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01 July 2024

The Regional Manager
Department of Mineral Resources
Gauteng Regional Office
222 Smit Street
Braamfontein
2017

Dear Sir/Madam,

SUBMISSION: BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT REPORT FOR THE MINING PERMIT APPLICATION OF RECLAMATION OF TAILINGS DUMP FOR ATNM (PTY) LTD IN RESPECT OF PORTION OF PORTION 470 OF THE FARM VLAKFONTEIN 69 IR IN THE MAGISTERRIAL DISTRICT OF BENONI.

DMRE Ref No: GP30/5/1/3/2 (10531) MP

The above-mentioned matter bears reference:

We hereby submit the environmental documents required for the above-mentioned application. We are submitting the following:

1.Basic Assessment Report and Environmental Management Programme.

2. Supporting documents attached as appendices

I hope you find this in order.

Yours Faithfully,

Sunday M Mabaso,
Vahlengwe Mining Advisory and Consulting

ATNM (PTY) LTD

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

BASIC ASSESSMENT REPORT (BAR) AND ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) FOR THE MINING PERMIT APPLICATION OF RECLAMATION OF TAILINGS DUMP FOR ATNM (PTY) LTD IN RESPECT OF PORTION OF PORTION 470 OF THE FARM VLAKFONTEIN 69 IR IN THE MAGISTERRIAL DISTRICT OF BENONI.

FILE REFERENCE NUMBER SAMRAD: GP30/5/1/3/2 (10531) MP

NAME OF APPLICANT: ATNM (Pty) Ltd

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June 2024

This document has been prepared by:

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Prepared for:

ATNM (Pty) Ltd

Name	Responsibility	Signature	Date
Cecil Dau	Report Compiler		June 2024
Sunday Mabaso	Project Manager/Reviewer		June 2024

1. IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), 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 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 (1) (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 ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The objective of the environmental impact 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

LIST OF ABBREVIATIONS

BID	Background Information Document
DEA	Department of Environmental Affairs
DMRE	Department of Mineral Resources and Energy
CBA	Critical Biodiversity Area
CARA	Conservation of Agricultural Resources Act (Act No. 43 OF 1983)
CRR	Comments and Responses Report
DFFE	Department of Forestry, Fisheries, and the Environment (DFFE)
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
ECA	Environmental Conservation Act, 1989 (Act No. 73 of 1989)
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMM	Ekurhuleni Metropolitan Municipality
EMPr	Environmental Management Programme
ERP	Environmental Response Pla
ESA	Ecological Support Area
FEPA	Freshwater Ecosystem Area
GDP	Gross Domestic Product
GIS	Geographic Information Systems
GNR	Government Notice Regulation
Ha	Hectares
I&APs	Interested and Affected Parties
ISO	International Organization for Standardization
Km	Kilometer's
MP	Mining Permit
MR	Mining Right
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)
NFEPA	National Freshwater Ecosystem Priority
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)
NFEPA	National Freshwater Ecosystem Priority Area
NPA	National Protected Area
LoM	Life of a Mine
OHSAS	Occupational Health and Safety Assessment Series
PES	Present Ecological State
PPP	Public Participation Process
SACS	South African Committee for Stratigraphy
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
SANS	South African National Standard (SANS) 10103
WMA	Water Management Area
WULA	Water Use License Application

EXECUTIVE SUMMARY

ATNM (Pty) Ltd, hereafter referred as 'ATNM', has appointed Vahlengwe Mining Advisory and Consulting (Pty) Ltd, hereafter referred as 'Vahlengwe', to undertake the Environmental Authorization application processes and associated specialist studies for the application of a mining permit in terms of Section 27 of the Mineral and Petroleum Resources Development Act (MPRDA) 2002 (Act No. 28 of 2002) for the reclamation of tailings dump material in respect of Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.The planned mining operations will have a total footprint of approximately 4.99 ha and will be undertaken over the duration of two (2) years plus a potential extension by an additional three (3) years, renewal for each year.

The tailings dump material were generated on the project site as a result of the historical mining activities that took place in the area. The area was left without proper rehabilitation, and therefore it has become a hot spot for illegal mining activities and the environment has been negatively impacted. Therefore, ATNM intends to reclaim the mine waste material to mitigate the environmental damages caused by previous mining activities and to improve the social aspects of the community.

The proposed mining project triggers activities listed in Listing Notice 1, Activity No. 21 of the NEMA, for which a Basic Assessment Report (BAR) process must be conducted in terms of NEMA Government Notice Regulation GNR. 983 (as amended). The environmental impacts of the proposed project activities were determined by first identifying the environmental aspects and then conducting an environmental risk assessment to identify the significant environmental aspects. The environmental impact assessment considered all phases of the project and rating system used is applied to the potential impact on the receiving environment.

The stakeholder engagement process, as part of the Environmental Authorisation process was undertaken in terms of NEMA (as amended), which provides clear guidelines for stakeholder engagement during an EIA. Stakeholders therefore were afforded an opportunity to participate in the public review of the Draft BAR report from 10 May 2024 – 08 June 2024 to ensure that the assessment of impacts and proposed management of impacts addressed their concerns. Comments received during the 30-day comment period (from the Draft BAR review) are incorporated into this report, to be submitted to DMR for decision-making.

Details of the Applicant

Table 1: Details of the Applicant

Name of Applicant:	ATNM (Pty) Ltd		
Registration number (if any):	2014/018895/07		
Trading name (if any):	ATNM (Pty) Ltd		
Responsible person: (E.g., CEO, Director, etc.)	Thato Mogotsi		
Contact person:	Thato Mogotsi		
Physical address:	26 Hatfield Road, Albermale, Alberton, Gauteng, 1401		
Postal address:	26 Hatfield Road, Albermale, Alberton, Gauteng, 1401		
Postal code:	1401	**Cellphone:**	+27 84 777 1644
Email:	tmogotsi@atnm.co.za		

Environmental Consultants

Vahlengwe Mining Advisory and Consulting is the appointed Independent Environmental Assessment Practitioner (EAP) to undertake the Basic Assessment Process for the environmental authorisation application for the proposed mining project of reclamation of mine tailings dump in respect of Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

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, Johannesburg South, 2058
Telephone:	+2711 432 0062
Email:	info@vahlengweadvisory.co.za

Public Participation Process Methodology

A Public Participation Process (PPP) was undertaken as required in terms of EIA Regulations, 2014 (as amended), promulgated under NEMA. During the undertakings of the PPP, the environmental and social impacts are being investigated, and any stakeholder who is affected by the project is given an opportunity to comment, raise concerns and contribute to the assessment to ensure that local knowledge, needs, and values are understood and taken into consideration throughout the process.

A Draft Basic Assessment Report was made available for public comment for a period of 30 days and all comments, issues of concern and suggestions received from stakeholders was captured in the Comment and Response Report (CRR). The CRR is included in this Basic Assessment Report to be submitted to the DMRE and simultaneously made available to I&APs. The 30-day comment period commenced from **(10 May 2024 - 08 June 2024)**

The following activities were undertaken to announce the project and initiate the Basic Assessment process:

- A Background Information Document (BID) including an Interested and Affected Parties (I&APs) Registration form handed and distributed via email on **10th May 2024**;
- Newspaper advertisement was placed in the **Benoni City Tymes Newspaper** on the **09th May 2024;**
- Site notices were erected at various places within the vicinity of the on the **10th of May 2024;** and
- An electronic copy could be accessed and downloaded from the www.vahlengweadvisory.co.za from the **10th of May 2024**.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

PART A:

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1. Introduction

ATNM (Pty) Ltd proposes to undertake mining activities for the reclamation of tailings dump materials in respect of Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province. It is situated approximately 13km northeast of the town of Boksburg, approximately 13km north of the town of Brakpan. The project area is accessible via the Van Ryn Road that connects to the Golden drive Road in the northerly side.

The tailings dumps were generated as a result of the historical mining activities that took place years ago and were left abandoned and without an adequate rehabilitation. Due to the amount of mine waste material and the considerate gold content in the waste material, the area is now inundated with illegal miners 'zama zamas' and other criminal activities, resulting in the negative socioeconomic and environmental impacts. The applicant intends to reclaim the tailings dump and rehabilitate the environmental damages to return the land to its original capabilities as it was prior to the accumulation of the mine waste dumps and enable land for other uses. The activities will involve extraction of the tailings dump material by an excavator, which will then be loaded into a dump truck and transported to an offsite treatment facility for processing and refinery.

The proposed project will cover an area extent of approximately **4.99 ha** and will be undertaken over the duration of two (2) years plus a potential extension by an additional three (3) years, renewal for each year. Vahlengwe Mining Advisory and Consulting (Pty) Ltd, hereafter 'Vahlengwe', has been appointed by ATNM as the independent Environmental Assessment Practitioner (EAP) to facilitate the mining permit application and the associated environmental authorisation for the reclamation of tailings dump.

The project area is located in close proximity to the residential and recreational areas, and the presence of gold bearing concentrates in the tailings dumps 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.

2. Contact Person and correspondence address.

2.1. Details of the EAP

Table 3: Details of the EAP

Company name:	Vahlengwe Mining Advisory and Consulting (Pty) Ltd
Contact person:	Sunday Mabaso
Physical address:	238 Voster Ave, Glenvista Extension 3, Johannesburg South, 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 (with evidence as **Appendix 1)**

This section describes the EAP's qualifications and experience for the proposed Project. Appendix A contains the EAPs' curriculum vitae and degrees.

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	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
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	Cecil Dau is an environmental professional who has more than years (4) 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 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.

3. Location of the overall Activity

Table 5: Details of the overall activity location

Farm Name:	Portion of Portion 470 of the Farm Vlakfontein 69 IR
Application area (Ha)	4.99 ha
Magisterial district:	Magisterial District of Benoni, Gauteng Province
Distance and direction from nearest town	The proposed project area is located in Benoni, approximately 13km northeast of the town of Boksburg, approximately 13km north of the town of Brakpan. The project area is accessible via the Van Ryn Road that connects to the Golden drive Road in the northerly side.
21-digit Surveyor General Code for each farm portion	T0IR00000000006900470

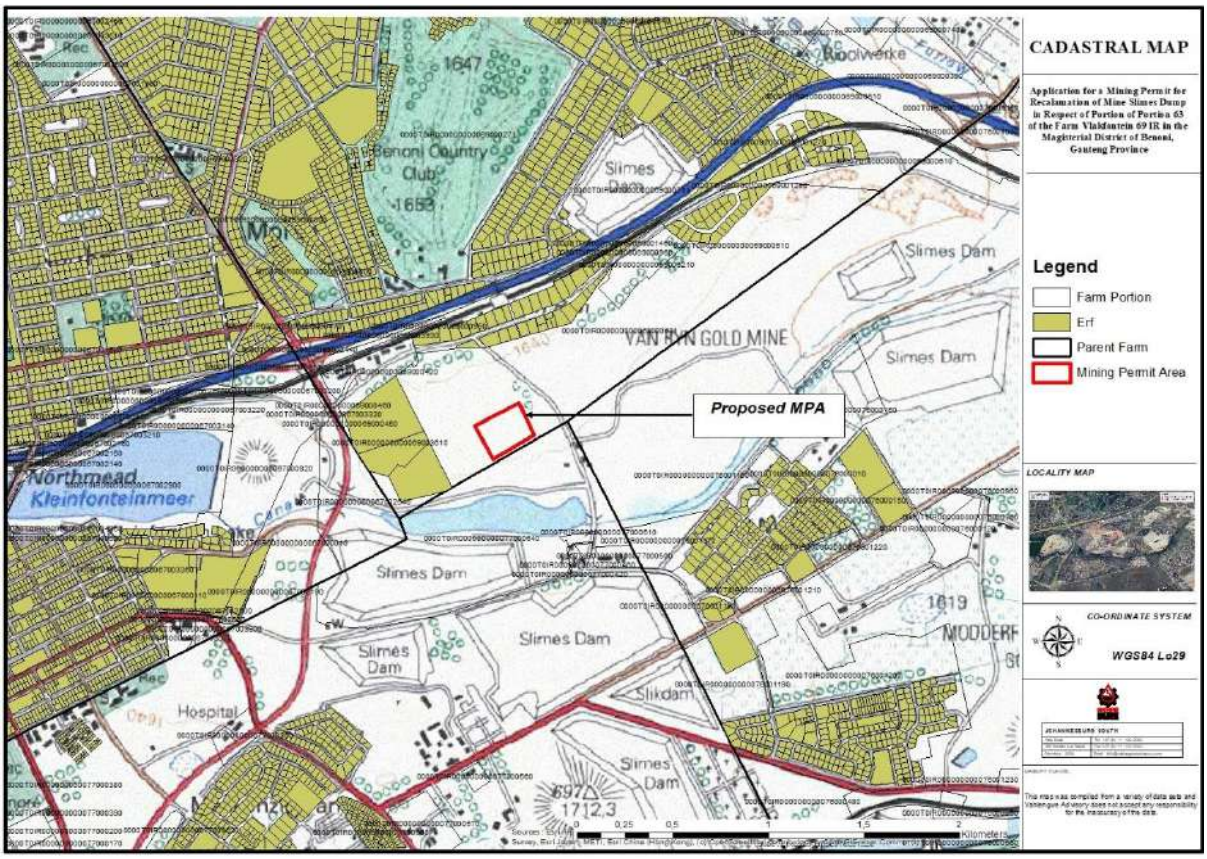

Figure 1: Cadastral Map

4. Locality map

Attach a locality map at a scale not smaller than 1:250000 showing the nearest town and attach as **Appendix 2**

Figure 2: Locality map of the proposed area

5. Description of the scope of the proposed overall activity

Attach 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.

ATNM (Pty) Ltd has applied for a Mining Permit for the reclamation of tailings dump that resulted from the historical gold mining and ore processing activities. The proposed project will take place on Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.The project area will cover an extent area of approximately **4.99 ha**.

The tailings dump material were generated on the project site as a result of historical mining activities that took place in the area. The area was left without proper rehabilitation, and therefore it has become a hot spot for illegal mining activities and the environment has been negatively impacted. Therefore, ATNM intends to reclaim the mine waste material to mitigate the environmental damages caused by previous mining activities and to improve the social aspects of the community. The reclamation processes would prevent further environmental degradation. The applicant will conduct the following activities:

- Reclamation of the tailings dump; and
- Decommissioning and final Rehabilitation.

The infrastructure to be established on site:

- A mobile administration office;
- Ablution facilities;
- Access Roads – the applicant will utilise the existing roads as far as possible; and
- Machinery and equipment such as the excavator, FEL and dump trucks

5.1. Listed and Specified Activities

Activities associated with the proposed mining activities are identified as the Listed Activities in the Listing Notice 1, Activity No. 21 and Activity 21 F of the NEMA Regulations GN R983 (as amended), which states that:

Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including - **(a)** associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource; or [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] **(b)** the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies.

Table 6: Listed Activities

NAME OF ACTIVITY	AERIAL EXTENT OF THE ACTIVITY (HA OR M²)	APPLICABLE LISTING NOTICE
Mining area	4.99 ha	GNR 983 (as amended)
Reclamation of tailings dump	4.99 ha	GNR 983 (as amended)
Mobile Site Offices	28.8 m^2	Not Listed
Haul roads	60 m^2	Not Listed

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 collect the material by excavator and load it onto the dump truck which will take the material to a single point. The tailings dump material will be taken to an

offsite treatment facility for further processing and refining to get gold. The project intended activities include:

- Vegetation clearance to access the tailings dump material;
- Material extraction within the project site;
- Material handling (transportation and stockpiling); and
- Material take-off and transportation to the offsite treatment facility.

Operating Method

Operations will be conducted through the extraction of the waste material by excavator. The excavator will load the material onto a dump truck, which will transport the material to a single point. The tailings dump material will then be taken to an offsite treatment facility for further processing and beneficiation to recover gold. Concurrent rehabilitation will be undertaken in areas where the waste material has been completely removed 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 to be used on site are diesel powered.

Water Supply

Based on the magnitude of the project, water connections will not be required. 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 decommissioning 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.

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 reclamation activities on site, the area will be assessed of any environmental damages and all disturbed areas by the mining 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.

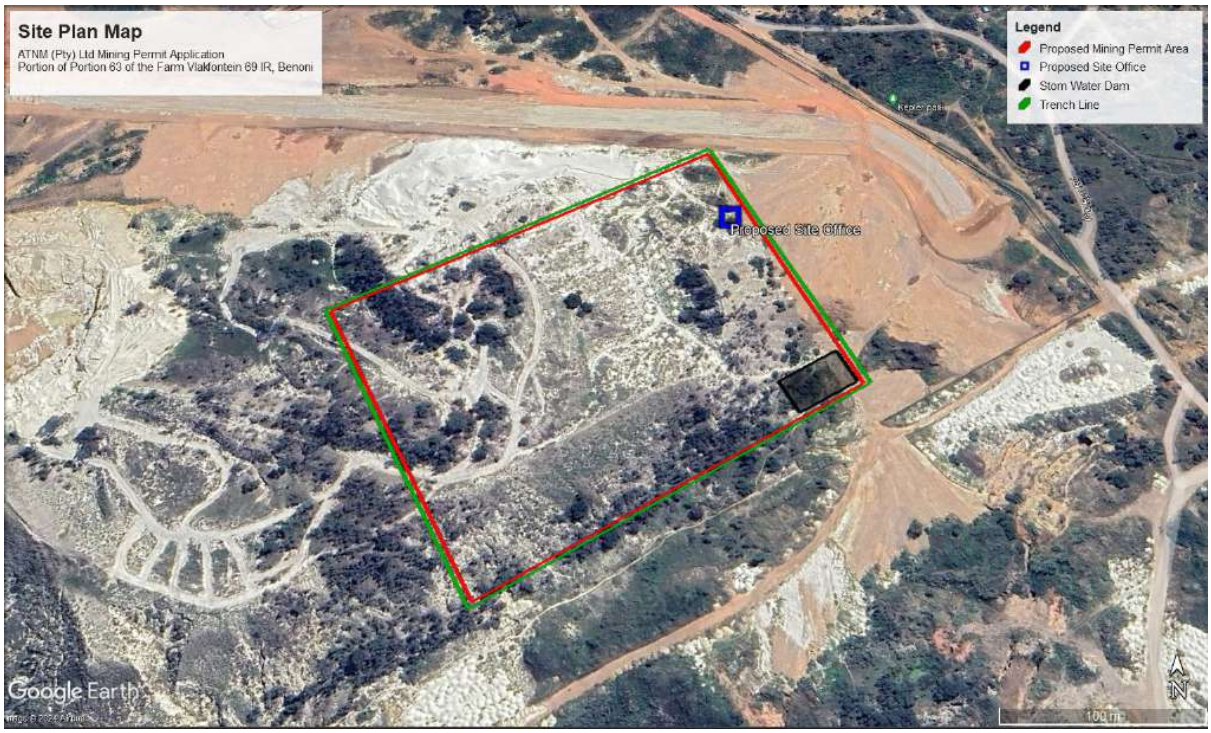

Figure 3: Site plan of the proposed area

6. Policy and Legislative Context

Table 7: Policy and Legislative Context

Applicable legislation and guidelines used to compile the report	Reference where applied
The Constitution of the Republic of South Africa, 1996 Under Section 24 of the Constitution of the Republic of South Africa, 1996 (the Constitution) it is clearly stated that: Everyone has the right to 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 – (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.	Vahlengwe is undertaking an EIA process to identify and determine the potential impacts associated with the proposed ATNM mining activities. 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.
National Environmental Management Act, 1998 (Act No 107 of 1998) and EIA Regulations (as amended in 2021) The 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. Section 24 (1)(a) and (b) of NEMA state that:	Activities associated with the proposed mining activities are identified as the Listed Activities in the Listing Notice 1, **Activity No. 21** (as amended) which states that: Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002

The potential impact on the environment and socio-economic conditions of activities that require authorization 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. The EIA Regulation, 2014 was published under GN R 326 on 07 2017 (EIA Regulations) and came into operation 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.	(Act No. 28 of 2002), including: — (a) associated infrastructure, structures, and earthworks, directly related to the extraction of a mineral resource; or (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening, or washing; and **Activity 21F of Listing Notice 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.

Mineral and Petroleum Resource Development Act, 2002 (Act No. 28 of 2002) The Act make provision for equitable access to and sustainable development of the nation's mineral and petroleum resources; and provide for matters connected therewith. 2. The objects of this Act are to: — (a) recognize the internationally accepted right of the State to exercise sovereignty over all the mineral and petroleum resources within the Republic; (b) give effect to the principle of the State's custodianship of the nation's mineral and petroleum resources; (c) promote equitable access to the nation's mineral and petroleum resources to all the people of South Africa; (d) substantially and meaningfully expand opportunities for historically disadvantaged persons, including women, to enter the mineral and petroleum industries and to benefit from the exploitation of the nation's mineral and petroleum resources; (e) promote economic growth and mineral and petroleum resources development in the Republic; (f) promote employment and advance the social and economic welfare of all South Africans; (g) provide for security of tenure in respect of prospecting, exploration, mining, and production operations; (h) give effect to section 24 of the Constitution by ensuring that the nation's mineral and petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development; and	The proposed projected is applied for in terms of Section 27 of the MPRDA, 2002 (Act No. 28 of 2002) and the planned activities are according to the scope of the Financial and Technical Competence Report in terms of the Mineral and Petroleum Resource Development Act, 2002 (Act No. 28 of 2002): Mineral and Petroleum Resource Development Regulations GNR 527 of 2004. The application was lodged at the Department of Mineral Resources and Energy in the Gauteng Region since the proposed project is situated on Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

Regulation 2(1) if the Mineral and Petroleum Resource Development Act, 2002 (Act No. 28 of 2002): Mineral and Petroleum Resource Development Regulations GNR 527 of 2004; clearly states that: An application for any permission, right or permit is made in terms of the Act and must be lodged by submitting an appropriate form contained in annexure I by hand or registered post to the Regional Manager in whose region the land is situated or to the designated agency at the relevant address specified in the appropriate form	

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).

The surface of the area where the proposed project is to be undertaken is covered by layers of gold bearing sand stockpiles and other accumulation of mine waste. The gold bearing concentrates of the tailings dump 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 dumps 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, cadmium, lead, zinc, copper, arsenic and mercury found in the tailings, facilitating their passage into surface water and ground water (Brink, 1996).

Tailings dumps 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 Benoni area and the surrounding communities.

The project site is situated within Benoni. Therefore, the reclamation of the tailings dump, 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 reclamation of the tailings dump 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 mine waste dumps 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 Benoni 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 reclamation 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 dump on the proposed site has 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 project area is located in close proximity to the residential areas, industrial area and recreational areas, and the presence of gold bearing concentrates of the tailings dump as a result of inadequate rehabilitation and closure of historical 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 dumps are known to be the source of environmental pollution such as air pollution, water pollution and soil contamination.

No alternatives sites were investigated for this project. The mine waste dumps are located in the area in question. Therefore, there is no alternative site for this project.

- **Activities**

The applicant intends to conduct mining activities for the reclamation of the tailings dump material which resulted from the historical mining activities. The operation on site will involve the utilisation of conventional equipment comprising of an excavator and the Front-end Loader (FEL) to remove the material and load into a dump truck. The tailings materials will then be taken to an off-site processing plant for further processing and refining for gold recovery. Concurrent rehabilitation will be undertaken in areas where the waste material has been completely removed wherein all aspects of the environment will be evaluated for residual and latent risks, and where possible, further rehabilitation processes will be implemented. The applicant will conduct the following activities:

- Reclamation of the tailings dump material; and

- Decommissioning and final Rehabilitation.

The infrastructure to be established on site include:

- Administration office;
- Ablution facilities
- Equipment storage facilities
- Machinery and equipment such as the excavators, FEL, tipper truck and other auxiliary equipment

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 as provided above and the location of the individual activities on site, provide details of the alternatives considered with respect to:

Alternatives are different ways of meeting the overall goal and requirement of a proposed activity. Alternatives aid in determining the best way to develop the Project, taking into account location or site alternatives, activity alternatives, process or technology alternatives, temporal alternatives, and the no-go alternative. Alternatives also aid in determining which activity has the least environmental impact.

9.1.1. The property on which or location where the activity is proposed to be undertaken; .

No alternative location has been evaluated for this project. The mine waste dump exists on the site. Therefore, no alternative site 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 dump and rehabilitate the disturbed areas as a result of the historical mining activities. The material will be loaded onto a dump truck and transported to a gold plant for processing and removal of all contaminants from site. New soil as well as overburden from other areas will then be established to the cleaned-out mining 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 was determined by the existing location of the mine waste dumps and residues and the suitability of the area to place the associated infrastructure in the form of administration offices, ablution facilities. Therefore, any additional infrastructure will be established in compatibility with these servitudes. There are existing access roads to the site.

9.1.4. The technology to be used in the activity;

The operation on site will involve the utilisation of conventional equipment comprising of an excavator and the Front- end Loader (FEL) to remove the material and load into a dump truck. The reclamation of the tailings dump, and rehabilitation of the disturbed land will involve excavation and loading of material onto a dump truck and transported to a gold plant for processing and removal of all contaminants from site. The project location will be rehabilitated to ensure that the land is viable for other uses.

9.1.5. The operational aspects of the activity; and

The applicant will be extracting the material from the proposed site and transporting it to the offsite processing plant for gold extraction. 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.

9.1.5. 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 dump 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.

- **Stakeholder Identification**

Stakeholder engagement is an important part of the environmental decision-making process, and it forms part of the impact assessment phase. The process is primarily intended to provide I&APs with the opportunity to understand the proposed project. Furthermore, the purpose of consultation with the landowner, key stakeholders, and I&APs is to provide them with the necessary information about the

proposed project so that they can make informed decisions about whether the project will affect them, as well as to provide the EIA team with local knowledge of the area and raise concerns about the potential biophysical, socioeconomic, and cultural impacts.

Vahlengwe's approach recognizes that I&APs are diverse in character and in their project interest. The following criteria were used to identify I&APs:

- ***Zone of influence***: the physical location in relation to the project site and the potential impacts. In general, the closer the affected people live to the project site, the greater their interest and the greater the potential impact of the project;
- ***Stakeholder values:*** the value that the stakeholders attach to the area that could be affected by the project. This includes aspects such as livelihood, land use, property, cultural heritage and sense of place; and
- ***Jurisdiction***: the mandate/influence of institutions over the regulatory process and public opinion.

Interested and Affected Parties (I&APs) representing the following sectors of society have been identified in terms of Regulation 42 of the EIA Regulations (as amended):

- National Authorities;
- Provincial Authorities;
- Local Authorities;
- Ward Councillors;
- Parastatals/ Service Providers;
- Non-governmental Organisations;
- Local forums/ unions; and
- Adjacent Landowners.

Draft Basic Assessment Report

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 were developed and distributed to all stakeholders including the interested and affected parties. The various PPP materials which were used as part of the EIA processes are included as appendices to this report.

Background Information Document (BID):

The BID aims to provide important information regarding the following:

- Project description of the proposed mining activities;

- The EIA and the PPP that was undertaken in support of the mining activities and relevant contact details;
- Details about how stakeholders could 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.
- The BIDs were hand delivered to the affected and surrounding landowners.

I&APs Registration Form:

A registration form was distributed to the community attached to the BID for the registration of the I&APs.

Site notice:

An A3 sized site notices informing I&APs about the project information as per the published newspaper advert, were 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 regulation notices were placed within the vicinity of the proposed project site at strategic locations where it was deemed to be visible to community**.**

Newspaper advertisements:

A newspaper advertisement, informing all Interested & Affected Parties (I&APs) residing in Benoni and surrounding areas in the Ekurhuleni Metropolitan Municipality (EMM) was published on the 09th May 2024 and included information about ATNM intention to apply for a mining permit for the reclamation of the tailings dump for gold extraction in respect of Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

A proof of the newspaper advert is attached in this report. I&APs were informed to register any comments or concerns that they might have, regarding the proposed project by contacting the Environmental Assessment Practitioner (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 (BID) and site notice.

Public meeting:

The stakeholder meeting including the interested and affected parties was held at the Adonai Ministries in New Modder, Benoni to afford the community members an opportunity to make an input, raise concerns and comment on the draft BAR made available to them.

Draft BAR Report Commenting Period

A draft BAR report was made available via the Vahlengwe Mining Advisory and Consulting website (www.vahlengweadvisory.co.za). Printed copies were also made available for viewing at the locations deemed accessible to the community.

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9.3. Summary of issues raised by I&APs

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

Table 8: Summary of issues raised by I&Aps (Please refer to CRR **(Appendix 3F)** and Proof of consultation with State Departments **(Appendix 3H)**

INTERESTED AND AFFECTED PARTIES		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.
AFFECTED PARTIES					
Landowner/s					
Lawful occupier/s of the land					
Landowners or lawful occupiers on adjacent properties					
Municipal councillor (if more than one, attach list as an Annexure)					
Municipality (if more than one, attach list as an Annexure)					
Communities					
Dept. Land Affairs					
Traditional Leaders					
Dept. Environmental Affairs					

Other Competent Authorities affected					
OTHER AFFECTED PARTIES					
INTERESTED PARTIES					

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 Ekurhuleni Metropolitan Municipality (EMM), Gauteng Province. The proposed project area is located in Benoni, approximately 13km northeast of the town of Boksburg, approximately 13km north of the town of Brakpan. The project area is accessible via the Van Ryn Road that connects to the Golden drive Road in the northerly side.

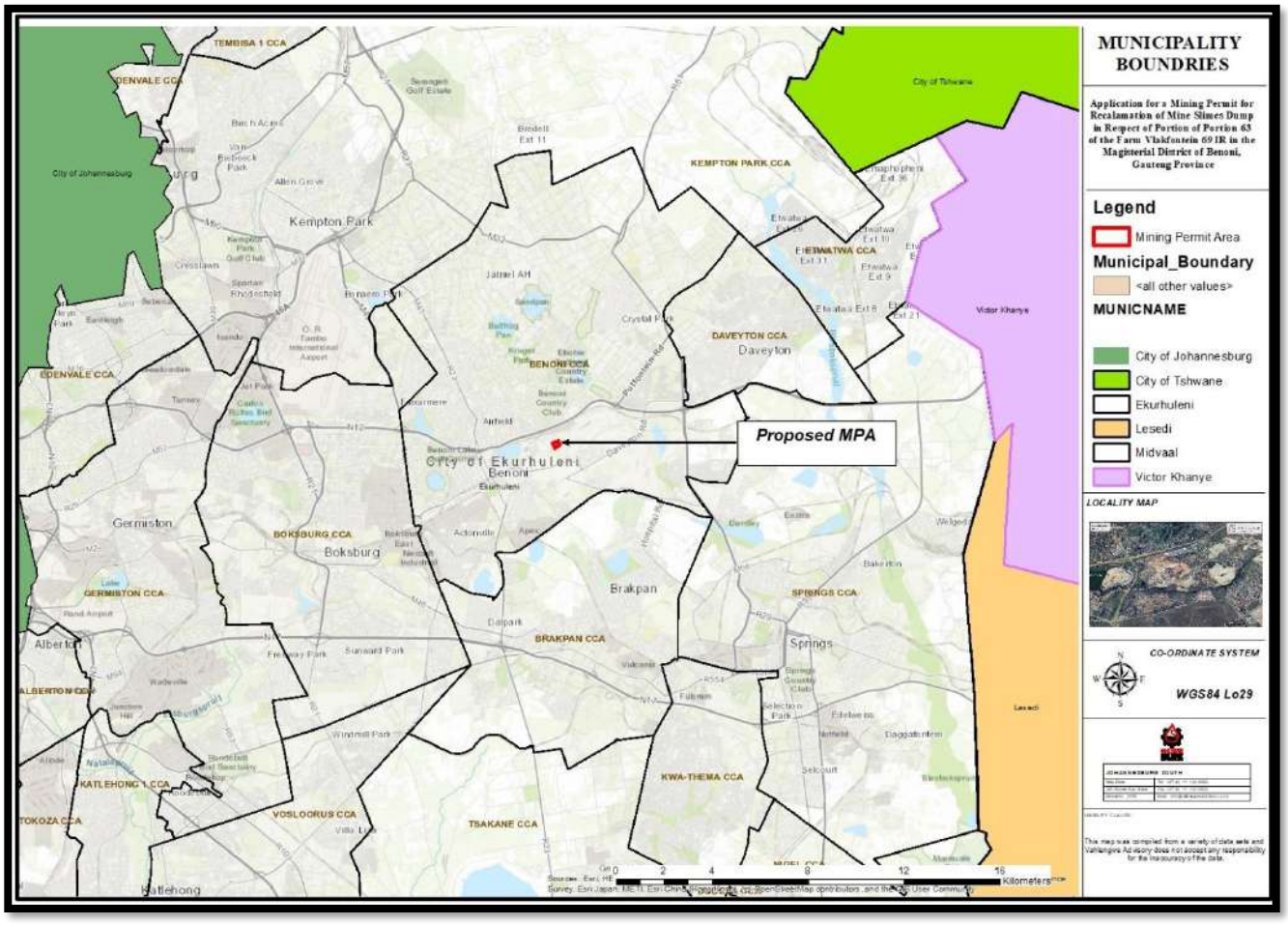


Figure 4: Municipal area

- **Climate**

The project area falls within the range of the Benoni weather station, which is located in the southern hemisphere. The climatic condition in Benoni is categorized as mild and moderate, with summers much rainier than winters. 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 16.1 °C whereas the annual precipitation is about 755 mm. The town of Benoni is located in the southern hemisphere, where summer begins in January and ends in December. January is the warmest month of the year with an average temperature of 19.8 °C whereas July is the coldest month with an average minimum temperature of 9.7 °C (see Figure 5). The month with the highest relative humidity is January (68.85 %) while the month with the lowest relative humidity is September (35.06 %). The month with the rainiest days is December (17.30 days) while the month with the least rainy days is July (0.90 days).

