BOKONI PLATINUM MINE PROPOSED EXPANSION PROJECT

DRAFT SCOPING REPORT

Report Prepared for

African Rainbow Minerals

African Rainbow Minerals

DMRE Ref: LP 30/5/1/2/59 MR & LP 30/5/1/2/65 MR

Report Number: 590847_Expansion Project

Report Prepared by

srk consulting

April 2023

BOKONI PLATINUM MINE: PROPOSED EXPANSION PROJECT

DRAFT SCOPING REPORT

African Rainbow Minerals

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SRK Project Number 590847

April 2023

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Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (South Africa) (Pty) Ltd (SRK) by African Rainbow Minerals (ARM). SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which SRK had no prior knowledge nor had the opportunity to evaluate.

mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

DRAFT SCOPING REPORT – EXPANSION PROJECT

INTEGRATED SCOPING REPORT FOR PUBLIC COMMENT FOR PROPOSED BPM EXPANSION PROJECT AT THE BOKONI PLATINUM MINE, LIMPOPO

DMRE Ref: LP 30/5/1/2/59 MR & LP 30/5/1/2/65 MR

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

NAME OF APPLICANT: African Rainbow Minerals (ARM) – Bokoni Platinum Mine (BPM)

TEL NO: 015 620 0000

FAX NO: 015 620 0297

POSTAL ADDRESS: PO Box 1, Atok, 0749

PHYSICAL ADDRESS: 1 Stand Road, Atok, Limpopo, 0749 (Off the R37 road, halfway between Polokwane & Burgersfort)

FILE REFERENCE NUMBER SAMRAD: LP 30/5/1/2/59 MR & LP 30/5/1/2/65 MR

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 taken into account 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 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.

OBJECTIVE OF THE INTEGRATED SCOPING PROCESS

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

a) identify the relevant policies and legislation relevant to the activity;

b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;

c) identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;

d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;

e) identify the key issues to be addressed in the assessment phase;

f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and

g) identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

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List of Abbreviations

ARM	African Rainbow Minerals
AMSL	Above mean sea level
AoI	Area of Influence
BA	Basic Assessment
BAR	Basic Assessment Report
BPM	Bokoni Platinum Mine
CBA	Critical Biodiversity Area
CPI	Consumer Price Index
DEA	Department of Environmental Affairs
DFFE	Department of Forestry, Fisheries and the Environment
DFO	Dust Fallout
DMRE	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EEI	Ecological Importance
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ES	Ecological Sensitivity
ESA	Ecological Support Areas
FEPA	Freshwater Ecosystem Priority Area
I&APs	Interested and Affected Parties
IDP	Integrated Development Plan
IEM	Integrated Environmental Management
IFC	International Finance Corporation
ktpm	Kilo tons per month
LEDET	Limpopo Department of Economic Development Environment and Tourism
LoM	Life of Mine
mamsl	Metres above mean sea level
MPRDA	Mineral and Petroleum Resources Development Act (Act 28 of 2002) (as amended)
NAAQS	National Ambient Air Quality Standards
NBA	National Biodiversity Assessment
NEMA	National Environmental Management Act (Act 107 of 1998) (as amended)
NEM:AQA	National Environmental Management: Air Quality Act (Act 39 of 2004)
NEM:BA	National Environmental Management: Biodiversity Act (Act 10 of 2004)
NFEPA	National Freshwater Ecosystem Priority Area
NHRA	National Heritage Resources Act, 1999 (Act 25 of 1999)
NWA	National Water Act, 1998 (Act No 36 of 1998)
PAIA	The Promotion of Access to Information Act (Act 2 of 2000)
PCLU	Post Closure Land Use
PGM	Platinum Group Metal
POPIA	Protection of Personal Information(Act 4 of 2013)
PSSA	Palaeontological Society of South Africa
RDL	Red Data Listed
RWD	Return Water Dam
SAIIAE	South African Inventory of Inland Aquatic Ecosystems
SAS	Scientific Aquatic Services CC
SASS	Stream Assessment Scoring System
SCC	Species of Conservation Concern
SHERQ	Safety, Health, Environment, Risk & Quality
SIA	Social Impact Assessment
SP	Social Performance
SRK	SRK Consulting (South Africa) (Pty) Ltd (SRK)
TA	Traditional Authority
TOPS	Threatened or Protected Species
TSF	Tailings Storage Facility
VU	Vulnerable
WMA	Water Management Area
WRD	Waste Rock Dump
WUL	Water Use Licence

Units of Measurement

Mbs	Meters below surface
Ktpm	Kilo tons per month

1 Introduction and Scope of the Report

Bokoni Platinum Mine (BPM) is approximately 80 km south-east of Polokwane on the regional road R37 in the Limpopo Province fall within the jurisdiction of the Greater Sekhukhune District Municipality (GSDM) and the Fetakgomo Tubatse Local Municipality (FTLM) in Limpopo. Refer to Figure 1-1. African Rainbow Minerals (ARM) acquired the BPM in 2022. BPM has been under care and Maintenance since 2017. ARM intends to resume operations as soon as practically possible whist planning for the mine's expansion in the near future.

ARM is therefore considering two projects namely the **Early Start-Up Project** and the **BPM Expansion Project**. These two projects will require two different Environmental Authorisation (EA) processes for which BPM have appointed SRK Consulting Pty (Ltd) South Africa (SRK) as the Environmental Assessment Practitioner (EAP) to complete the required Environmental Authorisation (EA) and public participation processes.

The **Early Start-Up Project** will require a Basic Assessment process in terms of Appendix 1 of the National Environmental Management Act 107 of 1998 (NEMA) Environmental Impact Assessment (EIA) Regulation (2014), as amended. The **BPM Expansion Projec**t will require a Scoping and Environmental Impact Assessment (S&EIA) process in terms of Appendix 2 and 3 in terms of NEMA EIA Regulations, as amended. In addition to the S&EIA a Water Use Licence (WUL) in terms of the National Water Act 36 of 1998 (NWA) is also required as part of the BPM Expansion Project. It is proposed that these two processes be run as separate processes concurrently with one public participation process (refer to the figure above).

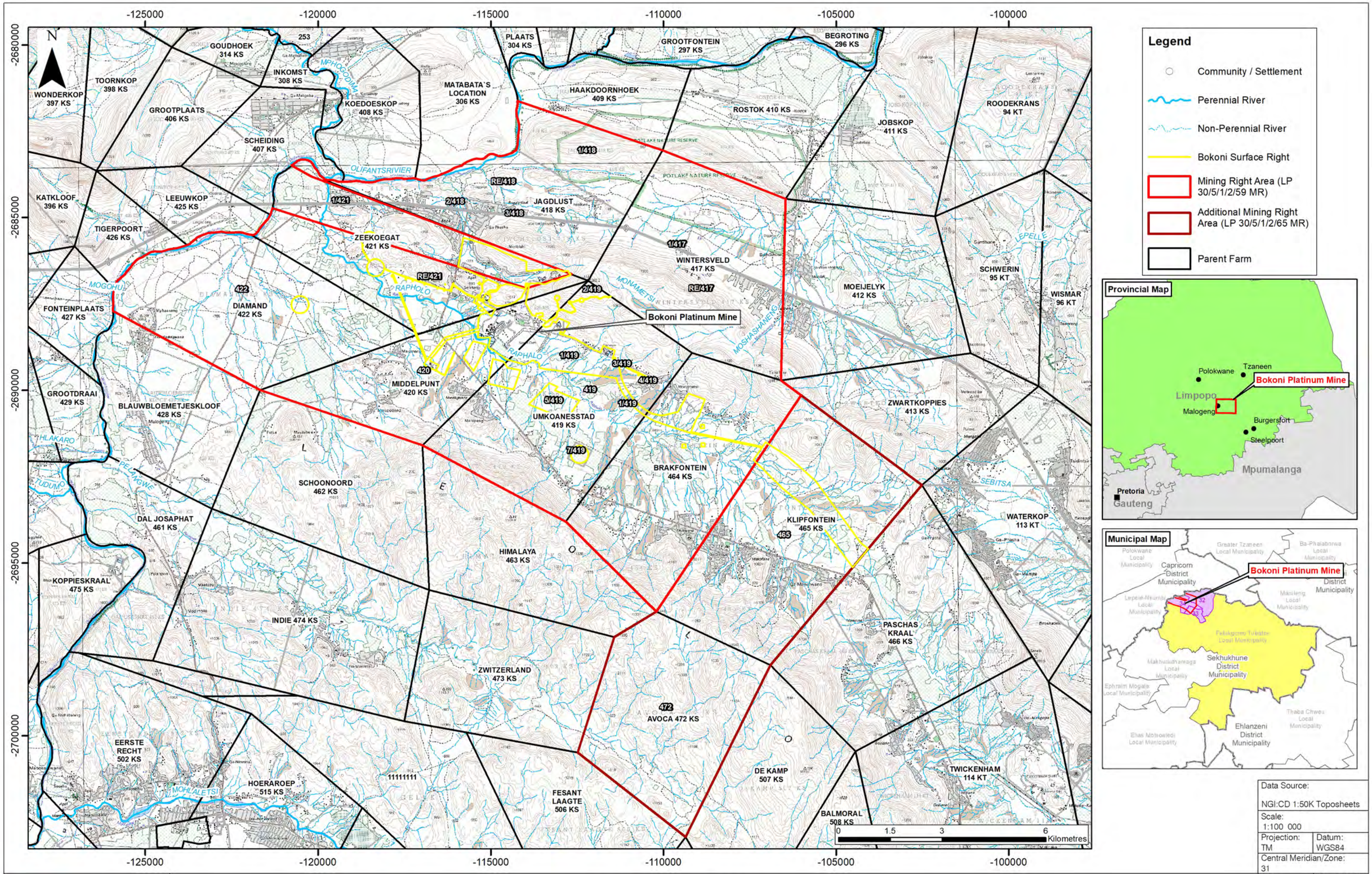
ARM intends to apply for the necessary authorisation from the Department of Mineral Resources and Energy (DMRE) to commence with the **Early Start-Up Project** whilst applying for the necessary authorisation and licenses associated with the **BPM Expansion Project** that would require authorisation from the DMRE and the Department of Water and Sanitation (DWS).

This report deals with the **BPM Expansion Project** and serves as the **draft Scoping Report** for public review.

The proposed Expansion Project will consist of the following new activities and associated infrastructure which will be placed within the existing mining right (MR) and surface lease areas of BPM.

- **Open pit areas**: UG2 (four pits) and Merensky (three pits);
- **Additional pollution control dams/settling dams**: associated with the open pits, where needed;
- **Waste rock dumps**: to be located near the open pit areas;
- **Supporting infrastructure:** Contractor's laydown areas, site offices, water management structures, access and haul roads, pipelines and powerlines and associated infrastructure;

The location of the proposed expansion project infrastructure is provided in Figure 1-2, whilst further details are provided in Section 5.



Legend

- Community / Settlement
- Perennial River
- Non-Perennial River
- Bokoni Surface Right
- Mining Right Area (LP 30/5/1/2/59 MR)
- Additional Mining Right Area (LP 30/5/1/2/65 MR)
- Parent Farm

Data Source: NGI:CD 1:50K Toposheets	
Scale: 1:100 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 31	
Date: 06/04/2023	Compiled by: LEKT
Project No: 590847	Fig No: 1-1
Revision:	Date:

srk consulting

BOKONI PLATINUM MINE

BPM LOCALITY MAP

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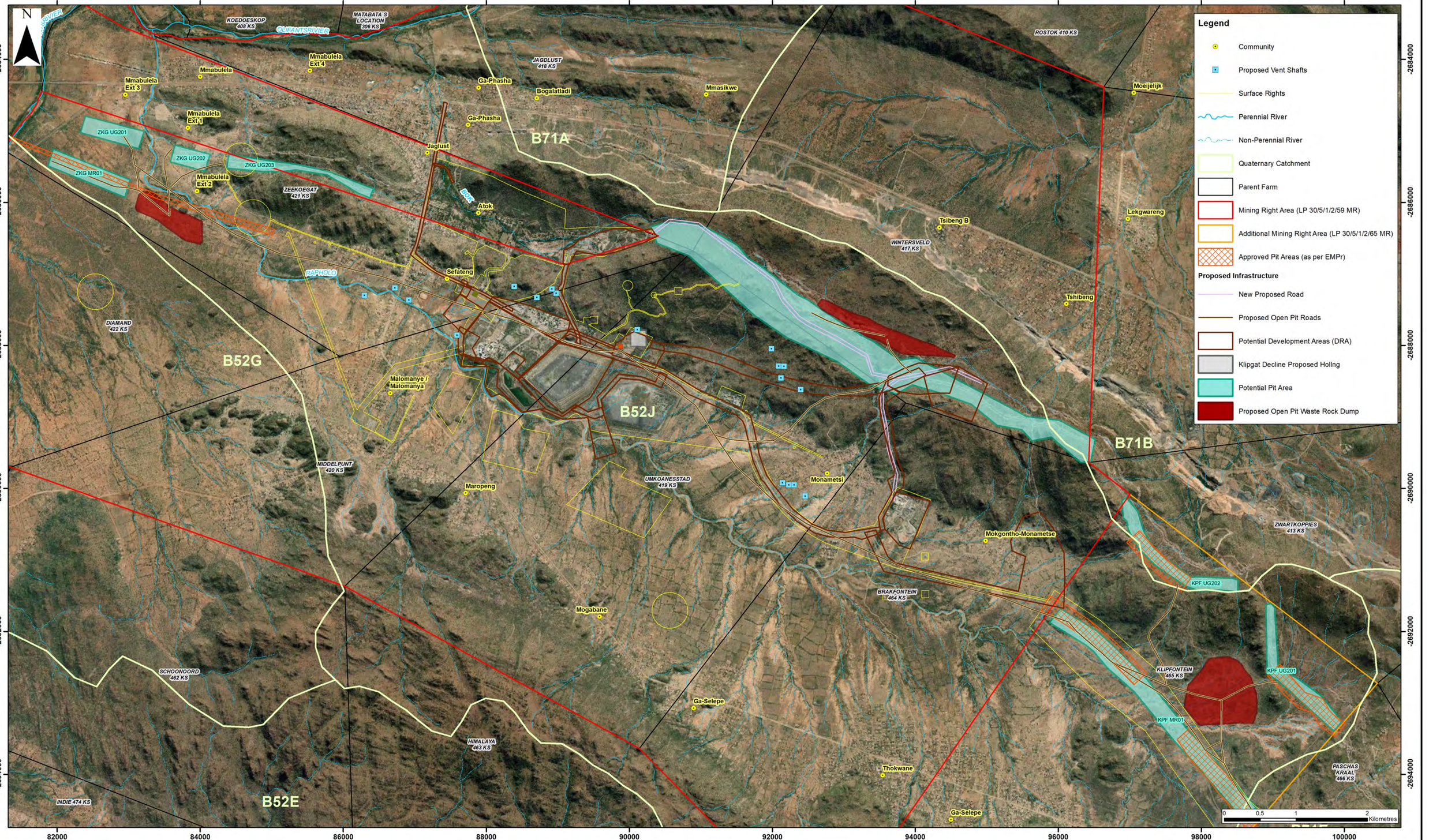

REV	DR	CH	DATE	DESCRIPTION
REV	DR	CH	DATE	REV-NOTE

REFERENCE DRAWINGS	
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NOTES :

Datum: WGS84

Projection: TM

Central Meridian / Zone: 29

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CESA Consulting Engineers South Africa

TITLE:

BOKONI PLATINUM MINE

LOCATION OF THE PROPOSED EXPANSION PROJECT INFRASTRUCTURE

CLIENT: ANGLO PLATINUM

		DATE	CHECKED
DESIGNED	LOUA	14 04 2023	MNEM
DRAWN	MNEM	00 00 2017	MNEM
A2	SCALE :	1:35 000	

PROJECT NO.	DRG NO.	SHT REV
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Before BPM can commence with development of the proposed Expansion Project's authorisations and licences in terms of the following national legislation need to be obtained:

- The Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA): For any amendments to the EMPr in accordance with Section 102 of the MPRDA;
- The NEMA: For any project-related listed activities stipulated in the NEMA EIA Regulations of 2014, as amended in 2017;
- The NWA: For any project related water uses stipulated under Section 21 of NWA.

Refer to Section 6 for additional detail on each legislative requirement for the project.

