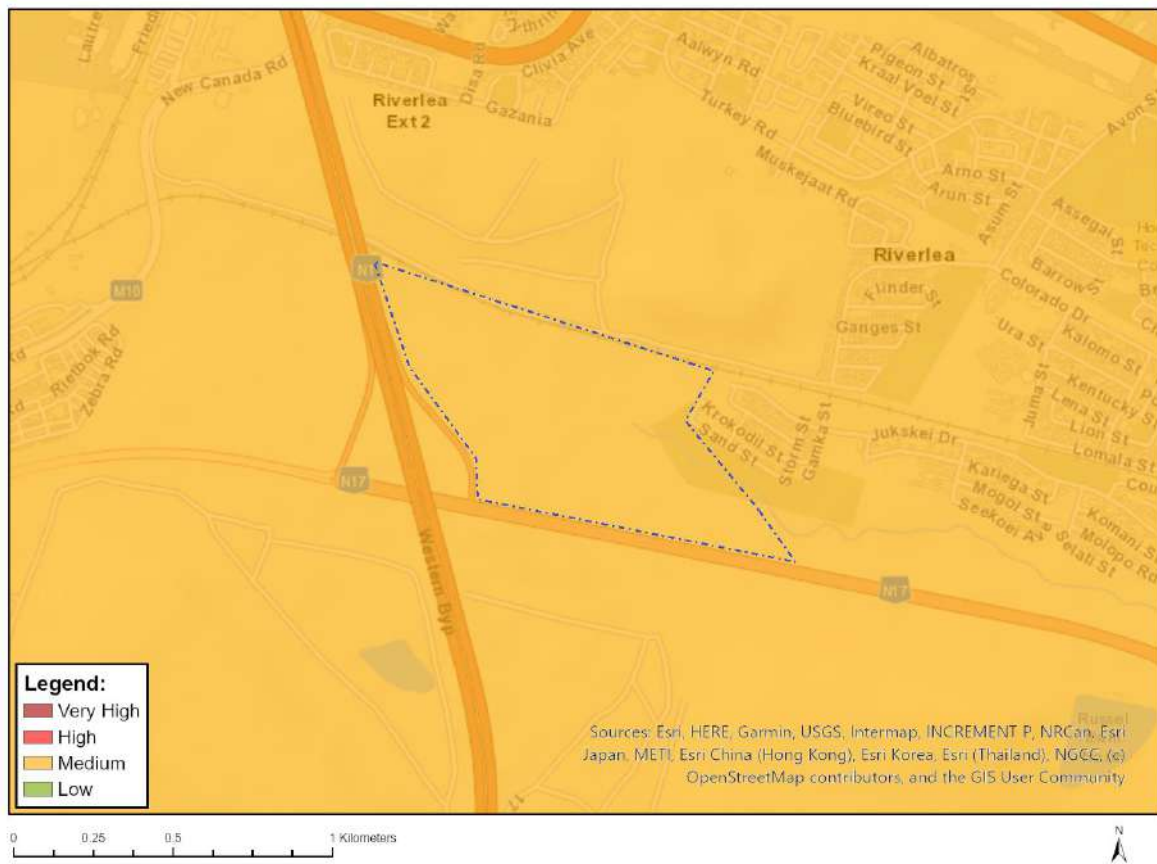


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Within 5km of a Grade I Heritage site
Very High	Within 2km of a Grade II Heritage site

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Between 15 and 35 km from a civil aviation radar
Medium	Between 15 and 35 km from a major civil aviation aerodrome
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