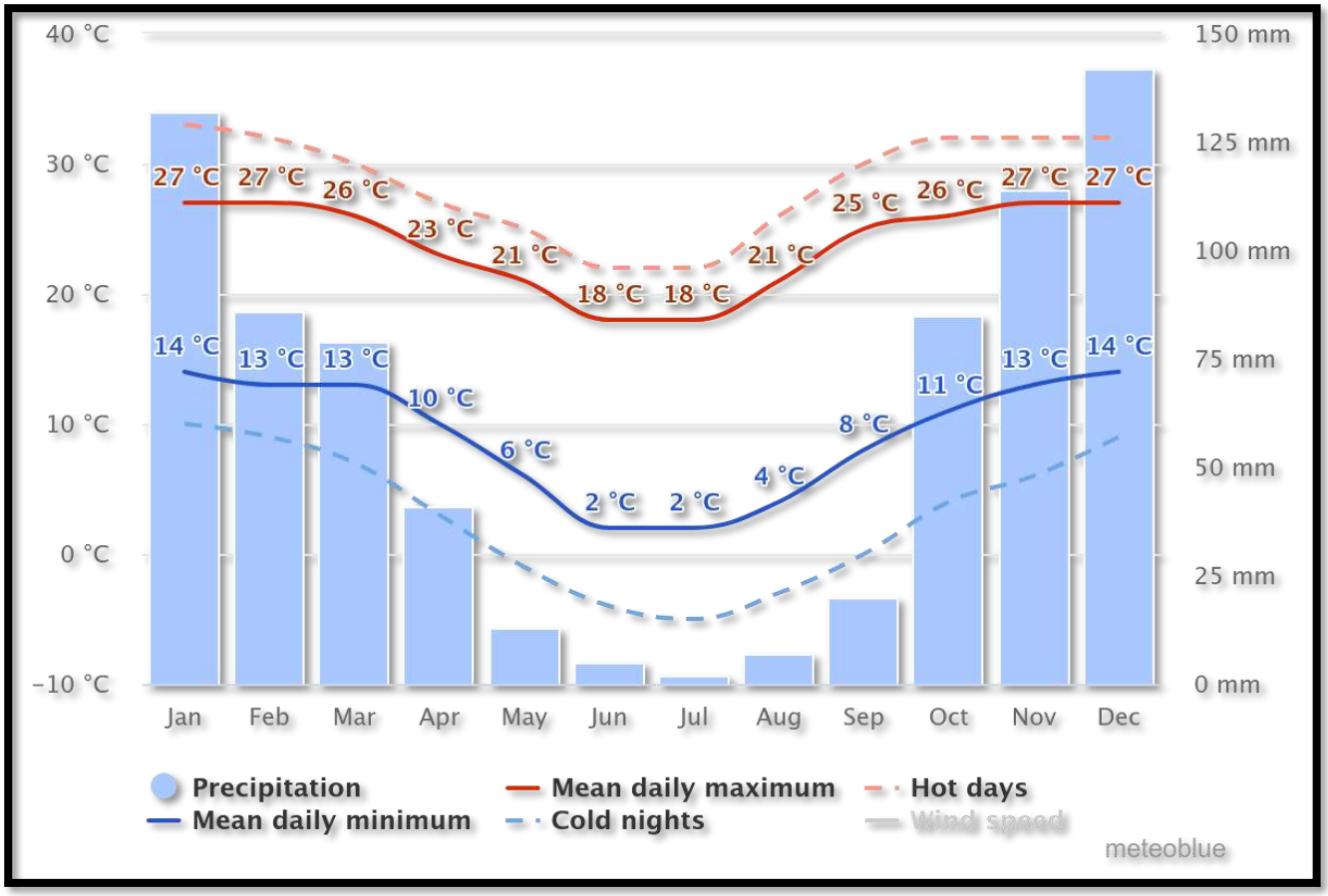


Figure 5: Average climatic conditions for Benoni (https://www.meteoblue.com)

The occurrence of wind in Benoni is high, with the strong winds blowing constantly from December to April and calm winds from June to October. The strong winds blow from the Southern to the Northern direction as shown in the wind rose below (Figure 6). Both the frequency and velocity of these winds are highest in these directions.

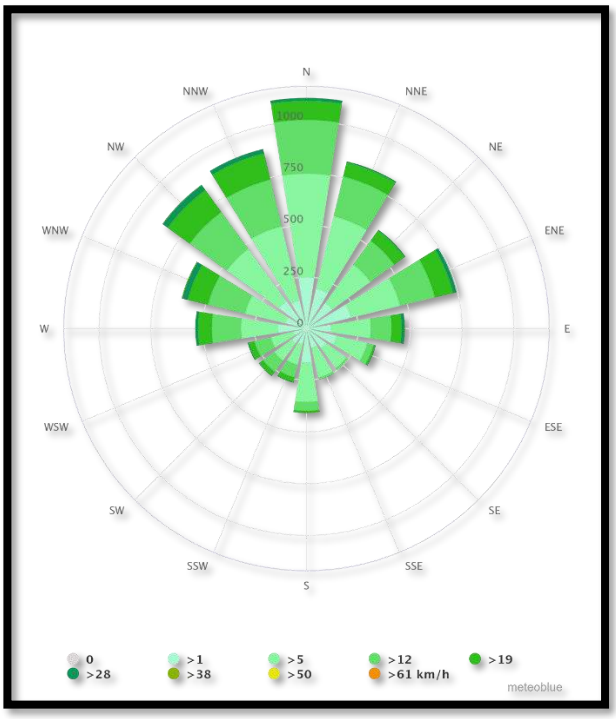


Figure 6: Wind Rose for Benoni (https://www.meteoblue.com)

- **Topography**

The topography of EMM can generally be characterized as flat, with a few notable features in the surrounding area. The following topographical features are present: plains with pans, undulating plains with pans, strongly undulating plains, a superimposed river valley (Blesbokspruit) on plains with pans, and ridges. The proposed project is located in Benoni, where the elevation ranges from approximately 1,605 meters to 1,711 meters. The average elevation at the site of the proposed mining activities is 1,662 meters, as illustrated in Figure 7 below.

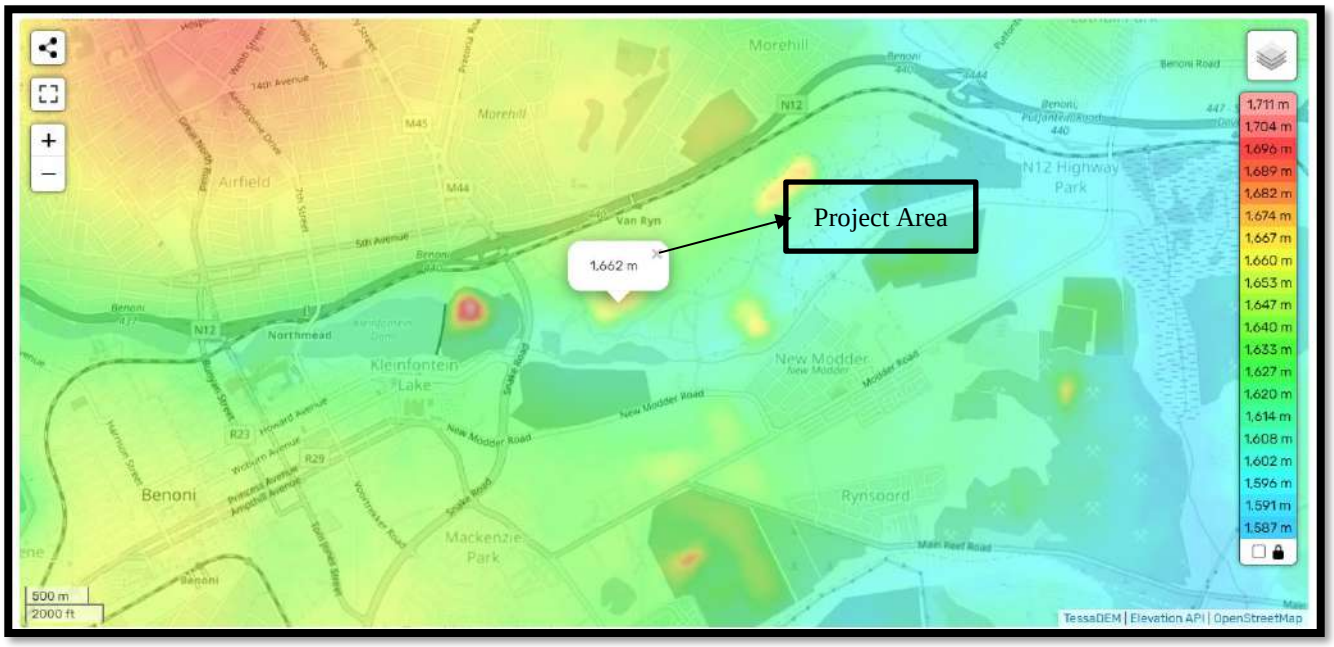


Figure 7: Topographical map of Benoni

- **Geology**

The EMM is situated on a transition zone between the formations of a large granite batholith on its western border to the formations of the Witwatersrand and Transvaal Supergroups that is dominated by dolomites overlain by younger sediments of Karoo Supergroup.The proposed mining area is underlain by Dwyka Group (Figure 8). Dwyka Group is the lower most units of the Karoo Supergroup and it is envisaged that the group was deposited from the Middle Carboniferous up to the Early Permian (Linol et al., 2016). The Dwyka Group consists predominantly of massive diamictite of glacial origin and subordinate varved deglaciation shale and sandstone units, reaching a maximum thickness of around 800 m (Linol et al., 2016). Deposition of the Dwyka Group marks the first deposition in the Karoo Supergroup and the deposition of the diamictites followed after the development of a shallow sea that resulted from deglaciation (Geel et al., 2015).

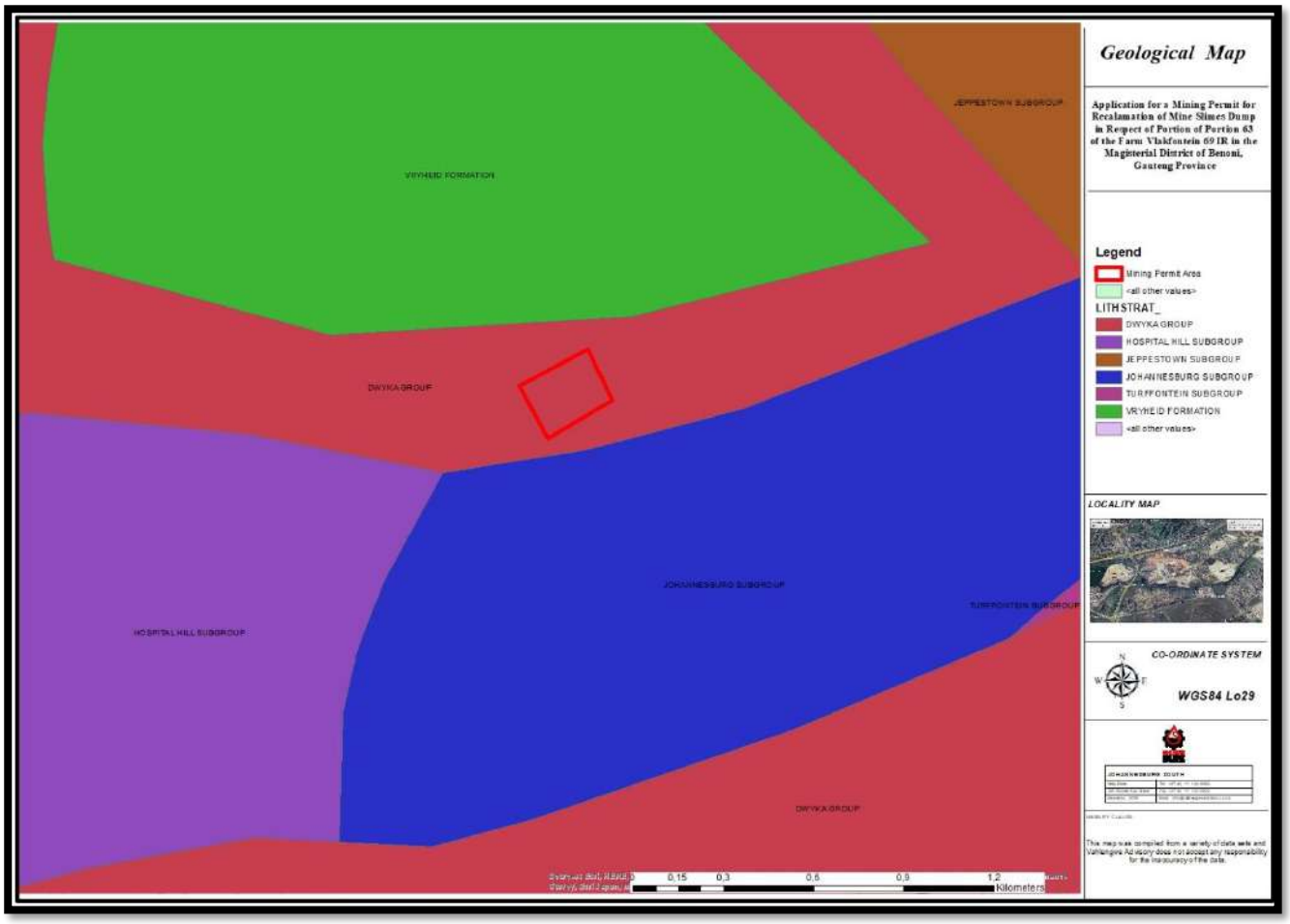


Figure 8: Geology

- **Cultural and Heritage Resources**

No features of archaeological significance have been identified across the site. The proposed project area does not encompass any SAHRA-recognized World or National Heritage Sites, nor any SAHRA-recognized Provincial Heritage Sites in the vicinity. However, should any heritage resources, including fossils, graves, or human remains, be encountered, these must be reported to the authorities. In the event of discovering obvious human remains, the South African Police Services should be notified, and public access should be restricted.

- **Water Resources**

The proposed project area is situated within the Upper Vaal Water Management Area (WMA), as illustrated in Figure 9. The Upper Vaal WMA forms a part of the broader water supply system, which encompasses adjacent WMAs and extends to include Lesotho. This collective system is designated as the Vaal River system. The Upper Vaal WMA is one of the three WMAs within the Vaal River catchment, which delineates the drainage area of the Vaal River from its headwaters to its confluence with the Orange River.

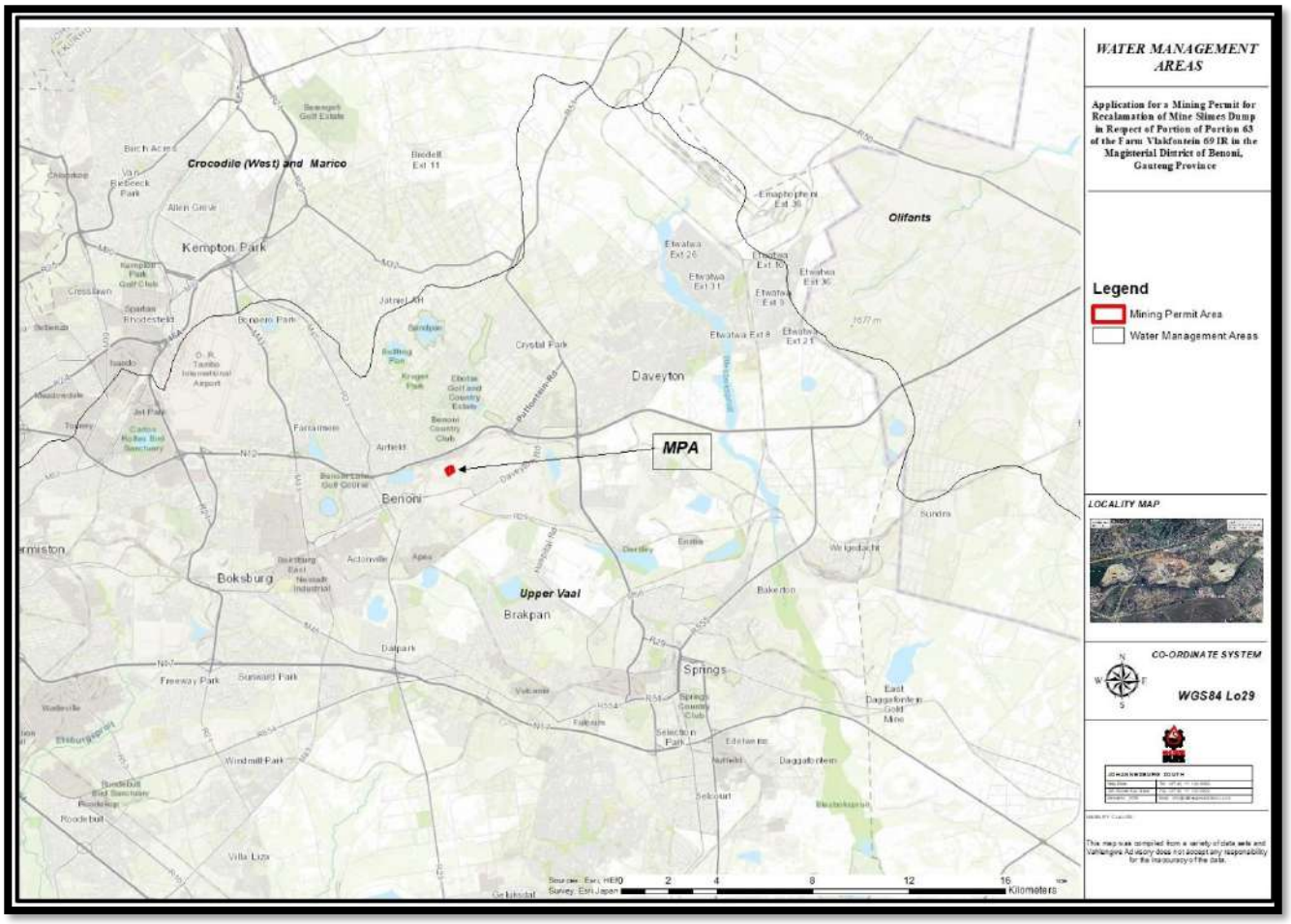


Figure 9: Water Management Area

The land use in the Upper Vaal WMA is characterised by the sprawling urban and industrial areas in the northern and western parts of the WMA. There is also extensive coal and gold mining activities located in the Upper Vaal water management area. These activities are generating substantial return flow volumes in the form of treated effluent from the urban areas and mine dewatering that are discharged into the river system. These discharges are having significant impacts on the water quality in the main stem of the Vaal River, throughout all three of the Vaal water management areas.

The proposed project is located in Upper Vaal Quaternary Catchment C21D (Figure 10), which has a total reserve of 3.74 Mm3/a. This catchment receives 716 mm of precipitation per year, with an average groundwater recharge of 8.56 Mm3/a (DWAF, 2016). The catchment area is characterised by a fractured and intergranular aquifer system, which is derived from the dual porosity characteristics that are exhibited at intrusive contact zones. Dolerite sills and dykes intrude the host rock (primarily Karoo Supergroup sediments) at fracture and fault zones, but the dolerite itself weathers to a porous intergranular type of aquifer. Borehole yields linked with fractured and intergranular aquifers hosted

by Karoo Supergroup sediments vary significantly, ranging from 0.1 to 10 L/s, depending on sediment type and fracturing (Barnard, 2000).

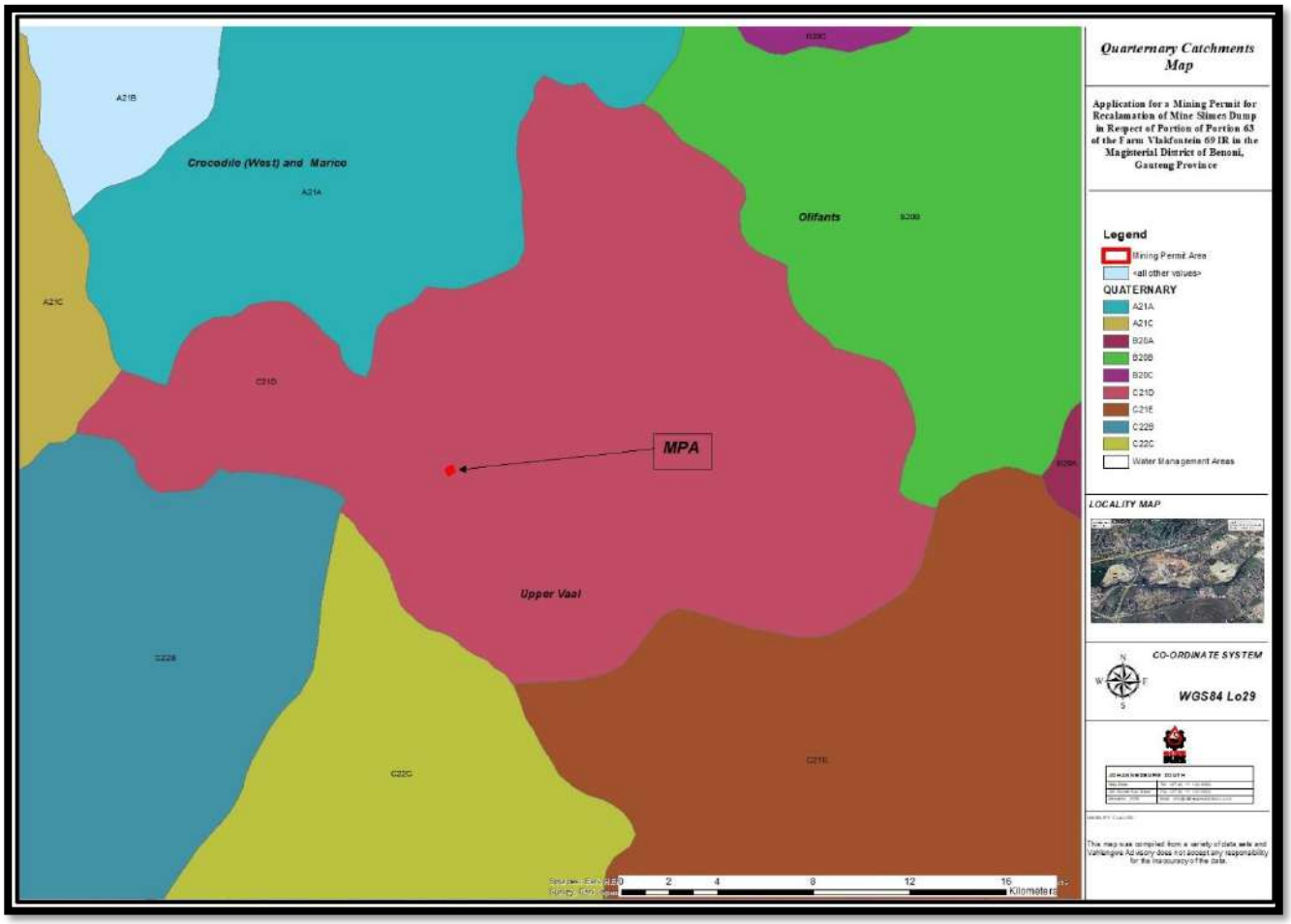


Figure 10: Quaternary catchment

According to the NFEPA database, a river and a wetland are located within 500 meters of the proposed mining area (refer to Figure 11). Additionally, within a 1000-meter radius, there are two other wetlands, one natural and one artificial. All of these wetlands, along with the river, are situated outside the recommended buffer zones and, therefore, do not require evaluation for the purposes of this action.

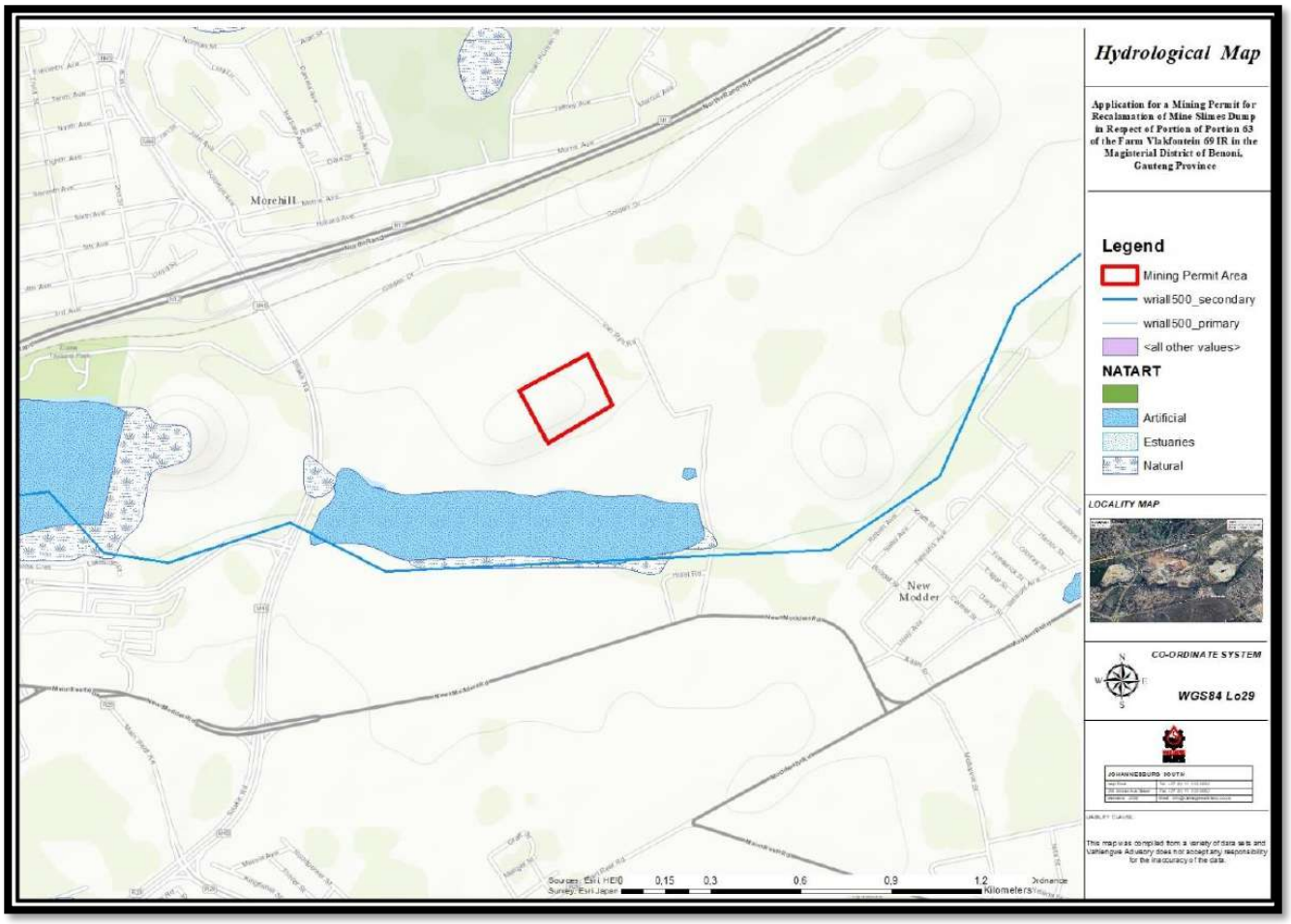


Figure 11: Hydrological map

- **Biodiversity**
  - **Biomes**

The proposed mining area is located in the Grassland Biome as shown in Figure 12. Grasslands 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.

There are two categories of grass plants: sweet grasses have a lower fibre content, maintain their nutrients in the leaves in winter and are therefore palatable to stock. Sour grasses have a higher fibre content and tend to withdraw their nutrients from the leaves during winter so that they are unpalatable to stock. At higher rainfall and on more acidic soils, sour grasses prevail, with 625 mm per year taken as the level at which unpalatable grasses predominate. C4 grasses dominate throughout the biome, except at the highest altitudes where C3 grasses become prominent.

Grass plants tolerate grazing, fire, and even mowing, well: most produce new stems readily, using a wide variety of strategies. Overgrazing tends to increase the proportion of pioneer, creeping and

annual grasses, and it is in the transition zones between sweet and sour grass dominance that careful management is required to maintain the abundance of sweet grasses. The Grassland Biome is the mainstay of dairy, beef and wool production in South Africa. Pastures may be augmented in wetter areas by the addition of legumes and sweet grasses. The Grassland Biome is the cornerstone of the maize crop, and many grassland types have been converted to this crop. Sorghum, wheat and sunflowers are also farmed on a smaller scale.

Urbanization is a major additional influence on the loss of natural areas. 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.

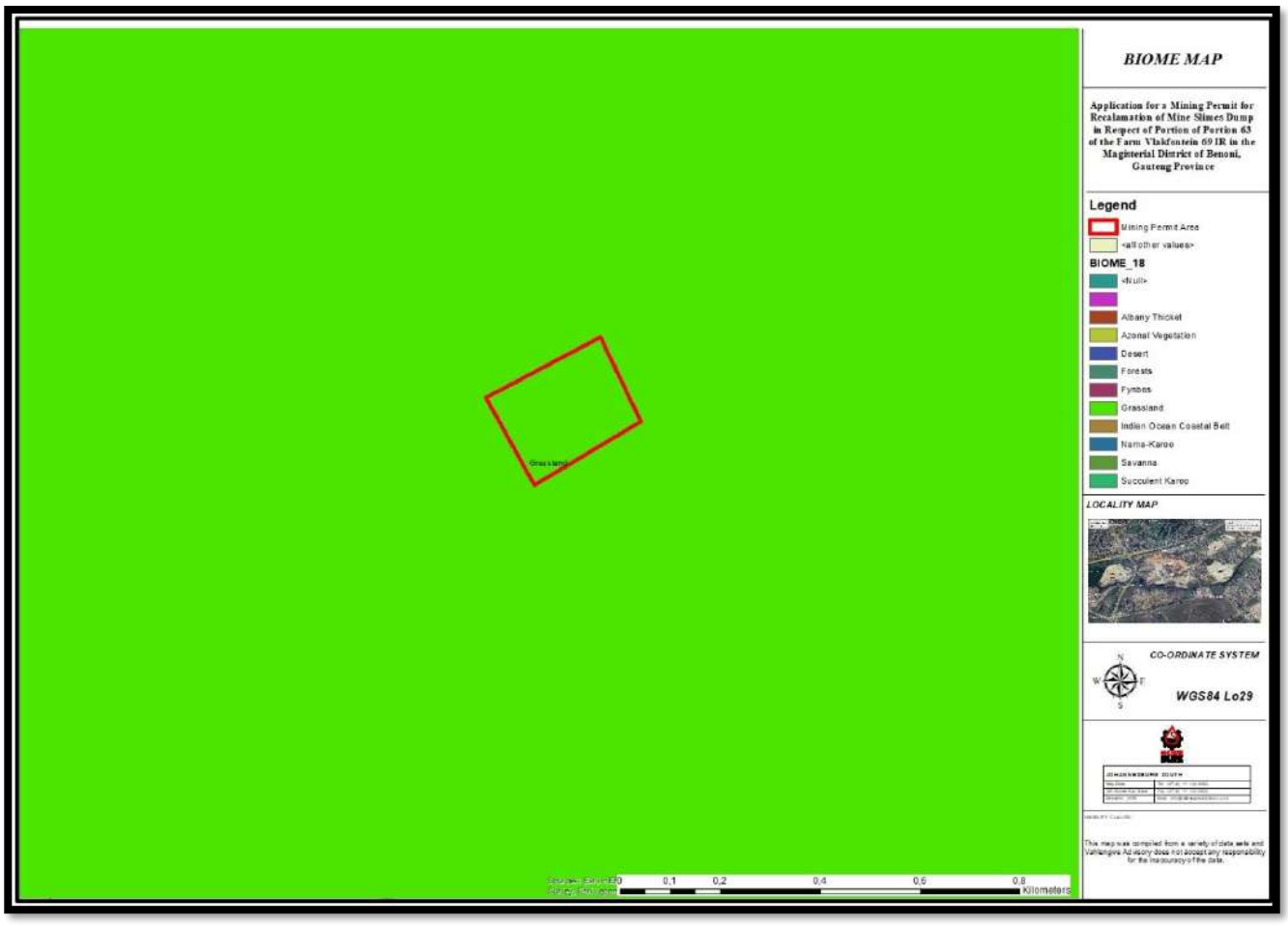


Figure 12: Biomes

- **Bioregions**

The proposed mining area is located in the Mesic Highveld Grassland Bioregion as depicted in Figure 13. There are four bioregions in the Grassland Biome and the Mesic Highveld Grassland Bioregion is

the largest and has the highest number of vegetation types. It is mainly found in the high rainfall parts of the Highveld and extends northwards along the eastern escarpment and includes bushveld summit grasslands (Mucina and Rutherford, 2006). However, the proposed project area has an extremely altered and degraded vegetation due to the historic mining activities that have taken place there.

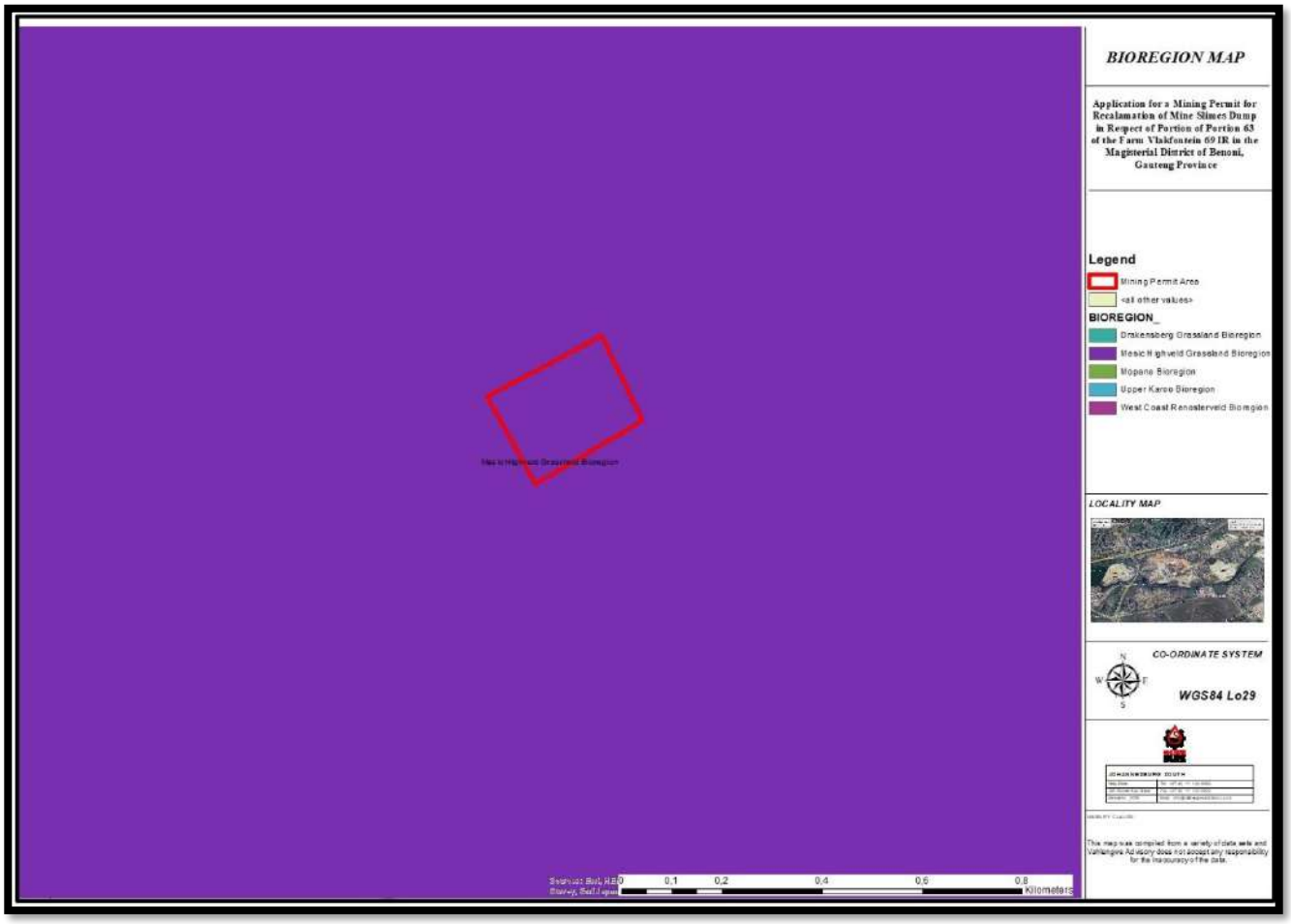


Figure 13: Bioregions

- **Vegetation Type**

According to the metadata of the 2012 Vegetation Map of South Africa, Lesotho and Swaziland (SANBI, 2021), the vegetation type within the proposed mining area is classified as Soweto Highveld Grassland (G8) as shown in Figure 14 below. This vegetation type occurs on gently to moderately undulating landscape on the Highveld Plateau and harbours short to medium tall, dense, tussocky grassland dominated entirely by *Themeda triandra* (Mucina and Rutherford (2006). In undisturbed patches, only scattered small wetlands, narrow stream channels, pans and occasional mounds or rocky outcrops interrupt the continuous grassland cover. Only a handful of patches statutorily conserved or privately conserved. Nearly half of the area has already transformed by agriculture, urban sprawl, mining and road infrastructure construction. Dams have flooded some areas.