The proposed BPM Expansion Project will require a full S&EIA process as part of an integrated Environmental Authorisation (EA) process, to obtain authorisation from the DMRE in respect of NEMA. ARM will also need to undertake a Water Use Licence Application (WULA) process in order to obtain authorisation from DWS in respect of the water uses that the proposed BPM Expansion Project will trigger. The WULA will be undertaken in accordance with the NWA. Furthermore, a Section 102 application in terms of the MPRDA, will be required since the Expansion Project will require the mine to update the mine's Mine Work Programme and amend the Environmental Management Programme (EMPr).

SRK were appointed by BPM as the independent EAP to manage and facilitate the integrated EA and associated public participation process.

1.1 Background

The Merensky reef has been mined at BPM since the 1960s and the UG2 reef since 1998 via underground and open pit mining operations. BPM is situated on portions of the farms Jagdlust 418 KS, Wintersveld 417 KS, Zeekoegat 421 KS, Diamand 422 KS, Middelpunt 420 KS, Umkoanesstad 419 KS, Brakfontein 464 KS, Klipfontein 465 KS and Avoca 472 KS.

BPM has been operating under two Converted Mining Rights namely LP 30/5/1/2/59 MR LP 30/5/1/2/65 MR covering various farms as indicated in which also include information relating to the ownership (Table 1-1). Highlighted farm portions indicate the farms which will be affected by the Expansion Project. The BPM mining rights area extends over approximately 17 000 ha, from the historical Merensky shaft in the west to the opencast operations in the east running parallel to the R37.

According to ARM, BPM can support a life-of-mine plan that is estimated to be more than 40 years.

Table 1-1: BPM Mining Right Areas

New Order Licence Mining Right	Property	Owner
LP 30/5/1/2/59 MR (Converted Mining Right)	Umkoanesstad 419 KS	Government of Lebowa
	Middelpunt 420 KS	The National Government of the Republic of South Africa
	Diamand 422 KS	The National Government of the Republic of South Africa
	Zeekoegat 421 KS	The National Government of the Republic of South Africa
	Brakfontein 464 KS	Republiek van Suid Afrika
	Klipfontein 465 KS	Ga-Manotwane Community Development Trust
	Avoca 472 KS	The National Government of the Republic of South Africa
	Brakfontein 464 KS	Republiek van Suid Afrika
LP 30/5/1/2/65 MR	Wintersveld 417 KS	Samancor Chrome Limited

New Order Licence Mining Right	Property	Owner
(Converted Mining Right)	Jagdlust 418 KS Remaining Extent	Government of Lebowa
	Jagdlust 418 KS Portion 1	Samancor Chrome Limited

The surface lease area includes portions of the following farms: Umkoanesstad 419 KS, Middelpunt 420 KS, Brakfontein Farm 464 KS, Zeekoegat 421 KS and Diamand 422 KS. These farms form part of the current mining authorisation. The state holds the titles of the farms in a trust for the Bapedi Kingdom, Baroka Ba-Nkwana and the Ga-Selepe Traditional Authorities with portions of Brakfontein farm occupied by the Baroka-Ba-Selepe and Tlou-Maesela communities.

Existing land claims are registered against Middelpunt 420KS RE, Umkoanesstad 419KS RE, Zeekoegat RE, Diamand 422KS RE, Brakfontein 464KS RE, Jagdlust 418KS RE Portion 1 and Portion 2, and Klipfontein 465KS Remaining Extent. The status of these land claims is still pending, based on the outcomes of SRK request for information from the Department of Agriculture, Land Reform and Rural Development.

1.2 Objective of this Report

This draft Scoping Report (DSR) has been compiled in terms of the provisions of Appendix 2 of the NEMA EIA Regulations of 2014, as amended in 2021 (Government Notice Regulation (GNR) 982) as well as the requirements of the scoping report template issued by the DMRE. A summary of the requirements of a scoping report including cross-references to sections in this report where these requirements have been addressed is provided in Table 1-2.

This report is titled "Draft Scoping Report: Bokoni Platinum Mine Expansion Project" and fulfils the requirements for a scoping report as contemplated in the NEMA EIA Regulations, as amended. All comments received during the review period of the Scoping Report will be incorporated into the Final Scoping Report (FSR), which will be submitted to the DMRE, as the competent authority, for consideration.

Table 1-2: Structure of the Expansion Project' Draft Scoping Report

Regulation requirement	Section Reference
(a) Details of – (i) The EAP who prepared the report and (ii) The expertise of the EAP, including a CV	**Section 2 Appendix A**
(b) The location of the activity, including – (i) The 21-digit Surveyor General code of each cadastral land parcel (ii) Where available, the physical address and farm name (iii) Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property or properties	**Section 4**
(c) A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is – (i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken or (ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken	**Section 5,**
(d) A description of the scope of the proposed activity, including – (i) All listed and specified activities triggered (ii) A description of the activities to be undertaken, including associated structures and infrastructure	**Section 2.3**
(e) A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process	**Section 6**
(f) 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	**Section 8**
(g) A full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including -	**Section 9**
(i) details of the alternatives considered	**Section 10-1 to 10-4**
(ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copes of the supporting documents and inputs;	**Section 11**
(iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	**Section 11.6**
(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	**Section 12**
(v) the impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts – (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed or mitigated;	**Section 13 and Table 13-1**

Regulation requirement		Section Reference
(vi)	the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	**Section 14**
(vii)	positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	**Section 14 and 15**
(viii)	the possible mitigation measures that could be applied and level of residual risk;	**Section 16**
(ix)	the outcome of the selection matrix	**Section 17**
(x)	if no alternatives, including alternative locations for the activity were investigated, the motivation for no considering such; and	**Section 18**
(xi)	a concluding statement indicating the preferred alternatives, including preferred locations of the activity;	**Section 19**
(h)	a plan of study for undertaking the environmental impact assessment process to be undertaken, including –	**Section 20**
(i)	A description of the alternatives to be considered and assessed within the preferred site	**Section 10 and 20.1**
(ii)	A description of the aspects to be assessed as part of the environmental impact assessment process	**Section 20.2**
(iii)	Aspects to be assessed by specialists	**Section 20.3**
(iv)	A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists	**Section 20.4**
(v)	A description of the proposed method assessing duration significance	**Section 20.5**
(vi)	An indication of the stages at which the competent authority will be consulted	**Section 20.6**
(vii)	Particulars of the public participation process that will be conducted during the environmental impact assessment process	**Section 21**
(viii)	A description of the tasks that will be undertaken as part of the environmental impact assessment process	**Section 21.3**
(ix)	Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored	**Section 22**
(i)	**An undertaking under oath or affirmation by the EAP in relation to –** (i) The correctness of the information provided in the report (ii) The inclusion of comments and inputs from stakeholders and interested and affected parties (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties	**Section 25**
(j)	**An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment**	**Section 26**
(k)	**Where applicable, any specific information required by the competent authority**	**Section 23**
(l)	**Any other matter required in terms of section 24(4)(a) and (b) of the Act**	**Section 24**

2 Application Details

SRK has been appointed by ARM as the independent EAP to undertake the necessary EA processes and associated stakeholder engagement process to meet the requirements of NEMA.

2.1 Environmental Assessment Practitioner Details

The details of the EAPs involved in the compilation of this DSR are provided in Table 2-1.

Table 2-1: EAP contact details

EAP Name	Contact Number	Email Address
Evert Jacobs	011 441 1111	EJacobs@srk.co.za
Michelle Miles	011 441 1111	MMiles@srk.co.za

2.1.1 Qualification of the EAP

The qualifications of the EAPs are provided in Table 2-2, and copies of the qualifications are provided in Appendix A.

Table 2-2: EAP qualifications

EAP Name	Qualifications	EAPASA Registration	SACNASP Registration	Years' Experience
Evert Jacobs	M.Sc. (Ecology)	2019/1992	400128/10	20
Michelle Miles	B.Sc. Hons (Environmental Water Management)	2020/1057	-	8

2.1.2 Summary of EAP's past experience

The EAPs' expertise is provided for in Table 2-3. Detailed curricula vitae (CVs) of the project team are provided in Appendix A.

Table 2-3: EAP expertise

EAP Name	Expertise
Evert Jacobs	Evert is an Environmental and Social Specialist, involved in management of environmental development projects, for more than 17 years. Throughout his career he has gained extensive experience in very large infrastructure, mining, and energy projects, specifically in guiding developments from concept phase through to execution and construction management. This included the integration of ESIA commitments into the project life cycle process including operational preparedness and performance against the issued Environmental License, international and corporate standards. Evert's experience in the last 12 years has focused on integration of environmental management into the project life cycle to entrench environmental sustainability into projects (both Greenfields and brownfields). Evert is a registered Environmental Assessment Practitioner with Environmental Assessment Practitioners Association of South Africa (EAPASA) and a Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP).
Michelle Miles	Michelle has 8 years' experience within the environmental science and management field. She has been involved in a various aspects of projects ranging from concept studies through to environmental construction management. Michelle has experience in conducting environmental legal reviews as well as environmental permitting processes such as Environmental Impact Assessments and Basic Assessments. Her experience includes environmental permitting and acting as an environmental advisor for environmental design requirements, environmental screenings and environmental compliance auditing. Michelle has worked on large infrastructure and mining projects throughout her career. This includes working on various Engineering, Procurement, Management and Construction (EPCM) projects ranging from concept level projects to execution project. Michelle is a registered Environmental Assessment Practitioner with EAPASA.

2.2 Proponent / Applicant Details

The physical and postal address of BPM, as the applicant, is provided in Table 2-4 and details of the responsible persons at ARM-BPM are presented in Table 2-5.

Table 2-4: Physical and postal address for Bokoni Platinum Mine

Address	Details
Name of Applicant	Bokoni Platinum Mines (Pty) Ltd
Contact No.	015 620 0000
Physical address:	1 Stand Road, Atok, Limpopo
Postal address:	P.O. Box 1, Atok, 0749

Table 2-5: ARM-BPM responsible persons

Name	Designation
Morrison Maseko	ARM's Project Manager
Thabo Mokoena	ARM's Project Engineer Mining
Amukelani Mudau	ARM's Executive SHREQ Manager
Mmamokhethi Monnapula	ARM's Process Engineer
Mrs Lesego Mathews	BPM's Head of Department: Safety, Health, Environment, Risk and Quality
Mr Jerry Maimela	BPM's Environmental & Ventilation, Occupational Hygiene Engineering Superintendent

2.3 Details of specialists

The EAP has worked closely with specialists to determine the baseline conditions which will assist in identifying risks and impacts associated with this project. The EAP therefore has extensive knowledge of the site as well as the relevant studies required to inform the S&EIA process. The specialists and their associated specialist fields who undertook the specialist studies, specific to the project areas, are presented Table 2-6. The areas which will potentially be impacted on by the proposed infrastructure and activities associated with the Expansion Project is described in Section 12.

Table 2-6: Specialist studies undertaken for the Bokoni Expansion project

Specialist study	Appointed Specialist
Air Quality	Airshed Planning Professionals
Blasting and vibration opinion	Blast Management & Consulting
Terrestrial and aquatic biodiversity	SAS Environmental Group of Companies
Freshwater and Wetland	SAS Environmental Group of Companies
Groundwater	Digby Wells
Heritage	Archaetnos
Hydropedology	SAS Environmental Group of Companies
Noise	Airshed Planning Professionals
Closure	SRK Consulting (Pty) Ltd
Surface water	SRK Consulting (Pty) Ltd
Socio-Economic	SRK Consulting (Pty) Ltd
Traffic	Koleko Transportation Engineering and Planning
Visual	Digby Wells

The specialists will compile their reports in accordance with the requirements stipulated in Appendix 6 of the NEMA EIA Regulations of 2014 (as amended). Specialist impact assessments will be provided in more detail in the draft EIA/EMPr Report as part of the EIA process following the Scoping phase.

2.4 Provincial authorities' details

Environmental authorisation is required from the DMRE. The official detail's who has been assigned to this project are provided in Table 2-7. The screening report is included in Appendix B.

Table 2-7: Competent authority details

Department	Contact Person
DMRE: Limpopo Province	Mr Thivhulawi Kolani

2.5 Municipality and ward details

The Bokoni Platinum Mine is situated within the FTLM, which forms part of the GSDM in the Limpopo Province. BPM is situated in Ward 32, 33 and 34 of the FTLM. Details of the relevant municipalities, wards and contact persons are provided Table 2-8.

Table 2-8: Local and district municipality details

Municipality	Contact Person	Designation
Greater Sekhukhune District Municipality	Ms Molatelo Mabitsela	Director: Planning & Economic Development
Fetakgomo Tubatse Local Municipality	Mr Mathebula MA	Director: Development Planning
Fetakgomo Tubatse Local Municipality	Mr Phasha Matime	Ward Councillor (Ward 32)
Fetakgomo Tubatse Local Municipality	Mr Mathipa Moffat	Ward Councillor (Ward 33)
Fetakgomo Tubatse Local Municipality	K.M.L. Thobela	Ward Councillor (Ward 34)

3 Existing infrastructure and activities

The mine was placed on care and maintenance during 2017 prior to the acquisition of BPM by ARM. During the care and maintenance phase, production at the mine stopped but the mine continued to undertake certain environmental management activities as required to meet the obligations of and ensure compliance with current authorisations.

Table 3-1 provides a summary of the key operational activities and existing infrastructure associated with BPM. The existing key infrastructure is shown in Figure 3-1.

Table 3-1: Overview of BPM's activities and existing infrastructure

Aspect	Description
Mining and beneficiation	
Mining via underground operations	• Shaft operations during care and maintenance were limited to dewatering and rehabilitation of hydrocarbon contaminated soils at Brakfontein shaft. The operational shafts (declines) prior to care and maintenance are as follows: o Middelpunt Hill shaft: mines UG2 ore (60 to 80 kilo tons per month (ktpm)) from main portal and Adits 1 and 2. o Brakfontein shaft: mines Merensky ore up to 120 ktpm. • The defunct shafts are as follows: o Middelpunt Hill adits – Adits 3 and 4 are decommissioned and sealed. o UM1 and Merensky incline shafts (older shafts already on care and maintenance prior to October 2017): only dewatering occurs at these shafts. o Vertical shaft since 2015 and UM2 incline shaft since 2012. • There are workshops situated at each of the shafts.
Mining via opencast operations	• The Klipfontein open cast operation comprised of a series of open pits together with access and haul roads. • The opencast operation was initiated in 2012/13 with full mining commencing in 2014 to exploit the upper reaches of the Merensky reef down to a depth 40 metres below surface (mbs) initially and then extended to 90 mbs. • Backfill and topsoiling of the mined southeast pits was completed in December 2017. • The mined ore was transported by haul truck to the existing concentrator plants on the farm Middelpunt 420 KS.
Beneficiation	• Up to May 2018, stockpiled ore from the shafts and pits and ore from other mines was processed in the concentrator plants, situated west of vertical shaft. This has however ceased for the care and maintenance period. • During operational conditions the following applies: o A total of 160 ktpm can currently be processed through the two plants. o A metal concentrate is produced by means of crushing, milling and flotation. o The concentrate was sold to Anglo American Platinum and then sent to Polokwane Smelter via road for smelting and to Rustenburg for refining in the Rustenburg Platinum Mines Base Metals and Precious Metals Refineries. o Tailings from the concentrator plants is disposed on the existing Tailings Storage Facilities (TSFs) described below.
Water supply	• Water for potable purposes at the mine is currently sourced from the Olifants Wellfield and treated via on-tap filtration units for drinking purposes. • Brakfontein shaft can be supplied with both Olifants and Merensky water. The Merensky pipeline has been temporarily diverted to the TSF solution trench during care and maintenance to minimise overflows from Brakfontein shaft. • The Olifants supply caters for the Atokia Village to the north of the mining area, which prior to care and maintenance, housed a population of approximately 700 people. A limited number of houses were occupied by BPM during care and maintenance and Bauba Mining Company is currently renting 60 houses in the village. • Mokgotho and Monametsi communities are receiving Olifants water supply via the mine. • Other surrounding communities are currently reliant on groundwater via local municipality supply boreholes, several of which are monitored and maintained by BPM. BPM is currently engaging with the GSDM and DWS to install a water treatment plant (WTP) for mine excess water to augment the Olifants wellfield supply to BPM and surrounding communities. Designs and costs are under discussion during the engagement with the Sekhukhune District Municipality. • Communities also source water from the Bok River and wells dug into the Rapholo River bed. • Water for the beneficiation process (when BPM is operational) is obtained from the pollution control dams (PCDs). • Water for dust suppression and irrigation is also obtained from the PCDs and assisted with optimising process water reuse and recycling during care and maintenance.
Water and waste management systems	