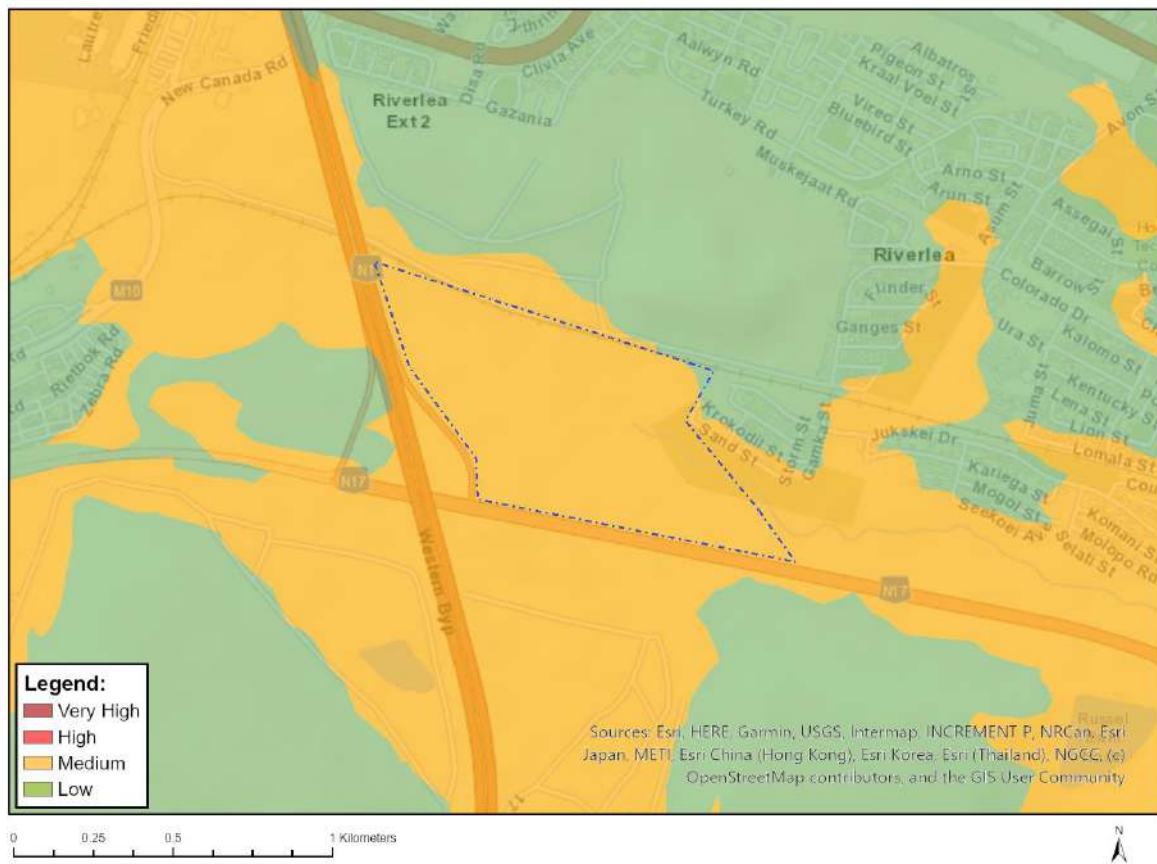


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Features with a Low paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



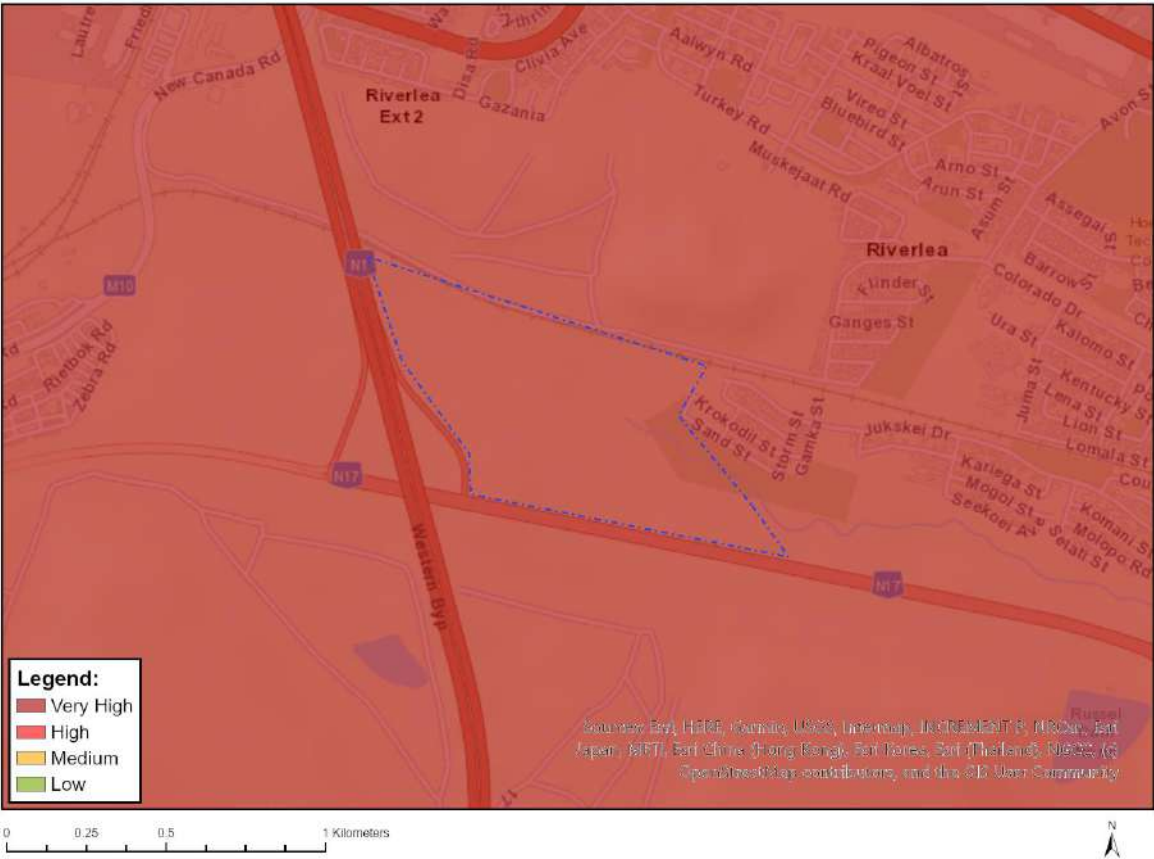
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Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Sensitive species 1252
Medium	Khadia beswickii
Medium	Cineraria longipes
Medium	Sensitive species 691

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	CBA 1
Very High	CBA 2
Very High	ESA 1
Very High	ESA 2
Very High	National Protected Area Expansion Strategy (NPAES)
Very High	VU_Soweto Highveld Grassland