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, Harpochloa 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, Hibuscus 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 as a result of current and past anthropogenic activities, and the resulting habitat alteration has negatively impacted the faunal richness of the area.

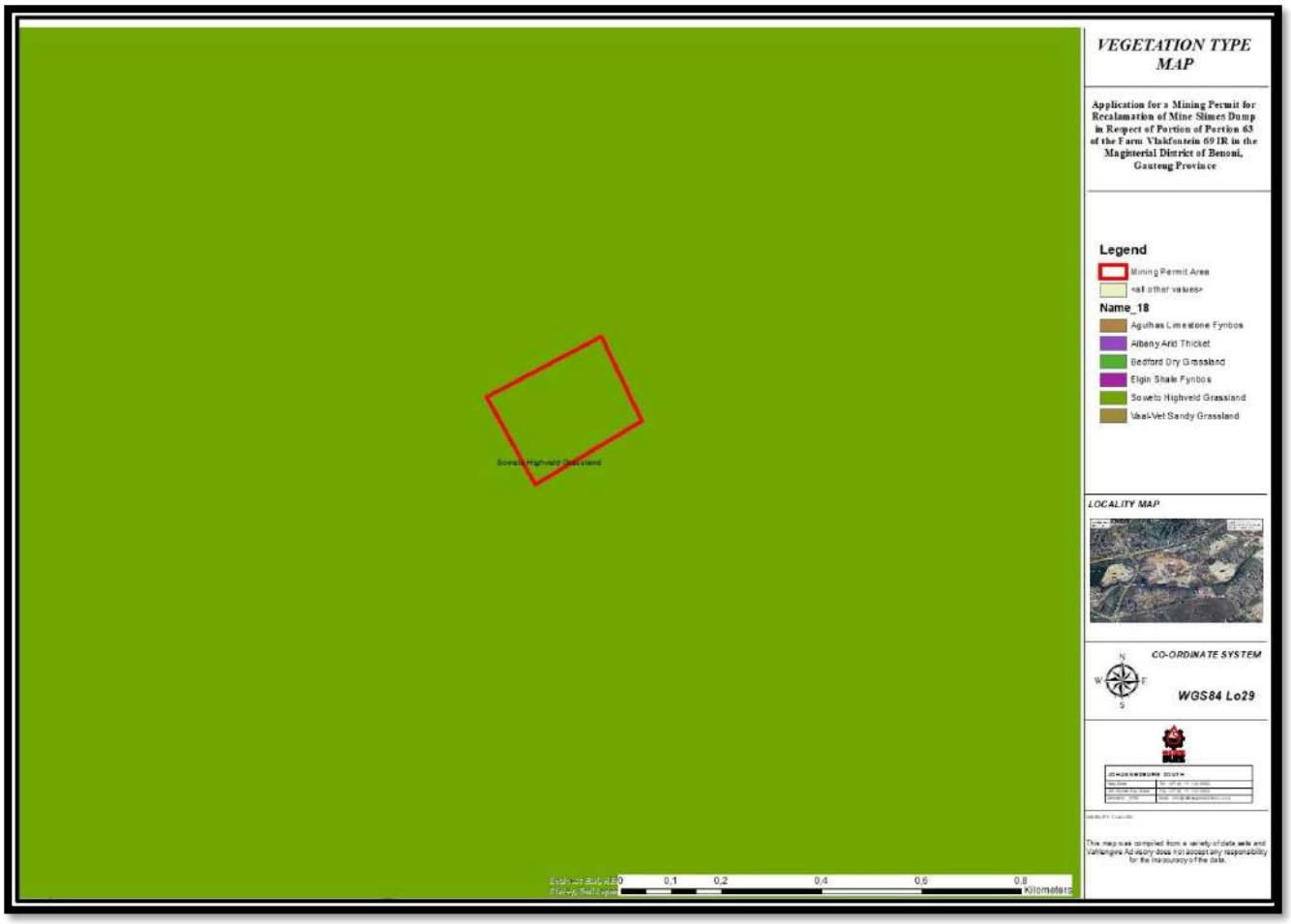


Figure 14: Vegetation type

- **Fauna**

The biodiversity of the area is considered threatened by high levels of industrial, economic and urban development activities.

Reptiles: Striped Harlequin snake (*Homoroselaps dorsalis*),
Mammals: Rough-haired golden mole (*Amblysomus hottentotus*)
Invertebrates: *Lepidoptera* (butterflies), *Arachnida* (spiders and scorpions) and *Coleoptera* (beetles).
Two butterfly species are categorised as threatened (Hills and koppies)
Amphibians: Giant Bullfrog (*Pyxicephalus adspersus*)

Animal life will be affected in the immediate vicinity of the rehabilitation site. It is anticipated that the noise and general activities will keep the animal life away from the site while the rehabilitation is ongoing.
Birds:

Table 9: Birds in the EMM (EMM, 2008)

Common name (aquatic/terrestrial)	Species
African Marsh Harrier	*Circus ranivorus*
Bald Ibis (endangered)	*Geronticus calvus*
Black Coucal (endangered)	*Centropus bengalensis*
Black stork	*Ciconia nigra*
Blackwinged Plover (endangered)	*Vanellus melanopterus*
Blue Crane	*Anthropoides para- diseus*
Blue Korhaan	*Eupodotis caerulescens*
Caspian Tern (endangered)	*Hydroprogne caspia*
Corncrake (endangered)	*Crex crex*
Grass Owl	*Tyto capensis*
Greater Flamingo	*Phoenicopterus ruber*
Half-collared King- fisher	*Alcedo semitorquata*
Lanner Falcon	*Falco biarmicus*
Lesser Flamingo	*Phoeniconaias minor*
Lesser Kestrel	*Falco naumanii*
Melodious Lark	*Mirafra cheniana*
Openbill Stork (endangered)	*Anastomus lamel- ligerus*
Painted Snipe (endangered)	*Rostratula bengha- lensis*
Secretarybird	*Sagittarius serpen- tarius*
Whitebellied Korhaan	*Eupodotis cafra*
Yellowbill Stork	*Mycteria ibis*

- **Conservation Plan**

According to the Gauteng Provincial Biodiversity Conservation Plan (C-Plan), the proposed mining site is not located within an area of biodiversity importance, as illustrated in Figure 15 below. This map serves to guide land use planning, environmental impact assessments and authorisations, and natural resource management by various sectors whose policies and decisions impact biodiversity.

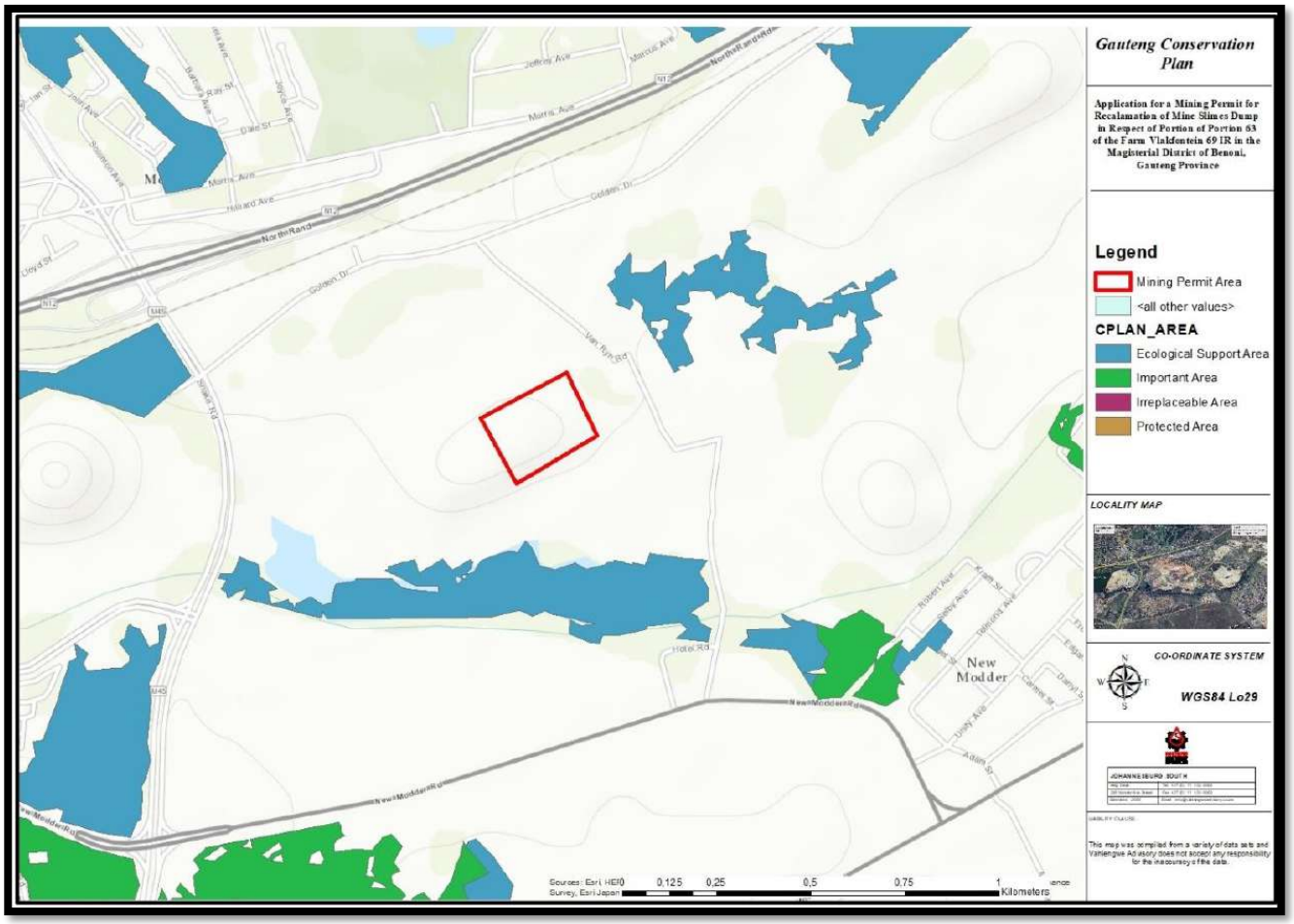


Figure 15: Areas of Conservation Importance

- **Socio-Economic Status**

The proposed mining project will be situated within the Ekurhuleni Metropolitan Municipality. The Ekurhuleni Metropolitan Municipality encompasses approximately 1,975 square kilometers of land in the Gauteng province.

- **Population**

The population of the EMM is 3 774 638, having grown from 3 698 772 in 2018, the growth rate has been declining from 2,8% in 2011 to the current 2,1% (Figure 16) below. It is projected that the population of the EMM will grow at a slower rate at less than 2% so that it is expected there will just be over 4 million residents by 2030 and 8,8million residents by 2050.

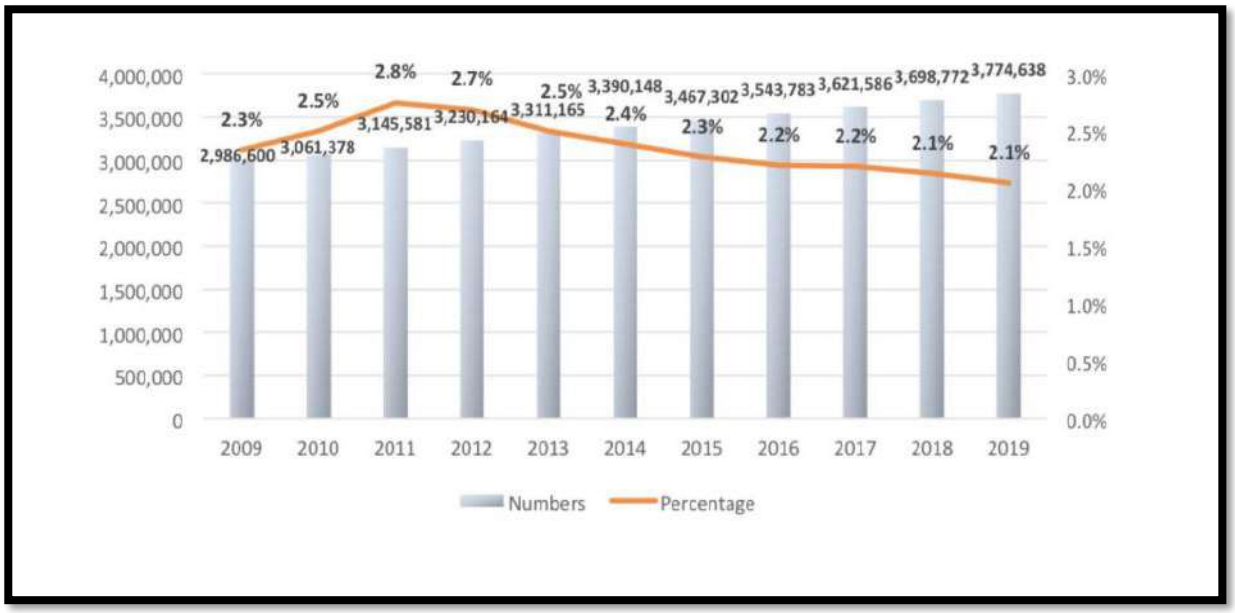


Figure 16: Ekurhuleni Population Growth in Number and Percentage: 2009-2019 (Profile: City of Ekurhuleni 2, n.d.)

- **Gender, Age and Race**

Men constitute 51% or 1 833 264 of the population, this means that for every 100 females there are 105 males, except in Kempton Park, Alberton and Edenvale where women constitute between 51 and 53%. 66% of the population is of a working age and 53% of the EMM population are between the ages of 20 and 49. The median age (30 years) of the city is slightly higher than that of Gauteng (29 years) and 20% higher than that of South Africa (25 years) as presented on Figure 17 below. 10% of the population is above 60 years of age and 6.1% of the population is above 65 years of age. In general, an aging population is one where the number of people over 65 exceeds between 8 and 10%, notably that segment of the population has risen from 4% in 2011. The Black African population group makes up most of the EMM population at 82% followed by the white population at 14% and Coloured and Indian populations representing the minority groups at 3% and 2% respectively.

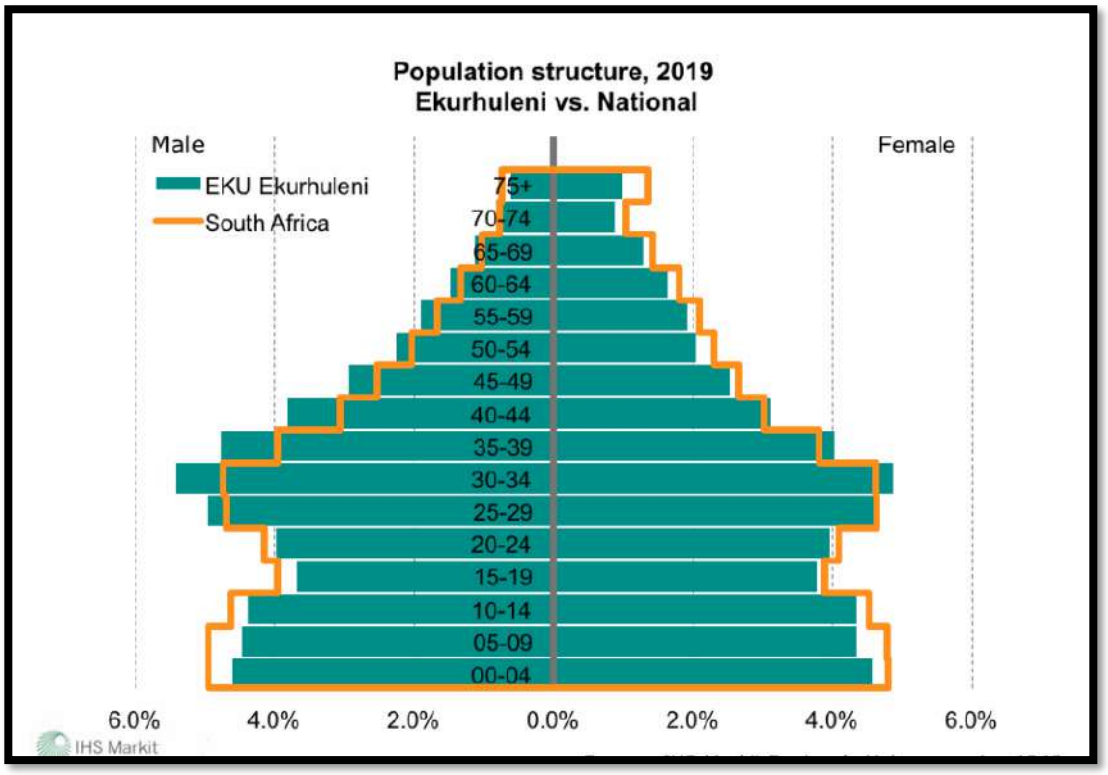


Figure 17: Population structure, 2019: Ekurhuleni vs. National

- **Employment/Unemployment**

The EMM Economically Active Population (EAP) was 1.64 million in 2015, which is 48.47% of its total population of 3.38 million, and roughly 25.32% of the total EAP of the Gauteng Province. From 2005 to 2015, the average annual increase in the EAP in Ekurhuleni was 2.33%, which is 0.464 percentage points lower than the growth in the EAP of Gauteng for the same period. In Ekurhuleni the economic sectors that has the largest number of employees is the finance sector with 261 000 employed people or 22.0% of total employment in the municipality. The trade sector with 259 000 (21.8%) employs the second highest number of people relative to the rest of the sectors. The mining sector with 7 190 (0.6%) is the sector that employs the least number of people in Ekurhuleni, followed by the electricity sector with 8 160 (0.7%) people employed.

The number of people employed by the formal sector is 1.03 million, which is about 86.71% of total employment, while the number of people employed in the informal sector was 158 000 or 13.29% of the total employment. The unemployment rate in the EMM is higher than that of Gauteng, which means there are more people dependant on the city for socio-economic support. With youth unemployment at 36,9% and high unemployment rates, the municipality needs to focus their plans and programmes on issues of social development and youth empowerment.

- **Education and Skills Profile**

The City of Ekurhuleni has 4% of people without any education. In total, the number of people with primary and secondary education is 43%, while 41% of people in the city have matric. Only 4% of people in the City of Ekurhuleni have an undergraduate qualification.

- **Structure of the Economy**

The EMM has a total GDP of R 301 billion. In terms of total contribution towards the Gauteng Province, Ekurhuleni ranked third, relative to all the regional economies to total Gauteng GDP. In 2020, its GDP is forecast at an estimate of R 251 billion (constant 2010 prices) or 21.2% of the total GDP of Gauteng. The structure of the municipality economy is dominated by four sectors, namely manufacturing, finance and business services, community services and general government and to a lesser extent the trade and hospitality sector.

- **Soils and Land Types**

The land type of the proposed project area is designated as Ba1, as illustrated in Figure 18. This area is characterized by crest (30%) and midslope (55%) landscape positions. The crest positions are predominantly composed of red soils and include a significant presence of rock outcrops. The land type is primarily composed of deep red soils, such as Hutton soils, and shallow stony soils, such as Mispah soils.

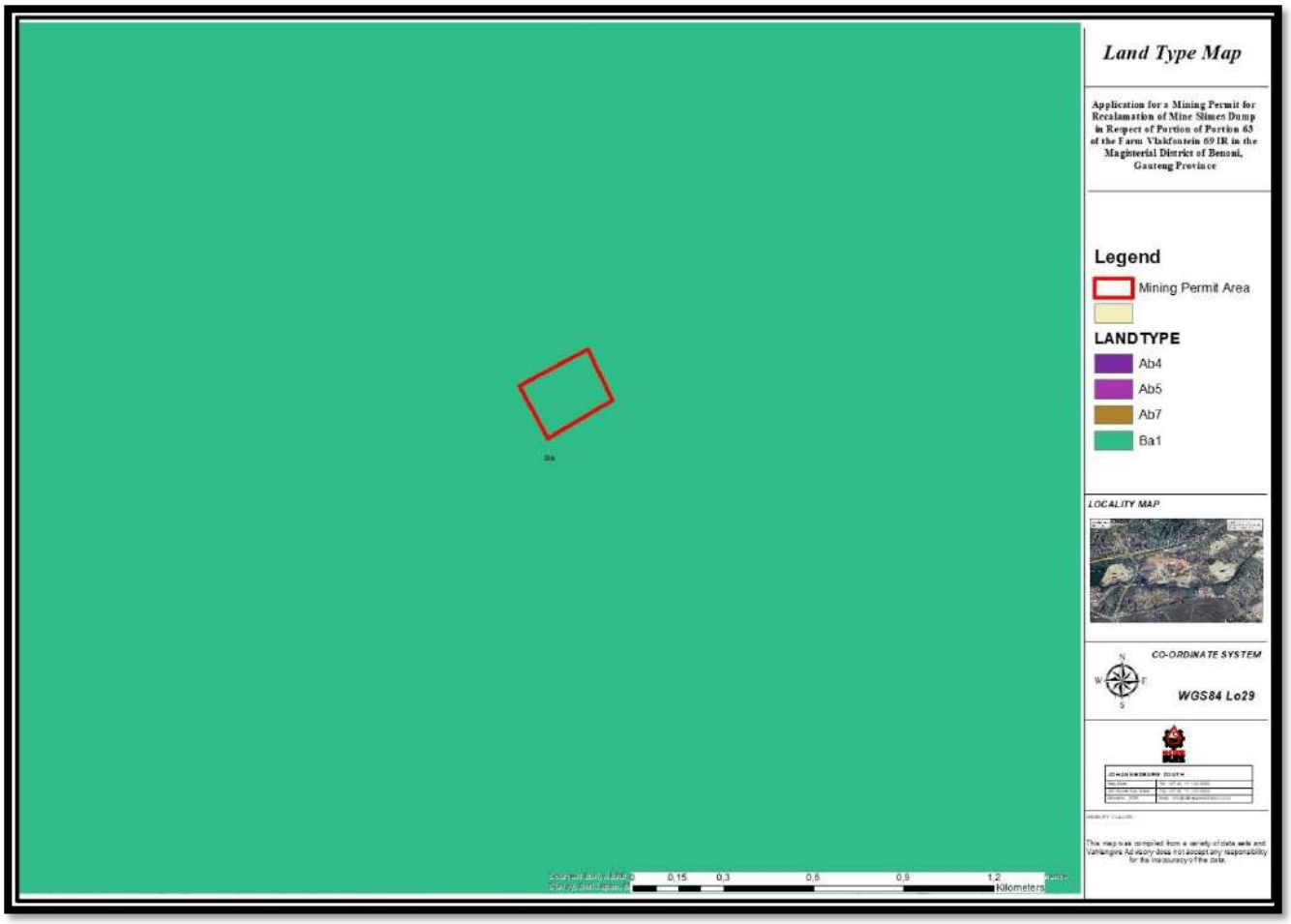


Figure 18: Land types

9.4.1.2. Description of the current land uses.

The proposed project area is located in Benoni. The applicant intends to undertake the reclamation of the tailings dump and rehabilitate the area to a satisfactory standard, ensuring the land can be reserved for other socio-economic development activities. Currently, the land is occupied by illegal miners attracted by the presence of the mine waste dump, which contains remnants of gold from historical gold mining activities. Various land uses surround the proposed area, with key land uses in close proximity including mining, industrial activities, a karting racetrack, and residential areas. The study site lies within the mines and quarries land cover, as illustrated in Figure 19.

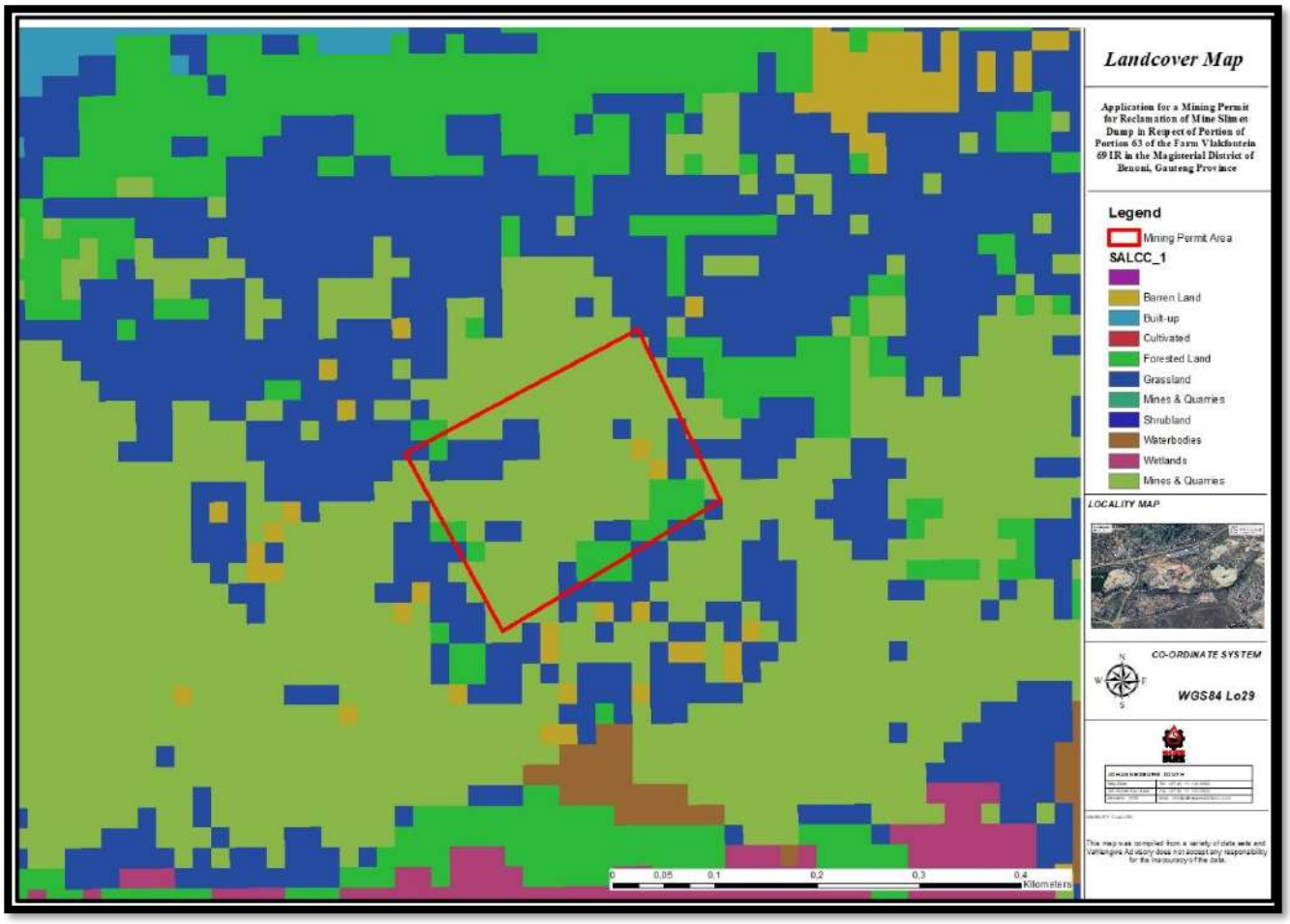


Figure 19: Landcover

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

The project area is accessible via Van Ryn Road, which connects to Golden Drive Road on the northern side. In terms of environmental sensitivity, the Gauteng Provincial Biodiversity Conservation Plan (C-Plan) indicates that the proposed mining site is not located within an area of biodiversity importance. According to the National Freshwater Ecosystem Priority Areas (NFEPA) database, there is a river and a wetland within 500 meters of the proposed mining area. Within a 1000-meter radius, there are two additional wetlands, one natural and one artificial. All of these wetlands and the river are situated outside the recommended buffer zones and, therefore, do not require further evaluation for the purposes of this action.

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 20).

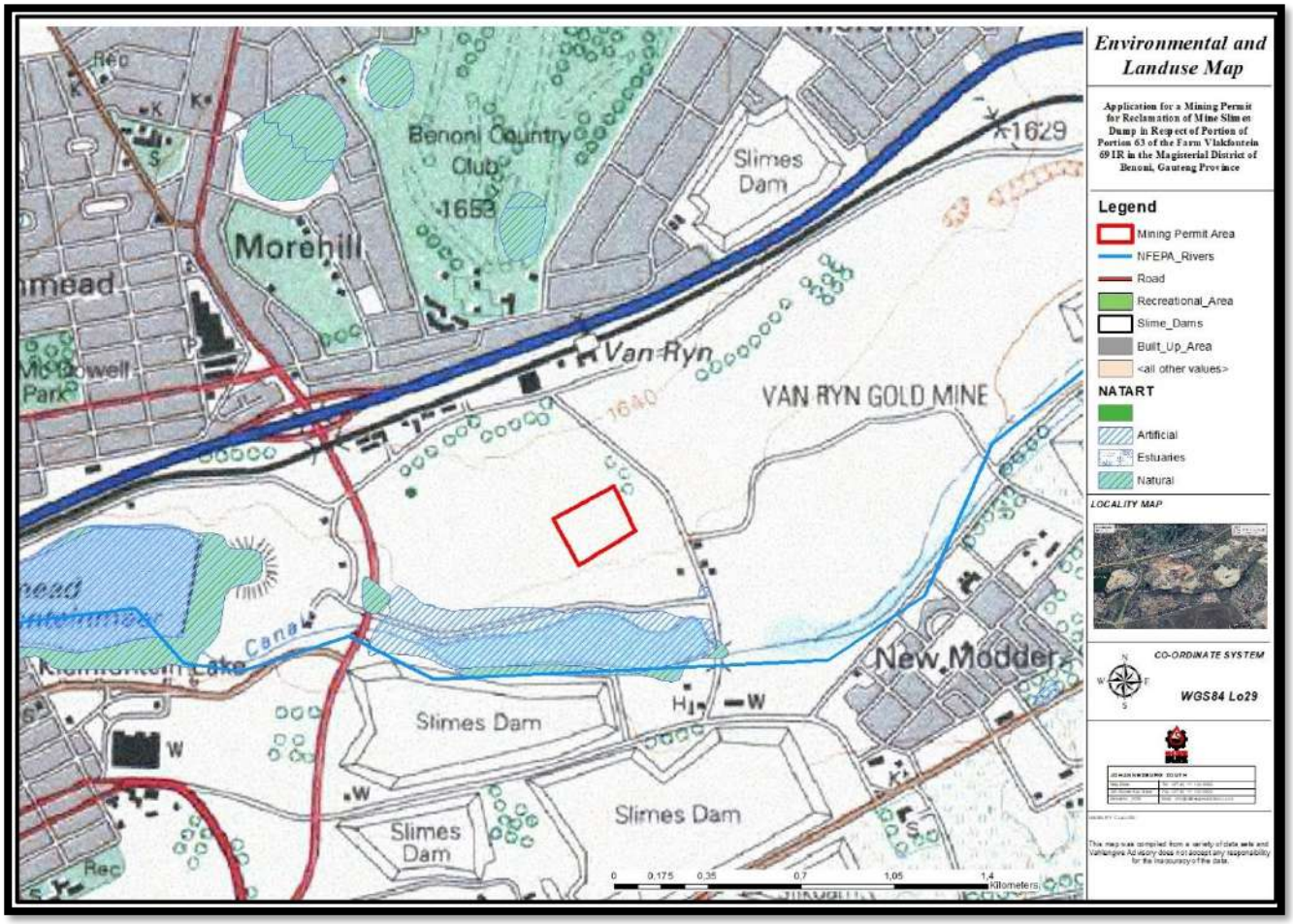


Figure 20: Environmental and Current Land use map

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

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed, or mitigated).

Project activities

The following activities will take place on site:

- The site establishment will involve the installation of a mobile site office and portable ablution facilities;
- Vegetation clearance to access the mine waste dump;
- Excavation, loading and hauling of material to the off-site processing plant for gold reclamation;
- Decommissioning and rehabilitation of the previous mining infrastructure; and

- Final rehabilitation of the overall mining area.

The various phases of mining-related activities, from site establishment to closure and rehabilitation, are associated with environmental impacts that can be positive, negative and cumulative. The potential impacts are discussed below for each environmental feature/aspect.

Impacts associated with the project.

Positive Impacts:

- The reclamation and rehabilitation of the tailings dump will eliminate the source of surface water and groundwater pollution;
- Long term positive impacts are envisaged. The current air quality issues will be reduced because of removal and reclamation of the tailing dump;
- The current illegal mining activities will be reduced as a result of the reclamation and removal of the tailing dump. This will result in a long- term positive results;
- Removal of the invasive species from the proposed project area;
- Restoration and unlocking of land for future spatial developments;
- Improved visual aesthetics of the area after the removal of the tailing dump;
- Improvement of species diversity in the project area after restoration of land;
- Soil remediation and rehabilitation, resulting in an increase in soil potential, fertility, and basal cover; and
- Impacts on socio-economic such as creation of temporary employment opportunities and development of local economy in general

Negative Impacts

- Soil erosion and sedimentation of soil in low-lying areas as the result of increased runoff and hardened surfaces;
- Disturbance on the flora and fauna;
- Dust generation and noise disturbance due to the movement of the vehicles and operating of equipment;
- Soil contamination and groundwater resources contamination due to the hydrocarbon spillages from the fuel storages and/or leakages from the operating vehicles;
- Visual disturbance due to the vehicular movement and the removal of tailing dump;
- Increase in traffic volumes on existing traffic network; and
- Impacts on cultural and heritage resources.