Aspect	Description
Topsoil/ore stockpiles	• There are topsoil stockpiles at the concentrator. • There are currently no ore stockpiles as the ore has been processed and no production is occurring during care and maintenance. • A mixed topsoil and overburden stockpile is located at the Brakfontein vent shaft area. • Topsoil stockpiles in the opencast area have been used in rehabilitation of the opencast pits.
Waste rock	• Waste rock during operations is disposed on waste rock dumps (WRDs) at the shafts as follows (no deposition occurred during care and maintenance): • Vertical (receiving waste rock from Middelpunt Hill prior to care and maintenance as UM1 has exceeded its capacity) • Brakfontein (operational prior to care and maintenance) • UM1 (received waste rock from Middelpunt Hill) • UM2 (dormant, partially used in the crusher operations) • Klipfontein open cast (formerly five dumps used in concurrent backfill; only footprints remain. • Reuse of mine waste rock from Vertical and UM2 waste rock dumps occurs via the community-based crusher plant situated near the mine offices.
Tailings storage facilities	• There are two existing TSFs at BPM, for disposal of tailings generated during the beneficiation process, namely the Consolidated TSF (TSF 1 to 5 with infill) and TSF No.6: • The Consolidated TSF was previously referred to as the Merensky or old tailings dam. • TSF No. 6 was previously referred to as the UG2 or new tailings dam. • Tailings return water is contained in a three-compartment return water dam (RWD) – operational, stormwater and catchment/irrigation compartments. In-situ clay minimises seepage from the dams. It is planned to install an engineered liner at the RWDs as part of the proposed Expansion project.
Domestic and industrial waste	• Domestic waste generated within the mine lease area is disposed of at the licensed, local municipal land fill site. BPM's domestic waste disposal site on Middelpunt farm has reached capacity and use by the mine stopped in 2014. • Industrial waste, including wood, metal, plastics, tyres and mine equipment is sent to the salvage yard next to Vertical shaft to be sorted for recycling, to be sold as scrap or disposal. • Used oil is collected by a suitably qualified contractor for recycling. • Hydrocarbon contaminated soil was planned to be rehabilitated at Middelpunt Hill shaft in a dedicated rehabilitation area on hard standing. During care and maintenance this rehabilitation is taking place at Brakfontein shaft. Soil rehabilitation will require hands on management to rehabilitate the soils to the required standards in terms of the Norms and Standards.
Clean water diversion	• Cut-off trenches and berms divert clean stormwater away from the mining (dirty) area. • Additional stormwater measures were implemented in 2011.
Dirty (waste) water containment	• Excess underground water from the shafts is pumped to settling dams on surface and then stored in Erichsen dams at the shafts for reuse during the operational phase. During care and maintenance this water is transferred to the TSFs' RWD. • Settled sludge is processed in the plant during operations. • Dirty water runoff from the shafts and waste rock dumps is either contained in pollution control dams or by containment berms at the older shafts and waste rock dumps. In some instances, there are no controls in place. The newer dams were largely completed in 2011 and are authorised in the current WUL. • Cut-off trenches collect water from the concentrator area and divert it to the concentrator plant RWDs. • Runoff water, decant and seepage from the TSF is contained in the TSF RWD.
Dirty water discharge and treatment	• Operational discharges no longer occur at BPM but incidental discharge during excess water situations do occur. • Due to limited reuse during care and maintenance seepage from unlined dams to the Rapholo River occurred. Options to reduce this seepage are included in the Integrated Water and Waste Management Plan (IWWMP) for the site.

Aspect	Description
	• Treatment is now being considered for desalination of process water to optimise reuse and protect plumbing fittings and equipment, respectively.
Sewage	• Sewage effluent generated on site is treated at one of the five authorised sewage treatment plants for reuse in the process or irrigation of gardens and sports fields. • The UM2 Sewage plant is no longer operational due to fire damage and only Vertical and Atokia Sewage Treatment Plants were in operation during care and maintenance. • Digested sludge is dried in sludge drying beds and disposed of at a hazardous landfill site. However, use in revegetation of the TSF should be considered subject to the sludge classification and NEM:WA regulations.
Other support infrastructure	
Accommodation	• Atokia Village. • Hostels and single accommodation villages.
Other	• Change houses situated at the shafts. • Main office block. • Training centre. • Security block. • Atokia Village golf course.

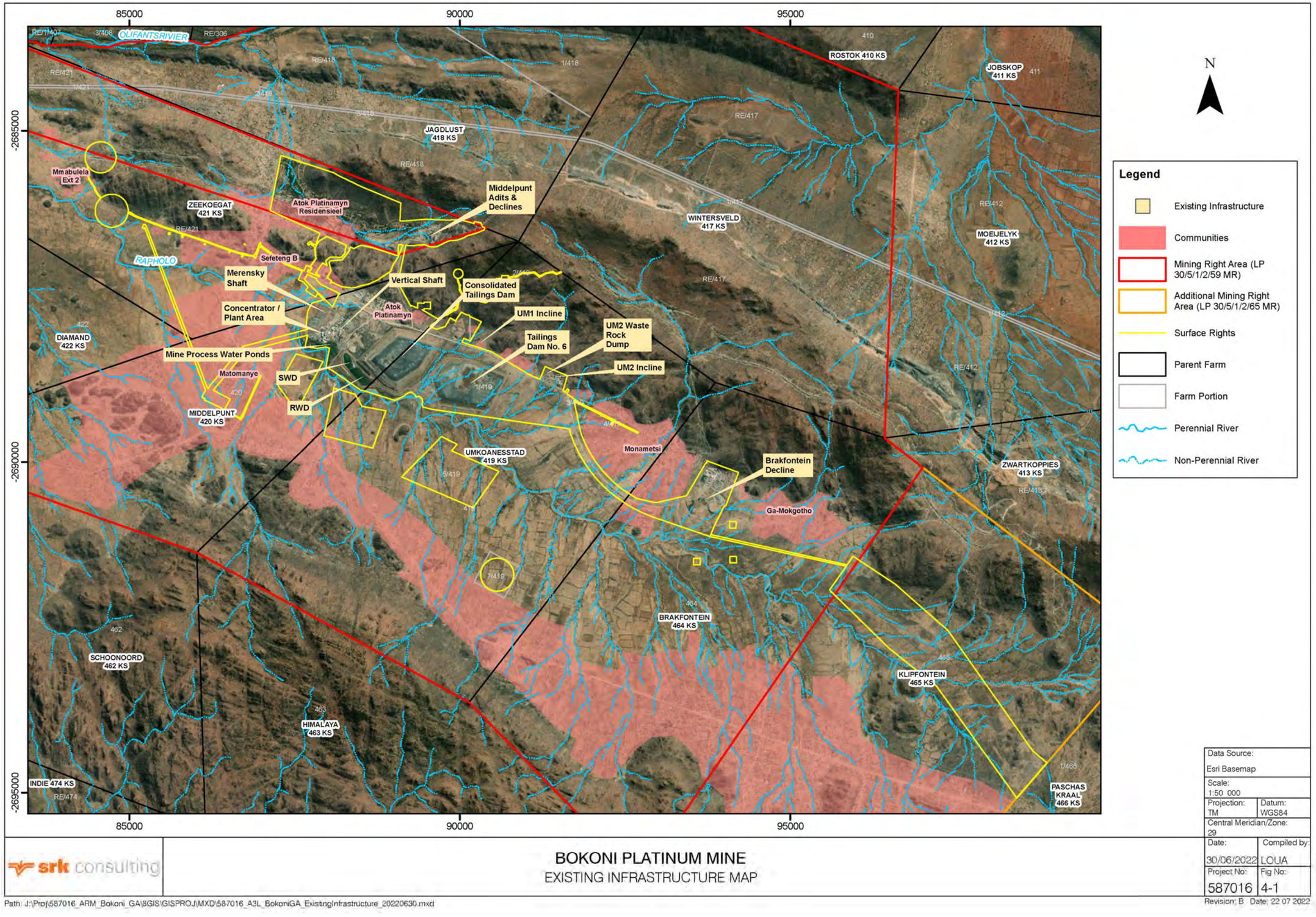


Figure 3-1: Existing infrastructure at the Bokoni Platinum Mine

3.1 Existing Authorisations, licenses, approvals and permits

BPM is operating under various authorisations and licences which is provided in the sections below.

3.1.1 Environmental authorisations in terms of NEMA and MPRDA

BPM operates under a consolidated Environmental Management Programme (CEMP) (approved on 10/12/2013) as well as an EA for the Rapholo River rehabilitation and water treatment plant project (approved in 2022).

3.1.2 Authorisations in terms of NWA

BPM holds two integrated water use licences (IWULs) in terms of Section 21 of the NWA:

- Licence Number 03/B52J/ACGIJ/4638 issued 6/08/2016 (valid for 15 years) (2016 WUL) for open pit mining on Klipfontein farm;
- Licence Number 06/B52J/ACEFGIJ/11541 issued 15/03/2022 (valid for 10 years) (2022 WUL), which supersedes Licence Number 24013835 issued on 26/02/2011 (2011 WUL). The 2022 WUL is for underground mining and includes activities associated with water treatment and the Rapholo River rehabilitation project as well as certain existing Section 21 water uses which were not authorised as part of the 2011 WUL

3.1.3 Authorisations in terms of NEM:WA

BPM was issued a landfill decommissioning licence on 12 March 2014 by the Limpopo Department of Economic Development, Environment and Tourism (LDEDET) for the old landfill site on the farm Zeekoegat, Licence Number 12/4/10-A14/GS5. This facility has been closed and rehabilitated. No other waste management licences have been issued for BPM however BPM are a registered hazardous waste generator (registration number D12188-01 – 2018-03-14).

4 Description of the project property

The description of the properties affected by the proposed Expansion Project is provided in Table 4-1. The property information was obtained from WinDeed (included in Appendix C). The footprint area of the proposed Expansion Project will be located on portions of the farms Jagdlust 418 KS, Wintersveld 417 KS; Zeekoegat 421 KS; Middelpunt 420 KS; Umkoanesstad 419 KS; Brakfontein 464 KS; Klipfontein 465 KS. These footprints are within BPM mining right and surface lease areas (refer to Figure 1-1).

Table 4-1: Description of the property applicable to the proposed Expansion Project

Farm name	Portion	Project required infrastructure	Owner	Total area (ha)	21-digit Surveyor General code
Jagdlust 418 KS	Remaining Extent	• Upgrade of community road	Government of Lebowa	1375.0865	T0KS00000000041800000
Wintersveld 417 KS	Remaining Extent	• Open pit • Waste rock dump • Haul roads • Construction laydown area	Samancor Chrome Limited	2459.7515	T0KS00000000041700000
Zeekoegat 421 KS	Remaining Extent	• Open Pits • Waste rock dumps • Haul roads • Construction laydown area • Pollution control dams • Ventilations shafts including access/maintenance roads • Upgrade of the water treatment works • Supporting infrastructure	The National Government of the Republic of South Africa	2127.6897	T0KS00000000042100000
Middelpunt 420 KS	Portion 0	• Ventilations shafts • Ventilation access/maintenance roads • Upgrade of community roads • Development of mine roads	The National Government of the Republic of South Africa	1544.8853	T0KS00000000042000000
Umkoanesstad 419 KS	Portion 0	• Ventilations shafts including access/maintenance roads • Haul roads	Government of Lebowa	2212.4882	T0KS00000000041900000
Umkoanesstad 419 KS	Portion 1	• Upgrade of community road	Trustees of the Bapedi Tribe	300.3080	T0KS00000000041900001
Brakfontein 464 KS	Portion 0	• Main site offices • Construction laydown area • Haul roads • Upgrade of community and access roads • Supporting infrastructure	Republiek van Suid Afrika	2391.0433	T0KS00000000046400000
Klipfontein 465 KS	Portion 0	• Open pits • Waste rock dumps • Construction laydown area • Access and maintenance roads • Haul roads	Ga-Manotwane Community Development Trust	2841.8803	T0KS00000000046500000

5 Description of the scope of the proposed Expansion Project

The project description provided below is based on the engineering study phases currently under way. It should be noted that, at the time of writing this report, the information provided is current. However, some details may change during the course of the study but will be incorporated and captured in the draft EIA and EMPr reports, if and where needed.

It is the intention of ARM to optimally mine the ore at BPM that could support a life-of-mine plan of more than 50 years. In order for ARM to achieve this, various new activities and infrastructure will be required to expand the current operational activities and associated footprint. Where possible and practical, the mine will utilise existing infrastructure but will require additional infrastructure and activities to be undertaken as part of the proposed Expansion Project.

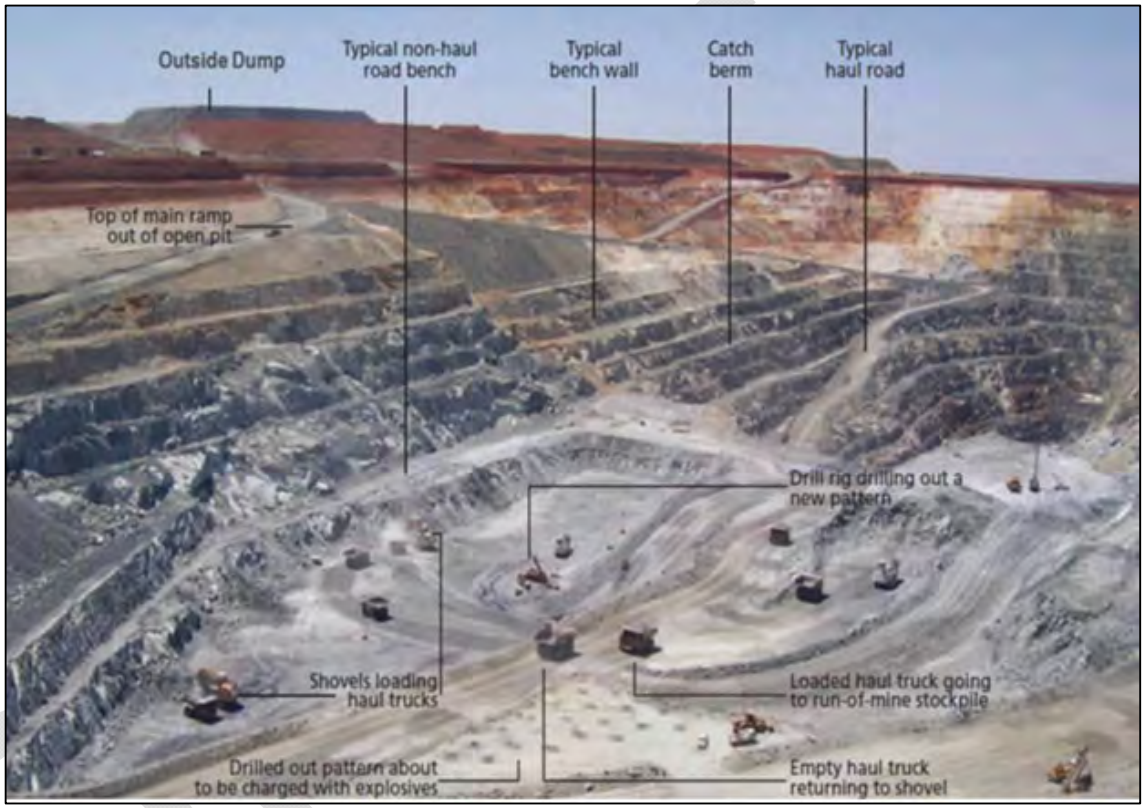
A description of the key proposed infrastructure required for the Expansion Project is provided in Table 5-1 and the locality of these proposed infrastructure is illustrated in Figure 5-1 in relation to the existing infrastructure.

- **Open pit areas**: UG2 (four pits) and Merensky (three pits);
- **Additional pollution control dams/settling dams**: associated with the open pits, where needed;
- **Waste rock dumps**: to be located near the open pit areas;
- **Supporting infrastructure:** Contractor's laydown areas, site offices, water management structures, access and haul roads, pipelines and powerlines;

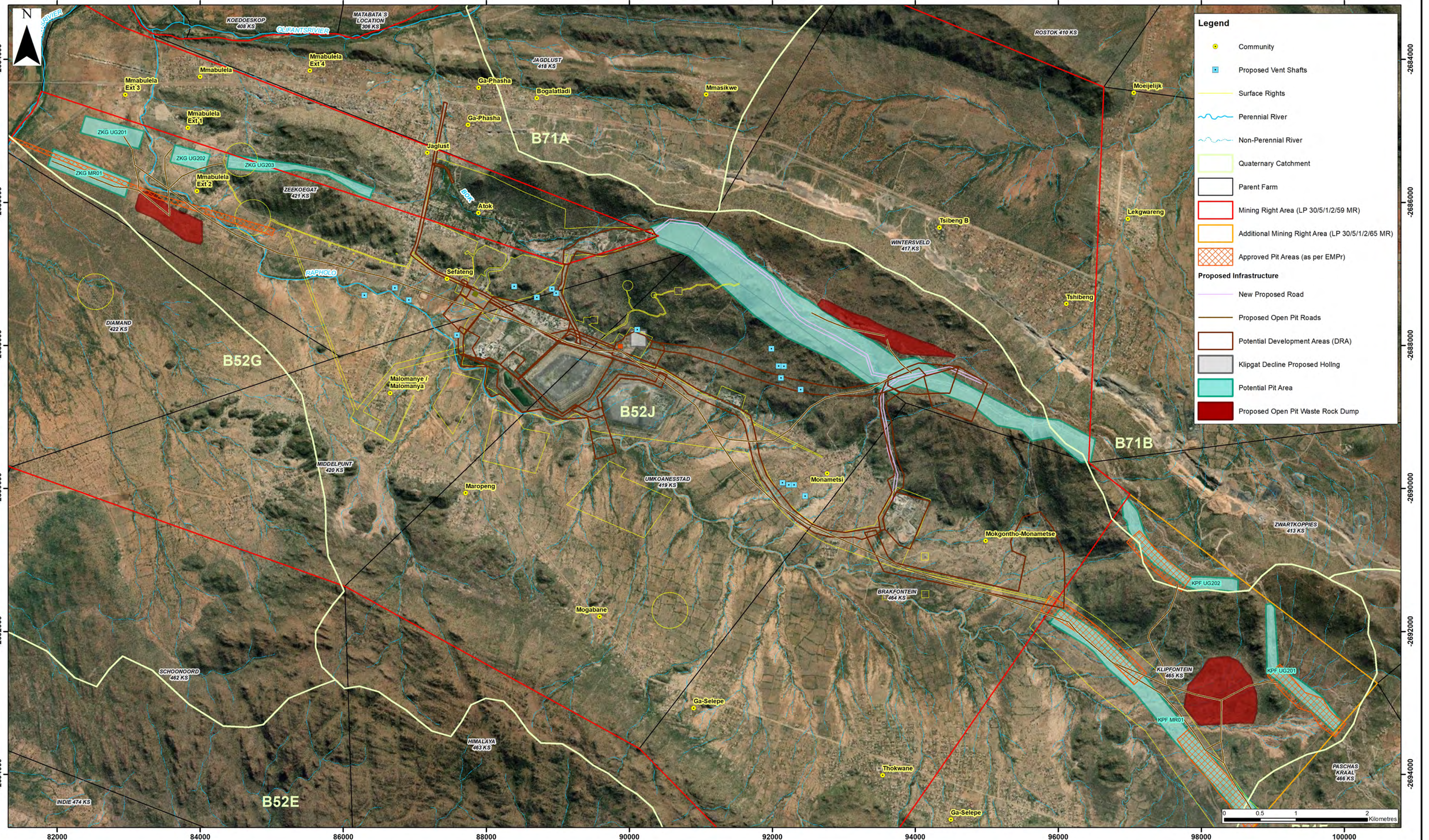
It must be noted that the existing TSFs will be utilised as part of the Expansion Project. These facilities have sufficient storage capacity, for the next 5 years to cater for the deposition of tailings generated at the processing plants. ARM-BPM will assess and apply for the necessary authorisation when new/additional TSFs are required to cater for the life of the operation.

Table 5-1: Key Expansion Project Infrastructure

<table>
<tr><th>Infrastructure</th><th>Description</th></tr>
<tr><td colspan="2">UTILISATION OF EXISTING AREAS (ALREADY AUTHORISED AREAS)</td></tr>
<tr><td>Brakfontein shaft</td><td>The Brakfontein area will undergo changes, alterations and construction of additional infrastructure to support the Expansion Project The main site offices, for the new open pit areas on the farms Wintersveld 417 KS and Klipfontein 465 KS, will be located at the existing Brakfontein shaft area. Other supporting infrastructure that will be required at the existing Brakfontein shaft will include a new grout plant, construction laydown areas, offices, parking, diesel storage, and ablution facilities.
In light of the above required project infrastructure at Brakfontein shaft, the following services will be required at Brakfontein shaft: potable and service water feed to the area, access and haul roads (from open pits), waste management areas and powerlines.</td></tr>
<tr><td>Middelpunt Hill shaft</td><td>A new grout plant is planned for at the existing Middelpunt Hill shaft area in addition to general changes, alternations and additions to existing infrastructure. Due to the area being under care and maintenance since 2017, there is a need to upgrade the existing fire water systems to meet the new operational requirements. Temporary construction facilities in the form of laydown areas , offices, parking, diesel storage, and ablutions are also planned at this area. Based on the above infrastructure requirements, the following services will be required at the Middelpunt Hill shaft: potable and service water feed to the area, access roads, waste management areas and powerlines.</td></tr>
<tr><td>Water treatment Plant</td><td>The existing water treatment plant (WTP) is planned to be upgraded as part of the Expansion Project. The upgrade of the WTP will be required to ensure sufficient treatment and handling capacity for the additional excess water from the process plant and mining areas. The plant will produce potable water through reverse osmosis. Brine produced as a by-product in the water treatment process will be pumped to the TSF as a final disposal point.
The WTP will include a storage area for chemicals and reagents used in the treatment process, offices, ablution and waste facilities as well as road alterations.</td></tr>
<tr><td>Utilisation of existing TSFs associated RWDs</td><td>Based on the life of the current existing TSFs (approximately 5 years), all tailings generated from the processing plant operations will be deposited onto the existing TSFs and water managed through the existing RWDs.</td></tr>
<tr><td>Upgrade of existing dirty water containment facilities</td><td>BPM plans to upgrade all existing dirty water containment facilities to meet the minimum requirements in respect of pollution control measure as well as to be in line with Best Practice Guidelines for water resource protection in the South African Mining Industry set by DWS. Therefore, the following existing dirty water containment facilities will be emptied, de-silted and be upgraded with the necessary barrier systems at the different BPM operations:
<table>
<tr><th>At the existing processing plant</th><th>At Klipgat Shaft area</th><th>At Brakfontein Shaft area</th><th>At Middelpunt Shaft area</th></tr>
<tr><td>• PCDs • Storm water dam
• RWD</td><td>• PCD
• Service water storage dam</td><td>• PCD</td><td>• PCDs</td></tr>
</table>
</td></tr>
<tr><td colspan="2">NEW INFRASTRUCTURE/ACTIVITIES (TO BE AUTHORISED)</td></tr>
<tr><td>Open pit areas</td><td>Based on the location of the ore bodies, four open pits are proposed on the farm Zeekoegat 421 KS to extract the UG2 reef, whilst three open pits will be developed and operated to extract the Merensky reef on the farms Wintersveld 417 KS and Klipfontein 465 KS.</td></tr>
</table>

Infrastructure	Description
	Open pit mining is a surface mining technique that extracts minerals from an open pit in the ground. This surface mining technique is used when ore is located relatively close to the surface (ground level). The image below provides a diagram of a typical open pit mining area: 
Waste rock dumps	Waste material (the hard rock material above the ore) will be removed from the pit and stored near the pits, called Waste Rock Dumps (WRDs). Once the pit has been mined out, the water rock material will be used to backfill the pits as part of the proposed rehabilitation process. Thew facilities will also require dirty water management systems to be put in place to ensure any runoff water from these facilities are captured and managed correctly to avoid pollution of the natural surrounding environment.
Pollution control dams/settling dams:	Water collected in the proposed pits will need to be collected and stored. For this reason various Pollution control dams (PCDs) will be located in and around the areas associated with the Expansion Project. It is currently envisaged that surface runoff water entering the pits as well as any ingress water will be collected via an in-pit sump whereafter the water will be collected by trucks and taken to either existing PCDs or new PCDs for storage. The water from the pits will be re-used either in the plant as process water or for dust suppression.

Infrastructure	Description
Additional Ventilation Shafts	As a result from the underground mining activities that will recommence at Middelpunt Hill, Brakfontein and later Klipgat shaft, additional ventilation shafts will be required. These proposed ventilation shafts will be constructed at strategic points along the underground working areas to ensure that there is sufficient air flow underground in order to provide a save working environment for the underground miners. Access and maintenance roads will be required to these shafts. Power will also be required to some of the ventilation shafts, which will either be sourced from the underground operation or from overhead powerlines on surface.
Supporting infrastructure	Several portions of existing infrastructure will require alterations, modifications, repairs and maintenance which will form part of the project and may be included as and when identified during the construction process. These may include but not be limited to the following: • The relocation of the current post office. This is to ensure the safety of the public utilising the post office since it's currently located in the mids of the mining operation. • Development of a new community centre will be constructed for the public outside the mining operational area. • Building changes, alterations and upgrades; • Temporary facilities (laydown, offices, parking, diesel storage, ablutions); • Temporary crushing plant; • Temporary batch plant; • Water reticulation (dirty and clean water); • Electrical supply; and • Lining of the existing PCDs at the plant area, as part of the upgrading activities of the plant; • Road repairs / alterations will be made across the site as needed including: o Brakfontein upgrades and repairs; o A community road, separate from the existing haul road will be provided; o Access roads will be repaired and widened where necessary; o Community roads will be repaired and upgraded; o Middelpunt Hill road will be repaired and upgraded



REV	DR	CH	DATE	DESCRIPTION
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NOTES :

Datum: WGS84

Projection: TM

Central Meridian / Zone: 29

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TITLE:

BOKONI PLATINUM MINE

LOCATION OF THE PROPOSED EXPANSION PROJECT INFRASTRUCTURE

CLIENT: ANGLO PLATINUM

		DATE	CHECKED
DESIGNED	LOUA	14 04 2023	MNEM
DRAWN	MNEM	00 00 2017	MNEM
A2	SCALE :	1:35 000	

PROJECT NO.	DRG NO.	SHT REV
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5.1 Environmental related listed and specified activities for the proposed Expansion Project

The listed activities that will be associated with the proposed Expansion Project and requires authorisation in terms of NEMA are provided in Table 5-2. The proposed project will require a full Scoping and EIA process to be undertaken as part of the permitting process in terms of NEMA. The activities that would trigger a WULA in accordance with the NWA are provided in the next section.

Table 5-2: Listed activities to be applied for as part of the Expansion Project

Activity	Open pits	WRDs	PCDs	Ventilation shafts	Supporting infrastructure[1]
GNR 983 Listing Notice 1 **Activity 9:** The development of infrastructure exceeding 1000 meters in length for the **bulk transportation of water or storm wate**r - (i) with an internal diameter of 0.36 meters or more; or (ii) with a peak throughput of 120 liters per second or more.	Yes, in respect of any clean water diversions required around the proposed open pits				Yes: – clean water pipeline to service contractors laydown area
Activity 10: The development and related operation of infrastructure exceeding 1000m in length for the **bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes**- i) with an internal diameter of 0.36 meters or more; or ii)with a peak throughput of 120 litres per second or more.	Yes, in respect of the pipelines required to abstract dirty water from the proposed open pits to the proposed PCDs				Yes: – Any new pipelines required to reticulate dirty water from a dirty containment area to the processing plants
Activity 11: The development of facilities or infrastructure for the **transmission and distribution of electricity** - (i) **outside urban areas** or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more.	Yes, power will be required at the new open pit areas				Yes, power will be required to all new contractors laydown areas, main offices and ventilation shafts
Activity 12: The development of – (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) **infrastructure or structures with a physical footprint of 100 square metres or more**. where such development occurs- (a) within watercourse (b) in front of a development setbacks; or (c) if no development setback exists, within 32m of a watercourse, measures from the edge of a watercourse.	Yes	Yes	Yes	Yes	Yes
	Certain sections of the proposed infrastructure will be located either within or within 32m of a watercourse				

[1] These usually relate to activities and infrastructure such as widening and upgrade of roads, addition offices constructed, sewage treatment plants extended, fuel storage capacities increased and extension of waste/ wastewater and sewage pipelines.

Activity	Open pits	WRDs	PCDs	Ventilation shafts	Supporting infrastructure[1]
Activity 14: The development of facilities or infrastructure for the storage, or for the **storage and handling, of a dangerous good,** where such storage occurs in containers with a combined capacity of 80 m^3 but not exceeding 500 m^3.	Yes – diesel will be stored at the contractors laydown areas				Yes – diesel and other material will be stored at the main office areas
Activity 19: The **infilling** or depositing of any material of more than 10m^3 into, or the dredging, excavation, **removal or moving of soil**, sand, shells, shell grit, pebbles or rock **of more than 10m^3 from a watercourse.**	Yes	Yes	Yes	Yes	Yes
	Certain sections of the proposed infrastructure will be located either within or within 32m of a watercourse and will require either infilling or removal of soils to level the area for construction purposes.				
Activity 21 D: Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of **Section 102** of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required for such amendment.	A Section 102 application in terms of the MPRDA, will be required since the Expansion Project will require the mine to update the mine's Mine Work Programme and amend the EMPr.				
Activity 24: The **development of a road** - (i) for which an environmental authorization was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010 or. (ii) with a reserve wider than 13.5 meters or where no reserve exists where the road is wider than 8 meters.	Various access, maintenance and haul roads will be required as part of the proposed Expansion Project and will than 8m.				
Activity 30: Any process or activity identified in terms of section 53(1) of the national Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).	Yes – The proposed open pits and WRDs on the farms Zeekoegat 421 KS and Wintersveld 417 KS will be located within a Critical Biodiversity Area				
<u>GNR 984 Listing Notice 2</u> **Activity 6:** The development of facilities or infrastructure for any process or activity which requires a permit or license or an amended permit or **licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent**.	Certain proposed project related infrastructure will be subject to a Water Use Licence especially those that will contain dirty water and effluent from the mining operation. A WULA will be applied for through the DWS offices.				
Activity 11: The development of facilities or infrastructure for the **transfer of 50 000 m^3 or more water per day**, from and to or between any combination of the following: (i) water catchments (ii) water treatment works, or (iii) impoundments, excluding treatment works where water is to be treated for drinking purposes.	Water collected in the proposed open pits will either be collected in put via sumps and then pumped out to PCDs or collected via trucks and transported to existing PCDs. The Expansion project will therefore require the movement of water between impoundments. The volume to be transferred between impoundments per day will be established during the surface water specialist studies and further information provided during the EIA Phase.				

Activity	Open pits	WRDs	PCDs	Ventilation shafts	Supporting infrastructure[1]
Activity 15: The **clearance of an area of 20ha or more of indigenous vegetation**.	Due to the extent of the proposed open pits and associated project required infrastructure, more than 20ha of indigenous vegetation will be required to be cleared.				
Activity 17: Any activity including the operation of that activity which requires a **mining right** in terms of Section 22 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice, in Listing Notice 1 of 2014 or Listing Notice 3 of 2014, required to exercise the mining right.	The proposed Open Pits will require a mining right – these pits are however located within the existing Mining Right areas of BMP				
Activity 27: The **development of a road**- (i) with a reserve wider than 30 meters or (ii) catering for more than one lane of traffic in both directions.	Various access, maintenance and haul roads will be required as part of the proposed Expansion Project and some of the community roads that are earmarked for upgrading will trigger this activity.				
NEMA Listing Notice 3 (applicable for sensitive geographical areas) **Activity 4:** The development of a **road wider than 4 meters** with a reserve of less than 13.5m	Due to the location of some of the road developments in Critical Biodiversity Areas, this activity will be triggered when road wider than 4m will be constructed as part of the Expansion Project				
Activity 10: The development and related operation of facilities or infrastructure for the storage, or s**torage and handling of a dangerous good**, where such storage occurs in containers with a combined capacity of 30m^2 but not exceeding 80m^3	Yes – diesel will be stored at the contractors laydown areas				
Activity 12: The **clearance of an area of more than 300m^2 or more of indigenous vegetation** except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan	Due to the extent of the proposed open pits and associated project required infrastructure, more than 300m^2 of indigenous vegetation will be required to be cleared within Critical Biodiversity Areas.				
Activity 14: The development of: (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; Where such development occurs (a) within a watercourse, (b) in front of a development setback; or	Yes	Yes	Yes	Yes	Yes
	Certain sections of the proposed infrastructure will be located either within or within 32m of a watercourse				

Activity	Open pits	WRDs	PCDs	Ventilation shafts	Supporting infrastructure[1]
(c) of no development setback has been adopted, within 32m of a watercourse, measured from the edge of a watercourse excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour					
Activity 18: The widening of a road by more than 4m, or the lengthening of a road by more than 1km	Due to the location of some of the road developments in Critical Biodiversity Areas, this activity will be triggered when road wider than 4m will be constructed or widened as part of the Expansion Project				
Activity 22: The expansion and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage facilities will be expanded by 30m^2 or more but less than 80m^2.	Yes – diesel will be stored at the contractors laydown areas				Yes – diesel and other material will be stored at the main office areas
Activity 23: The expansion of - (i) dams or weirs where the dam or weir is expanded by 10 square metres or more; or (ii) infrastructure or structures where the physical footprint is expanded by 10 square metres or more; Where such expansion occurs (d) within a watercourse, (e) in front of a development setback; or (f) of no development setback has been adopted, within 32m of a watercourse, measured from the edge of a watercourse.	Certain sections of the proposed infrastructure will require existing areas to be expanded and such expansions may be located either within or within 32m of a watercourse.				