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

10.1. 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.

The **Consequence** of an impact resulting from an aspect is expressed as a combination of:

- **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 of time.
- **Frequency** of the impact occurring: An indication of how often an aspect, as a result of a particular activity, is likely to occur. Note that this does not assess how often the impact occurs. It applies only to the aspect. For example, driving takes place daily whilst other activities take place monthly while the resultant frequency of the impacts occurring will vary based on a number of factors.

Magnitude/Severity of an impact determines to what extent will the environment be destroyed or is functions be altered by the activity.

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.

Table 10: Consequences and Significance Rating

	Nature of Impact:		
CONSEQUENCE	**Low**	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are not affected.	**1**
	Low-Medium	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are affected insignificantly.	**2**
	Medium	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are altered.	**3**
	Medium-High	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are severely altered.	**4**
	High	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes will temporarily or permanently cease.	**5**
	Scale/Extent of Impact:		
	Local	The impacted area will only extend as far as the activity being conducted, e.g., the activity footprint	**1**
	site	Impact occurs within a 20km radius of the site.	**2**
	Regional	Impact occurs within a 100km radius of the site.	**3**
	National	Impact occurs within South Africa.	**4**
	Duration of Impact:		
	Short-term	The impact will either disappear with mitigation or will be mitigated through the natural processes in shorter time span.	**1**
	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**
	Frequency of the Occurrence of the Impact:		
	Annually or less	Impact occurs at least once in a year or less frequently.	**1**
	6 months	Impact occurs at least once in 6 months.	**2**
	Monthly	Impact occurs at least once a month.	**3**
	Weekly	Impact occurs at least once a week.	**4**
	Daily	Impact occurs daily.	**5**
PROBABILITY	**Probability of the Occurrence of the impact:**		
	Improbable	The possibility of the impact materializing is very low either because of design or historic experience.	**1**
	Probable	The possibility of the impact materializing will occur to the extent that provision must be made thereof.	**2**

	Highly Probable	It is most	**4**
	Definite	The impact will occur regardless of any prevention measures.	**5**
	Magnitude of the impacts:		
	Low	The impact alters the affected environment in such a way that the natural processes are not affected.	**2**
	Medium	The affected environment is altered; however, the functions and processes continue in a modified way.	**6**
	High	Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.	**8**
SIGNIFICANCE	**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**

This rating system is weighted in such a way as to set impacts that are very likely to occur, but have very little consequence, as Low significance. Similarly, impacts with serious consequences but that are unlikely to occur are rated lower, than impacts with serious consequences that are likely to occur.

Table 11: Impacts and Significance.

Aspect	Impacts	Extent	Duration	Magnitude	Probability	Significance	Reversibility	Replaceability
Soils and Land Capability	• Soil erosion and sedimentation of soil in low-lying areas as the result of increased runoff and hardened surfaces; • The movement of heavy vehicles in the operation area will result in compaction of soil, water runoff and soil erosion especially during the rainy season; and • The equipment and vehicles may contaminate the soil due to oil spillages.	Local	Medium - term	Medium	Highly Probable	Moderate	Irreversible	Irreplaceable
Vegetation	The potential impact of the proposed mining on the vegetation would occur at the mining area which result in: • Alteration of ecological life cycle; • Disturbance on the natural habitat by clearing the vegetation; and • Loss of migration corridors, and access to nesting and refuge areas	Local	Medium - term	Medium	Definite	Low	Irreversible	Replaceable
Animal life	• Animal life will be affected in the immediate vicinity of the operation; • It is anticipated that the noise and general activity will keep the animal life away from the site while the mining operations are ongoing; and • Employees and contractors poaching and hunting animals.	Site	Medium - term	Medium	Definite	Low	Irreversible	Irreplaceable

Surface Water	There is a natural wetland within 500 m of the proposed mining area. This may have an impact on the water quality and quantity due to siltation and contamination.	Local	Long-term	Medium	Highly probable	Moderate	Reversible	Irreplaceable
Ground water	• Groundwater contamination due to chemicals and hydrocarbons seepage. **The reclamation and rehabilitation of the mine waste dumps will eliminate the source of groundwater pollution**	Site	Long-term	Medium	Probable	Moderate	Irreversible	irreplaceable
Air Quality/ Dust	• Dust generation due to vehicles movements leading to poor air quality; • High dust deposition can have a detrimental effect on the plants if leaves are smothered to an extent that transpiration and photosynthesis are impeded; • Emissions of fine particulate matter during the operational stage will have adverse health effects on wildlife and people within the proximity of the project site;	Site	Medium - term	Medium	Highly Probable	Moderate	Reversible	Replaceable
Noise	• Ambient noise levels increase during the operational phase; and • Disturbances to faunal species and. the communities within the proximity of the site	Site	Medium - Term	Medium	Probable	Low	Irreversible	Replaceable
Cultural Heritage	Impacts on cultural and heritage resources if any exists.	Local	Short - Term	Low	Improbable	Low	Reversible	Replaceable
Visual	• Visual disturbance due to site clearance; • Dust generated during operational phase; and • View disturbance due to the vehicular movement and the removal of mine waste dump.	Site	Medium - term	Medium	Definite	Moderate	Irreversible	Replaceable
Socio-economic	The effect of this mining activity for employment and socio-economic regime would be positive.	Regional	Medium - term	Medium	Probable	Moderate (positive)	Reversible	Replaceable
Safety	• Theft of equipment and the damage of infrastructure; and	Local	Medium - term	Medium	Probable	Low	Reversible	Replaceable

	• Illegal mining activities that are also associated with criminal activities may affect the project **The current illegal mining activities will be reduced as a result of reclamation and removal of the mine waste dumps. This will result in a long- term positive results**							
Health	• The dust generation with potentially particulate matter, which can be inhaled, causing respiratory diseases. **The reclamation and removal of tailings dump will result in a short -term negative impacts, however long-term positive impacts are envisaged**	Local	Medium - term	Medium	Probable	Low	Reversible	Replaceable
Waste Generation	• Waste Generation including general, scrap and hazardous waste; and • If this waste is not stored correctly, can lead to environmental pollution including soil and water resources.	Site	Medium - term	Medium	Probable	Moderate	Reversible	Replaceable
Traffic and access	• Increase in traffic volumes on existing traffic network; and • Cumulative impact on the road surface condition **Traffic impact is expected to be short term and localised during the operational phase**	Regional	Medium - term	Medium	Probable	Low	Reversible	Replaceable

10.1.1. The positive and negative impacts that the proposed activity and alternatives will have on the environment and the community that may be affected

The impacts assessed has highlighted potential risks, important management strategies and control measures associated with the project must be implemented. It is considered that there are opportunities to substantially enhance and improve the current and on-going impacts by undertaking a well-planned and effective mining operation. The project has associated positive and negative impacts. Such impacts are highlighted in Table below.

Table 12: 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 -Improvised 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**	-Improvised 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. -Noise disturbances. -Waste generation. -Over expectations in terms of employment opportunities. -Job seekers influx.	-Visual nuisance to moving equipment and vehicles. -Noise disturbances. -Waste generation. -Over expectations in terms of employment opportunities. -Job seekers influx.	-Job insecurities	**Low**		-Alien vegetation species invasion -Soil erosion and contamination -Noise disturbances -Safety impacts Degradation surface and groundwater quality	-Habitat disturbance -Vegetation disturbances due to vegetation clearance -Loss of biodiversity -Alien vegetation species invasion -Soil erosion -Impacts on groundwater quality -Waste generation -Soils contamination -Disturbance to surface water drainage system -Safety impacts due to the illegal miner's resistance from being removed -Health impacts by the operation activities.
Negative (-)	**Medium**	-Habitat disturbance -Vegetation disturbances due to vegetation clearance during the operation -Loss of biodiversity -Alien vegetation species invasion -Soil erosion -Impacts on groundwater quality	-Habitat disturbance -Vegetation disturbances due to vegetation clearance -Loss of biodiversity -Alien vegetation species invasion -Soil erosion -Waste generation -Soils contamination		**Medium**		-Impacts on job security -Impacts on soils and land capability	

		-Soils contamination -Disturbance to surface water drainage system -Visual nuisance to moving equipment and vehicles -Disturbance on the landscape -Safety impacts due to the illegal miner's resistance from being removed -Health impacts by the operation activities.	-Disturbance to surface water drainage system -Noise disturbances -Degradation surface and groundwater quality					

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

All possible mitigation measures that could be applied to risks regarding the site layout are discussed and considered as part of the EIA process. The proposed mitigation measures for the assumed risks are discussed in detail under the EIA section.

10.1.3. Motivation where no alternative sites were considered.

The interest of this project is the removal of the mine tailings dump 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.

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

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 on the site. The presented EMPr proposes, among other things, the rehabilitation and closure of tailing remnants and all the waste 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.

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

Environmental Impact Assessment (EIA):

The purpose of the EIA Phase was to investigate the potential negative and positive impacts of a 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 project activities to be 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, including the landowner, about the proposed Project and the public participation process is properly followed.
- Ensure that I&APs are given an opportunity to raise concerns, and make input to understand their needs and expectations; 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 that will be affected by the proposed project in relation to the activities to be conducted. A sensitivity report 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.

- **Extreme**

These are unacceptable risks primarily critical in nature in terms of consequences in terms of the extensiveness and long-term environmental harm, permanent sacred site damage, fatality, and massive economic impacts that are effectively considered a possibility to almost certain to occur. Such risks significantly exceed the risk acceptance threshold and require comprehensive control measures, and additional urgent and immediate attention towards the identification and implementation of measures necessary to reduce the level of risk.

- **High**

Typically relate to significant to critical consequences including a major amount of environmental or heritage damage, and considerable safety, social or economic impacts that are inclined to cut across the possible to almost certain likelihood ratings. These are also likely to exceed the risk acceptance threshold and although proactive control measures have been planned or implemented, a very close monitoring regime and additional actions towards achieving further risk reduction is required.

- **Medium**

As suggested by the classification, medium level risks span a group of risk combinations varying from relatively low consequence / high likelihood to mid-level consequence / likelihood to relatively high consequence / low likelihood scenarios across environmental, social, and economic areas. These risks are likely to require active monitoring as they are effectively positioned on the risk acceptance threshold.

- **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. In general, such risks represent relatively low likelihood and low to mid-level consequence scenarios.

- **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. These risks can include unlikely to rare events with minor consequences and in essence relate to situations around very low probabilities of relatively minor impacts occurring.

Likelihoods have been categorised around the probability of occurrence, within the context of reasonable timeframes and frequencies given the nature of the anticipated project life. Levels of likelihood and the severity for the types of consequences that make up the risk rating determination are defined in the Table below:

Table 13: Likelihood 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).

Risk Analysis Matrix

The risk controls are linked to the level of risk and opportunity for reduction to meet the project rehabilitation objectives and goals linked to an environmentally and socially responsible operation, and those requirements are part of the regulatory obligations and impact assessment guidelines. The table below provides a summary of the qualitative risk matrix adopted and the levels of risk for the various consequence and likelihood combinations.

Table 14: Risk Analysis Matrix.

		Severity of Consequence				
Likelihood of Consequence		Critical (5)	Major (4)	Significant (3)	Moderate (2)	Minor (1)
	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 invasive activities of the project since they will have the potential to impact on the biophysical and the social environment of the proposed area. These activities include:

- The site establishment will involve the installation of a mobile site office and portable ablution facilities;

- Vegetation clearance to access the mine waste dump;
- Excavation, loading and hauling of material to the off-site processing plant for gold reclamation;
- Decommissioning and rehabilitation of the mining area; and
- Final rehabilitation of the overall mining area.

Table 15: Identified and assessed impacts and risks the activity will impose on the preferred site

Aspect	Impact	Mitigation Measures	*Si	*L	*Se	*R
Vegetation	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.	Utilization of the existing access points as far as possible. 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	Disrupted the animal life and activities due to the existence of the waste material. Disruption of animal life due to the ongoing operations. Displaced animal habitat.	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	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.	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	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	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	Degradation of groundwater quality due contaminated by the seepage of toxic elements from the waste material and hydrocarbon from the oil spills.	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	Increase in ambient noise levels during the operational phase; Disturbances to faunal species during the operational phase.	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	Possible dust generation in some areas including the drilling during operations; Detrimental effects on plants. Health impacts on animals and people.	Implementation of dust control measures such as dust suppression 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	Visual disturbance due to site operations. Dust generation.	Use of barricade fence covers where possible to minimise the visual impact.	Pre – Mitigation			
			2	3	3	M (-)

	Disrupted environmental aesthetic due to the presence of the waste material.	Implementation of the dust management measures. Removal of the waste material.	Post – Mitigation			
			2	3	3	M (+)
Socio-economic	Employment opportunities. Knowledge and skills transfer. Empowerment of the local businesses.	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	There are no known important heritage resources on the site.	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	Generation of various types of waste. Environmental pollution including soil and water resources contamination.	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	Occupational injuries. Criminal Activities due to zama-zama's resistance. Illegal mining activities that are also associated with criminal activities.	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	The dust potentially containing hazardous substances and particulate matter, which can be inhaled, causing respiratory diseases.	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	Addition of traffic to the existing local traffic. Impacts on surface quality of the road impacted resulting from vehicle movement	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. Existing road surfaces must be utilised and maintained within baseline levels.	Pre – Mitigation			
			1	3	1	L (-)
			Post – Mitigation			
			1	2	1	VL (-)
Topography	The removal of the waste dumps 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.	Pre – Mitigation			
			1	3	1	L (-)
			Post – Mitigation			
			1	2	1	VL (+)

*Si – Significance
*L – Likelihood of consequences
*R – Residual Risks
*Se – Consequences
VL – Very Low; L – Low; M – Medium; H - High

11. 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 16: Assessment of the potentially significant impact and risk.

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
• Site establishment • Vegetation clearance to access the waste dump material. • Waste removal 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.	-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)	Construction,Operational and decommissioning	Low (-)	-Utilization of the existing access points as far as possible. -Removal of vegetation in a phased approach. -Implementation of the alien invasive vegetation species management plan.	Medium(+)
	-Disrupted the animal life and activities due to the existence of the waste material. -Disruption of animal life due to the ongoing operations. -Displaced animal habitat.	Animal life (fauna)	Construction,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 waste material.	Soil and land capability	Construction, Operational and decommissioning	Medium (-)	-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.	Medium (+)
	-Exposed toxic elements may react with rainwater and generate AMD. -Disrupted natural drainage and runoff.	Surface water resources	Construction, Operational, and Decommissioning	Low (-)	-Implementation of temporary erosion control measures. -Management measures and removal of the source of toxic elements.	Low (+)

	-Increase in ambient noise levels during the project activities. -Disturbances to faunal species during the project activities.	Noise pollution	Construction, Operational, and Decommissioning	Negligible	-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.	Negligible
	-The removal of the waste dumps may alter the man-made topography to its natural state.	Topography	Construction, Operational, and Decommissioning	Low (-)	-Temporary erosion control measures such as the runoff berms must be implemented to reduce flow velocity should be implemented around the operation areas. -Conducting concurrent rehabilitation in all disturbed areas.	Negligible
	Possible dust generation in some areas including the drilling during operations. -Detrimental effects on plants. -Health impacts on animals and people.	Air Quality/Dust generation	Construction, Operational, and Decommissioning	Negligible	-Implementation of dust control measures such as dust suppression dust fall-out monitoring. -Enforcing the speed limits to reduce dust created by moving vehicles;	Negligible
	-Visual disturbance due to site operations. -Dust generation. -Disrupted environmental aesthetic due to the presence of the waste material.	Visual and Environment aesthetic	Construction, Operational, and Decommissioning	Medium (-)	-Use of barricade fence covers where possible to minimise the visual impact. -Implementation of the dust management measures. Removal of the waste material.	Medium (+)
	-Degradation of groundwater quality due contaminated by the seepage of toxic elements from the waste material and hydrocarbon from the oil spills.	Groundwater quality	Construction, Operational, and Decommissioning	Low (-)	-Remediate using commercially available emergency clean up kits. -Regular maintenance and servicing of equipment. -Management measures and removal of the source of toxic elements.	Low (+)

	-Sedimentation and siltation of water courses -Alteration of natural drainage patterns -Contamination of water resources -Degradation of surface water quality	Surface water quality	Construction, Operational, and Decommissioning	Low (-)	-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 (+)
	-Occupational injuries. -Criminal Activities due to zama-zama's resistance. -Illegal mining activities that are also associated with criminal activities.	Safety	Construction, Operational, and Decommissioning	Low (-)	-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 (+)
-Vegetation clearance to access the waste dump material. -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.	-The dust potentially containing hazardous substances and particulate matter, which can be inhaled, causing respiratory diseases.	Health	Construction, Operational, and Decommissioning	Low (-)	-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	Low (+)

					-Promote ongoing health and safety awareness campaigns.	
	-Employment opportunities. -Knowledge and skills transfer. -Empowerment of the local businesses.	Socio-economic	Construction, Operational, and Decommissioning	Low (+)	-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 +
-Vegetation clearance to access the waste dump material. -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.	-Degradation of cultural significance heritage resources.	Heritage resources	Construction, Operational, and Decommissioning	Negligible	-Conduct Identification of all possible sites of archaeological value. -Identified sites must be clearly demarcated as no-go areas.	Negligible
	- Addition of traffic to the existing local traffic. -Impacts on surface quality of the road impacted resulting from vehicle movement	Traffic	Construction, Operational, and Decommissioning	Negligible	-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. -Existing road surfaces must be utilised and maintained within baseline levels.	Negligible
	-Soil contamination -Contamination of water resources -Impacts on human health	Waste generation	Construction, Operational, and Decommissioning	Negligible	-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

12.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):

A Screening Report for an Environmental Authorisation was generated from the Department of Environment, Forestry and Fisheries (DFFE) Web-based Environmental Screening Tool in terms of NEMA: EIA Regulations 2014 as amended. The following is a summary of the environmental sensitivities of the site where the proposed mining activities are to be undertaken. The Screening Tool enables the generating of a Screening Report referred to in Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014 (as amended) whereby a Screening Report is required to accompany any application for Environmental Authorisation and as such the tool has been developed in a manner that is user friendly and no specific software or specialised GIS skills are required to operate this system (DFFE, 2021). Consequently, the mining activities will be undertaken on an area where there are no sensitivities.

Table 17: Environmental Sensitivity of the proposed area

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
Paleontology				X
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

As indicated above, a low rating indicates that the impacts are unlikely to occur. A medium rating indicates that the impact is likely/almost likely to occur, and a high rating means that the impact is possible/almost certain. A very high rating indicates that the impact on the proposed environment is certain to occur.

The screening tool indicates that only the Terrestrial Biodiversity theme of the proposed site is very high, indicating that the likelihood of the impact occurring is high. The Aquatic Biodiversity, Archaeological and Cultural Heritage and the Paleontology sensitivities on site are low. No specialist studies were conducted as part of this application. Desktop information was used to compile the report and to conduct the impact assessment.

Table 18: 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.
NO specialist studies were undertaken	N/A	N/A	N/A
	.		

13.Environmental impact statement

13.1. Summary of the key findings of the environmental impact assessment;

The proposed mining activities involves the reclamation and decommissioning of tailings dump. 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 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.

Based on the environmental assessment presented in this report and available reports and plans, this Basic Assessment concludes that the proposed project will have relatively insignificant negative environmental impacts, and medium to low positive environmental impacts. With effective implementation of management and mitigation measures, as well as the monitoring plans recommended in this report, the environmental significance of the most of potential site environmental impacts will be reduced to negligible significance.

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.

13.2. 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 3.**

Figure 21: Final site plan

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

Table 19: Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives

Activity	Positive Impact	Negative Impact
Removal of the tailings dump	• **Topology** of the area will be re-altered to its natural topology before the accumulation of the waste dumps. • **Visual** disturbance of obstruction due to the presence of the waste dump 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.	• **Noise** generated from the working machinery such as the excavator, TLB and haul trucks during removal of the waste dump and residues activities. • **Biodiversity** distraction due to vegetation clearance to access the waste dumps. • **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

	• **Community health** may improve as the source of toxic dust will be removed from the community.	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 ablutions.	• Provision of **security and storage** for general contractors and other employees to secure their belongings as well as locker rooms to keep documents, tools, technology, clothes, and other important materials safe. • Provision of a **safe space** to conduct administration required for the operation	• **Safety** may be compromised with the risk of theft and vandalism for possible stealing of valuable items. • **Waste** generation.
Operation and administration	• 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.**	• **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 mining permit footprint	• 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.	• **Noise** generated from the working machinery such as the excavator, TLB and haul trucks during removal of the waste dump and residues activities. • **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 the movement of vehicle and equipment, and the material handling operations. • **Dust** creation due to the material handlings operations.

13.4. 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 mining activities as to avoid unnecessary social and environmental impacts;
- Ensure that the mining 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 though consultation with the landowners/ stakeholders;
- Noise generation can be managed through consultation with the neighbouring residents and landowners 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;
- Dust generation can be managed by limiting as far as possible the exposure of surfaces, application of dust suppression methods on exposed surfaces;
- Soil disturbance and clearance of vegetation can be managed by limiting to the absolute minimum disturbance required and re-vegetation with the locally indigenous species as soon as possible.
- Manage as far as possible the soil, surface water and groundwater contamination by hydrocarbons by conducting proper vehicle maintenance, refuelling with care to minimise the chance of spillages and by having a spill kit available on each site;
- Conduct an appropriate public consultation and conflict resolution during stakeholder consultation phases. All working personnel will be made aware of the local conditions and sensitivities in the mining area and that they always treat residents with respect and courtesy.

13.5. Final Proposed Alternatives

As the environmental impact assessment and the location of the tailings dump formed the basis for the layout plan, it was already taken into account in the initial plan that the activities should be carried out in such a way that potential environmental impacts are avoided and minimised. Where impacts cannot be avoided, mitigation and management measures have been provided.

13.6. Aspects for inclusion as conditions of Authorisation.

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

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

- Maintain a buffer of 100m from a water course;
- Maintain a minimum 100m buffer from any infrastructure or dwelling; and
- I&APs should be engaged on a regular basis to address any complaints brought about the mining activities.

13.7. Description of any assumptions, uncertainties, and gaps in knowledge.
(Which relate to the assessment and mitigation measures proposed)

It is Vahlengwe Mining Advisory and Consulting (Pty) Ltd opinion that no knowledge gaps or uncertainties exist regarding the investigations undertaken as part of the ATNM (Pty) Ltd Mining Permit and associated Environmental Authorisation Application.

13.8. Reasoned opinion as to whether the proposed activity should or should not be authorised

13.8.1. Reasons why the activity should be authorized or not.

The applicant is committed to conduct the mining 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 mining activities are minimal provided that the proposed mitigation is implemented;
- the availability of the financial provision for the final rehabilitation and any other unforeseen impacts during the decommissioning phase of the projects;
- with appropriate care and consideration, the impacts resulting from the mining activities can be suitably avoided, minimised, or mitigated;
- with implementing the appropriate rehabilitation activities, the impacts associated with the mining activities can be reversed; and
- Without the implementation of the mining project jobs will not be created and no contribution to the GDP.

13.8.2. Conditions that must be included in the authorisation

The following conditions could form part of the authorisation:

- Maintain a buffer of 100m from a water course;
- Maintain a minimum 100m buffer from any infrastructure or dwelling; and
- I&APs should be engaged on a regular basis to address any complaints brought about the mining activities.
-

13.9. Period for which the Environmental Authorisation is required.

The authorisation is required for the duration of the mining permit which is an initial two (2) years plus a potential to extend by an additional three (3) years, renewal for each year. Therefore, a total period of five (5) years is required.

13.10. Undertaking:

- The undertaking is provided at the end of the EMPr.

13.11. Financial Provision:

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

A financial provision of approximately **R 358 473.00** has been budgeted for the mining activities over 5 years, for the rehabilitation activities.

13.11.1. Explain how the aforesaid amount was derived.

The financial provision calculations were undertaken in terms of the guidelines provided within the "DMR Guideline Document for The Evaluation of The Quantum of Closure-Related Financial Provision Provided by a Mine" (DMR, 2005). The closure components for the mining activities are summarised on the table below:

Table 20: Closure components to the mining activities

Components	Extent	Description
1.Dismantling of processing plant and related structures	0 m^3	There will be no processing plant that would be established on site
2(A). Demolition of steel buildings and structures	0m^2	There are no steel structures
2(B). Demolition of reinforced concrete buildings and structures	0m^2	No concrete buildings will be required to be demolished
3. Rehabilitation of access roads	2615,84m^2	There are temporary haul roads that will require rehabilitation
4(A). Demolition and rehabilitation of electrified railway lines	0m	There are no electrified railway lines
4(B). Demolition and rehabilitation of non-electrified railway lines	0m	There are no non-electrified railway lines
5. Demolition of housing and/or administration facilities	0 m^2	One mobile containers which will be used as site office will be placed on site.
6. Opencast rehabilitation including final voids and ramps	0 ha	The excavated area will be required to be backfilled with the overburden
7. Sealing of shafts adits and inclines	0m^3	There are no adits
8(A). Rehabilitation of overburden and spoils	0ha	The is no overburden that will be used to backfill the pits.
8(B). Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	0ha	There will be no processing waste deposits and evaporation ponds
8(C). Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	0ha	There is no wastewater being generated on site
9. Rehabilitation of subsided areas	0 ha	The mining activities are not associated with subsidence
10. General surface rehabilitation	4.99 ha	The area that will require rehabilitation will include the excavated area, stockpile area and haul roads.
11. River diversions	0m	The mining area is not associated with river diversions

12.Fencing	0m	No fencing would not be required to be removed or demolished.
13. Water management	0ha	Water will be used only for dust suppression and domestic use on site
14. 2 to 3 years of maintenance and aftercare	0.2 ha	All disturbances will be subjected to rehabilitation

13.12. 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).

- The above-mentioned amount has been provided from the technical and financial ability of the mining operation.

13.12.1. Specific Information required by the competent Authority

13.12.2. 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:-

14. Other Information required by the Competent Authority

14.1. 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.**.

An extensive consultation process with I&APs was undertaken during the environmental impact assessment phase of the application. The purpose of the consultation is to provide affected persons the opportunity to raise any concerns they may have. The comments, concerns and suggestions received are recorded in the Comment and Response Report (CRR). The CRR is included in this Basic Assessment Report to be submitted to the DMRE.

14.2. 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. The screening report indicates a low sensitivity on the Archaeological and Cultural Heritage Theme, and therefore, the proposed area has no known cultural or heritage resources of significance. However, there are mitigation measures proposed in case there could be any heritage resources encountered during the mining activities. No project activities will be conducted within 50m of any identified heritage site during the mining activities.

15. 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 dump 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 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 Acid Mine Drainage (AMD). Furthermore, the toxic elements in these tailings' material may additionally seep into the floor and contaminate ground water. These tailings 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 tailing dump and rehabilitating the waste dumps 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 mine waste dump and residues would restore the land's environmental abilities and expand its potential for other purposes. The expulsion of illegal miners would ensure the safety and security of the affected community and nearby areas.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

16. Environmental Management Programme Introduction.

16.1. Details of the EAP,

(Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, section 1(a) herein as required).

- This has already been covered. Refer to Part A, Section 1(a) of this document.

16.2. Description of the Aspects of the Activity

(Confirm that the requirement to describe the aspects of the activity that are covered by the environmental management programme is already included in PART A, section (1)(h) herein as required).

- This has already been covered. Refer to Part A, Section 1(h) of this document.

16.3. Composite Map

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

The composite map of the proposed area is shown on the map below.

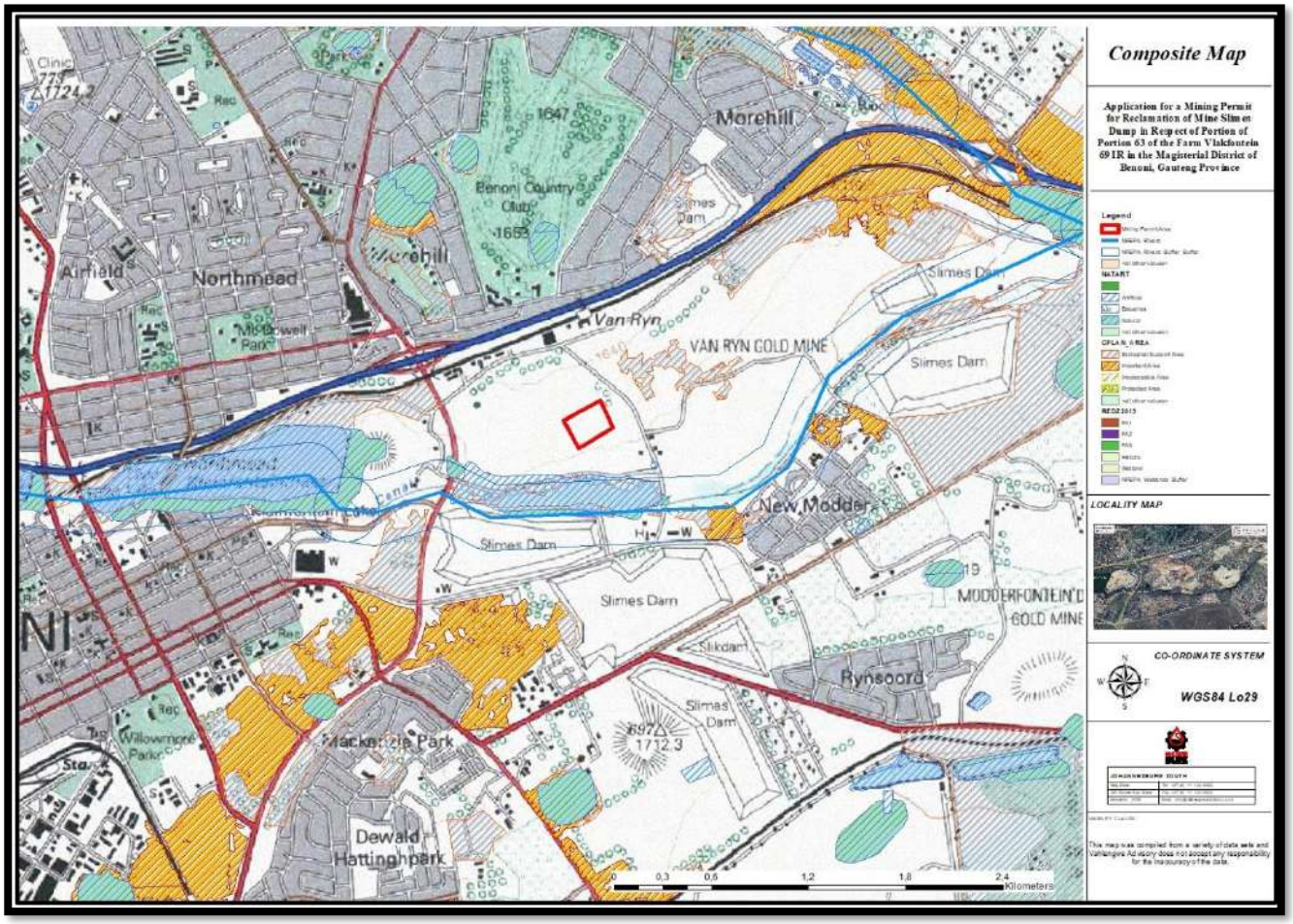


Figure 22: Composite map.

17. Description of Impact Management Objectives Including Management Statements

17.1. Determination of closure objectives

The objectives and targets for rehabilitation, decommissioning, and closure, are intended to reflect the project's local environmental and socioeconomic context, as well as corporate requirements and stakeholder expectations. The receiving environment within which the mining activities will be undertaken include the following key land-uses:

- Mining;
- Industrial areas;
- Karting Race Track; and
- Residential;

Given that the precise locations of the intended mining activities have been identified and assessed, the closure plan can be said to adequately address the objectives for the preferred alternative. This EMPr, on the other hand, seeks to address the key closure objectives, which are likely to remain consistent throughout the mining operations.

Unless the landowner requests a specific, justifiable replacement land use, the Rehabilitation plan shall outline the closure objectives, which are focused on restoring the landform, land use, and vegetation units to their pre-mining state. As a result, the planned end land use and closure objectives for disturbed mining areas will be specified in consultation with the relevant landowner. An application for a Closure Certificate will include evidence of such consultation. The overall goal of the rehabilitation plan is to return the area to its pre-mining condition as closely as possible. This will be accomplished through a series of predetermined goals:

- Making certain that the area is safe for both humans and animals;
- Recreating a free draining landform, which entails earthworks infilling, reshaping, and levelling of all disturbed landscapes to recreate as close to the original topography as possible and to ensure a free draining landscape;
- Re-vegetation, which involves either reseeding or allowing natural succession depending on the type of vegetation in the area, climate, and the latitude;
- Verification of rehabilitation success, which includes monitoring rehabilitation and determining whether the area is suitable for closure.

17.2. The process of managing environmental impacts

An Environmental Response Plan (ERP) is a comprehensive document that outlines the procedures and strategies to be implemented in the event of an environmental incident or emergency situations that may arise at the ATNM mining operation. The primary goal of an ERP is to minimize the impact

of such incidents on the environment, human health, and safety. Environmental Response Plan has the following objectives:

- To categorize emergency situations by identifying hazards and establishing procedures for responding to these situations;
- Assign responsibilities for responding to emergency situations;
- Establishing an effective system for receiving, recording, and forwarding reports of environmental incidents and emergencies; and
- Ensure that all environmental incidents or emergencies are investigated and that the necessary procedures are put in place to implement corrective and preventive actions to prevent recurrence.

The ATNM mine emergency preparedness and response code of practice must be compiled in accordance with the following:

- ISO 9001;
- ISO 14001;
- Occupational Health and Safety (OHSAS) 18001;
- The Mine Health and Safety Act, 1996 (Act No. 29 of 1996); and
- The Mineral Act, 1991 (Act No. 50 of 1991).

In the event of an emergency, the ERP and relevant procedures will be reviewed, and the necessary action taken. Copies of the Emergency Response Plan will be placed in accessible and visible locations on the site, such as the site office and contractors' yards, to assist in the effective implementation of procedures.