5.2 Water uses associated with the proposed Expansion Project

A number of new water uses will be triggered by the proposed Expansion Project which will require licensing by DWS in terms of the NWA. The Expansion Project will require a WULA in terms of Section 21 of NWA. Table 5-3 provides a summary of the new water uses that will be associated with the proposed project in relation to the farms affected by the project.

Table 5-3: Anticipated water uses associated with the Expansion Project

Farm	Water Use and project aspect
Jagdlust 418 KS	Section 21 c & i - river crossings - roads
Zeekoegat 421 KS	Section 21 a and j - removal of water from the open pits Section 21 c & i - within 100m of a water course and destruction/diversion and stormwater management Section 21 c & i - river crossings - pipelines and roads Section 21 f - potential discharge from the water treatment plant Section 21 g - waste rock dumps Section 21 g - pollution control dams Section 21 g - dust suppression Section 21 g - potential conservancy tank at contractors offices
Winterveld 417 KS	Section 21 a and j - removal of water from the open pits Section 21 c & i - within 100m of a water course and destruction/diversion and stormwater management Section 21 c & i - river crossings - pipelines and roads Section 21 g - the waste rock dump Section 21 g - dust suppression Section 21 g - potential conservancy tank at contractors offices
Middelpunt 420 KS	Section 21 c & i - river crossings - roads
Umkoanesstad 419 KS	Section 21 - c & i - river crossings - pipelines, roads etc. Section 21 g - Run of Mine Pad
Brakfontein 464 KS	Section 21 - c & i - river crossings - pipelines, roads etc.
Klipfontein 465 KS	Section 21 a and j - removal of water from the open pits Section 21 c & i - within 100m of a water course and destruction/diversion and stormwater management Section 21 c & i - river crossings - pipelines and roads Section 21 g - waste rock dump Section 21 g - pollution control dams Section 21 g - dust suppression Section 21 g - potential conservancy tank

5.3 National Environmental Management: Waste Act (NEM:WA)

The proposed Expansion Project will not trigger any waste management activities that requires licencing under the National Environmental Management: Waste Act, Act 59 of 2008 (NEM:WA). There will however be a need for the mine to manage certain waste streams generated on site in accordance with the required Norms and Standards (GN 926 of 2013: National Norms and Standards for the Storage of Waste. The main waste management activities that will be undertaken at BPM as detailed under Category C of the GNR 921 of 29 November 2013 are:

- **Activity 1:** The storage of general waste at a facility that has the capacity to store in excess of 100m^3 of general waste at any one time, excluding the storage of waste in lagoons or temporary storage of such waste; and
- **Activity 2:** The storage of hazardous waste at a facility that has the capacity to store in excess of 80m^3 of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.

5.4 Mineral and Petroleum Resources Development Act (MPRDA)

According to Section 102 of the MPRDA, and in terms of the proposed projects, no mining right, mine work programme and/or EMPr may be amended without the written consent of the Minister of Minerals and Energy. Therefore, the Amended EMPr and updated Mine Work Programme relating to the Expansion Project will be submitted to the DMRE for approval and consent by the Minister through a Section 102 application.

6 Policy and Legislative context

This section provides an overview of the policy and legislative context within which the project will operate. It identifies all legislation, policies, plans, guidelines and other applicable legislation to be considered in the assessment process, which may be applicable or have relevance to the project. This section also describes ARM's policies and guidelines.

6.1 The Constitution of South Africa, 1996 (Act No. 108 of 1996)

The Bill of Rights is the cornerstone of democracy in South Africa, ensuring the rights of all people and affirming the democratic values of human dignity, equality and freedom. Section 24 is directly relevant to environmental law and states that everyone has the right to:

"An environment that is not harmful to their health or well-being; and have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: Prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".

The Constitution of South Africa is the overarching framework legalisation driving the NEMA principles. The right to a safe environment and the right to information are addressed during the environmental authorisation process through stakeholder engagement, where available information pertaining to the environment and proposed activities are disclosed.

6.2 The Promotion of Access to Information Act, 2000 (Act No. 2 of 2000)

The Promotion of Access to Information Act (PAIA) gives effect to the Constitutional right of access to any information held by the State and any information that is held by another person and that is required for the exercise or protection of any rights, and to provide for matters connected therewith. In addition to providing access to information, cognisance should be taken that PAIA also makes provision for the refusal of access to information that is deemed to be of a sensitive, confidential or classified nature. Without access to information, a person may be unable to determine whether or not his or her right to just administrative action (or to an environment not harmful to human health or wellbeing or, for that matter, any other Constitutional right) has been infringed.

6.2.1 Protection of Personal Information, 2013 (Act No. 4 of 2013)

The Protection of Personal Information Act 4 of 2013 (POPIA), which aims to promote protection of personal information, came into effect on 1 July 2021. The EIA Regulations, 2014 require, inter alia, transparent disclosure of registered stakeholders and their comments. In terms of the EIA Regulations, 2014, stakeholders who submit comment, attend a meeting or request registration in writing are deemed registered stakeholders who must be added to the project stakeholder database. By registering, stakeholders are deemed to give their consent for relevant information (including contact

details) to be processed and disclosed, in fulfilment of the requirements of the EIA Regulations, 2014 and the National Appeal Regulations, 2014.[2]

6.3 Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA)

The MPRDA makes provision for equitable access to and sustainable development of South Africa's mineral resources. The MPRDA requires that the environmental management principles set out in NEMA shall apply to all mining operations and serves as a guideline for the interpretation, administration and implementation of the environmental requirements of NEMA.

The MPRDA requires that a reconnaissance permission, prospecting right, MR, mining permit, retention permit, technical corporation permit, reconnaissance permit, exploration right, production right, prospecting work programme; exploration work programme, production work programme, mining work programme, environmental management programme, or an environmental authorization issued in terms of the NEMA, as the case may be, may not be amended or varied (including by extension of the area covered by it or by the addition of minerals or a share or shares or seams, mineralized bodies, or strata, which are not at the time the subject thereof) without the written consent of the Minister.

6.4 National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)

The all-encompassing principle of NEMA is sustainable development. It defines sustainability as meaning the integration of social, economic and environmental factors into planning, implementation and decision making so as to ensure the development serves present and future generations.

Section 24 of the NEMA, headed "Environmental Authorisations" sets out the provisions which are to give effect to the general objectives of Integrated Environmental Management (IEM), and laid down in Chapter 5 of the NEMA. In terms of section 24(1), the potential impact on the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority charged by the NEMA with granting of the relevant environmental authorisation.

On 04 December 2014, the Department of Forestry, Fisheries and the Environment (DFFE) published the 2014 NEMA EIA Regulations and listed activities in Government Gazette No. 38282, which was amended in 2017.

The proposed infrastructure involves listed activities detailed in Section 5.1 as identified in terms of the NEMA read with the EIA Regulations of 2014. In terms of section 24(2) and 24D of the NEMA no person may commence an activity listed or specified in terms of the act unless the competent authority has granted an environmental authorisation for the activity.

The proposed Expansion Project will trigger both Listing Notice 1, Listing Notice 2 and Listing Notice 3 activities (refer to Section 5.1).

6.5 National Water Act, 1998 (Act No. 36 of 1998) (NWA)

The NWA promotes the protection, use, development, conservation, management, and control of water resources in a sustainable and equitable manner. Chapter 4 of the National Water Act stipulates that water uses (abstraction, storage, waste disposal, discharge, removal of underground water and alteration to watercourses) must be licensed.

The proposed expansion project will require a WULA as detail in Section 5.2.

[2] All personal information contained in this report will not be shared publicly and will only be distributed to the DMRE and the BPM Project team.

6.6 National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA)

NEM:WA came into effect on 1 July 2009 and seeks to encourage the prevention and minimization of waste generation, whilst promoting reuse and recycling of the waste and only consider disposal of waste as a last resort. It provides for the licensing of waste management activities. The NEM:WA was amended (with effect from 2 September 2014) to have jurisdiction over Residue Stockpiles and Residue Deposit (RSRD) at mines. The Minister of Mineral Resources is the licensing authority where a waste management activity is, or is directly related to prospecting, extraction, primary processing of a mineral resource or RSRD. A series of regulations have been promulgated in terms of NEM:WA including, but not limited to:

- NEM:WA Regulations regarding the Planning and Management of RSRDs (2015), as amended in 2018;
- NEM:WA Waste Classification and Management Regulations (2013);
- NEM:WA National Norms and Standards for the Remediation of Contaminated Land and Soil Quality (2014);
- NEM:WA National Norms and Standards for the assessment of waste for Landfill Disposal (2013);
- NEM:WA National Norms and Standards for the Sorting, Shredding, Grinding, Crushing, Screening or Baling of General Waste (2017); and
- NEM:WA National Waste Information Regulations (2012).

6.7 The National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)

The National Heritage Resources Act aims to promote good management of cultural heritage resources and encourages the nurturing and conservation of cultural legacy so that it may be bestowed to future generations.

Section 38 of the NHRA details how heritage resources must be managed and provide development categories which include the requirement that all developers, including mines, must undertake cultural heritage studies for any development exceeding 0.5 ha. It also provides guidelines for impact assessment studies to be undertaken where cultural resources may be disturbed by development activities.

6.8 The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEM:BA)

NEM:BA provides for the management and conservation of South Africa's biodiversity within the framework of NEMA, as well as the protection of species and ecosystems that warrant national protection and the sustainable use of indigenous biological resources.

6.9 National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM:AQA)

The main objectives of NEM:AQA are to protect the environment by providing reasonable legislative and other measures to:

- Prevent air pollution and ecological degradation;
- Promote conservation; and

- Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development in alignment with Sections 24a and 24b of the Constitution of the Republic of South Africa.

The Act has devolved the responsibility for air quality management from the national sphere of government to local spheres of government (district and local municipal authorities), who are tasked with baseline characterisation, management and operation of ambient monitoring networks, licensing of listed activities, and development of emissions reduction strategies. The National Ambient Air Quality Standards (NAAQS) for common pollutants, as set in terms of the NEM:AQA.

The National Dust Control Regulations (GN R.827), which were promulgated on 1 November 2013, define acceptable dust fall rates for residential areas as <600 (mg/m2/day) taken over a 30 day average (with no more than 2 exceedances per year, in non-sequential months), and non-residential areas as dust fallout >600<1200 (mg/m2/day) taken over a 30 day average (with no more than 2 exceedances per year, in non-sequential months).

6.10 National Forests Act (84 of 1998)

Supports sustainable forest management and the restructuring of the forestry sector, as well as protection of indigenous trees in general.

6.11 Municipal plans and policies

6.11.1 Fetakgomo Tubatse Local Municipality Integrated Development Plan

The FTLM Integrated Development Plan (IDP) (FTLM, 2021) identified mining as the main economic contributor to the municipality. The IDP states industrial developments and other service businesses in the municipal area support the mining sector however one of the key challenges is that mining houses tend to source most of their input supplies and skills from outside of the municipality.

The IDP also identifies a number of environmental issues in the municipality area that are associated with mining. According to the IDP, mining activities in the municipality mainly occur in the western quadrant along the R555 and R37 provincial roads. This sector includes the extracting and beneficiating of minerals such as platinum, lead, chrome, black chrome and other precious minerals.

6.12 ARM plans and procedures

ARM takes a precautionary approach to environmental stewardship across business processes that aims to eliminate or reduce environmental impact wherever possible. Where unavoidable, processes are implemented to mitigate impacts (ARM, 2022).

ARM's strategy is to deliver competitive returns and create sustainable value for all stakeholders underpinned by three principles as follows:

- Responsibility: operate ARM's portfolio of assets safely, responsibly and efficiently;
- Resilience: Allocate capital to value-creating investments; and
- Readiness: Focus on value-enhancing and integrated growth.

The above-mentioned principles are underpinned by ARM's values illustrated in Figure 6-1.

Figure 6-1: African Rainbow Mineral's values

6.12.1 ARM's approach to sustainability development

ARM strives to balance the economic, social and environmental aspects of our business which are all essential to their long-term sustainability. ARM's values, governance structures and ethical leadership guide their actions to conduct business activities with integrity and respect for the environmental and societal contexts in which they operate. As a leading mining and minerals company, ARM is cognisant not only of their impacts on the world around their operations, but also of the opportunities to make a positive contribution to growth and development in the societies in which they operate.

ARM's values explicitly acknowledge that social responsibility, good corporate governance and environmental stewardship are essential aspects of generating economic value for shareholders and social benefit for stakeholders. Taking a broader view to include nonfinancial aspects ensures ARM's long-term sustainability. ARM's approach to sustainable development is represented in Figure 6-2- sustainable development model, which shows the inputs that shape ARM's approach and the aspects ARM consider in the creation of value.

ARM is proud to be a member of the International Council on Mining and Metals (ICMM) and shares its commitment to mining with principles. Since F2010, ARM have reported in terms of the ICMM's original ten sustainable development principles and position statements

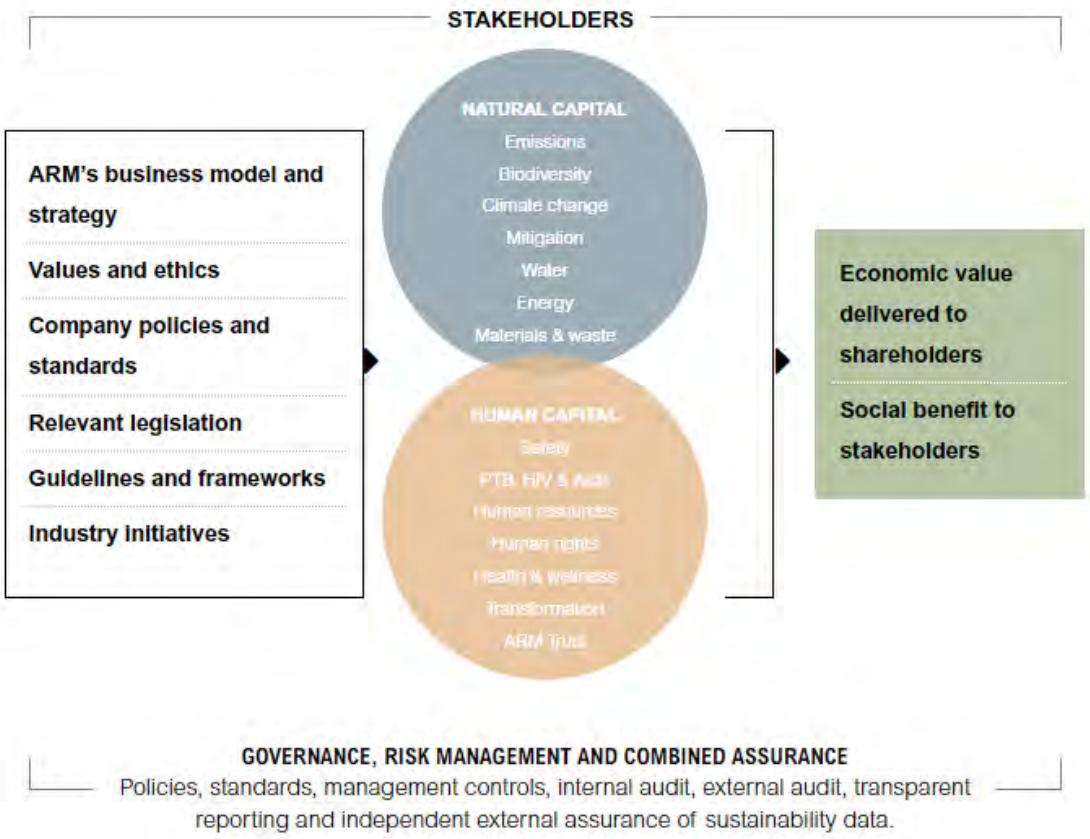


Figure 6-2: Sustainable development model

6.12.2 Environmental stewardship

ARM's values, governance structures and ethical leadership guide employees and management to behave with integrity and act appropriately in the context of their natural environment and the country's socioeconomic realities. ARM recognise that they have a responsibility to manage and mitigate the potential negative impacts of their business activities. At the same time, it is the value created by these activities that gives the company the opportunity to support growth and development in the societies in which they operate.