ATNM must ensure that employees and contractors are adequately trained regarding the implementation of the EMPr, environmental legal requirements and obligations, and the ERP.

Environmental awareness applies to all project personnel, including part-time workers, who must be trained so that they are aware of their environmental responsibilities before entering the site. An Environmental Control Officer (ECO) will be appointed to conduct training during the operational phase of the project as well during the decommissioning and rehabilitation phase. This will be to ensure that the site has been returned to its original or acceptable form, and that the ERP is being employed adequately in the event of an emergency. As a result, training programmes and periodic emergency simulations are recommended to ensure that all people understand safety and emergency procedures.

Personnel who fail to comply or disregard training and instruction should be penalised based on their offence. Depending on the gravity of the offence, first-time offenders may just receive a written

warning. Second-time offenders may face suspension or fines, based on the discretion of the site manager, who may consult with the ECO.

17.3. Volumes and rate of water use required for the operation.

Considering the magnitude of the project and the water demand the applicant intends to provide portable water through mobile sources. The main uses for the water during the undertakings of the proposed project will be as follows:

- Dust suppression on the access roads, and
- Domestic purposes such as the ablution facilities and drinking etc.

17.4. Has a water use licence been applied for?

The Department of Water and Sanitation (DWS) will be consulted to ascertain whether the aforementioned water uses necessitate a General Authorization or a Water Use License in accordance with Section 21 of the National Water Act (Act 36 of 1998).

17.5. Impacts to be mitigated in their respective phases

Table 21: Measures to rehabilitate the environment affected by the undertaking of any listed activity

ACTIVITIES	PHASE	SIZE AND SCALE of disturbance	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
• Site establishment • Vegetation clearance to access the tailings dump material. • Waste removal from the project site. • Waste handling (transportation). • Material handling (Excavation, haulage, and transportation). • Material take-off and transportation to the offsite treatment facility. • Decommissioning and rehabilitation of the previous mining infrastructure • Final rehabilitation of the overall area.	**Vegetation**				
	Construction, Operational and Decommissioning	4.99 ha	Minimize vegetation clearance by minimizing as far as possible the project infrastructure footprint and associated area of disturbance; Implement the soil erosion control measures as far as possible; Prohibit vehicular or pedestrian access into natural areas beyond the demarcated boundary of the project area; Implement a vegetation rehabilitation plan; Implement concurrent rehabilitation throughout the operation which includes the re-introduction of indigenous vegetation on disturbed area; Implement the management measures of the colonisation of the disturbed areas by plants species from the surrounding natural vegetation to ensure that vegetation cover is sufficient within one growing season; and The removal and disposal of the alien plant species must be done in a manner that cannot propagate.	Develop and implement an indigenous plant species management plan; and Develop and implement an alien eradication and control management plan. Conservation of Agricultural Resources Act	Throughout the duration of the mining operation (two years).
• Site establishment • Vegetation clearance to access the waste dump material. • Waste removal from within the project site. • Material handling (Excavation, haulage and transportation).	**Noise**				
	Construction, Operational and Decommissioning	4.99 ha	Conduct regular equipment maintenance to minimise noise generated by the operating equipment; Operation must be limited to daylight hours (07h00 to 17h00) on Mondays to Fridays, Saturdays (07h00 to 14h00) and no activities to be conducted on Sundays and public holidays; and Maintain a buffer of 500m between the operation area and dwellings.	SANS 10103 guideline	Throughout the duration of the mining operation (two years).
	Visual				

• Material take-off and transportation to the offsite treatment facility. • Decommissioning and rehabilitation of the mining infrastructure. • Final rehabilitation of the overall area.	Construction, Operational and Decommissioning	4.99 ha	Utilize as far as possible the existing vegetation to shield the operational activities from observers; Maintain the general appearance of the facility as a whole; Utilise the existing roads as far as possible; Ensure regular maintenance of the infrastructure and other parameters of the project to avoid degradation, therefore avoiding aggravating visual impact; and Conduct regular maintenance on access roads to minimise erosion and to suppress dust and monitor the rehabilitated areas must be monitored for rehabilitation failure.	No standard	Throughout the duration of the mining operation (two years).
	Air Quality				
	Construction, Operational and Decommissioning	4.99 ha	Implement the dust control measures on site such as dust suppression; Develop and implement a dust suppression schedule; Enforce restrictions on the vehicle speed limit to 40 km/h along dust roads or 20 km/h when traversing unconsolidated and non-vegetated areas; Establish a maintenance schedule to ensure proper maintenance of the trucks and mobile equipment.	National Environmental Management: Air Quality Act (NEMAQA), No. 39 of 2004 as amended by Act no 20 of 2014 National Ambient Air Quality Standards (GNR 1210 of 24 December 2009). National Dust Control regulations (GNR 897 of November 2013).	Throughout the duration of the mining operation (two years).
	Water Resources (surface and groundwater)				
	Construction, Operational and Decommissioning	4.99 ha	Develop and maintain the Storm Water Management Plan and associated infrastructures; Implement measures to minimise runoff by reducing water runoff from infrastructure areas; Conduct a regular inspection on channels and drainage systems required to divert the flow of drainage lines to ensure no blockages or built up of debris or sediment; Implement the hydrocarbon spills management measures; Fuel containers must be placed on bunded areas with a sump drainage; All spills (minor and major) must be cleaned and remediated within 24 hours; Spill kits or absorbent materials must be readily available on site, and must include materials to absorb, breakdown, and where possible encapsulate minor material spillages; Bunded areas to be designed to contain at least 110% of the storing capacity;	GNR. 704 (NWA)	Throughout the duration of the mining operation (two years).

			Wastewater as well as spilled fuel collected within bunded areas and refuelling areas shall be disposed of or treated as hazardous waste; All vehicles and equipment must be inspected daily; and Drip trays must be placed underneath any stationary equipment to prevent spillages into the ground.		
• Site establishment • Vegetation clearance to access the tailings dump material. • Waste handling (transportation) • Material take-off and transportation to the offsite treatment facility. • Decommissioning and rehabilitation of the mining infrastructure. • Final rehabilitation of the overall area.	**Soils and Land Capability**				
	Construction, Operational and Decommissioning	4.99 ha	Implement concurrent rehabilitation and re-vegetation with indigenous or non-invasive species or protected from erosion; Rehabilitation areas must be inspected on a regular basis for rehabilitation failure and potential erosion; and Implement erosion control measures to protect the exposed un-vegetated areas as far as possible.	Develop an erosion management plan	Throughout the duration of the mining operation (two years).
	Socio-Economic				
	Operational and Decommissioning	4.99 ha	Conduct consultation with local communities through the appropriate channels to ensure the use of local skills and businesses where possible; Ensure local employment and local services providers are appointed where possible from the local area; and Ensure that goods and services are procured from within the local area as far as possible.	NEMA	Throughout the duration of the mining operation (two years).
	Health and Safety				

	Construction, Operational and Decommissioning	4.99 ha	All employees or sub-contractors entering site must be inducted to ensure the awareness of the developed health and safety plan; A health and safety representatives should be appointed during an operations; Daily inspections and observations of on-site activities shall be conducted; All incidents to be reported, recorded, investigated, and mitigated. Employees or sub-contractors must be informed as to what is required and PPE must be applicable in working sections, and must always be equipped with appropriate PPE; Safety signs to be provided in areas considered as high-risk areas; Adequate first aid services must be provided on site; and Promote ongoing health and safety awareness campaigns.	Develop and implement a Health Action Plan (HAP) Develop and implement an appropriate occupational health and safety management plan. Occupational Health and Safety Act	Throughout the duration of the mining operation (two years).
	Heritage				
	Construction, Operational and Decommissioning	4.99 ha	There are no cultural or heritage resources identified on site, however if any heritage resources, including fossils, graves, or human remains, are encountered these must be reported to the authorities	National Heritage Resources Act (NHRA), No. 25 of 1999.	Throughout the duration of the mining operation (two years).
• Site establishment • Vegetation clearance to access the waste dump material. • Waste removal from the project sites. • Waste handling (transportation and stockpiling).	**Waste Management**				
	Construction, Operational and Decommissioning	4.99 ha	Provide enough bins or if necessary, a skip to store general and hazardous produced daily at the operation site offices and operational area; The bins should remain properly closed to prevent animals from getting in, leak of material and rainwater from entering them; Bins shall be emptied on a weekly basis or if full; An integrated waste management approach shall be implemented, based on the principles of waste minimisation, reduction, re-use, and recycling of materials; The burning or burying of waste material or litter should be strictly prohibited on site; All solid waste shall be disposed of offsite at an approved municipal landfill site;	National Environmental Management: Waste Act, act no 59 of 2008 and associated regulations.	Throughout the duration of the mining operation (two years).

• Material take-off and transportation to the offsite treatment facility. • Decommissioning and rehabilitation of the mining infrastructure. • Final rehabilitation of the overall area.			All hazardous waste is to be stored in a clearly labelled hazardous waste container which is sealed, leak proof, water proof; The hazardous waste is to be collected and transported to a registered hazardous waste facility; A register must be kept up to date in recording the waste quantity produces, collected, and disposed; and All ablutions must be regularly serviced by a registered service provided.		
	Traffic Management				
	Construction, Operational and Decommissioning	4.99 ha	The surface quality of the road is not negatively impacted resulting from haulage; Warning signages must be put in placed clearly indicating the presence of heavy vehicles turning to minimising potential accidents; Sections of existing road surfaces which have been impacted on by the haulage; and Existing road surfaces must be utilised and maintained within baseline levels.	No standards	Throughout the duration of the mining operation (two years).

17.6. Impact management actions and outcomes

(A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph)

Table 21: Impact Management Outcomes

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
• Vegetation clearance to access the tailings dump material. • Waste removal from the project site. • Waste handling (transportation). • Material handling (Excavation, haulage, and transportation). • Material take-off and transportation to the offsite treatment facility. • Decommissioning and rehabilitation of the previous mining infrastructure. • Final rehabilitation of the overall area.	**Vegetation** -Destruction of vegetation -Loss of threatened plant species -Invasion of alien and invasive vegetation -Exposure to erosion -Loss of biodiversity	Vegetation (flora) Animal life (fauna) Soil and land capability	Construction, Operational, and Decommissioning	-Limiting site clearance to areas as per the approved site layout plan; -All sensitive or protected flora; -Implementation of the alien species eradication plan; and -Avoid loss of Fauna through conservation.	National Environmental Management: Biodiversity Act (Act 10 of 2004)
	Noise Noise Generation	Noise pollution	Construction, Operational, and Decommissioning	-Conducting regular equipment maintenance to minimise noise generated by the operating equipment; and -Limiting the operation times to daylight hours (07h00 to 17h00) on Mondays to Fridays, Saturdays (07h00 to 14h00) and no activities to be conducted on Sundays and public holidays.	SANS 10103
	Visual Visual impact of project activities Visual impact on observers travelling along the roads and residents	Topography and Visual Environment	Construction, Operational, and Decommissioning	-Minimise unvegetated areas as far as possible; and -All disturbed areas must be rehabilitated as soon as possible.	N/A
	Air Quality Dust generation	Dust fall & nuisance from activities	Construction, Operational, and Decommissioning	-Implementation of the dust suppression system; and -Low vehicle speeds enforcement on unpaved surfaces.	(NEM: AQA)
	Soils and land Capability Soil Compaction leading to erosion and sedimentation	Soil and vegetation disturbance	Construction, Operational, and Decommissioning	-Provide adequate erosion control measures where required;	Conservation of Agricultural Resources Act

				-No mixing of fertile soils with sub soils during construction; and -Implement concurrent and re-vegetate on all disturbed areas with locally indigenous species as soon as possible.	
	Surface water and groundwater resources Sedimentation and siltation of water courses Alteration of natural drainage patterns Contamination of water resources Degradation of surface and groundwater quality	Surface water quality Groundwater quality	Construction, Operational, and Decommissioning	-Remedy the possible effects of alteration to natural drainage lines; -Implementing the hydrocarbon spillages management plan; -Ensure that wastewater is appropriately managed; and -Implement the erosion control measures.	NEMA NWA
	Health and Safety Health and safety of employees and surrounding communities	Human health and safe working environment	Construction, Operational, and Decommissioning	-All employees or sub-contractors entering site must be inducted to ensure the awareness of the developed health and safety plan; -A health and safety representatives to be appointed during operations; -Conduct daily inspections and observations of on-site activities; -All incidents to be reported, recorded, investigated, and mitigated. -Employees or sub-contractors must be informed as to what required PPE is applicable in working sections, and must always be equipped with appropriate PPE; -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.	Occupational Health and Safety Act

	Socio-economic Increased employment opportunities Local economic development	Socio-economic conditions	Construction, Operational, and Decommissioning	-Conduct consultation with local communities through the appropriate channels to ensure the use of local skills and businesses where possible; -Ensure local employment and local services providers are appointed where possible from the local area; and -Ensure that goods and services are procured from within the local area as far as possible.	NEMA
	Heritage Degradation of cultural significance heritage site	Loss of heritage & palaeontological resources	Construction, Operational, and Decommissioning	-Conduct Identification of all possible sites of archaeological value prior to the commencement of authorised work; and -Identified sites must be clearly demarcated as no-go areas.	NHRA
	Traffic Management Construction vehicles and access roads Operation staff transportation trips, maintenance, and delivery trips	Pressure on public transport infrastructure Socio-economic conditions	Construction, Operational, and Decommissioning	-The surface quality of the road is not negatively impacted resulting from haulage; -Warning signages must be put in placed clearly indicating the presence of heavy vehicles turning to minimising potential accidents; -Sections of existing road surfaces which have been impacted on by the haulage; and -Existing road surfaces must be utilised and maintained within baseline levels.	N/A
	Waste Management General waste generation and hazardous waste generation	Soil contamination Contamination of water resources Impacts on human health	Construction, Operational, and Decommissioning	-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.	NEMWA

17.7. Impact Management Actions

(A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraphs (c) and (d) will be achieved).

Table 22: Impact Management Actions

ACTIVITY whether listed or not listed.	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
• Site establishment • Vegetation clearance to access the tailings dump material. • Waste removal from the project site. • Waste handling (transportation). • Material handling (Excavation, haulage, and transportation). • Material take-off and transportation to the offsite treatment facility. • Decommissioning and rehabilitation of the previous mining infrastructure. • Final rehabilitation of the overall area.	**Heritage** Degradation of cultural significance heritage site	-Conduct Identification of all possible sites of archaeological value prior to the commencement of authorised work; and -Identified sites must be clearly demarcated as no-go areas.	Construction, Operational and Decommissioning	National Heritage Resources Act (NHRA), No. 25 of 1999.
	Noise	-Conducting regular equipment maintenance to minimise noise generated by the operating equipment; -Limiting the operation times to daylight hours (07h00 to 17h00) on Mondays to Fridays, Saturdays (07h00 to 14h00) and no activities to be conducted on Sundays and public holidays; and -Maintaining a buffer of 500m between the operation area and dwellings.	Construction, Operational and Decommissioning	SANS 10103
	Visual	-Utilize as far as possible the existing vegetation to shield the operational activities from observers; -Maintain the general appearance of the facility as a whole; -Utilise the existing roads as far as possible; -Ensure regular maintenance of the infrastructure and other parameters of the project to avoid degradation, therefore avoiding aggravating visual impact; and -Conduct regular maintenance on access roads to minimise erosion and to suppress dust and monitor the rehabilitated areas must be monitored for rehabilitation failure.	Construction, Operational and Decommissioning	N/A
	Air Quality Dust generation	-Implementation of the dust suppression system; -Low vehicle speeds enforcement on unpaved surfaces; and -Maintain a buffer of 500m- 1000m between operational site and dwellings.	Construction, Operational and Decommissioning	the National Environmental Management: Air Quality Act (NEMAQA), No. 39 of 2004 as amended by Act no 20 of 2014

				National Ambient Air Quality Standards (GNR 1210 of 24 December 2009). National Dust Control regulations (GNR 897 of November 2013).
	<u>Vegetation</u> Destruction of natural vegetation Loss of threatened plant species Invasion of alien and invasive vegetation Exposure to erosion Loss of biodiversity	-Limiting site clearance to areas as per the approved site layout plan; -All sensitive or protected flora; -Identified to be rescued and relocated; -Implementation of the alien species eradication plan; and -Avoid loss of Fauna through conservation.	Operational and Decommissioning	National Environmental Management: Biodiversity Act (Act 10 of 2004)
	surface water and groundwater	-Remedy the possible effects of alteration to natural drainage lines; -Implementing the hydrocarbon spillages management plan; -Ensure that wastewater is appropriately managed; and -Implement the erosion control measures.	Operational and Decommissioning	GNR. 704 (NWA)
	Soils and Land Capability Soil Compaction, erosion, and sedimentation	-Provide adequate erosion control measures where required -No mixing of fertile soils with sub soils during construction; and -Implement concurrent and re-vegetate all disturbed with locally indigenous species as soon as possible.	Operational and Decommissioning	Conservation of Agricultural Resources Act

• Site establishment • Vegetation clearance to access the tailings dump material. • Waste removal from the project site. • Waste handling (transportation). • Material handling (Excavation, haulage, and transportation). • Material take-off and transportation to the offsite treatment facility. • Decommissioning and rehabilitation of the previous mining infrastructure. • Final rehabilitation of the overall area.	**Health and Safety** Health and safety of employees and surrounding communities	-All employees or sub-contractors entering site must be inducted to - ensure the awareness of the developed health and safety plan; -Appoint a health and safety representatives during operations; -Conduct daily inspections and observations of on-site activities; -All incidents to be reported, recorded, investigated, and mitigated. -Employees or sub-contractors must be informed as to what required PPE is applicable in working sections, and must always be equipped with appropriate PPE; -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.	Construction, Operational and Decommissioning	EHS OHSE
	Socio-economic Increased employment opportunities Transfer of skills and knowledge Local economic development	-Conduct consultation with local communities through the appropriate channels to ensure the use of local skills and businesses where possible; -Ensure local employment and local services providers are appointed where possible from the local area; and -Ensure that goods and services are procured from within the local area as far as possible.	Construction, Operational, and Decommissioning	NEMA
	Traffic Management Project vehicles and access roads	-The surface quality of the road is not negatively impacted resulting from haulage; -Warning signages must be put in placed clearly indicating the presence of heavy vehicles turning to minimising potential accidents; -Sections of existing road surfaces which have been impacted on by the haulage; and -Existing road surfaces must be utilised and maintained within baseline levels.	Construction, Operational and Decommissioning	N/A
	Waste Management General waste generation Hazardous waste generation	-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	Operational and Decommissioning	National Environmental Management: Waste Act, Act no 59 of 2008 and associated regulations.

		-Implement waste classification and separation system.		

18. Financial Provision

18.1. Determination of the amount of Financial Provision

18.1.1. Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation.

The general goals of the mining closure include securing beneficial and widely agreed-upon post-mining land uses. Removal of all generated wastes constructed infrastructure, and materials, re-vegetation of disturbed and cleared areas, rehabilitation of access roads to ensure the growth of existing grasses and plant species, and clean-up of hydrocarbon spillages should all form part of the closure plan. The following are the primary closure objectives:

- Returning any areas of disturbance to an acceptable environmental state;
- implementation of the erosion control measure risk to ensure soils and land stability of the area;
- Re-establishment of indigenous plant communities;
- Implement control measures to eradicated Alien plant invasion;
- Ensure that all areas are free-draining and non-polluting;
- Rehabilitate the disturbed areas in a manner that it blends with the natural landscape;
- implement dust control measures on bare soils in a process of rehabilitation and where indigenous vegetation is still to be re-established; and
- Ensure that the area is rehabilitated to such an extent that meets the health and safety requirements, and the intended end land use.

18.1.2. Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties.

A draft Basic Assessment Report and Environmental Management Programme was subjected to a public consultation process and all documents were made available to the landowners and the I&APs.

18.1.3. Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure.

The rehabilitation objective is to:

- Reduce the existing and potential environmental risks to acceptable levels; and
- Protect the land capability by re-establishing a sustainable land use as similar to its pre-mining condition as possible.

Upon completion and closure of the project the land will be reverted to its original state by carrying out the following:

- All infrastructures, including the temporary office, the mobile water tank, and the chemical toilet will be decommissioned and all areas of the infrastructure footprint will be rehabilitated;
- Ensure that no foreign matter is left behind on the operational site; and

- The whole operation site will be inspected for any signs of hydrocarbon pollution, and if soil contamination due to the hydrocarbons as the result of the project activities, will be cleaned-up and disposed of in an appropriate manner.

Rehabilitation Principles

Final rehabilitation will be carried out once the project goes into its decommissioning phase. The principles for proper rehabilitation, which should be followed, are:

- Preparing a comprehensive rehabilitation plan prior to the commencement of any activities on site;
- Stormwater management must be in place at the site prior to commencing with any activities;
- Landform design (shaping, re-vegetation);
- Maintenance management and eradication of the alien species invasion;
- A waste management plan; and
- An emergency preparedness/response plan.

Decommissioning Phase Activities

During decommissioning activities, all project infrastructure will be removed, a radiological survey will be undertaken, after which the overall rehabilitation can commence. The rehabilitation should invariably be evaluated to align the rehabilitation goals with the future land use requirements. The aims of rehabilitation are to:

- Reduce the potential risks so that unacceptable risks identified in this EIA are reduced to acceptable levels.
- Protect the future liability of the land by re-establishing a sustainable land use as close to, or similar, to its pre-mining condition.

Post-Decommissioning Activities

Post-decommissioning activities will entail the assessment of rehabilitation and will address any further rehabilitation requirements. Monitoring must occur for at least a year after decommissioning and rehabilitation, or until satisfactory results are achieved.

Maintenance and Aftercare

Maintenance will specifically need to focus on the success of the rehabilitated areas. Continuous erosion monitoring of rehabilitated areas and slopes should be undertaken and zones with excessive erosion should be identified and rectified. In addition, infiltration of contaminated water will be contained within paddocks and disposed properly.

18.1.4. Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives.

The rehabilitation Plan is compatible with the closure objectives in that it will ensure that all disturbed sites are rehabilitated to restore the pre-mining environment to prevent risk to public and animal health and safety, contain and manage pollution, and ensure stability (environmental and geophysical); ensuring that the physical and chemical stability of the rehabilitated sites is such that the risk to the environment is not increased by naturally occurring forces to the extent that such increased risk cannot be managed by the measures taken to control these risks; ensuring that the mining operation is not abandoned but closed in accordance with the relevant regulations.

18.1.5. Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline.

A guarantee paid to DMR for a financial guarantee as required by the Environmental Management Programme will be amended every financial year. The rehabilitation forecast estimates to a total amount of R358 473,00.

The financial provision calculations were undertaken in terms of the guidelines provided within the “DMR Guideline Document for The Evaluation of The Quantum of Closure-Related Financial Provision Provided by a Mine” (DMR, 2005).

18.1.6. Confirm that the financial provision will be provided as determined.

If the Mining Permit is granted, ATNM will make provision for the estimated closure costs through a Bank Guarantee, or any other available means accepted by the Competent Authority.

19. Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including

19.1. Monitoring of Impact Management Actions
19.2. Monitoring and reporting frequency
19.3. Responsible persons
19.4. Time period for implementing impact management actions.
19.5. Mechanism for monitoring compliance

Source Activity	Impacts Requiring Monitoring Programmes	Functional Requirements for Monitoring	Roles and Responsibilities	Monitoring and Reporting Frequency and Time Periods for Implementation
Vegetation clearance	• Dust generation • Noise disturbances	• Noise and dust monitoring	• Environmental Consultant	• Monthly
	• Destruction of vegetation • Invasion by alien species • Soil erosion and compaction • Impact on Flora and Fauna	• Environmental monitoring (audits and performance assessments) • Document Control • Site Inspections and checklists • Report review and development of new actions plans	• Environmental Consultant	• Monthly site visits • Monthly, Quarterly progress reporting • Annual Performance Assessment
Excavations, material handling and rehabilitation	• Noise Generation • Dust generation	• Noise and dust monitoring	• Environmental Officer	• Monthly

	• Visual impact on observers travelling along the roads and residents; • Soil Compaction leading to erosion and sedimentation; • Sedimentation and siltation of water courses ; and • Alteration of natural drainage patterns	• Environmental monitoring (audits and performance assessments) • Document Control • Site Inspections and checklists • Report review and development of new actions plans	• Environmental Control Officer	• Monthly site visits • Monthly, Quarterly progress reporting • Annual Performance Assessment
	• Contamination of water resources • Degradation of surface and groundwater quality	• Water quality analysis • Inspection on nearby water resources • Survey of groundwater users	• Environmental Consultant	• Biannually
Fuel storage	• Soil contamination	• Environmental monitoring (audits and performance assessments) • Document Control • Site Inspections and checklists	• Environmental Control Officer	• Monthly, Quarterly

		• Report review and development of new actions plans		
	• Groundwater and surface water resources contamination	• Water quality analysis • Inspection on nearby water resources • Survey of groundwater users	• Environmental Consultant	• Biannually
Waste generation, storage, and disposal	• Soil contamination	• Environmental monitoring (audits and performance assessments) • Document Control • Site Inspections and checklists • Report review and development of new actions plans	• Environmental Control Officer	• Monthly site visits • Monthly, Quarterly progress reporting • Annual Performance Assessment
	• Contamination of water resources	• Water quality analysis • Inspection on nearby water resources • Survey of groundwater users	• Environmental Consultant	• Biannually

	• Impacts on human health	• Site Inspections and checklists	• Health and Safety officer	• Monthly site visits • Monthly Reports • Annual Performance Assessment
Transportation of material to the offsite treatment plant	• Pressure on public transport infrastructure; • Wear and tear of existing roads; • Dust generation from increased traffic; and • Noise disturbances from the moving traffic	• Site Inspections and checklists • Report review and development of corrective action plans	• Environmental consultant	• Monthly site visits • Monthly, Quarterly progress reporting • Annual Performance Assessment
Employment and procurement	• Employment opportunities • Local economic development	• Site Inspections and checklists	• Environmental consultant	Daily inspections and checklists
Vehicles and equipment storage and maintenance	• Soil contamination • Surface and ground water resources contamination	• Site Inspections and checklists	• Environmental consultant	Monthly inspections and checklists
Removal of surface infrastructure	• Soil erosion and compaction	• Site Inspections and checklists	• Contractors • Environmental Control Officer	Monthly inspections and checklists
Rehabilitation	• Erosion	• Site Inspections and checklists	• Contractors • Environmental Control Officer	Weekly inspections and checklists
	• Dust generation • Noise from operating equipment	• Noise and dust monitoring	• Environmental Consultant	Monthly

Monitoring of rehabilitated sites	• Erosion • Flora and fauna	• Site Inspections and checklists	• Contractors • Environmental Control Officer	• Monthly site visits • Monthly, quarterly Reports and Annual Performance Assessments

20.Indicate the frequency of the submission of the performance assessment/ environmental audit report.

After the authorization is granted, an annual environmental performance audit report will be completed by alternating between internal and independent Environmental Assessment Practitioners (EAP). The holder of the authorization must ensure compliance with all the conditions of the EA and/or the EMPr, and the proposed activities must be audited against these conditions. It is also recommended that an independent EAP conduct an annual environmental performance assessment/audit, which will then be submitted to the competent authority. This audit report must meet the following requirements:

- Be prepared by an **independent** person with the relevant environmental auditing expertise;
- Provide verifiable findings, in a structured and systematic manner, on-
    (i) the level of performance against and compliance of an organization or project with the provisions of the requisite environmental authorisation or EMPr and, where applicable, the closure plan; and
    (ii) the ability of the measures contained in the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity;
- Contain the information set out in Appendix 7 of GN R. 326; and
- Be conducted and submitted to the competent authority at intervals as indicated in the environmental authorisation.

The purpose of this audit report is defined in the NEMA Regulations and is as follows:

- Determine the ability of the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an ongoing basis and to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility; and
- Determine the level of compliance with the provisions of environmental authorisation, EMPr and where applicable the closure plan.

21.Environmental Awareness Plan

21.1. Manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work.

General environmental awareness must be promoted among the working personnel on the proposed project to encourage the implementation of environmentally sound practices throughout the duration of the project. This is to ensure that environmental, health and safety incidents are minimized, and environmental compliance is maximized. The purpose of an Environmental Awareness Plan used to inform the employees and outline the measures to be used to address any environmental risks related to their work and the way these risks must be dealt with in order to avoid contamination or the degradation of the environment.

The environmental awareness plan should at least communicate the following:

- Importance of compliance with the environmental policy, procedures, and other regulatory requirements;
- The significant environmental impacts and risks of an individual's work activities and the environmental benefits of improved performance;
- Individual's roles and responsibilities in achieving the aims and objectives of the environmental policy; and
- The potential consequences of not complying with environmental procedures.

Workshops

A workshop will be conducted to inform all management of the risks associated with the project. The risks for all aspects will be explained and the appropriate management options discussed. The workshop will also elaborate on the monitoring programmes that will be implemented to identify and monitor the level of impact on the environment and discuss various remediation actions. The evaluation process is integral in the assurance that the site reduces any possible environmental risks associated with the project. The workshop will be conducted prior to the commencement of each project phase to ensure that all risks are discussed before there is any chance of the impacts occurring. The workshop may be repeated at certain stages during the operation phase, in the case of new employees.

This workshop will seek to explain the following;

- How each action of the project phase may impact on the environment;
- Ensure that the working personnel understand the management strategies and keeping the environment risks to a minimum;
- Data collection reporting regarding each aspect will also be explained to ensure that each aspect is monitored; and
- This workshop will take place before the commencement of each phase of the project, thus ensuring a full understanding of the project and its associated environmental risks before any project activity is undertaken.

Communication Plan

- **Internal Communication**

Communication strategies need to be established for the internal communication between the various levels and functions of the organisation, and receiving, documenting, and responding to environmental risks for each phase of the project will take place for the management, administrative and worker sectors of the site, as well as contractors.

- **External Communication Strategies**

The organisation shall conduct processes for external communication on its significant environmental aspects. Communication from external interested and affected parties may be received by email, fax, telephonically or by mail. Where required, a written response will be sent, on receiving such communication, by the appropriately appointed individual under signature of the Site Manager, to the respective interested and / or affected party. All telephonic or facsimile correspondence received on the site must be forwarded to the relevant department for action. All events or concerns will be captured and actioned on an existing and / or future database. The following communication channels can be used to communicate environmental issues to the external parties:

  - E-mail: E-mail communication received must be stored, with replies, in an appropriate folder on a server. E-mail messages, relevant to environmental management, should be kept for a minimum of two years before deletion.
  - Mail: Correspondence received by mail must be filed, along with the response
  - Impact Assessments will be available on request from an external party by the Site Manager.
  - Queries from Interested and Affected Parties: Response to queries about environmental impacts and aspects will be addressed by the relevant department and approved by the Site Manager.

Evaluation of the Environmental Awareness Plan

The evaluation will entail the auditing of the project activities in both the operation and rehabilitation. This will be to assess the effectivity of the environmental awareness and training plan and if it is sufficient to make all those involved in the project aware of those risks that may occur as well as the necessary mitigation required to minimize these risks.

- **Emergency Incident Reporting**

Environmental incident reporting is an essential component of communication on the Project. Employees are obligated to report any environmental problems, incidents, or pollution so that the appropriate litigator action can be taken as soon as possible. If an Environmental Incident occurs, it must be reported in accordance with the Incident Reporting Procedure. A plan for emergency preparedness and response must be developed.

- **Induction**

All full-time employees and contractors must attend an induction program. Employees are inducted. Any contractor working on the project must complete Environmental Health and Safety induction training. Environmental concerns and project-related issues will be addressed during the induction sessions. Employees will be informed about all environmental implications and aspects, as well as mitigation actions. The induction workshops will be tailored to the level of employees attending, ensuring that all staff have a thorough understanding of environmental issues and pollution.

- **On the Job Training**

On-the-job education is an important aspect of environmental awareness. Employees will be educated about the expected environmental problems and concerns specific to their occupation. Employees will be trained on how to respond in the event of an environmental problem or source of pollution. The training will be ongoing, and all new staff members will receive the same level of training as current employees.

- **Hazardous Substances**

Individuals dealing with potentially hazardous situations and risks that could result in hazardous spills, pollution incidents, excessive dust, or other forms of environmental damage should receive job-specific training on the risks and potential consequences of their appointment and work situation, as well as how to avoid environmental impacts and respond during an environmental incident or emergency.

- **Dust mitigation**

Individuals dealing with potential situations and risks that could result in excessive dust should receive appropriate job-specific training on the risks and potential consequences of their appointment and work situation, as well as how to avoid environmental impacts and respond during an environmental incident or emergency.

- **Fire Incidents**

Individuals dealing with potentially hazardous situations and risks that could result in fire incidents or emergencies should receive adequate job-specific training on the risks and potential consequences of their appointment and work situation, as well as how to avoid environmental impacts and respond during an environmental incident or emergency.

- **Pollution Incidents or Forms of Environmental Damage**

Any incident or form of environmental degradation must be managed according to the Incident management procedure. Individuals dealing with potential situations and risks that could result in pollution incidents or other forms of environmental damage should receive job-specific training on the risks and potential consequences of their position and work situation, how to avoid environmental impacts, and how to respond during an environmental incident or emergency.

- **Waste Management**

Site personnel and contractors responsible for the operation and safe handling of the various waste streams will receive appropriate job-specific training on the risks and potential consequences of their appointment and work situation, how to avoid environmental impacts and how to respond during an environmental incident or emergency. ATNM must ensure that training and awareness programs cover the safe transportation, handling, storage, transfer, handling, use and disposal of all waste streams, and the location of waste receptacles for each waste stream. All waste management activities must be done in accordance with the ATNM procedures and in terms of registers dealing with storage of waste in specific areas. The staff awareness training programme will accommodate training, on which bin to use for organic waste and on sealing the lid on the bin once organic waste has been discarded.

- **Water Management**

All individuals responsible for activities which water management will receive job-specific training on the risks and potential repercussions of their appointment and work situation, as well as how to avoid environmental impacts and respond during an environmental incident or emergency.

Emergency Response Plan

An Environmental Emergency Response Plan defines the process to follow to respond rapidly and effectively to and manage emergency situations that may arise because of the Project. This plan must be initiated when an emergency:

- Cannot be immediately brought under control;
- Has the potential to extend beyond site boundaries;
- Has the potential to significantly impact on the environment and/or community; and
- Requires assistance from External Emergency Services.

This plan outlines response actions for potential incidents of any size. It details response procedures that will minimize potential health and safety hazards, environmental damage, and clean-up efforts. The plan has been prepared to ensure quick access to all the information required in responding to an emergency event. The plan will ensure that Contractors comply with all procedures described in this document.

- **Intent**

A Work Method Statement should be prepared prior to the commencement of any activities, detailing how this plan is to be implemented as well as details of relevant responsible parties for the implementation. The method statement must also reflect conditions of the IFC Performance Standard 1 and include the following:

- Areas where accidents and emergency situations may occur;
- Communities and individuals that may be impacted, as read in the specialist studies;
- Response procedure;
- Provisions of equipment and resources;
- Designation of responsibilities; and
- Communication, both internally and externally.

The purpose of this plan is to define the emergency response structure and process of the Project. The objectives of the plan are:

- To ensure communication of all vital information as soon as possible.
- To provide clear guidance in the management of emergencies that have the potential to impact on life, property, environment, and community;
- Clearly define roles and responsibilities;
- To facilitate the reorganization and reconstruction activities so that normal operations can be resumed;
- For employees to be able to take prompt effective action to reduce the risk of injury, minimize environmental impact and property damage likely to result from emergencies;

- To specify the emergency communication process necessary to establish links with key site personnel.

21.2. Manner in which risks will be dealt with to avoid pollution or degradation.

The following are broad measures to control or remedy any causes of pollution or environmental degradation that will be caused by the proposed activities:

- Contain potential pollutants and contaminants (where possible) at the source;
- Handle potential pollutants and contaminants (where possible) in bunded areas and on impermeable substrates;
- Ensure prompt clean-up of any spills;
- Implement a waste management system for all waste streams on site; and
- Investigate any I&AP claims of pollution or contamination caused by mining activities.

During onsite mining activities, it is critical that broad measures to control or remedy any sources of pollution or environmental degradation are implemented.

23. Specific information required by the Competent Authority
(Among others, confirm that the financial provision will be reviewed annually).

In accordance with the provisions of Regulation 23(3) of the EIA 2014 Regulations (as amended) the EIA should include all information required as set out in Appendix 3 and in terms of Regulation 23(4) of the Environmental Management Plan (EMP) should contain all information required as set out in Appendix 4. The EIA report must include the following:

- Details of the EAP who prepared the report and the expertise of the EAP, including a curriculum vitae;
- A plan, which locates the proposed activity, or activities applied for as well as the associated structures and infrastructure at an appropriate scale;
- A description of the scope of the proposed activity;
- A description of the policy and legislative context within which the development is located and an explanation of how the proposed development complies with and responds to the legislation and policy context;
- A motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location;
- A public participation process;
- Impact Assessment, including methodology, of the necessary environmental aspects, including the nature, significance, extent, duration, and probability of the impacts occurring, positive and negative impacts, including mitigation and monitoring measures;

- An assessment of the proposed alternatives;
- A complete EMPr;
- The financial provision for the environmental liability which will be reviewed annually;
- An impact statement from the EAP, specific information the Competent Authority may require, and conditions for approval; and
- An EAP oath regarding the correctness of information provided in the report.

24. Undertaking

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:

Vahlengwe Mining Advisory and Consulting

Name of company:

June 2024

Date:

Appendix 1:

CVs of the EAP

SUNDAY MISHACK MABASO

12 Thaxted Ave Mulbarton 2190 · 0745697312/0824614251
Email - sunday@vahlengweadvisory.co.za · LinkedIn Profile - Sunday Mabaso ·Twitter @Sun.dayMabaso

BIOGRAPHY

Mr. Sunday Mabaso is the founder and CEO of Vahlengwe 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

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

CECIL DAU

PROFESSIONAL SUMMARY

Cecil Dau **is an Aspiring Professional Senior Environmental Assessment Practitioner and an Environmental Analyst holding his Bachelor of Earth Sciences (Honours) in Mining and Environmental Geology** from the University of Venda and currently busy with his **Bachelor of Science (Honours) in Environmental Management** at the University of South Africa. Cecil further **has more than Four (4) years' experience** working as an **Environmental Consultant, Research Assistant Graduate, and an Environmental Officer Intern**. Cecil always believes that his hands-on experience coupled with the growing knowledge he gained during his studies and during field work prepared him to make a solid contribution in any **Environmental Management related field**. **With a solid foundation in Environmental Management**, Cecil is always prepared to put his knowledge and abilities to deliver the best results in everything that he does, while gaining immeasurable experience and skills to advance in his career pursuit. Cecil is a self-motivated, goal orientated, driven and an individual who believes in lifting and empowering others through the knowledge he has acquired, and experiences gained overtime.

PERSONAL DETAILS

Contact	:	076 267 0743
E-mail address	:	cecil.dau@gmail.com
Location	:	Johannesburg, Gauteng
Nationality	:	South African
EE	:	Black Male
Licence	:	Code 10-C1

CORECOMPETENCIES

- **Competent in Microsoft Word, PowerPoint, Excel, Outlook, and SAP.**
- Good understanding of applicable laws, standards, and specifications.
- **Excellent report writing and presentation skills.**
- **Excellent Verbal and Visual hazards communication.**
- **High levels of accuracy by keeping attention to detail and correctness.**
- **Excellent Knowledge of ArcGIS.**
- **Excellent knowledge of regulatory organizations.**
- **Always maintain a proactive approach in the working environment for ease in taking ownership and accountability.**
- **Excellent knowledge of how to pass inspections.**
- Ability to accurately track inventory and compile reports.
- **Good demonstration of the genuine concern for people.**
- Highly motivated, energetic, Sound judgement and good reasoning abilities.
- Good managerial and interpersonal skills and ability to work under pressure.
- Time management, Organizational and planning skills.
- **Great team player and can work well independently.**

EXPERIENCE

[Environmental Consultant] [Vahlengwe Mining Advisory and Consulting]
[August 2022– Present]

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.

EXPERIENCE

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

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.

[Environmental Officer Intern] [GDARD/ Enforcement S24G]
[April 2018– March 2020]

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.

ACHIEVEMENTS

- Ensure compliance monitoring and Enforcement of South African Environmental Legislations.
- Good understanding of Mineral and Petroleum Resources Development Act, National Environmental Management Act and Strategic Environmental Management Acts, i.e. Environmental Conservation Act, Biodiversity Act, Protected Areas Act, Waste Management Act, Air Quality Act, and Water Act
- Good understanding of Environmental Impact Assessment, Waste Management and Air Quality Regulations.
- The implementation of Section 24G read with S24F and 7 of NEMA (Amendment) (Act No 8 of 2004) and Section 24G read with S24F and 12(3) of NEMA (Amendments) (Act 62 of 2008)

GOALS

- **To achieving my set goals and keeping myself dynamic in the changing scenario to become a Senior Environmental Assessment Practitioner.**
- To become an excellent **Environmental Practitioner** taking up challenging works in the Industrial structure with creative and diversified Projects and to be part of a Constructive and fast-Growing World.
- To make a position for myself in the competitive corporate world and contribute to achieving the goals on both professional and personal level.
- **To work in an environment that challenges me to improve and constantly thrive for perfection in all the tasks allotted to me so that I can be able to showcase my Environmental Management Skills.**

REFERENCES

Name and Surname:	Ms. Nonhlanhla Mogakane
Position:	Senior Environmental Consultant, Vahlengwe Mining
Contact details:	084 649 3096/ Nonhlanhla@vahlengweadvisory.co.za
Availability:	Monday-Friday, 9:00-15:00
Name and Surname:	Dr Lindani Ncube
Position:	Lecture: Department of Environmental Science, UNISA
Contact details:	082 612 1249/ Ncubel@unisa.ac.za
Availability:	Monday-Friday, 9:00-15:00
Name and Surname:	Mrs. Omolayo Ilemobade
Position:	Assistant Director: Enforcement/ S24G, GDARD
Contact details:	011 240 3022/ Omolayo.Ilemobade@gauteng.gov.za
Availability:	Monday-Friday, 9:00-15:00

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 2024

Expires: 28 February 2025

Chairperson

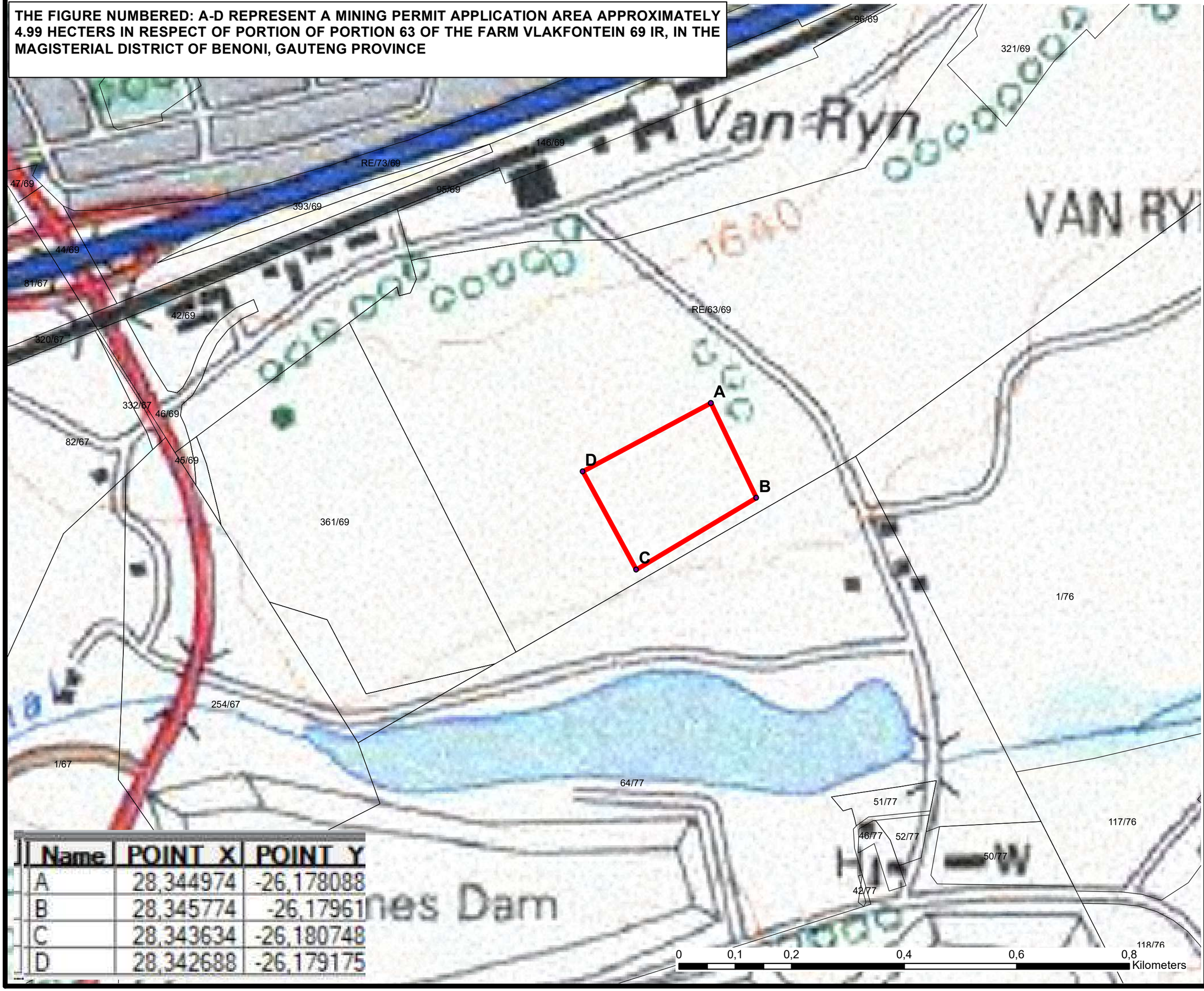
Registrar

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

Appendix 2: Maps

Appendix 2A: Locality map and Regulation 2 (2)

THE FIGURE NUMBERED: A-D REPRESENT A MINING PERMIT APPLICATION AREA APPROXIMATELY 4.99 HECTERS IN RESPECT OF PORTION OF PORTION 63 OF THE FARM VLAKFONTEIN 69 IR, IN THE MAGISTERIAL DISTRICT OF BENONI, GAUTENG PROVINCE



Name	POINT_X	POINT_Y
A	28,344974	-26,178088
B	28,345774	-26,17961
C	28,343634	-26,180748
D	28,342688	-26,179175

ATNM (PTY)_LTD

REGULATION 2(2)

FOR THE APPLICATION OF THE MINING PERMIT IN TERMS OF SECTION 27 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002)

Legend

- Points location
- Mining Permit Area

Plan Approved

Regional Manager: Gauteng Province
Signature:.....
Date:.....

Surveyor:
Signature:.....
Date:.....

Applicant:
Signature:.....
Date:.....

LOCALITY MAP

CO-ORDINATE SYSTEM

WGS84 Lo29

JOHANNESBURG SOUTH

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


Locality Map
ATNM (Pty) Ltd
Legend
Portion of Portion 63, Vlakfontein 69 IR
Proposed Mining Permit Area
BENONI COUNTRY CLUB
FOREST GLEN
Cafe I Thai
Baked and Beautiful
Ukumba Gold Prospecting Equipment
MOREHILL
Benoni Country Club
Pedros Northmead
Northmead Mall
Microchem Lab Services
Specialised Battery Systems
Chicken Licken Northmead
440
12
3rd Ave
Golden Dr
Kepler park
Snake Rd
Pronto Readymix Benoni
Formula-K (Pty)
NFONTEIN 67-IR
BENONI GOLD MINING COMPANY...
Mount Mayhem - Pure Rush Industries
Robert Ave
Selby Ave
Van Ryn Rd
NEW MODDER
Vernon Ave
Oasis New Modder Service Station
New Modder Rd
Pioneer Dr
NFONTEIN
Bee Rd
600 m
N
Google Earth
Image © 2024 Airbus

Appendix 2B:

Site Plan Map


Site Plan Map
ATNM (Pty) Ltd Mining Permit Application
Portion of Portion 63 of the Farm Vlakfontein 69 IR, Benoni
Legend
Proposed Mining Permit Area
Proposed Site Office
Stom Water Dam
Trench Line
Kepler park
Proposed Site Office
Google Earth
Image © 2024 Airbus
N
100 m

Appendix 2C:

Environmental and Land Use Map

Environmental and Landuse Map

Application for a Mining Permit for Reclamation of Mine Slimes Dump in Respect of Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province

Legend

- Mining Permit Area
- NFEPA_Rivers
- Road
- Recreational_Area
- Slime_Dams
- Built_Up_Area
- <all other values>

NATART

- Artificial
- Estuaries
- Natural

LOCALITY MAP

CO-ORDINATE SYSTEM

WGS84 Lo29

JOHANNESBURG SOUTH

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

0 0,175 0,35 0,7 1,05 1,4 Kilometers

Appendix 2D:

Composite Map

Composite Map

Application for a Mining Permit for Reclamation of Mine Slimes Dump in Respect of Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province

Legend

- Mining Permit Area
- NFEPA_Rivers
- NFEPA_Rivers_Buffer_Buffer
- <all other values>

NATART

- Artificial
- Estuaries
- Natural
- <all other values>

CPLAN_AREA

- Ecological Support Area
- Important Area
- Irreplaceable Area
- Protected Area
- <all other values>

REDZ2019

- FA1
- FA2
- FA5
- REDZs
- Wetland
- NFEPA_Wetlands_Buffer

LOCALITY MAP

CO-ORDINATE SYSTEM

N W E S

WGS84 Lo29

JOHANNESBURG SOUTH

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

LIABILITY CLAUSE :

This map was compiled from a variety of data sets and Vahlengwe Advisory does not accept any responsibility for the inaccuracy of the data.

0 0,3 0,6 1,2 1,8 2,4 Kilometers

Appendix 3:

Public Participation Process

Appendix 3A:

Background Information Document

June 2024

BACKGROUND INFORMATION DOCUMENT FOR THE ENVIRONMENTAL AUTHORIZATION: MINING PERMIT APPLICATION.

ENVIRONMENTAL AUTHORIZATION FOR THE MINING PERMIT APPLICATION OF RECLAMATION OF THE MINE SLIMES DUMP FOR ATNM (PTY) LTD IN RESPECT OF PORTION OF PORTION 63 OF THE FARM VLAKFONTEIN 69 IR IN THE MAGISTERRIAL DISTRICT OF BENONI.

DMRE REFERENCE NO.: GP30/5/1/3/2 (10531) MP

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 OF ENVIRONMENTAL ASSESSMENT PRACTITIONERS

Vahlengwe Mining Advisory and Consulting as an Environmental Assessment Practitioner (EAP) will conduct Environmental Authorization process for the proposed mining permit application of reclamation of mine slimes dump in respect of Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

PROJECTION LOCATION

Proposed project is located in respect of Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

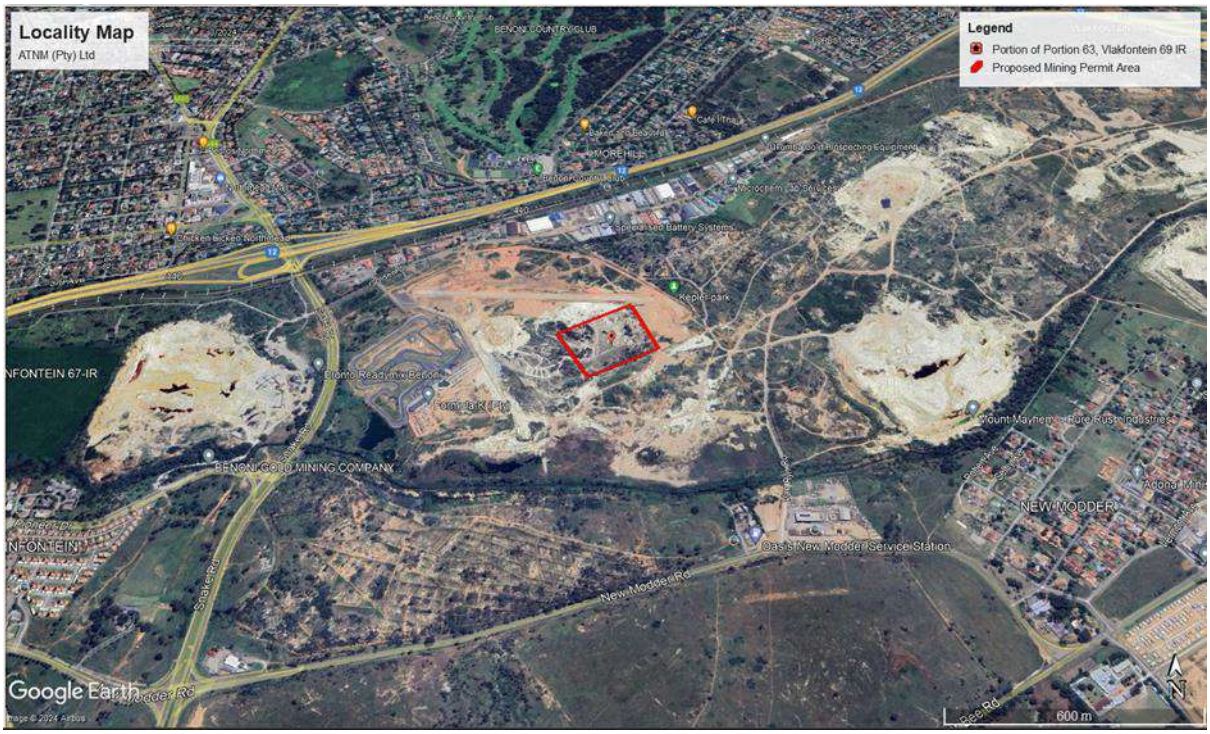


Figure 1: Locality Map of the proposed area

PROJECT DESCRIPTION

The area for the Mining Permit applied for is situated in respect of Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province. The planned mining activities will cover an area of about 4.99 hectares. Vahlengwe Mining Advisory and Consulting (Pty) Ltd will compile the Basic Assessment and Environmental Management Programme for the Mining Permit Application and facilitate the Public Participation Process (PPP). The application involves the reclamation, decommission and rehabilitation of existing mine tailings dump.

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 mining 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 Act, 1998 (Act 107 of 1998) (as amended).

Following step will be followed while conducting public participation.

- Issuing of notification of this project to:

- Owners and occupiers of the farms 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 local newspaper
- Placing of 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 mining activities to ATNM (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 : Archival Thato Neville Mogotsi
Postal Address : 26 Hatfield Road, Albermale, Alberton, Gauteng, 1401
Tel : +27 84 777 1644
E-mail : tmogotsi@atnm.co.za

Appendix 3B:

Interested and Affected Parties Registration Form

ATNM (PTY) LTD

Interested & Affected Party Registration Form

Project Reference No.: GP30/5/1/3/2 (10531) MP

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**	

VAHLENGWE MINING ADVISORY AND CONSULTING

Appendix 3C:

Proof of Newspaper Advert

Benoni City Times Classifieds

View your classified marketplace and local news on www.benonicitytimes.co.za
Follow us on facebook East Rand and South Classifieds

Contact us: 010-971-3301 **Email: classadnw@caxton.co.za** **Booking deadline: Tuesday @ 15:00**

CAXTON local media

Easy Payment Options
Cash Credit Card Direct Banking
Accounts subject to approval
Banking details:
CTP Ltd t/a Caxton Newspapers
FNB Corporate Account
Account No: 6218-634-8457
Branch code 255005
Proof of payment must be forwarded to our offices - your reference number or phone number must appear on the deposit.

For the reader: -
It remains the consumer's responsibility to check the credentials of all advertisers with whom they do business. As Caxton offers a service to advertisers to market their products or services, we cannot be held responsible for any damages, misleading claims or financial loss.

For the advertiser: -
Caxton Newspapers - General Classified Advertising Conditions of Acceptance
Important: Classified advertisements are only for publication in Caxton Newspapers and / or any publication subject to the following conditions:

1 Proof of publication / tear sheets for advertisements will not be submitted to the advertiser by the publisher.
2 Although every effort will be made to meet the wishes of the advertiser, no undertaking can be given in this regard in respect of the date of publication, distribution, the form and condition of the entry/ies, the number of copies and place of distribution.
3 Advertisement orders are not accepted subject to editorial space being given.
4 The publisher is entitled to withhold any advertisement from publication and to cancel any advertisement order that has been accepted.
5 The publisher is entitled to withhold any advertisement considered unsuitable for publication by reason of it appearance, import, content or wording and may be revised or refused.
6 The advertiser shall have no claim against the publisher whatsoever by virtue of any failure to publish, or for publication on dates other than those stipulated by the advertiser, or any typographical or any other errors or any kind or for any loss or damages in consequence of any of the above.
7 The publisher reserves the right to suspend issue on any day and to increase or decrease the usual number of editions printed without notice. Cost will be changed accordingly and advertisers will be advised.
8 Space is sold to the advertiser for the purpose of making announcements concerning his own business and also may not be used for attacking or making comparisons with other advertisers, firms, institutions or persons.
9 Until cancelled (T.C.) orders may be discontinued on a week's notice prior to print date by either party except in the case of guaranteed or special positions when one month's notice is required.
10 On the announcement of new tariff rates, the balance of the order will be subject to the new rate.
11 Any advertiser or advertising practitioner placing an advertisement in any Caxton publications indemnifies that newspaper against any liability whether in respect of damages, cost or otherwise that it may incur as a result of the publication of that advertisement.
12 Advertising Agencies do not qualify for any discounts for Classified advertising, except where a court or any competent judicial body has ordered otherwise.
13 Copy must conform to all Governments, Advertising Regulatory Board and Caxton Company requirements for the acceptance of advertisements.
14 Advertising clients guarantee that the reproduction of text and/or images provided to the media company for advertising purposes contravenes neither copyright legislation nor any other law.
15 Where advertisements are booked and material arrives after deadline or fails to arrive the space may still be charged for.
16 It is the responsibility of the advertiser to report any errors in advertisements within two days of publication.
17 Deadlines may be varied by the company at any time.
18 No liability for any errors in translation will be accepted.
19 Copyright exists on all advertising material originated by Caxton regardless whether published or not.
20 When booking / cancelling a classified advertisement a reference number MUST be quoted. No queries will be dealt with if this reference number is not quoted.
21 Credit will not be given for typographical errors, subject to Caxton's discretion.
22 Response to advertising is not guaranteed.
23 Please note that the practice of using the letter A to gain access to the top of a particular column is against the policy of this newspaper. Only registered company names and sensible use of the English / Afrikaans language will be accepted in this instance.
24 All advertisers must supply us with their physical and postal address and a copy of their ID document or company registration document.
25 Cash up front advertisements - lifts, employment wanted and adult entertainment - payments can be made by credit card, direct deposit or at our office.
26 Calls may be recorded for quality purposes.

Notices

0073 PERSONAL NOTICES

DEPRESSED OR STRESSED:

Phone Life Line
(010) 065-1342
ZH102493

Have you ever considered self-destruction or suicide as a result of your gambling? You are not alone. There is help.

Call us now: Gamblers Anonymous. Gauteng hotline: 060 624 7140 or 081 874 1249 website: https://gamblers anonymous.org.za/
ZH102492

RAPED? IN DESPAIR?

Phone Life Line (010) 065-1342
ZH102495

Home Improvements

0118 CLEANING

A AMAZING DEEP CLEAN

Carpets, lounge suites, mattresses. Quick dry. Owner Supervision Sanitizer, Deorizer . 31yrs exp.
083 229 8046
VP039974

A1 PROTEA DEEP CLEAN

Carpets, L/S, Mattresses. Owner Sup. 10 years exp
Tanja / Hannetjie:
011 869 6820
082 876 2067
MA060681

METRO CARPET CLEANERS

Deep clean, sanitize & deodorize carpets and L/suites. Owner supervision.
ALTA 060 352 0759
082 920 5877
AM039979

0123 DSTV / AERIALS / SATELLITES

A - DSTV
• Installations
• Repairs • Signals
Call Joshua
072 087 6169
RN131760

A 24/7 AERIAL DSTV SIGNAL FAULTS

Installation/Repairs, TV & Hi-Fi repairs.
Andre 066-559-6741
AL065263

DSTV

• Repairs/ Installation
• Pensioner discount
• Faults / Signal
• 24/7
Riaan: 011 826 5266
/ 082 681 2810
TH124677

0127 ELECTRICIANS

TH124629BTJ18
FREE QUOTES!
ABC APPLIANCE & ELECTRICAL
Onsite Repairs, Services, Fridge, Freezers, T/Dryers, Stoves, W/machines, Air-cons, Geysers, Gate & Garage motors, Electrical fencing, Generator Services.
1 year guarantee
Danie:
011 892 5287
079 721 0478
072 381 4269

A FIRST ELECTRICAL & PLUMBING
• BOARD TRIPPING
• NO POWER
• NO HOT WATER
• ALL ELECTRICAL WORK / C.O.C
• ALL PLUMBING WORK
• DISCOUNT FOR ALL
OPEN 24/7 *EAST
079 969 0784
011 440 6620

REPAIRS & INSTALLATIONS
Of Alarms & Beams
Gate Motors
Electric Fence
Courier Services
Keegan:
064 187 0368
Tiaan:
065 249 5676

0154 GARDENING / LANDSCAPING / IRRIGATION

A - ORGANIC COMPOST
LAWN DRESSING / GARDEN SOIL / LAWN
TEL : 011 965-1777 / 082 875 9507 RIPPLE CREEK NURSERY
ZH102488

ALL COMPOST and garden soil, lawn dressing. TEL: 011 917 0493
VIEWPOINT FARMING
TH124632

0155 TREE FELLING

H&C TREEFELLING PROJECTS
Treefelling, De-stumping 38 + yrs exp. Fully insured.
All hours
Chris 082 716 5774
069 981 1760
Owner supervision
TH124647

REFUSE BAG REMOVAL
R10 per bag, minimum 40 bags.
082 458-8178
RN131788

0163 PLUMBERS

AQUAMACH PLUMBING
•Blocked Drains *from* R350
NO Call - Out Fee (O/H).
Jesse 073 918 2528
TH124685

A+ PLUMBING
•Electric & Solar Geysers
•Leak Detections
•Blocked Drains
Your Local Plumber
Gerhard 0726255062
RN131735

A 24/7 PLUMBER

Drains, Geysers, etc. No Call Out Fee.
Call JCP Plumbing
083 430 9512
ZW032480

BLOCK-AID PLUMBING
• Unblocking drains
• Replacing drains
• Burst pipes
• Leak detection
• Burst Geysers
• Taps & Toilet repairs
• Water Tank Installations
Credit Cards Accepted.
Pensioners discount.
083 426 6219
HR031546BL40

Services

0280 PROFESSIONAL / BUSINESS SERVICES

DIVORCE ATTORNEY

Fast prof. Divorces, incl. Pension Fund Collections on Divorce matters. No cash reqd if there is a Pension Fund. Don`t delay, Call us Now!

Heine Bezuidenhout Attorneys Inc . Tel: 011 918-9493 Whatsapp 071 608 4469 hb@hb-attorneys.co.za
MA060644

0288 REMOVALS / STORAGE

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ZW032436

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AANDAG! AANDAG ATTENTION
We pay best prices for most unwanted goods.
Brad 079 674 5870
Jaco 083 281 0461
ZH102547

ALL ABOUT CASH
We buy Furniture, Fridges, TV`s, Tools, Gold Jewellery, almost anything.
Call 071 684 3106
ZH102568

ANY BRASS, COPPER ETC WEIGH & PAY CASH AT YOUR PREMISES 24/7.
IAN 083 633 5716
ZH102503

Property To Let

0442 GARDEN FLATS / COTTAGES

FAIRLEADS / RYNFIELD
2 bedroom cottage secure, full bath, own entrance & Carport. Pet friendly. R6500 incl water & Lights.
Louisa 082 568 7279
RN131779

Contact us to place your **PROPERTY TO LET** advert today!
010-971-3301
classadnw@caxton.co.za

Vehicles

0786 WANTED

ABOVE AVERAGE DEAL
WE BUY CARS
+ bakkies. incl accident damaged cars. Best prices paid. We come to you!
Gavin 24/7
083 708 6050
ZH097883J

Advertise your Classified adverts with us today

Contact:
010 971 3301
Email:
classadnw@caxton.co.za
CAXTON local media

Vacancies

0820 GENERAL

TRUCK DRIVER REQUIRED

NOTE:
This is NOT for long distance
Not BEEE.
• Age between 43-50 years old.
• Code 10 & 14
• Salary negotiable
Louis 082 555 7325
ZW032483

0835 MEDICAL

GOLDREEF VILLAGE

CARE CENTRE REQUIRES THE SERVICES OF A HARDWORKING, HONEST ENROLLED NURSING (STAFF NURSE)

• Must have own transport.
• Day and Night duty.
• Must be registered with S.A.N.C

Email CV to: norma@ goldreefvillage. co.za
ZW032476

MA060695BTC19
ENGINES AND GEARBOXES FOR AFRICA
WE ARE HIRING
JOB POSITION
MECHANIC FOR DENVER BRANCH
apply on: www.enginesforafrica.co.za

COMMERCIAL AUTO PARTS
Getting you back on the road. Fast!
WE ARE HIRING
JOB POSITIONS
1) AUTOMOTIVE MANAGER
2) STOCK CONTROLLER
3) SPARES BUYER
apply on:www.commercialautoparts.co.za

Employment

0895 DOMESTIC EMPLOYMENT WANTED

AGNES req full/part time domestic work, Mon- Fri, sleep out, child care. Refs. 072 038 2935
ZH102577

DOREEN req part time domestic work, Wed, Fri, sleep out. Refs.
076 057 0529
ZH102576

EUNICE req part time domestic work, Mon, Wed, Fri, sleep out, cooking, child care. Refs. 071 631 6215
ZH102578

GOODNESS req part time domestic work, Mon, Wed, Fri, sleep out, child care. Refs. 078 848 6189
ZH102552

LEAH seeks part time domestic work. Tues, Wed, Fri. Sleep out. Refs.
081 557 3785
TH124703

MERCY req full/part time domestic work, Mon- Fri, sleep out. 062 492 0432
ZH102563

PATRONELLA seeks part time domestic work, Mon, Wed, Fri, sleep out, refs avail. 060 379 1277.
RN131767

ROSEMARY seeks part time domestic work, Mon, Wed, Fri, sleep out, child care. 067 214 9126.
ZH102579

SARAH seeks full/part time domestic work, sleep out, child care. 067 152 9814
ZW032477

VICTORIA req full/part time domestic work, Mon-Fri, sleep in, child care. Refs.
072 343 4260
ZH102572

Legals

0950 LEGAL NOTICES

ATNM (PTY) LTD

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

NOTICE OF ENVIRONMENTAL AUTHORISATION FOR THE APPLICATION FOR A MINING PERMIT FOR THE RECLAMATION OF THE TAILINGS DUMP FOR GOLD EXTRACTION IN RESPECT OF PORTION OF PORTION 63 OF THE FARM VLAKFONTEIN 69 IR IN THE MAGISTERRIAL DISTRICT OF BENONI. DMR REFERENCE NO.: GP 30/5/1/3/2 10531 MP

Notice is hereby given in the intent to conduct Environmental Authorization process for the application for a mining permit for the reclamation of the tailings dump for gold extraction for ATNM (Pty) Ltd in terms of National Environmental Management Act - NEMA (Act 107 of 1998) as amended, and the Environmental Impact Assessment (EIA) Regulations of 2014 (GNR 982) (as amended). Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Section 39 to 44 of GNR 982 (as 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 982 (Listing Notice No. 1); Activity 21 (as amended): Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including - (a) associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource; or including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies.

GN R 982 (Listing Notice No. 1); Activity 21F (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.

PROPOSED SITE LOCATION.
Proposed project is located on Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

PUBLIC MEETING:
Public meeting will be held to facilitate discussions on the Draft Basic Assessment Reports 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 24th of May 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 08th of June 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
MA060690

Appendix 3D:

Site Notice Report

ATNM (PTY) LTD

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

NOTICE OF ENVIRONMENTAL AUTHORISATION FOR THE APPLICATION FOR A MINING PERMIT FOR THE RECLAMATION OF THE TAILINGS DUMP FOR GOLD EXTRACTION IN RESPECT OF PORTION OF PORTION 63 OF THE FARM VLAKFONTEIN 69 IR IN THE MAGISTERRIAL DISTRICT OF BENONI.

DMR REFERENCE NO.: GP 30/5/1/3/2 10531 MP

Notice is hereby given in the intent to conduct Environmental Authorization process for the application for a mining permit for the reclamation of the tailings dump for gold extraction for ATNM (Pty) Ltd in terms of National Environmental Management Act - NEMA (Act 107 of 1998) as amended, and the Environmental Impact Assessment (EIA) Regulations of 2014 (GNR 982) (as amended). Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Section 39 to 44 of GNR 982 (as 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 983 (Listing Notice No. 1); Activity 21 (as amended): Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including - **(a)** associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource; or [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] **(b)** the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies.