The environmental authorization process is defined in the NEMA, which serves as the overarching framework for environmental approvals. This sections provides the relevant context of the legal and policy requirements applicable to the project.

7 Period for which the environmental authorisation is required

The environmental authorisation is required for the duration of the LoM which is currently estimated to be beyond 2080.

8 Need and Desirability

This section has been compiled in line with the Integrated Environmental Management Guideline on Need and Desirability (DEA, 2017). A summary of the key aspects has been included in the subsections below.

8.1 Mining Method

Due to the depth of the platinum bearing reef on the farms Zeekoegat 421 KS, Wintersveld 417 KS and Klipfontein 465 KS, it was decided by the mine that the best method to extract the ore would be through the implementation of open pit mining operations. Open pit mining was selected as the best and only mining method in respect of these areas as the mineral or ore deposits are found relatively close to the surface.

8.2 Mining benefits

The mineral reinstatement of activities at BPM is considered by ARM to be in the best interest of the public at large, by generating earning power both locally and internationally, in the absence of significant alternative employment opportunities in the area. The proposed BPM expansion project will allow ARM to realise the full mining potential of the BPM. In addition to this, the Expansion Project will allow the continuation of the BPM as well as extend the life of the mine.

Platinum is sold both locally and overseas and therefore, the mine is an earner of foreign exchange for South Africa. In addition, the mine also has a positive impact on the economic growth of the Limpopo Province, particularly in the communities around the mine and through its rates and taxes to the National fiscus.

8.3 Environmental responsibility

The purpose of this project is to apply for Environmental Authorisation through an S&EIA process for the activities associated with the Expansion Project. This document contains management measures to avoid, minimise and reduce the potential negative impacts on the environment as a result of the proposed projects. ARM recognise that they have a responsibility to manage and mitigate the potential negative impacts of their business activities. Monitoring of air quality (dust) and water quality is in place and has been undertaken throughout the care and maintenance phase therefore a comprehensive baseline is in place. Any changes in monitored parameters as a result of the Expansion Project's activities will therefore be detected in a timely manner and appropriate mitigation and management measures applied. ARM's most material environmental matters and impacts are illustrated in Figure 8-1.

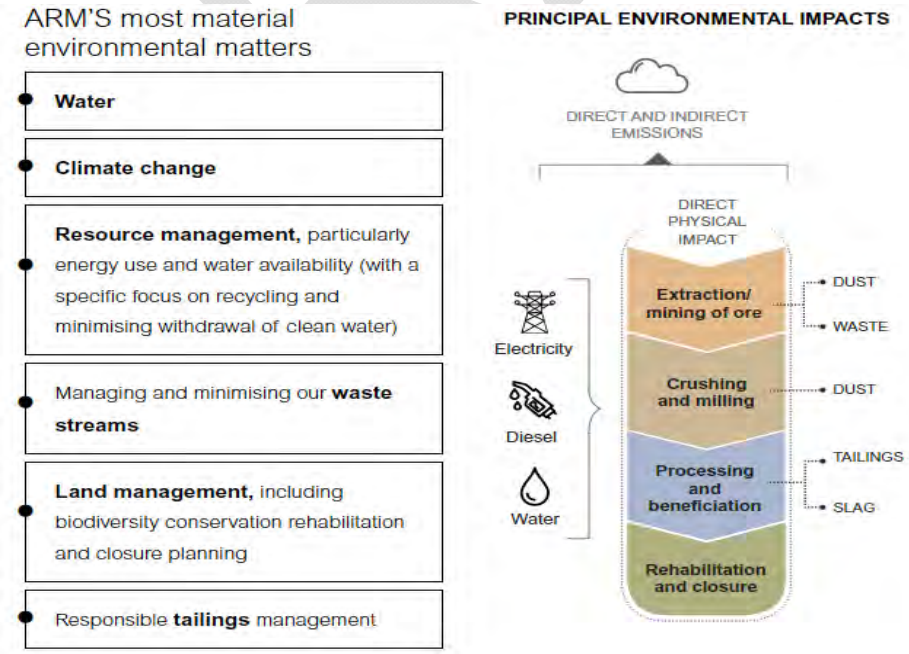


Figure 8-1: ARM's most material environmental matters (ARM, 2022)

8.4 Potential socio-economic benefits

BPM offers some potential positive socio-economic benefits, provided the mine is proactive and prioritises community development and transformation. Below is a list of the potential positive socio-economic benefits:

- Business opportunities: The Expansion Project presents some opportunities for the local economy and businesses in the area to leverage from;
- Development of entrepreneurs: The local service industry sector, through the provision of services such as accommodation, catering, cleaning, transport, security and other services associated with construction workers, is likely to reap the highest benefits during the Expansion Project;
- Skills transfer and development opportunity: Through the employment of locals, BPM will lead to skills upliftment of the community in mining-related work. In addition, the mine is mandated by the Social Labour Plan (SLP) to contribute to the skills development of the local community; and
- Community upliftment: Through the implementation of the SLP (at a later stage, post start – up), the community will reap the socio-economic benefits. As the mine's profits increase, the community benefits more as the DMRE will not accept an SLP with a budget lower than a minimum of 1% Net Profit After Tax (NPAT) of the mine's income. Furthermore, the community can benefit through bursary schemes, skills development and Corporate Social Investment (CSI) programmes offered by the mine.

8.5 Potential Employment and local procurement opportunities

In addition to the potential socio-economic benefits, BPM may offer some potential employment and procurement opportunities during the Expansion Project, which are as follows:

- Some employment creation: It is anticipated that new job opportunities in the local area can be created. To create job opportunities, unskilled and semi-skilled labour should be sourced mainly from the local communities and surrounding areas. It is recommended that specialist and skilled labour are recruited outside the local boundaries only when required (if it cannot be sourced locally); and
- There exists a possibility that BMP can strengthen local procurement and supplier development in the local context. This can be achieved by working with other mining companies and the local government to convey regular and accurate information about procurement opportunities. Post the commencement of the Expansion Project, BPM can continue to focus on local procurement, and assist Historically Disadvantaged South African (HDSA) suppliers through mentoring to form part of the project supply chain.

8.6 Project timeline

It is anticipated that the development of the proposed Expansion Project will commence during the last quarter of 2023. This will be subject to the outcome of the decision received from the DMRE following the submission of the Final EIA and EMPr.

8.7 No-Go option

The purpose of the Expansion Project is to continue the mining operations of BPM. Should the proposed Expansion Project not be implemented, it is likely that BPM will only be able to continue with the activities which are part of the start-up phase (a separate environmental authorisations process). In addition to this, should the Expansion Project not be implemented, the full mineral reserve benefit will not be realised and BPM will not be able to continue with mining activities.

By undertaking a S&EIA process for the Expansion Project activities, the mine will be able to expand the existing activities at BPM. This will allow for the socio-economic benefits to be realised in the short term as well as the long term.

9 Description of the process followed to reach the proposed preferred site

As per the Department of Environmental Affairs Guideline on Criteria for determining Alternatives in EIA: “Key criteria for consideration when identifying alternatives are that they should be “practicable”, “feasible”, “relevant”, “reasonable” and “viable”.

A range of alternatives exists, not all of which are necessarily appropriate for the Expansion Project activities under consideration. The different categories of alternatives that can be identified include:

- Activity alternatives;
- Location alternatives;
- Process alternatives;
- Demand alternatives;
- Scheduling alternatives;
- Input alternatives;
- Routing alternatives;
- Site layout alternatives;
- Scale alternatives;
- Design alternatives; and
- The no-go alternative.

10 Details of alternatives considered

The categories of alternatives in Table 10-1 were considered in accordance with the key criteria indicated above for the proposed start up projects.

Table 10-1: Categories of alternatives

Alternative considered	Details
Location	**Location of mining activities**: The first option was to mine on the Brakfontein/Wintersveld portion of the mining right. An addition boxcut was planned at Wintersveld as well as the construction of overland conveying to the Klipgat boxcut. It was decided to rather centralise the underground mine design portion and ore transport on the mining right portion such that transport between the two mines could make use of existing underground workings. This resulted in the elimination of the option of introducing the second boxcut and overland transportation.
	Location of the proposed process plant: Initially the proposed process plant was planned to be located near the existing plant infrastructure. This will depend on the results of the plant location trade-off study which was ongoing at the time of writing this report.
	Location of the proposed open pits: The open pit mining activities were mainly dependent on the location of the mineral reserve. Based on this there were no location alternatives for the open pits, however, studies are currently being undertaken to identify the best location of the waste rock dumps associated with the open pits. These are also slightly constrained as the waste rock will need to be in close proximity to the open pits.
Process	A pre-feasibility level study was conducted to evaluate the use of a pre-concentration plant and was found that “pre-concentration of lower grade development type ore, is not expected to improve overall project economics.” Therefore this option was not taken forward.
Activity	ARM conducted some previous mining method studies. As part of the definitive feasibility study (DFS), the technical teams are also currently busy evaluating board and pillar mining methods versus the base case for the DFS which is mechanised narrow reef mining.

10.1 No-Go alternative

The purpose of the Expansion Project is to continue the mining operations of BPM. Should the proposed Expansion Project not be implemented, it is likely that BPM will only be able to continue with the activities which are part of the start-up phase (a separate environmental authorisations process). In addition to this, should the Expansion Project not be implemented, the full mineral reserve benefit will not be realised and BPM will not be able to continue with mining activities.

By undertaking a scoping and environmental impact assessment process for the Expansion Project activities, will allow the mine to expand the existing activities at BPM. This will allow for the socio-economic benefits to be realised in the short term as well as the long term.

11 Details of the public participation process followed to date

11.1 Objectives of stakeholder engagement

The objectives of public participation for the various phases of the environmental authorisation process are presented in the sections below.

11.1.1 Project Announcement Phase

The objectives of the stakeholder engagement during the announcement phase are to introduce the project to Interested and Affected Parties (I&APs) and to inform them that an environmental authorisation process will be followed.

11.1.2 During Scoping

The objectives of public participation during scoping phase is to provide sufficient and accessible information to I&APs in an objective manner to enable them to raise comments, issues of concern and suggestions for enhanced benefits. I&APs will also have an opportunity to provide input into the terms of reference (ToR) for the specialist studies, and to contribute relevant local and traditional knowledge to the environmental assessment.

11.1.3 During Impact Assessment

The objectives of public participation during the EIA phase are to verify that I&APs issues have been considered in the environmental assessment and to comment on the findings of the environmental assessment, including the potential negative and positive impacts and the proposed management measures.

11.1.4 During the Decision-Making Phase

Following the outcome of the decision-making process by authorities, stakeholders will be informed of the outcome and how and by when the decision can be appealed, should they wish to.

11.2 Stakeholder identification

The NEMA EIA Regulations (GN R 982 amended) require identification of and consultation with communities and interested and affected parties (I&APs). In terms of Section 24 0 (2) of NEMA, specific state departments were identified and recognised as commenting authorities on aspects of the proposed Expansion Project. Representatives from these departments are included in the stakeholder database. I&APs identified in previous environmental authorisations processes, together with lists of stakeholders that BPM has regular contact with, and networking and referral formed the basis for the development of the stakeholder database. The stakeholder database will be reviewed and updated after each round of engagement during the environmental authorisation process. Box 1 provides more information regarding the distinction between I&APs and registered I&APs.

Box 1 below provides more information regarding the distinction between I&APs and registered I&APs.

Box 1. Distinction between I&AP's and Registered I&APs

The NEMA Regulations (GN 982 amended) distinguishes between I&AP's and registered I&APs.

I&AP's, as stated in Section 24(4)(d) of the NEMA include: (a) any person, group of persons or organisation interested in or affected by an activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity.

In terms of the Regulations "***registered interested and affected parties"*** means:

An interested and affected party whose name is recorded in the register opened for that application.

For that purpose, an EAP managing an application must open and maintain a register which contains the names, contact details and addresses of:

- All persons who have submitted written comments or attended meetings with the applicant or EAP;
- All persons who have requested the applicant or EAP managing the application, in writing, for their names to be placed on the register; and
- All organs of state which have jurisdiction in respect of the activity to which the application relates.

I&APs were identified by assessing:

- The location of the project in relation to:
  - Affected and surrounding communities,
  - Affected and adjacent land owners/lawful occupiers, and
  - Local and district municipalities;
- The sensitive environmental aspects present in the project area; and
- The location of the project in relation to aspects that are under control and management of other Government Departments or Organs of State.

11.2.1 Identification of landowners

The identification of landowners in the area is an important part of the stakeholder engagement process. SRK conducted a deeds search to identify landowners directly affected and adjacent to the proposed Expansion Project infrastructure. Refer to Table 11-1 for the information relating the affected farms.

Table 11-1: Affected Landowners/lawful occupiers

Farm Name	Portion	Owners
Middelpunt 420 KS	Portion 0	The National Government of the Republic of South Africa
Zeekoegat 421 KS	Remaining Extent	The National Government of the Republic of South Africa
Brakfontein 464 KS	Portion 0	Republiek van Suid Afrika
Klipfontein 465 KS	Portion 0	Ga-Manotwane Community Development Trust
Umkoanesstad 419 KS	Portion 0	Government of Lebowa
	Portion 1	Trustees of the Bapedi Tribe
Jagdlust 418 KS	Remaining Extent	Government of Lebowa
Wintersveld 417 Ks	Remaining Extent	Samancor Chrome Limited

11.2.2 Properties adjacent to the proposed project

Details of the properties directly adjacent to the proposed Expansion Project area, are provided in Table 11-2. The property information was obtained from WinDeed (included in Appendix C).

Table 11-2: Properties adjacent to proposed Expansion Project infrastructure

Adjacent Farm Name	Farm Portions	Owner
Paschas Kraal 466 KS	Portion 1	National Government of the Republic of South Africa
Zwartkoppies 413 KS	Remaining Extent	Jibeng Inv (Pty) Ltd
Himalaya 463 KS	Remaining Extent	National Government of the Republic of South Africa
Avoca 472 KS	Remaining Extent	National Government of the Republic of South Africa
Waterkop 113 KT	Portion 0	National Government of the Republic of South Africa
Waterkop 113 KT	Portion 1	South African National Roads Agency
Moeijelyk 412 KS	Portion 0	Jibeng Inv (Pty) Ltd
Jobskop 411 KS	Portion 0	National Government of the Republic of South Africa
Rostok 410 KS	Portion 0	National Government of the Republic of South Africa
Haakdoornhoek 409 KS	Portion 0	National Government of the Republic of South Africa
Scheiding 407 KS	Remainder of Portion 1	National Government of the Republic of South Africa
Scheiding 407 KS	Portion 2	National Government of the Republic of South Africa
Scheiding 407 KS	Portion 3	National Government of the Republic of South Africa
Leeuwkop 425 KS	Portion 0	National Government of the Republic of South Africa
Diamand 422 KS	Remaining Extent	National Government of the Republic of South Africa
Blauwbloemetjieskloof 428 KS	Portion 0	Government of Lebowa
Schoonoord 462 KS	Portion 0	National Government of the Republic of South Africa

11.2.3 Identification of District and Local Municipalities

The project area falls within the jurisdiction of the GSDM and the FTLM in the Limpopo Province. BPM is situated in six wards within the FTLM. Details of the relevant municipalities and respective ward councillors are provided in Table 11-3.

Table 11-3: District and Local Municipalities

Municipality	Contact Person	Designation
Greater Sekhukhune District Municipality	Ms Molatelo Mabitsela	Director: Planning & Economic Development
Fetakgomo Tubatse Local Municipality	Mr Mathebula MA	Director: Development Planning
Fetakgomo Tubatse Local Municipality	Phasha Matime	Ward Councillor (Ward 32)
Fetakgomo Tubatse Local Municipality	Mathipa Moffat	Ward Councillor (Ward 33)
Fetakgomo Tubatse Local Municipality	K.M.L. Thobela	Ward Councillor (Ward 34)

11.2.4 Identification of relevant government departments

In addition to the competent authority (DMRE) (refer to Section 2.4 for further information), other government departments have been identified as potential I&APs. These governmental departments are seen as commenting authorities which the DMRE will engage with to discuss the proposed project, the findings of the assessment and the outcome of the authorisation decision.

The following commenting authorities have been identified and will be consulted with by SRK during this environmental authorisation application process for the Expansion Project:

- DWS;
- LDEDET;
- DFFE;
- Department of Agriculture, Rural Development and Land Reform;
- Human Settlements and Traditional Affairs;
- South African Heritage Resource Agency (SAHRA).

11.2.5 Identification of affected communities

Various residential areas have been identified in and around the BPM Mining Right areas; Ga-Makgoba, Madikelong, Bogalatladi, Zeekoegat, Malomanye, Sefateng, Mphaaneng, Malogeng, Pelangwe, India, Ga-Nkoana, Monametsi, Maroteng, Ga-Selepe, Tsibeng, Manotwane, Sealane, Mosotse, Mangaka, Ga-Phasha, Ga-Mampa, Ga-Makgopa, Makyake, Dilokong and Tswereng.

11.3 Stakeholder engagement during scoping

Table 11-4 provides the stakeholder engagement approach for the proposed project.

Table 11-4: Stakeholder engagement approach

Announcement phase

Taking the traditional structures into consideration, SRK met with member for the relevant Traditional and Royal Councils during 31 January and 2 February 2023. Thereafter the project was announced to the public during the week of 13 February 2023, through the following methods:

- Placement of English & Sepedi Advertisement in Steelburger / Lydenburg Newspaper
- Placement of English & Sepedi Advertisement in Sekhukhune Times
- Placement of English & Sepedi Site notices in and around Bokoni Mine at public places:
  - Bokoni Main Office entrance gate;
  - Roka Selepe TA offices/hall
  - Maesela TA office
  - Marupeng TA office
  - Malomanye TA office
  - Sefateng TA office
  - Bogalatladi TA office
  - Mabulela TA office
  - Mokgotho-Monametse community
  - Furn4U Shopping Centre
  - Atok Post Office
  - Broadway Supermarket
  - Ener-gi Filling Station
  - Pkaakla'a Malope Liquor Store
- Placement of Stakeholder Letter (as provided to the Traditional and Royal Councils), Project introductory meeting presentation and Background Information Documents (BID) (available in English and Sepedi) onto SRK's website: https://www.srk.com/en/public-documents/bokoni-platinum-mines-permitting-projects-burgersfort-limpopo

Subsequent to announcing the project to the public, additional introductory meetings were held with other communities. The table below provides a summary of the engagements SRK has had during the announcement phase:

Stakeholder group	Announcement activity/materials	Date of engagements / distribution of materials
Roka Selepe Traditional Authority	Project Introductory meeting	31 January 2023
	Project announcement meeting with communities	06 March 2023

Announcement phase

Maesela Traditional Authority	Project Introductory meeting	31 January 2023
Baroka Ba Nkwana	Project Introductory meeting	01 February 2023
Bapedi Kingdom	Project Introductory meeting	01 February 2023
FTLM councillors	Project Introductory meeting	02 February 2023
Monametse Mokgotho Community Engagement Forum	Project Introductory meeting	28 February 2023

Refer to Appendix C for copies and proof of all notification materials.

Availability of the Draft Scoping Report for Public Comment

The DSR will be made available for public review and comment for a period of more than 30 calendar days from 28 April 2023 – 29 May 2023, taking note of the public holidays the period has been extended accordingly. The availability of the DSR will be announced as follows:

- Notification to registered I&APs of the availability of the DSR via SMS, email and letters;
- Posting the DSR, notification letter and comment form on the SRK website;
- Placing hard copies of the DSR, with letters inviting comments on the report and comment forms at selected easily accessible places around the mine area

11.3.1 Comments and Responses during the announcement phase

Comments received throughout the process are collated into a Comments and Responses sheet. Refer to Table 11-5 for the Expansion Project Comments and Responses.

Table 11-5: The Expansion Project Comments and Responses Sheet

Comments, Issues, suggestions raised by stakeholders	Stakeholder name	Organisation/ Community	Date	Source of comment	Response by SRK
Request for information about vendor registration in light of potential business opportunities at Bokoni platinum under ARM.	Pule Nkosi	Not specified	16 February 2023	Email	SRK provided Mr Nkosi with the procurement procedure (see below:) Companies can send the following information to myprofile@bokoniplatinum.co.za: 1. Company name 2. Contact details (full name, email address and cell phone number) 3. Role (if part of Business Forum) 4. Description of business offering 5. Physical address 6. Company Letterhead 7. Banking details confirmation letter less than 3 months old 8. Tax Compliance Status Pin Document 9. CIPC Registration documents COR14.3 / COR39 10. Share Certificates 11. Clear Certified ID Copies of all Directors / Shareholders 12. Company Profile 13. Workmans Compensation Letter of Good standing / RMA 14. BBBEE Accreditation Certificate / BBBEE Affidavit if you qualify The email subject must include company name and line of business.
1. Current TSF is poorly rehabilitated – resulting in excessive dust being generated from the TSF on windy days. He suggests that a plan be implemented to convert the area to a safe and stable area thereby reducing health issues to the communities.	Havy Manala	Sefateng	23 February 2023	Letter via email	1. One of the aspects that will be dealt with through the Start-Up Project is the modification and renovations of the infrastructure associated with the existing Plant. The mine intends to repair and replace (where needed) pipelines used for dust suppression on the TSFs. During the time of care and maintenance no wet tailings were deposited onto the TSFs and dust suppression was done on a minimum required level. However the dust issue will be addressed through the Start-Up Project and monitored as required under the existing EMPr. 2 & 3. These issue were submitted to the mine's Social Performance team and a formal response have been requested

Comments, Issues, suggestions raised by stakeholders	Stakeholder name	Organisation/ Community	Date	Source of comment	Response by SRK
2. AMR is not empowering local SMMEs meaningfully; and 3. The current lease agreement between RICHTRAU (PTY) LTD, LEBOWA PLATINUM MINE LIMITED AND BAROKA BA NKWANA (now binding on ARM), includes a cause noting that "*lessee shall endeavour to procure the necessary resources to continue with the provisions of skills to unemployed and unskilled community members and shall seek the resources to promote black economic empowerment through support for local business in the procurement of goods and services required by the lessee. The lessee further undertakes to enhance the relationship with the community through consultation and discussion in regard to matters that may arise in regard to this lease*".					but not yet received. These issues will be addressed by the mine before the end of the BAR commenting period.
Requested a copy of the BID, the maps / designs of the projects if such is not included in the BIDs.	Desmond Phaladi	Maesela-Manotwane	25 February 2023	Email	The documentation including the locality map was distributed to Mr Phaladi. SRK noted that the BID will cover details of both the start-up and the expansion project however, no detailed designs are currently available. These are under development

Comments, Issues, suggestions raised by stakeholders	Stakeholder name	Organisation/ Community	Date	Source of comment	Response by SRK
					and high-level designs will be communicated and included in the reports as deemed necessary and required.
Submission of CVs	Maruping Samuel	Not specified	27 February 2023	Email	SRK clarified via email that, SRK is undertaking the permitting process and does not form part of the recruitment procedure. SRK has requested the recruitment procedure from the mine. Once SRK get the contact details, we will communicate this to all relevant parties.
	Mzu Mzura	Not specified	11 March 2023	Email	
	Sizwe Nojavu	Not specified		Email	
Submission of introductory letter from Mamolapong Trading and Projects. • Mamolapong Trading & Projects specializes in social consultation and stakeholder management • The preferred company and local facilitation and engagement should be representative of the community • A local company should serve as a liaison and facilitator between the tribal authority and the mine in relation to SLP deliverables and impact, stakeholder management, and community relations • Mamolapong Trading and Projects proposes that if this is the approach that SRK would be amicable to, please do not hesitate to contact Mamolapong Trading and Projects.	Owen Phasha	Baroka Ba Nkwana	28 February 2023	Letter via Email	SRK has been appointed as the independent Environmental Assessment Practitioner (EAP) to undertake the permitting processes for the mentioned projects which includes the public participation process. SRK is guided by the National Environmental Management Act and the associated Regulations in terms of the manner in which public participation should be undertaken. The main objective for SRK, as required by law, is to ensure equitable and effective participation. As this stage SRK is responsible for ensuring that the issues raised by all registered Interested and Affected Parties (I&APs) are addressed in an objective manner. For this reason SRK declined the need for services of Mamolapong Trading and Projects. SRK did however added Mr Phasha to the Bokoni stakeholder databases in order to ensure that he is kept up to date on the progress of the permitting projects and any upcoming engagements planned for by SRK.

Comments, Issues, suggestions raised by stakeholders	Stakeholder name	Organisation/ Community	Date	Source of comment	Response by SRK
Requested a copy of the notice regarding public meetings	Kgotlelelo Mohlala	Sefateng	01 March 2023	Email	Details of the then planned public meetings during the announcement phase (06-08 March 2023) were shared as requested.
Request to release public meeting notice onto social media	Kgotlelelo Mohlala	Sefateng	02 March 2023	Email	SRK indicted that SRK has been appointed as the independent consultant to undertake the permitting process which includes stakeholder engagements. SRK is guided by the National Environmental Management Act and the associated Regulations in terms of the manner in which public participation should be undertaken. SRK does not make use of social media platforms and utilises posters, site notices and advertisements to distribute the information relating to a project. As the consultant, SRK needs to keep track of information sharing and if social media platforms are going to be used, SRK has very limited control over the type and manner in which the information will be shared. Should details of meetings or document availably, for example change during the course of the permitting process, it will be difficult for SRK to ensure that all stakeholders are aware of such changes. Therefore, SRK kindly requested that information sharing relating to the Bokoni Projects is done though SRK's engagement structures which excludes facebook or any other social media platform.

Figure 11-1 summarises the integrated EA processes and associated public participation which will take place during the various phases of this process. The phases of public participation are described in more detail in the following sections.

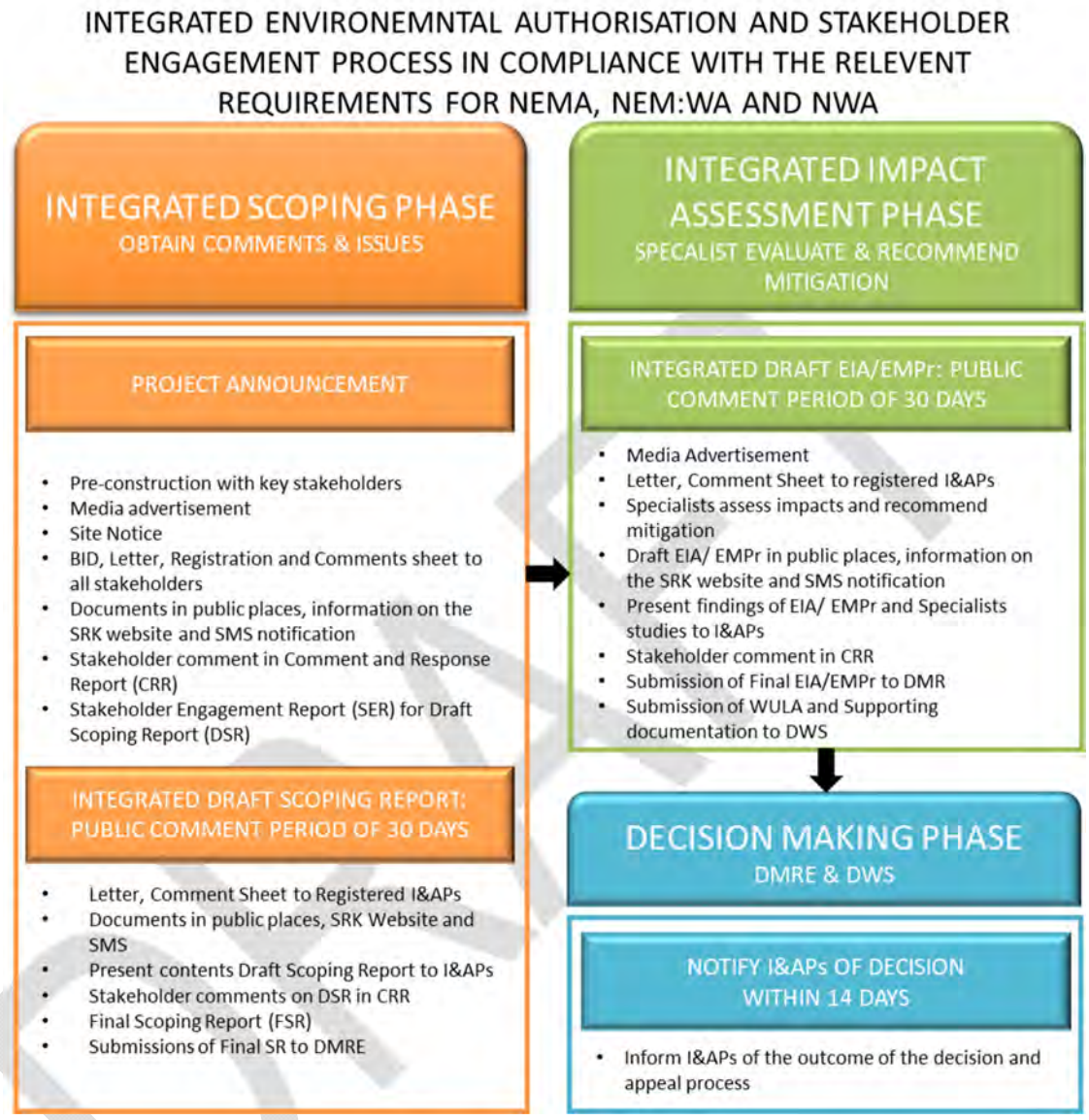


Figure 11-1: Public participation throughout the integrated environmental authorisation process

Details of meetings held with the CA and commenting authorities during project announcement are shown in Table 11-6.

Table 11-6: Meeting details with local authorities

Meeting details	Venue	Date
DMRE Pre-Application Meeting	DMRE Offices Polokwane	5 December 2022
DWS Pre- Application meeting	DWS Offices Lydenburg	6 February 2022

11.3.2 Opportunities to comment

I&APs are encouraged to submit their written comments to SRK's stakeholder engagement office through the contact details provided in the stakeholder letters, BIDs and comment sheets. I&APs can also fill in comment forms at one of the public places, contact the SRK stakeholder engagement team via telephone, email or fax to submit comments and to discuss any issues of concern.

All comments raised by I&APs throughout the process will be recorded and included in the FSR.

11.4 Comment and responses

The record of comments and responses will be updated with comments received during the 30-day public review period of the DSR and included in the FSR to be submitted to the DMRE.

11.4.1 The Protection of Personal Information Act 4 of 2013 (POPIA)

The POPIA, which aims to promote protection of personal information, came into effect on 1 July 2021. The EIA Regulations, 2014 require, inter alia, transparent disclosure of registered stakeholders and their comments. In terms of the EIA Regulations, 2014, stakeholders who submit comment, attend a meeting or request registration in writing are deemed registered stakeholders who must be added to the project stakeholder database. By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be processed and disclosed, in fulfilment of the requirements of the EIA Regulations, 2014 and the National Appeal Regulations, 2014.

12 Environmental attributes associated with the sites

This section provides a general overview of the BPM environmental and social context that will be affected by the Expansion Project. The information has been obtained from the specialist baseline information. More detail on certain aspects of this environment will be included in the EIA once the specialist investigations have been completed and inputs from I&APs have been considered during the public participation process.

12.1 Outcome of the screening tool for the Expansion Project

Based on the outcome of the environmental screening tool exercise, the only sensitivities within the proposed project locations which was highlighted as very high were agriculture, aquatic and terrestrial biodiversity (Table 12-1). As will be indicated in Section 11, the ecology, hydropedology and freshwater assessment has made extensive recommendations for mitigation of any impacts associated with floral ecology and indigenous species (aquatic and terrestrial). A high sensitivity theme was noted for the civil aviation however since BPM is an operational mine and no infrastructure will be constructed at heights posing an impact to aircraft for this project, it is not anticipated that the proposed project pose an impact on this theme. A high sensitivity theme was also noted for Archaeological and cultural heritage and animal species.

Table 12-1: BPM's Start-Up Project's environmental sensitivities in terms of locality

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

12.2 Climate and meteorology

12.2.1 Rainfall and evaporation

The area receives most of its rain during the summer months (December – February) with limited rainfall during the winter months (June to August). Monthly average rainfall and relative humidity are illustrated in Figure 12-1.