GN R 983 (Listing Notice No. 1); Activity 21F (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.

PROPOSED SITE LOCATION.

Proposed project is located on Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

APPLICANT DETAILS:

Company : ATNM (Pty) Ltd
Contact person : Thato Mogotsi
Tel : +27 84 777 1644
E-mail : tmogotsi@atnm.co.za

SITE CO-ORDINATES

Midpoint Coordinates: 26°10'45.88"S 28°20'39.71"E

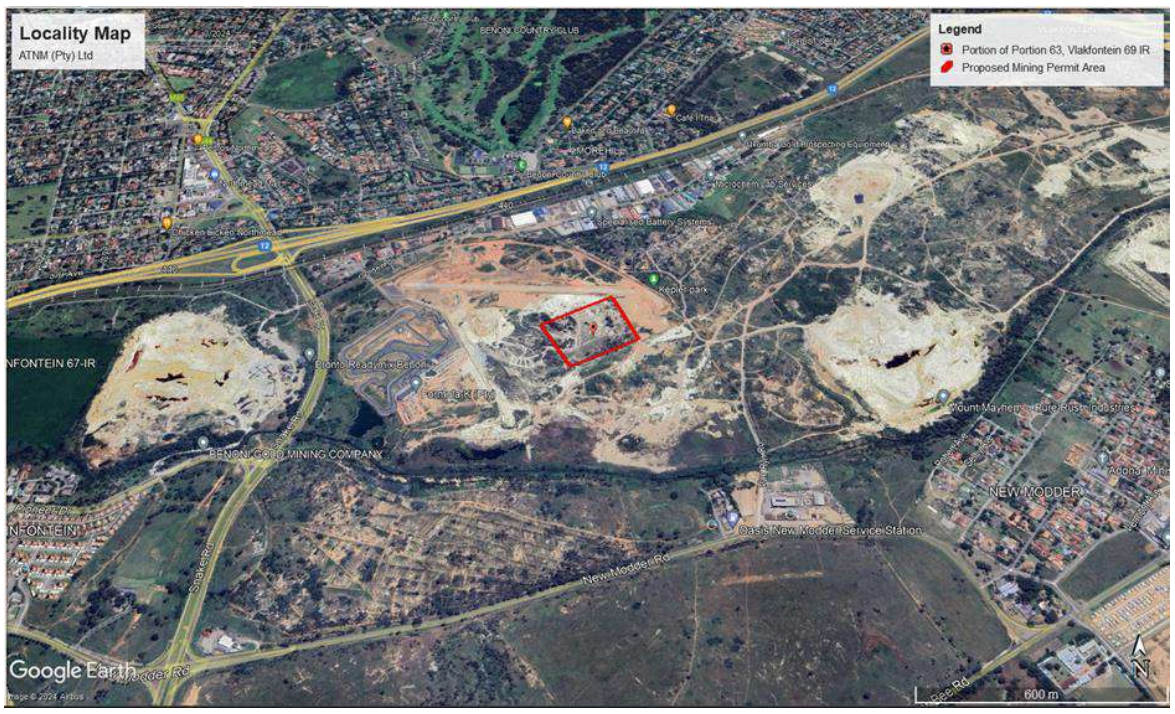


Figure 1: Locality map of the proposed waste management area

PUBLIC MEETING:

Public meeting will be held to facilitate discussions on the Draft Basic Assessment Reports 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 **24th of May 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 **08th of June 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

VAHLENGWE MINING ADVISORY AND CONSULTING

***Address*: 238 Voster Avenue, Glenvista, 2058**
Tel: +27 11 432 0062
E-mail*: *info@vahlengweadvisory.co.za

SITE NOTICE REPORT

Basic assessment for the for the application of a mining permit for the reclamation of tailings dump material in respect of Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.

Site notices were placed within the vicinity of the proposed project site at strategic locations where it was deemed to be visible to community **on the 10th of May 2024**

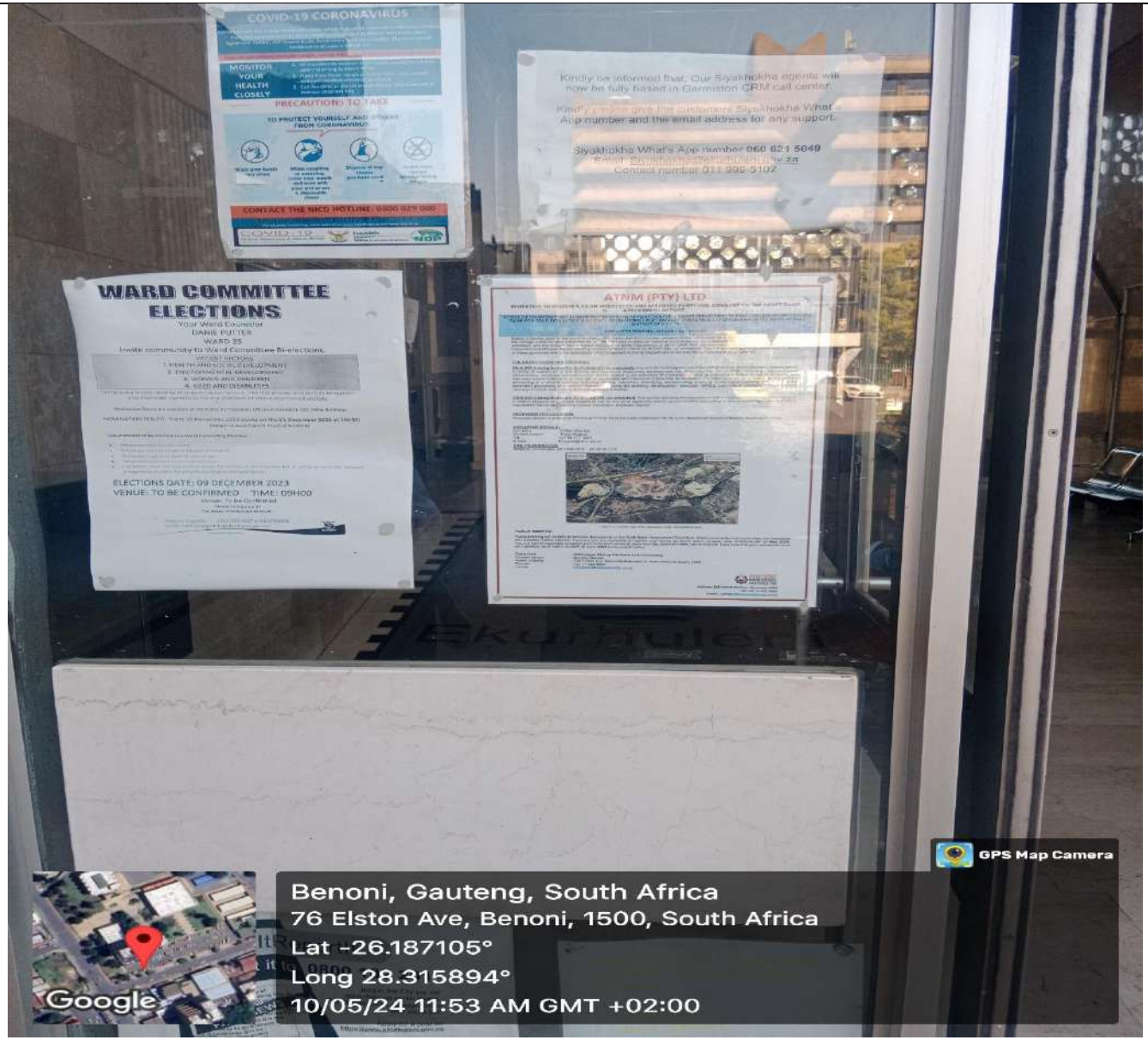
Figure 1: Location map of the areas where the site notices were placed.

Site notice A was placed at Benoni City Centre Library.	

Site notice B was placed at the entrance of the proposed project area in Benoni.	

Site notice C was placed outside of Siyanda Freight in New Modder, Benoni.	

Site notice D was placed along the Unity Avenue Street in New Modder, Benoni.	

Site notice E was placed at Ekurhuleni Local Municipality, Benoni.	

Copy of draft Basic Assessment Report was delivered at Benoni City Centre Library.	

Appendix 3E:

I&APs Database

ATNM REGISTERED INTERESTED & AFFECTED PARTIEs

NAME AND SURNAME	ORGANIZATION/COMMUNITY	ADDRESS	CONTACT DETAILS	EMAIL ADDRESS
EKURHULENI DISTRICT MUNICIPALITY				
Sipho Ngobese	Ekurhuleni	[redacted]	[redacted]	[redacted]
INTERSTED AND AFFECTED PARTY				
Sipho Mthombeni	I&AP	[redacted]	[redacted]	[redacted]
Henry Ndlovu	I&AP	[redacted]	[redacted]	[redacted]
Jacob Malape	I&AP	[redacted]	[redacted]	[redacted]
Jeffrey Chabalala	I&AP	[redacted]	[redacted]	[redacted]
Isaac Hlophe	I&AP	[redacted]	[redacted]	[redacted]
Phillistas Maaba	I&AP	[redacted]	[redacted]	[redacted]
Mahlogonolo Mashabane	I&AP	[redacted]	[redacted]	[redacted]
Mnqobi Fenyane	I&AP	[redacted]	[redacted]	[redacted]
Bonisiwe Ntlane	I&AP	[redacted]	[redacted]	[redacted]
Ntokozo Sibiya	I&AP	[redacted]	[redacted]	[redacted]
Lucas Mokoena	I&AP	[redacted]	[redacted]	[redacted]
Prizeman Glaalile	I&AP	[redacted]	[redacted]	[redacted]
Mahlomola Molefe	I&AP	[redacted]	[redacted]	[redacted]
Thembi Mukhubo	I&AP	[redacted]	[redacted]	[redacted]
Shirley Dlamini	I&AP	[redacted]	[redacted]	[redacted]
Peter Lubisi	I&AP	[redacted]	[redacted]	[redacted]
Oupa Maseteng	I&AP	[redacted]	[redacted]	[redacted]
Mandla Ndidi	I&AP	[redacted]	[redacted]	[redacted]

Appendix 3F:

Comments and Response Report

June 2024

ATNM (PTY) LTD

COMMENTS AND RESPONSE REPORT:

Basic Assessment Report (BAR)

Interested and Affected Parties		Date Comments received	Issues and/or comments raised	EAP Responses
Names	Consultation Method			
Ntokozo Sibiya	Public Participation Meeting	05 June 2024	The illegal mining activities in the area and their impact on the environment.	**Sunday Mabaso** All of these dumps near you, especially the one in question, are infested with illegal mining, causing all sorts of social and environmental issues. Environmentally, they are digging holes all over the area and leaving them open, which causes water to accumulate and affects underground water and acid mine drainage. Socially, there are many criminal elements that occur as a result of dumps. DMRE promotes mining licence applications so that when police conduct disruptions, they can arrest and distinguish between illegal and mining licence holders.

			How does the lack of community participation affect the application?	**Sunday Mabaso** The competent authority will not penalize the applicant for poor attendance but will check the public participation process followed and comments incorporated. **Sipho Ngobese** Reminders were sent to community groups, and any concerns raised will be out of order because they did not attend.
Molefe	Public Participation Meeting	05 June 2024	Are you ATNM?	**Sunday Mabaso** In terms of National Environmental Management Act,1998, an applicant cannot lodge an application on their own because are biased but must appoint a registered and qualified Environmental Assessment Practitioners (EAP) to manage the EA application, who will follow the process properly and take into account people's concerns. We are the independent EAPs tasked with facilitating the process on behalf of ATNM.
			Is it possible for a mining company to collaborate with the applicant on this project?	**Sunday Mabaso** We are now working on the environmental part of the application, however once the applicant

				receives the mining permit, we always advice the applicant to procure and/or anything necessary in the community. If it were a mining right, they would be required to do a social and labour plan, since it is a mining permit which is a small project with a two-year lifespan that can be renewed three times for one-year periods, there is no requirement for SLP. Nevertheless, as a responsible miner, should there be opportunities they should start with the community that they are affecting.
			Given that ATNM has applied for 5 hectares, how soon can we start looking for a mining site for Lefa la Rona?	**Sunday Mabaso** Let's meet outside in our offices to discuss further about what we require and how we can assist you going forward.
			Do you think we missed anything with all of the questions we asked?	**Sunday Mabaso** We are here to answer all of your questions; follow up and provide you with an opportunity to comment. We cannot impose since people have different interest.

Mandla Ndidi	Public Participation Meeting	05 June 2024	As Lefa Larona, we are looking for an opportunity to lodge an application to mine in the area in question.	**Sunday Mabaso** There are many applications lodged in the area, you may also apply, but that is a different procedure, and we will assist you separately applying elsewhere you see, there may be an opportunity inside the same dump as they applied for five hectares you may also apply for five hectares. There is funding for junior miners in the DMRE, and we can assist you go through the process. another option is Mining Qualification Authority (MQA), which assists small-scale mining. This is an opportunity that we can explore with you, but it will require you to have a start-up funds up to public participation before they fund you.
			Are there people who have been granted mineral licence in the same area?	**Sunday Mabaso** Yes, there are permits adjacent to the application in question, and DMRE will not grant a permit over an existing permit.
Isaac Hlophe	Public Participation Meeting	05 June 2024	Your purpose for the meeting differs from ours, from what I've heard, you're here to identify people who will assist with the project, and you were told to come to the community to find those people?	**Sunday Mabaso** It is a requirement that when an applicant applies for an Environmental Authorisation, public participation process should be undertaken to provide Interested and Affected Parties (I&AP)

				with an opportunity to comment on the Basic Assessment Report (BAR) and raise concerns, we are therefore here for that purpose.
			We have machinery, can we lend them to ATNM?	**Sunday Mabaso** We advise the applicant to prioritize the community for opportunities before sourcing elsewhere.
Sipho Ngobese	Public Participation Meeting	05 June 2024	The invitation to the public participation was distributed to all groups in the neighbourhood, but I am surprised why they did not attend. I expected you answer some of the questions and elaborate that the project is to clean up tailings dump caused by historical mining activities, which as a result there is pollution, wind, crime activities, illegal mining, so you should have said for the applicant to be able to clean up, there would be job opportunities for the local community, but currently we are in the environmental stage, and we are informing you that once they issue the mining permit, it will be communicated with Interested and Affected Parties to ensure that they participate in the employment or procurement.	**Sunday Mabaso** It was mentioned in the presentation that it is a small project which will hire a small group, but there will be job and procurement opportunities. We are also disappointed with the turnout because we've been in communication with several people, and we were under the impression that they are interested and affected parties.

Appendix 3G:

Public Consultation Meeting Documents

ATNM (PTY) LTD

STAKEHOLDER ENGAGEMENT MEETING

DMRE Ref Number: GP/30/5/1/3/2 (10531) MP

EKURHULENI METROPOLITAN MUNICIPALITY

10 MAY 2024

VAHLENGWE MINING ADVISORY AND CONSULTING

VAHLENGWE MINING ADVISORY AND CONSULTING

AGENDA

1. Opening and Introduction
2. Purpose of the Meeting
3. Presentation:
4. Discussions
5. Closure

PROJECT TEAM

- Cecil Dau
- Mulalo Mafunisa

BACKGROUND

- ATNM (Pty) Ltd has applied for a for mining permits in terms of Section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)(as amended) (MPRDA).

- mining activities will involve the reclamation of tailings dump material that resulted from the historical mining activities. .

- The proposed project area is in respect Portion of Portion 63 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.
- The area covers an area extent of about **4.99 ha.**

- The Project site can be accessed via the Van Ryn Road that connects to the Golden drive Road in the northerly side.

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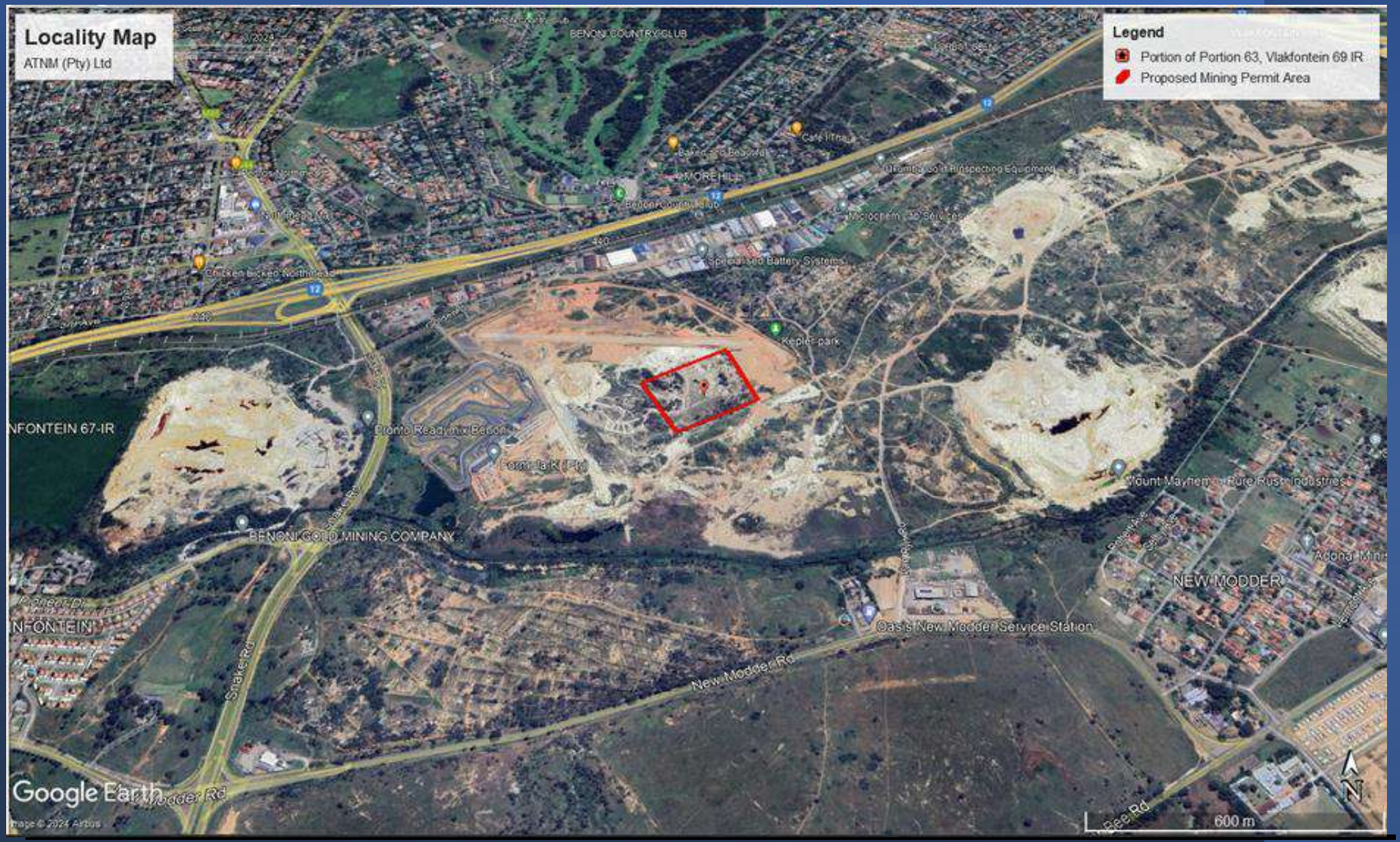

VAHLENGWE MINING ADVISORY AND CONSULTING

LEGAL REQUIREMENTS

- **Applications: Mining Permits** in terms of Sec. 27 of the MPRDA, 2002 (Act 28 of 2002)(as amended).
- **Environmental Authorization** in terms of Sec. 24 of NEMA, 1998 (Act 107 of 1998)(as amended).
- **Listed Activities Triggered:**

  Listing Notice 1, Activity 21 of the NEMA Regulations of 2014 (GN R983) (as amended), requiring a Basic Assessment Report

  Listing Notice 1, Activity 21(f) of GN R 517 (NEMA of 2021): Any activity including the operation of that activity required for the reclamation of a residue as well as any applicable activity as contained in this Listing Notice or Listing Notice 3 of 2014, required for the reclamation of a stockpile or a residue deposit.

- **Type of material:** Gold bearing Tailings dump

VAHLENGWE MINING ADVISORY AND CONSULTING

PROJECT DESCRIPTION: ACTIVITIES

Reclamation of the mine residue deposits

- Site clearing and establishment of the infrastructure and equipment (mobile site offices and portable ablution)
- Vegetation clearance to access the waste dump material
- Extraction of the tailings dump material and taken to the offsite treatment facility for the processing of gold.
- Decommissioning and rehabilitation of the project infrastructure
- Final rehabilitation of the overall area

VAHLENGWE MINING ADVISORY AND CONSULTING

PUBLIC PARTICIPATION PROCESS (PPP)

- Based on the Listed Activities in terms of the NEMA, the project requires a Basic Assessment.
- Basic Assessment Report : Subjected to a 30-day Public Participation Process.
- The purpose of public consultation process is to enable landowners or lawful occupiers of the land and stakeholders including the Interested and Affected Parties (I&APS) to raise any issues, concerns and or comments regarding the mining activities.
- All comments and concerns received will be recorded on a Comments and Response Report (CRR).
- A proof of consultation report will be developed and submitted to the Department of Mineral Resources and Energy (DMRE).

VAHLENGWE MINING ADVISORY AND CONSULTING

PPP FOLLOWED

- Distribution of the Background Information Document (BID) including a registration form on **10th May 2024;**
- Site notices placed at the project site and at strategic locations visible to the communities on the **10th May 2024;**
- Newspaper advertisement on the Benoni City Tymes Newspaper on **09th May 2024;**
- A public meeting will be held to facilitate discussions on the Draft Basic Assessment and a date will be set.
- An electronic copy of Draft BAR on the 10th May 2024 (www.vahlengweadvisory.co.za).

VAHLENGWE MINING ADVISORY AND CONSULTING

POTENTIAL IMPACTS:

Environmental Aspects	Impact prior to project implementation	Impacts Post project implementation	Mitigation
Surface Water Resources	Contamination due to AMD	Reduced contamination and promotes natural drainage	Reprofiling and rehabilitation of previously disturbed landscapes
Groundwater Resources	G/W contamination due to toxic elements	Reduced contamination	Removal of the source of contamination
Soils and Land Capability	land incapable for other uses such as agriculture	Improved land capability for other uses	Remedy through concurrent rehabilitation and monitoring
Health and Safety	Criminal activities Illnesses and injuries	Reduced criminal activities and improved health and safety environmental conditions	Implementation of sustainable rehabilitation measures
Flora and Fauna	Disruption of biodiversity	Promotes biodiversity and ecosystem	Concurrent rehabilitation and monitoring
Noise, dust and Visual	Not Applicable	Noise and dust generation, and visual disturbance	Control measures and monitoring
Socio-Economic	Lack of social and economic empowerment Limitation of spatial development	Social and economic empowerment	Direct and / or indirect employment of individuals from local communities . Spatial development

CONCLUSIONS

- The preliminary findings of the impact assessment have shown that the proposed project would result in certain positive impacts to the environment.
- The significance of impacts identified in the assessment of the baseline environment can be significantly reduced through the implementation of mitigation and management measures.
- Therefore, project activities need to be closely monitored to achieve the expected rehabilitation objectives.

VAHLENGWE MINING ADVISORY AND CONSULTING

Thank you!

Discussion

VAHLENGWE
MINING ADVISORY
AND CONSULTING

011 432 0062

info@vahlengweadvisory.co.za

www.vahlengweadvisory.co.za

238 Vorster Avenue, Glenvista Ext 5, Johannesburg South. 2091

ATNM (PTY) LTD

PUBLIC PARTICIPATION MEETING

DMRE Ref Number: GP/30/5/1/3/2 (10531) MP

NEW MODDER

05 JUNE 2024

VAHLENGWE MINING ADVISORY AND CONSULTING

VAHLENGWE MINING ADVISORY AND CONSULTING

AGENDA

1. Opening and Introduction
2. Purpose of the Meeting
3. Presentation:
4. Discussions
5. Closure

PROJECT TEAM

- Sunday Mabaso
- Cecil Dau
- Mulalo Mafunisa
- Keabetswe Mmolotsi
- Khanyile Mgiba

INTRODUCTION

- ATNM (Pty) Ltd has applied for a for mining permit in terms of Section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)(as amended) (MPRDA).
- Mining activities will involve the reclamation of tailings dump material that resulted from the historical mining activities. .
- The proposed project area is in respect Portion of Portion 470 of the Farm Vlakfontein 69 IR in the Magisterial District of Benoni, Gauteng Province.
- The area covers an area extent of about **4.99 ha.**
- The project site can be accessed via the Van Ryn Road that connects to the Golden drive Road in the northerly side.

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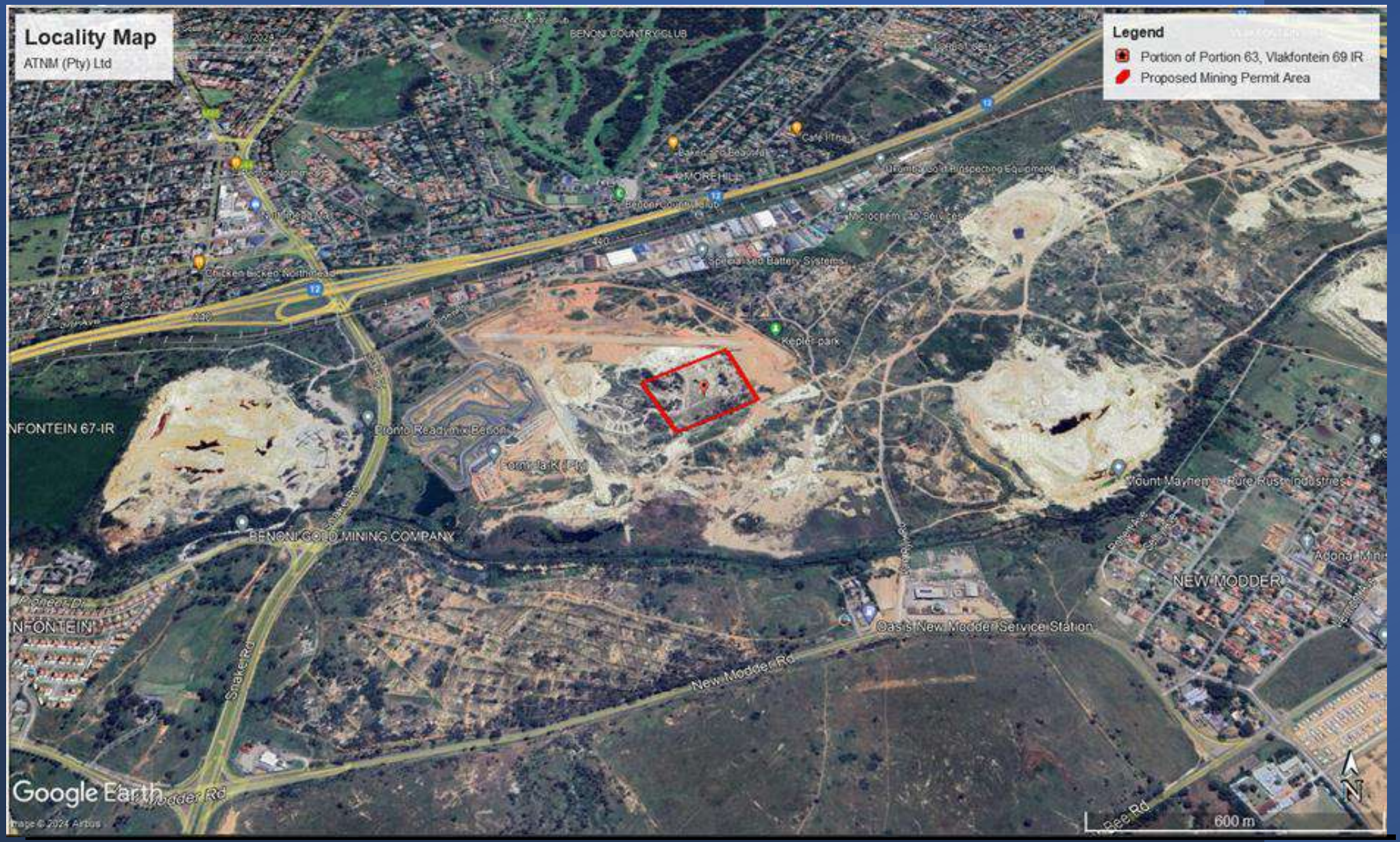

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PROJECT DESCRIPTION: ACTIVITIES

Reclamation of the tailings dump:

- Site clearing and establishment of the infrastructure and equipment (mobile site office and portable ablution)
- Vegetation clearance to access the tailings dump material
- Extraction of the tailings dump material and taken to the offsite treatment facility for the processing of gold.
- The waste material after processing will be disposed of at an approved waste facility
- Decommissioning and rehabilitation of the project infrastructure
- Final rehabilitation of the overall area

VAHLENGWE MINING ADVISORY AND CONSULTING

REGULATORY FRAMEWORK

- **Application: Mining Permit** in terms of Sec. 27 of the MPRDA, 2002 (Act 28 of 2002)(as amended).
- **Environmental Authorization** in terms of Sec. 24 of NEMA, 1998 (Act 107 of 1998)(as amended).
- **Listed Activities Triggered:**

  Listing Notice 1, Activity 21 of the NEMA Regulations of 2014 (GN R983) (as amended), requiring a Basic Assessment Report

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- **Type of material:** Gold bearing Tailings dump

VAHLENGWE MINING ADVISORY AND CONSULTING

PUBLIC PARTICIPATION PROCESS (PPP)

- Based on the Listed Activities in terms of the NEMA, the project requires a Basic Assessment.
- Basic Assessment Report : Subjected to a 30-day Public Participation Process.
- The purpose of public consultation process is to enable landowners or lawful occupiers of the land and stakeholders including the Interested and Affected Parties (I&APS) to raise any issues, concerns and or comments regarding the mining activities.
- All comments and concerns received will be recorded on a Comments and Response Report (CRR).
- A proof of consultation report will be developed and submitted to the Department of Mineral Resources and Energy (DMRE).

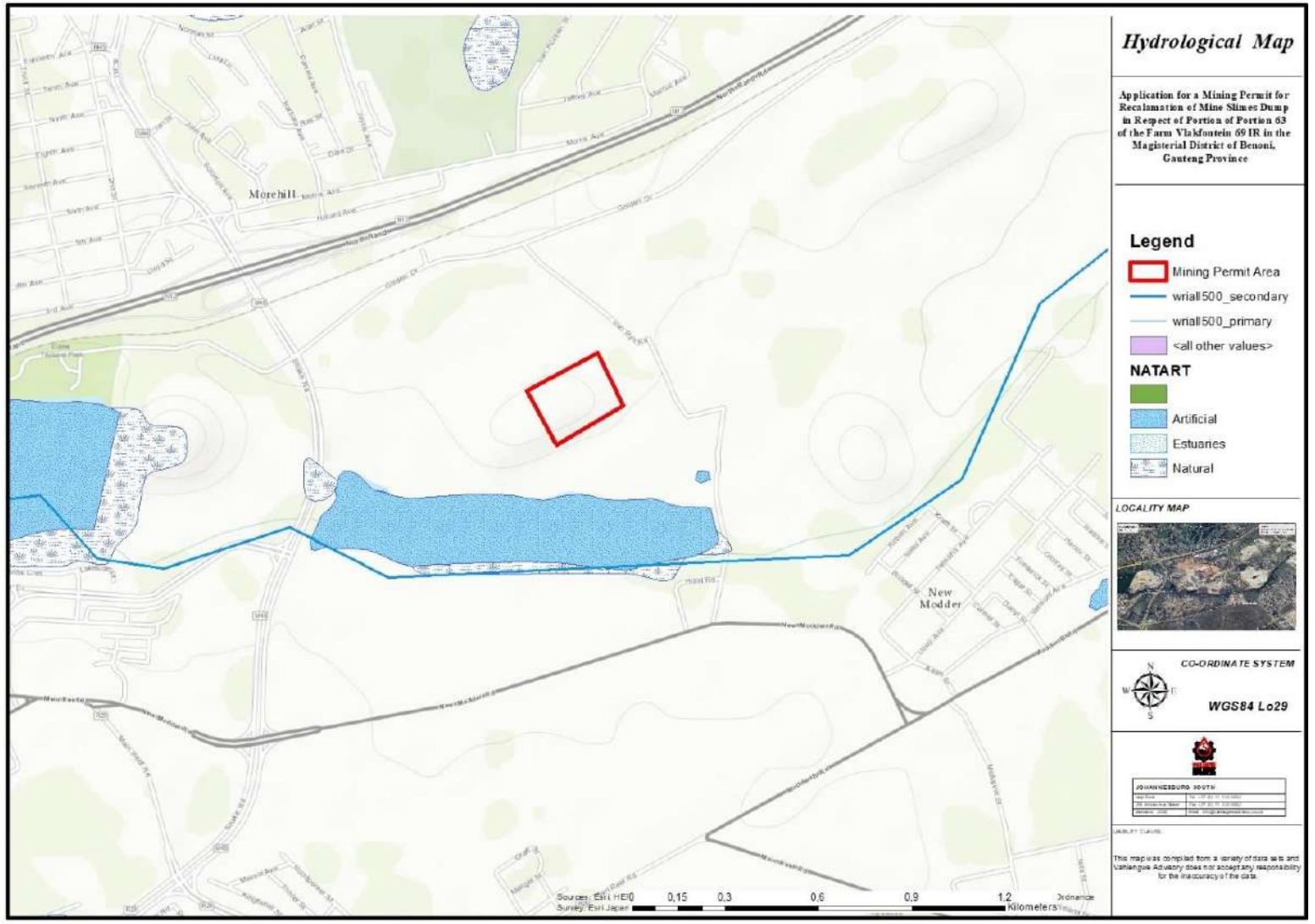
VAHLENGWE MINING ADVISORY AND CONSULTING

PPP FOLLOWED

- Distribution of the Background Information Document (BID) including a registration form on **10th May 2024;**
- Site notices placed at the project site and at strategic locations visible to the communities on the **10th May 2024;**
- Newspaper advertisement on the Benoni City Tymes Newspaper on **09th May 2024;**
- A public meeting is being held today (**05th of June 2024**) to facilitate discussions on the Draft Basic Assessment and a date will be set.
- An electronic copy of Draft BAR on the 10th May 2024 (www.vahlengweadvisory.co.za).

VAHLENGWE MINING ADVISORY AND CONSULTING

Environmental Sensitivity: Hydrology



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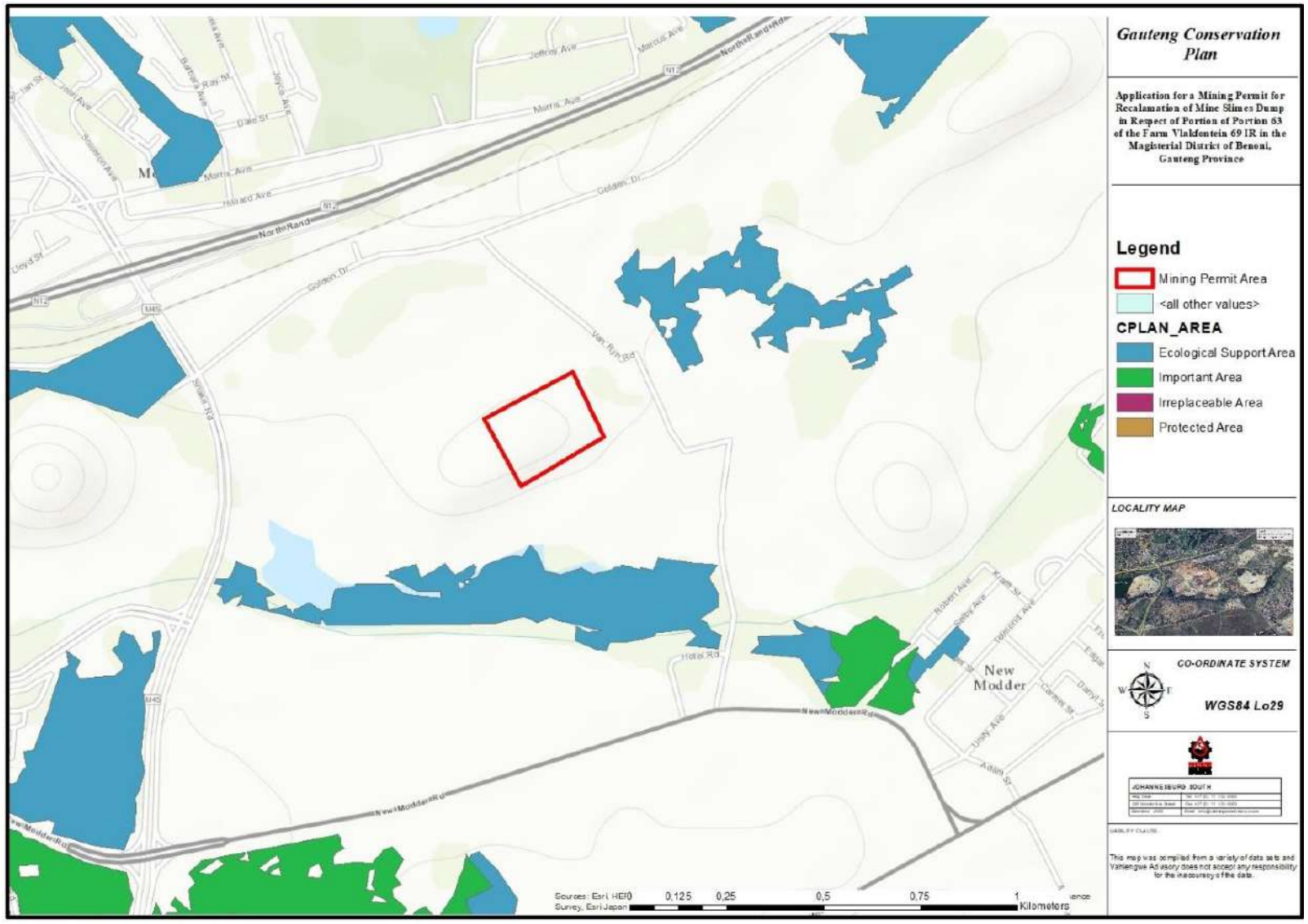
Environmental Sensitivity: C-PLAN



VAHLENGWE MINING ADVISORY AND CONSULTING

POTENTIAL IMPACTS:

Environmental Aspects	Impact prior to project implementation	Impacts Post project implementation	Mitigation
Surface Water Resources	Contamination due to AMD	Reduced contamination and promotes natural drainage	Reprofiling and rehabilitation of previously disturbed landscapes
Groundwater Resources	G/W contamination due to toxic elements	Reduced contamination	Removal of the source of contamination
Soils and Land Capability	land incapable for other uses such as agriculture	Improved land capability for other uses	Remedy through concurrent rehabilitation and monitoring
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Socio-Economic	Lack of social and economic empowerment Limitation of spatial development	Social and economic empowerment	Direct and / or indirect employment of individuals from local communities . Spatial development

CONCLUSIONS

- The preliminary findings of the impact assessment have shown that the proposed project would result in certain positive impacts to the environment.
- The significance of impacts identified in the assessment of the baseline environment can be significantly reduced through the implementation of mitigation and management measures.
- Therefore, project activities must be closely monitored to achieve the expected rehabilitation objectives.

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Discussion

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PUBLIC PARTICIPATION MEETING MINUTES

PUBLIC PARTICIPATION PROCESS OF AN APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR THE MINING PERMIT OF RECLAMATION OF TAILINGS DUMP TO CONSULT DRAFT BASIC ASSESSMENT REPORT (BAR) IN TERMS OF REGULATION 41- 44 OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATION, 2014 (AS AMENDED) READ WITH THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT,1998 (ACT 107 OF 1998) (AS AMENDED) IN RESPECT OF PORTION OF PORTION 470 OF THE FARM VLAKFONTEIN 69 IR, IN THE MAGISTERIAL DISTRICT OF BENONI, GAUTENG PROVINCE.

Date: 05 June 2024
Company: ATNM (Pty) Ltd, DMRE Ref No: GP 30/5/1/3/2/ 10531 PR
Venue: Adonai Ministries, New Modder, Benoni
Time: 17:00 pm – 19:00 pm

MEETING AGENDA

1.Opening and Introduction
2.purpose of the meeting
3.Presentattion: Draft Basic Assessment Report
4.Discussions
5.Closure

1.OPENING AND INTRODUCTION

Mr. Sunday Mabaso as the chairperson introduced that Vahlengwe Mining Advisory and Consulting are an Independent Environmental Assessment Practitioners (EAP) appointed by ATNM (Pty) Ltd the “applicant” in terms of regulation 12 of the Environmental Impact Assessment Regulation, 2014 to facilitate an application of the Environmental Authorisation (EA) for a mining permit.

2. PURPOSE OF THE MEETING

Mr. Cecil Dau indicated that ATNM applied for a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (as amended) together with Environmental Authorisation in terms of National Environmental Management Act,1998) to reclaim tailings dump material that resulted from the historical mining activities which requires the applicant to conduct public participation process to consult the Basic Assessment Report (BAR) with Interested and Affected Parties (I&AP), land owners and local Municipality in terms of Environmental Impact Assessment Regulation, 2014 (as Amended) in respect of portion 470 of the farm Vlakfontein 69 IR in the magisterial district of Benoni, to provide them with sufficient information about the proposed reclamation project, and award them an opportunity to comment, raise concerns, and to contribute towards the assessment.

3.PRESENTATION

Cecil Dau presented the Draft Basic Assessment Report (BAR) report as follows: introduction, locality map, project description (activities), regulatory framework, public participation process (PPP), PPP followed, environmental sensitivity: Hydrology, environmental sensitivity: C-plan, potential impacts, Conclusion.

4. DISCUSSIONS (Q &A)

NAME	QUESTIONS	ANSWERS
Ntokozo Sibiya	The illegal mining activities in the area and their impact on the environment.	**Sunday Mabaso** All of these dumps near you, especially the one in question, are infested with illegal mining, causing all sorts of social and environmental issues. Environmentally, they are digging holes all over the area and leaving them open, which causes water to accumulate and affects underground water and acid mine drainage. Socially, there are many criminal elements that occur as a result of dumps. DMRE promotes mining licence applications so that when police conduct disruptions, they can arrest and

		distinguish between illegal and mining licence holders.
	How does the lack of community participation affect the application?	**Sunday Mabaso** The competent authority will not penalize the applicant for poor attendance but will check the public participation process followed and comments incorporated. **Sipho Ngobese** Reminders were sent to community groups, and any concerns raised will be out of order because they did not attend.
Molefe	Are you ATNM?	**Sunday Mabaso** In terms of National Environmental Management Act,1998, an applicant cannot lodge an application on their own because are biased but must appoint a registered and qualified Environmental Assessment Practitioners (EAP) to manage the EA application, who will follow the process properly and take into account people's concerns. We are the independent EAPs tasked with facilitating the process on behalf of ATNM.
	Is it possible for a mining company to collaborate with the applicant on this project?	**Sunday Mabaso** We are now working on the environmental part of the application, however once the applicant receives the mining permit, we always advice the applicant to procure and/or anything necessary in the community. If it were a mining right, they would be required to do a social and labour plan, since it is a mining permit which is a small project with a two-year lifespan that can be renewed three times for one-year periods,

		there is no requirement for SLP. Nevertheless, as a responsible miner, should there be opportunities they should start with the community that they are affecting.
	Given that ATNM has applied for 5 hectares, how soon can we start looking for a mining site for Lefa la Rona?	**Sunday Mabaso** Let's meet outside in our offices to discuss further about what we require and how we can assist you going forward.
	Do you think we missed anything with all of the questions we asked?	**Sunday Mabaso** We are here to answer all of your questions; follow up and provide you with an opportunity to comment. We cannot impose since people have different interest.
Mandla Ndidi	As Lefa Larona, we are looking for an opportunity to lodge an application to mine in the area in question.	**Sunday Mabaso** There are many applications lodged in the area, you may also apply, but that is a different procedure, and we will assist you separately applying elsewhere you see, there may be an opportunity inside the same dump as they applied for five hectares you may also apply for five hectares. There is funding for junior miners in the DMRE, and we can assist you go through the process. another option is Mining Qualification Authority (MQA), which assists small-scale mining. This is an opportunity that we can explore with you, but it will require you to have a start-up funds up to public participation before they fund you.
	Are there people who have been granted mineral licence in the same area?	**Sunday Mabaso** Yes, there are permits adjacent to the application in question, and DMRE will not grant a permit over an existing permit.

Isaac Hlophe	Your purpose for the meeting differs from ours, from what I've heard, you're here to identify people who will assist with the project, and you were told to come to the community to find those people?	**Sunday Mabaso** It is a requirement that when an applicant applies for an Environmental Authorisation, public participation process should be undertaken to provide Interested and Affected Parties (I&AP) with an opportunity to comment on the Basic Assessment Report (BAR) and raise concerns, we are therefore here for that purpose.
	We have machinery, can we lend them to ATNM?	**Sunday Mabaso** We advise the applicant to prioritize the community for opportunities before sourcing elsewhere.
Sipho Ngobese	The invitation to the public participation was distributed to all groups in the neighbourhood, but I am surprised why they did not attend. I expected you answer some of the questions and elaborate that the project is to clean up tailings dump caused by historical mining activities, which as a result there is pollution, wind, crime activities, illegal mining, so you should have said for the applicant to be able to clean up, there would be job opportunities for the local community, but currently we are in the environmental stage, and we are informing you that once they issue the	**Sunday Mabaso** It was mentioned in the presentation that it is a small project which will hire a small group, but there will be job and procurement opportunities. We are also disappointed with the turnout because we've been in communication with several people, and we were under the impression that they are interested and affected parties.

	mining permit, it will be communicated with Interested and Affected Parties to ensure that they participate in the employment or procurement.	

5. CLOSURE.

Mr. Sunday Mabaso stated that Registered Interested and Affected Parties (RI&AP) can still send comments, questions and inputs to the email address provided in the presentation. The meeting was adjourned at 18:30, with a thank you to everyone who attended the meeting.

Appendix 4:

Environmental Sensitivity Screening Report

June 2024

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

EIA Reference number: GP30/5/1/3/2 (10531) MP

Project name: ATNM_Mining Permit

Project title: ATNM_Mining Permit

Date screening report generated: 09/05/2024 10:05:50

Applicant: ATNM (Pty) Ltd

Compiler: Vahlengwe Mining Advisory and Consulting

Compiler signature:

.....

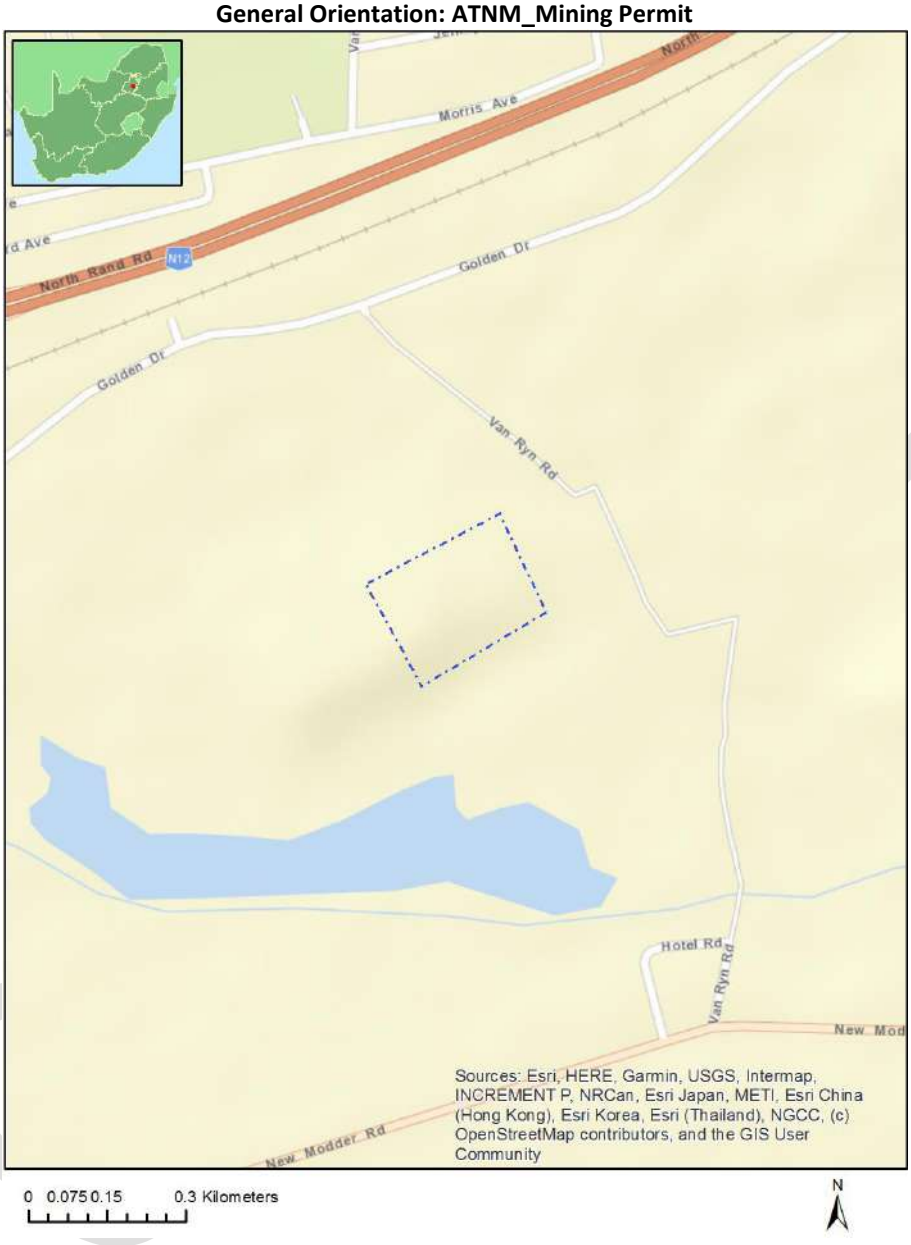
Application Category: Mining|Mining Permit

Table of Contents

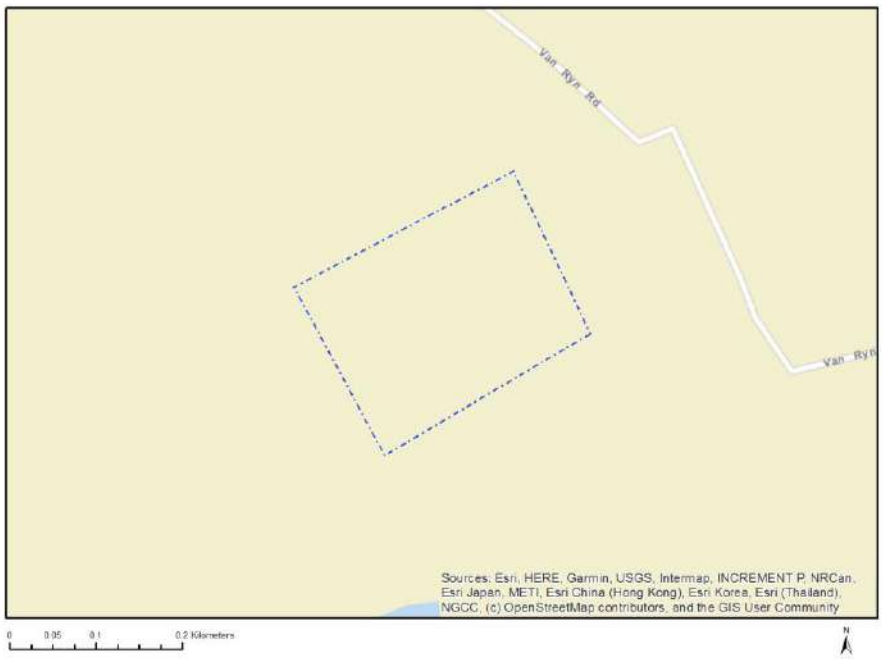
Proposed Project Location

Orientation map 1: General location

General Orientation: ATNM_Mining Permit



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	VLAKFONTEIN	69	0	26°8'40.79S	28°21'8.28E	Farm
2	VLAKFONTEIN	69	470	26°10'42.31S	28°20'31.67E	Farm Portion

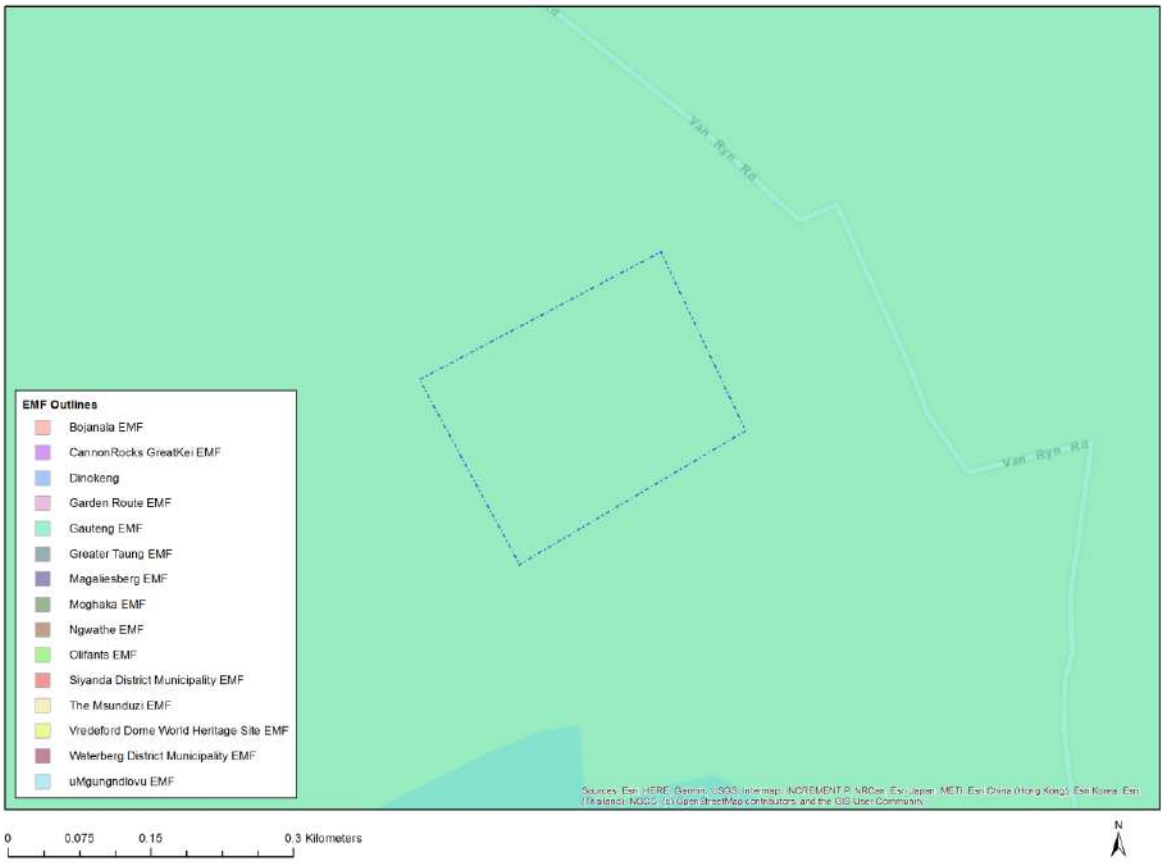
Development footprint[1] vertices:
No development footprint(s) specified.

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

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	26.9
2	14/12/16/3/3/1/2358	Solar PV	Approved	9.7
3	12/12/20/2147/A1	Solar PV	Approved	13.4
4	12/12/20/2147	Solar PV	Approved	13.4
5	14/12/16/3/3/1/569	Solar PV	Approved	22.1

[1] "development footprint", means the area within the site on which the development will take place and incudes 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.

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|Mining Permit**.

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
Air Quality-Highveld Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/HIGHVELD_PRIORITY_AREA_AQMP.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.

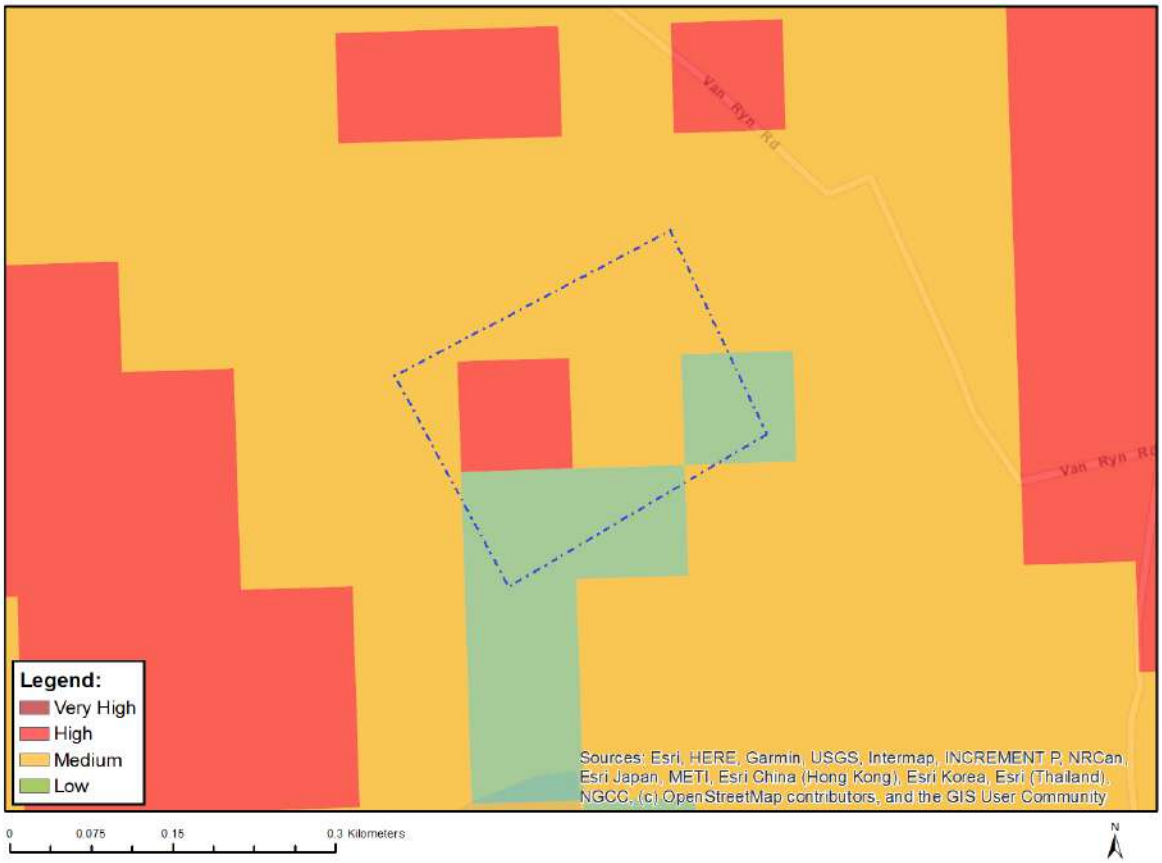
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requir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

		otocols.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	Radioactivity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
9	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
10	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
11	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
12	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
13	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

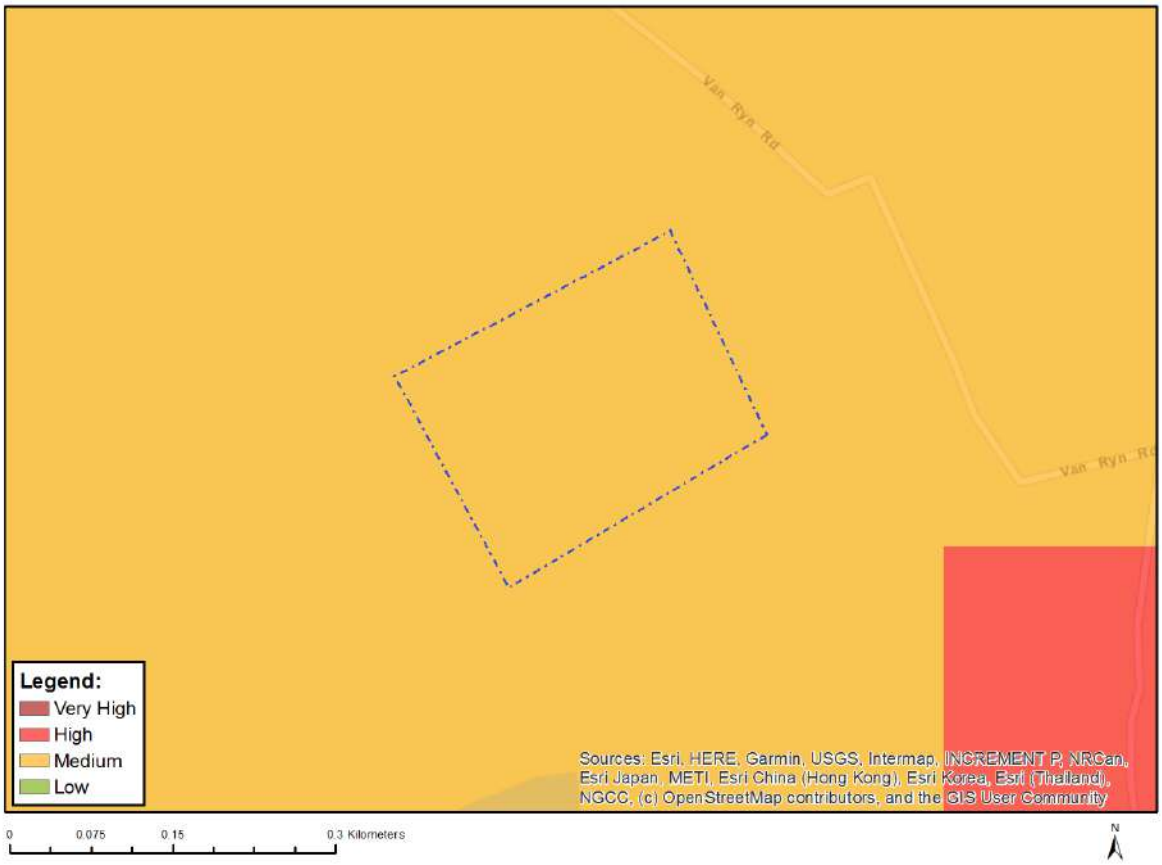


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
Low	Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
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	Insecta-Lepidochrysops procera
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Dasymys robertsii
Medium	Mammalia-Hydrictis maculicollis
Medium	Mammalia-Ourebia ourebi ourebi
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

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

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

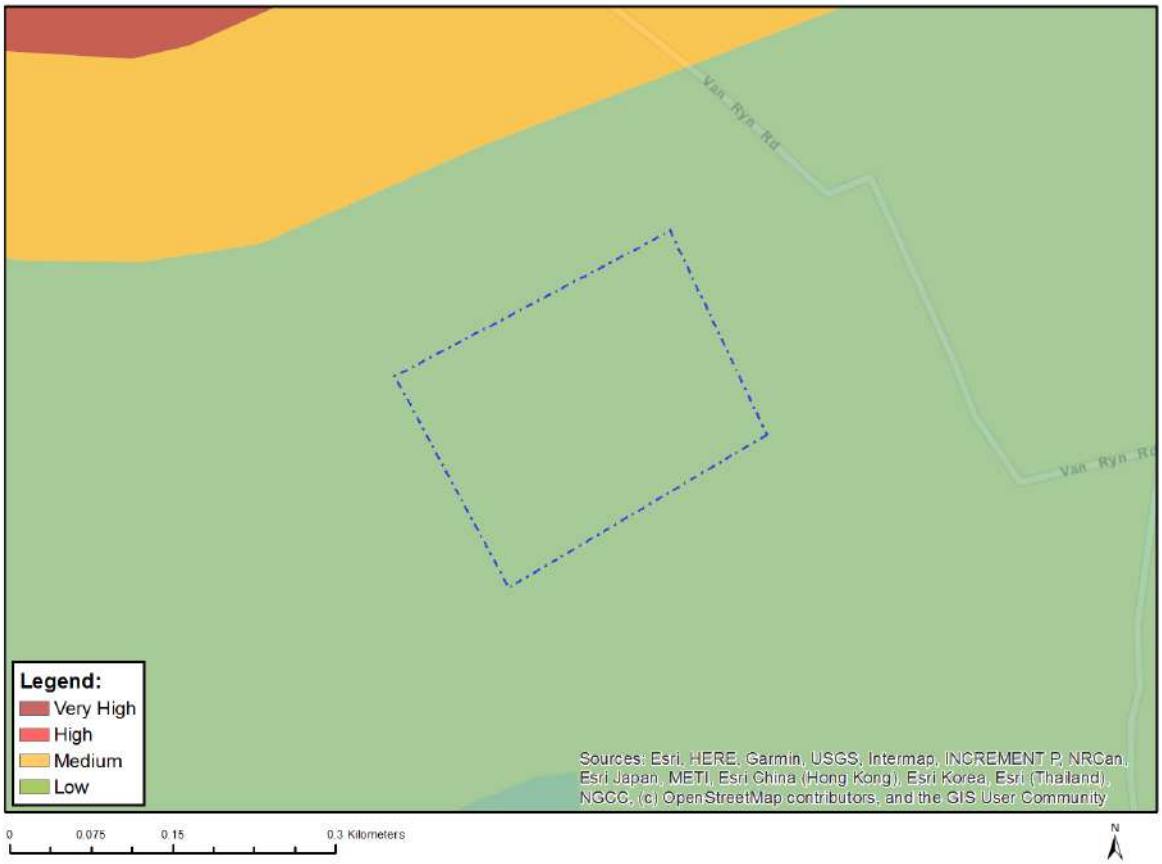
MAP OF RELATIVE DEFENCE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

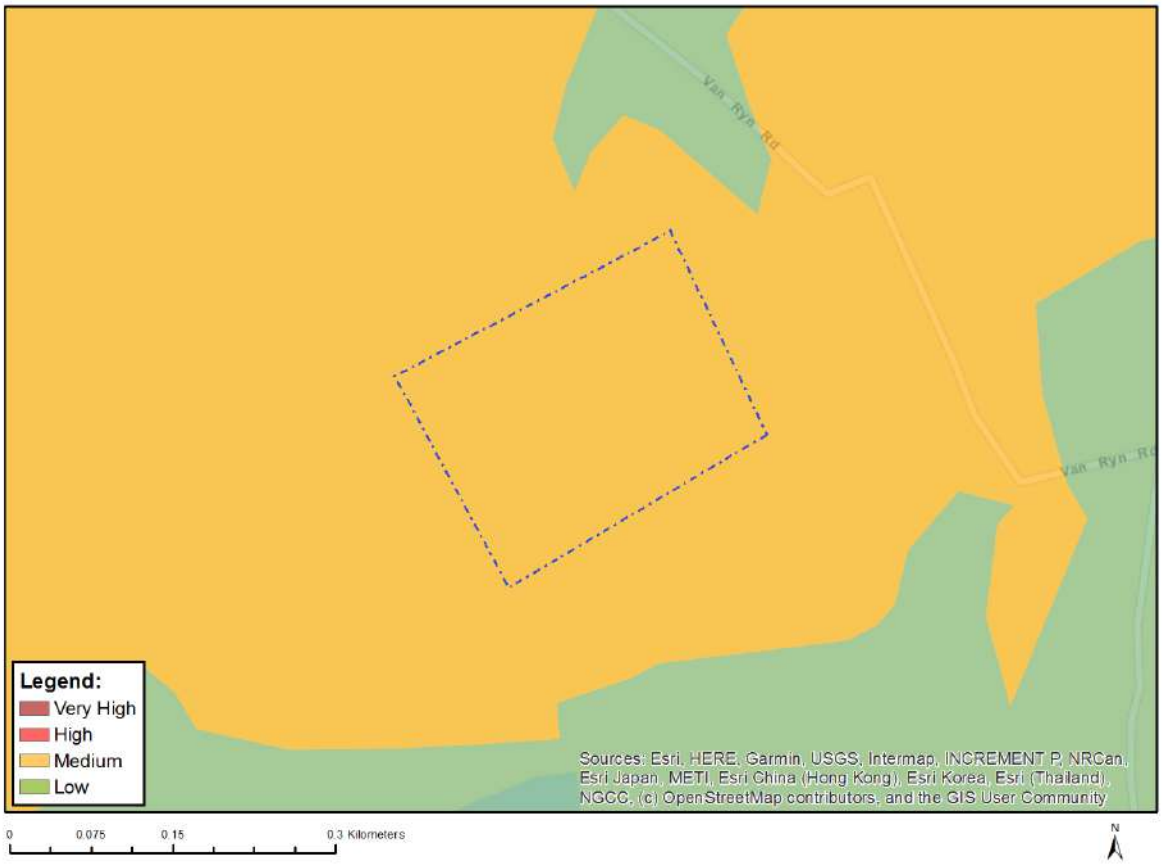


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

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

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



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	Sensitive species 1252
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	ESA 2
Very High	VU_Soweto Highveld Grassland