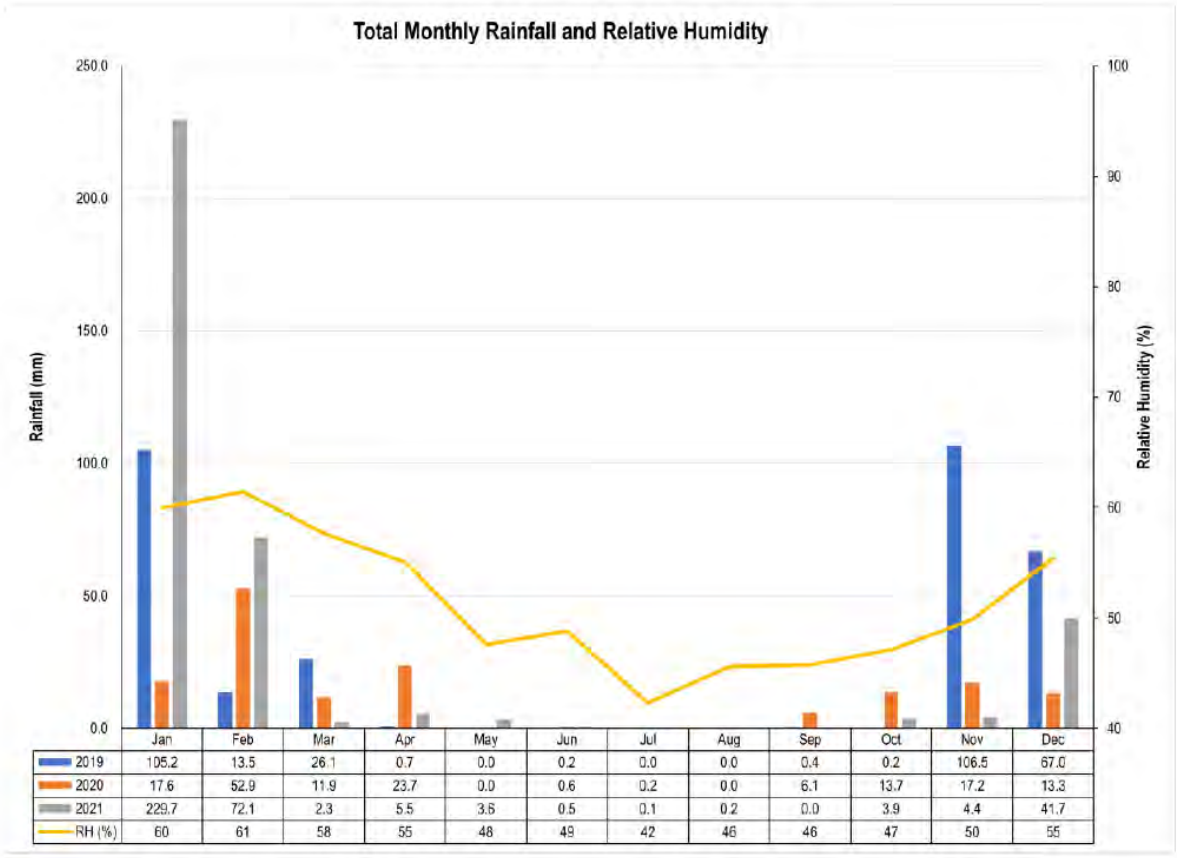


Figure 12-1: Average rainfall and relative humidity based on modelled WRF meteorological data (Jan 2019 – Dec 2021) (Source: Airshed, 2023)

12.2.2 Site temperature

Maximum, minimum and mean temperatures for the study area are given as 32°C, 6°C and 21°C respectively, based on modelled WRF data for the period January 2019 – December 2021 (Table 12-2). The month of July experienced the lowest temperature of 6.5°C whereas the maximum temperature of 31.5°C occurred in November. During the day, temperatures increase to reach maximum at around 14:00 in the afternoon especially during the summer months. Ambient air temperature decreases to reach a minimum at around 05:00 i.e. just before sunrise (Airshed, 2023).

Table 12-2: Mean, maximum and minimum monthly average temperatures at BPM

Month	Average Temperature	Hourly maximum Temperature	Hourly minimum Temperature
January	25.0	31.0	18.8
February	24.3	30.0	18.4
March	23.6	30.0	17.0
April	21.2	28.0	14.9
May	18.0	25.2	11.4
June	14.7	22.2	7.9
July	14.0	22.3	6.5
August	17.8	26.0	10.7
September	20.3	28.0	12.8
October	23.0	29.8	16.0
November	25.2	31.5	18.1
December	25.2	30.9	18.6

12.2.3 Wind speed and direction

The prevailing wind field in the area is predominantly from the eastern sector as shown by both datasets, with a small variation between east-northeast and south-southeast components. During the daytime (06:00 to 18:00) the east-northeast winds dominate with a shift to southeast winds during night-time (18:00 to 06:00). There is a decrease in calm conditions from day to night. The average wind speeds for the period, day and night wind fields are 4.4, 4.3 and 4.5 m/s respectively.

The wind field suggests predominant eastern and east-north-eastern winds during summer (October - March), autumn (April – May) and spring (September – November). In winter (June – August), a west-southwestern component is codominant with the eastern one. The average wind speeds during summer, winter autumn and spring are 4.5, 3.9, 3.8 and 5.2 m/s respectively. There are more calm periods during winter and less during spring (Airshed, 2023).

12.3 Geology

The project area overlies the Critical Zone and Main Zone intrusive rocks of the eastern limb of the Rustenburg Layered Suite, of the Bushveld Complex. The dip of the layering varies between 15˚SSW at Brakfontein 464KS, 20˚SSW in the tailings dam area to 30˚SSW adjacent to the Olifants River. The economic targets are provided by the PGM-bearing Merensky reef and UG2 chromitite horizons. The local geology is obtained from the diamond-drilled core hole and shows that the rocks are mainly ultramafic, composed of norites, anorthosites and pyroxenites with thin stringers and layers of chromitites. In addition, swarms of dolerite dyke exist at various depths and orientations. Usually, dykes have low permeability and are barriers to groundwater flow. At BPM, however, the top 60-80 m of the dykes are weathered just like the host rocks (Digby Wells, 2023).

12.4 Topography

The region can generally be described as rugged, with long wide valleys separated by northwest-southeast trending ridges. The elevation ranges between 800 m on the valley to 1600 m on the ridges. The main drainage system is the Rapholo River flowing from the southeast (Klipfontein Farm) to the northeast (Brakfontein Farm) and eventually joining the Olifants River. The mine is situated between the Strydpoortberge and Houtboschberg mountain range to the north and the Leolo Mountains to the south. The region is rugged, with long wide valleys separated by north-east south-west trending ridges

12.5 Soils, Land use and Land Capability

12.5.1 Dominant soil forms

The dominating soil forms occurring within the focus area include the Brandvlei/Oakleaf, Erin, Addo, Mispah/Tubatse, Swartland/Darnall, Dundee, Mispah/Glenrosa and the Witbank formations. The Brandvlei and Addo soil types are associated with the accumulation of calcium carbonate over a long period of time. The pH levels of these soils increase with depth, typically approaching 8 to 8.5 in the sub-soil. Calcic soils are typically low in organic matter due to spatially scattered vegetation in the landscape and rapid decomposition of organic matter in arid areas in which they occur. The Tubatse and Erin soil forms are characterised by the presence of Neocutanic soil horizons underlain by lithic and pedocutanic horizons respectively. These soils are characterised by the weakly structured subsoil with variegated soil colours and thus indicating an intermediate stage of paedogenesis. The presence of the pedocutanic horizon on the Erin soil form indicates the vertical movement of soil colloidal matter, accumulation of alluvial, colluvium and/or aeolian material over time. These soils are generally deep and suited for cultivation, however tillage, permeability and root penetration can be a problem where the presence of the pedocutanic horizon is encountered. Also, these soils have a propensity to leach nutrients out the profile and can be prone to wind and water erosion if not carefully managed. The Mispah/Glenrosa and rock outcrops are typically shallow in nature. The shallow depth can be attributed

to limited rock weathering and convex topographical conditions at the crest or scarp of a hillslope resulting in removal of soil and in some instance leaving rocky outcrops behind. Based on the degree of weathering some lithic material of varying sizes can be mixed closely with soil material. These types of soils are usually avoided for intensive use and thus left for grazing, forestry, and wildlife land uses. The soils of duplex character such as the Darnall and Swartland formation are characterised by moderately to strong structure with a clear textural distinction between a sandier surface horizon and a higher clay upper subsurface horizon. These types of soils are typically not preferred for cultivation due to the high clay content, strong structure and are prone to waterlogging conditions (highly impermeable when wet). Waterlogging conditions make these soils prone experiencing runoff during high rainfall events and thus the formation of erosion gullies over time. Nonetheless, should the soils be cultivated, intensive management practices will have to be implemented.

The Dundee soil form is associated with watercourses but lack evidence of gleying but consist of fluvial, lacustrine or aeolian deposits. These soils typically occur on low lying terrain positions. These soils are sandy in nature and thus lack sufficient nutrients and can be prone to waterlogging conditions during the rainy season. The Witbank (Anthrosols) soil forms are soils which have been subjected to physical disturbance because of human interventions. Such interventions include transportation and deposition of the earth material containing soil. As a result, these soils are not ideal for agricultural cultivation.

12.5.2 Current land use

The focus area largely characterised by open veld and bushveld which is vacant and mostly used for grazing purposes by local communities. Mining related infrastructure and residential areas area also present in the mining right area.

12.5.3 Land capability and potential classification

The project area falls into Climate Capability Class 6 moderately restricted growing season due to low temperatures, frost and/or moisture stress. Limited suitable crops for which frequently experience yield loss. Table 12-3 presents the dominant soil forms and their respective land capability as well as areal extent expressed as hectares as well as percentages.

Table 12-3: Land capability associated with the soils occurring within the project area.

Soil Form	Land capability	Land potential	Area (ha)	Percentage (%)
Brandvlei/Oakleaf	Arable (Class IV)	Restricted Potential (L5)	261,18	4.9
Erin			102,65	1.9
Tubatse			656,91	12.2
Addo			99,29	1.8
Mispah/Tubatse			101,38	1.9
Swartand/Darnall			547,04	10.2
Dundee	Watercourse (Class V)	Restricted Potential (L5)	82,05	1.5
Mispah/Glenrosa	Grazing (Class VI)	Very Restricted Potential (L6)	882,71	16.4
Rocky Outcrop			2503,42	46.6

Soil Form	Land capability	Land potential	Area (ha)	Percentage (%)
Witbank	Wilderness (Class VIII)	Very Low Potential (L8)	131,46	2.4
Total Enclosed			**5368.10**	**100**

12.6 Biodiversity

12.6.1 Flora

Five habitat units have been identified in the area, summary of each of the habitat units is summaried in Table 12-4.

Table 12-4: Habitat units within the study area.

Habitat Unit	Description
Sekhukhune Mountain Bushveld	This habitat is associated with ultramafic rock formations of higher elevation and is typically characterised by shallow soils, unique geology, and varying aspects. This habitat includes a variation of habitat characteristics, including rocky outcrop habitat and rocky sheet habitat. Grouping of such finer-scale habitats was deemed adequate as suitable habitat for the same SCC species is available within these variable habitats. Furthermore, these fine-scale habitats all share a main feature of the Sekhukhune Mountain Bushveld, namely rocky, shallow soils of higher elevation. Overall, the Sekhukhune Mountain Bushveld habitat supported a moderately high to high species richness and provides suitable habitat for several endemic10 and near-endemic species that favour the unique geology present within the habitat. This habitat is diverse in terms of flora and supports a wide variety of woody species (including trees and shrubs, e.g., *Bolosanthus speciosa, Catha edulis, Combretum hereroense, Combretum molle, Commiphora africana, Grewia vernicosa, Kirkii wilmsii, Pappea capensis, Searsia keetii, Vitex obovata subsp. wilmsii, and Ziziphus mucronata),* herb and forb species (e.g., *Berkheya insignis, Commelina africana, Cyphostemma woodii, Hypoxis rigidula, Kyphocarpa angustifolia, Pellaea calomelanos, Polygala hottentotta, and Senecio latifolius*), and succulent species (e.g., *Aloe castanea, Aloe marlothii subsp. marlothii, Kalanchoe rotundifolia, and Sansevieria Hyacinthoides*). The unique geology and topography of these areas also support significant populations of Sekhukhune endemic and near-endemic species (such as Lydenburgia cassinoides, Searsia batophylla, and Triaspis glaucophylla). Generally, the habitat has been subjected to limited degrees of anthropogenic influences, e.g., firewood harvesting, AIP proliferation and grazing pressures. However, illegal mining is substantial in some of the areas that overlap with this habitat. Overall, the ecological integrity of the habitat is largely intact (except in areas where illegal mining has occurred).
Plains Bushveld Habiat	This habitat is generally associated with the lower lying areas within the focus area and is typically characterised by loose, red, sandy soils. Overall, the habitat unit supports a moderate to moderately low species richness. The habitat is dominated by thorny vegetation (e.g., *Dichrostachys cinerea*, Vachellia karroo, *Vachellia nilotica*) although a variety of broadleaf woody species (e.g., *Tarconanthus parvicapitulatus*, *Vanguaria infausta*, and *Ziziphus mucrontata*) were also present. Sections of this habitat have been subject to indigenous bush encroachment (particularly encroachment by *Dichrostachys cinerea* and/or *Senegalia mellifera* subsp. *detinens*). Habitat integrity is generally sub-optimal; this habitat is surrounded by human settlements and/or current mining operations and thus has been exposed to high levels of anthropogenic influences (including wood harvesting, alien, and invasive plants (AIP) proliferation, woody encroachment, illegal mining, subsistence farming, severely altered fire, and herbivory regimes, etc.,).
Freshwater Habitat	This habitat was characterised by non-perennial features (in which water is typically only present after heavy rainfall events). Although seasonal, the presence of water within these drainage lines provides habitat for species that have an affinity for

Habitat Unit	Description
	wetter conditions. Across the habitat, the floral community varied from weakly to strongly riparian in nature (as the species composition and structure varied from the surrounding Plains Bushveld and Sekhukhune Mountain Bushveld areas). Overall, species richness within the Freshwater habitat ranged from moderately low to moderately high; typically, areas that displayed a weaker riparian zone were characterised by lower species diversities and abundance whereas areas that typically displayed moderate to strongly riparian features were characterised by a higher diversity and abundance of floral species. Woody species were dominant within the habitat (e.g., *Carissa bispinosa, Croton megalobotrys, Dodonaea viscosa* var. *angustifolia*, *Searsia leptodictya* and *Vitex obovata* subsp. *wilmsii*). The herbaceous and graminoid layers were well represented, both in terms of cover and diversity; typical species recorded included *Commicarpus pentandrus, Crinum macowanii, Hypoxis rigidula, Kyphocarpa angustifolia*, *Ocimum obovate,* and *Vigna frutescens*. An array of succulent species were occasionally recorded throughout the habitat, including several *Huernia* and *Stapelia* species and *Sansevieria pearsonii*. Although the Freshwater Habitat has been subject to anthropogenic disturbance and impacts (e.g., AIP proliferation, erosion, and grazing), the Freshwater Habitat provides unique habitat within the greater landscape as it provides movement and dispersal corridors for both fauna and flora.
Erosion Gulley Habitat	This habitat is associated with the periphery of the Freshwater Habitat and is characterised by the presence of a dry gully, with steep sidewalls and a stepped longitudinal profile that is associated with very lose and sandy that is actively eroded by surface water runoff. The extent of the erosion within the gulley's is generally mediated by the presence of vegetation which works to stabilize and bind soil together, thus protecting soil from excessive runoff and rainfall. Although, these features are natural features within the Sekhukhune landscape, the size, extent, and integrity of the habitat has been significantly impacted by anthropogenic influences (e.g., grazing and AIP proliferation). Throughout the habitat, vegetation cover is not extensive; a feature that is attributed to the loose and sandy soils that characterise the habitat. Floral communities are mostly dominated by woody species (e.g., *Boscia foetida* subsp. *minima, Diospyros lycoides* subsp. *Lycoides, Dodonaea viscosa* var. *angustifolia, Gomphocarpus fruticosus, Grewia vernicosa,* and *Searsia Keetii*). Herbaceous (e.g., *Dicerocaryum senecioides, Jamesbrittenia macrantha,* and *Polygala hotentotta*) and succulent species (e.g., *Huernia* and *Stapelia* species) were occasionally recorded and the graminoid layer was poorly represented, both in terms of cover and diversity (typical graminoid species recorded included *Aristida canescens, Aristida stipitata and Fingerhuthia africana*). The Erosion Gulley Habitat provides unique habitat for floral species that have an affinity for lose sandy soils, that seasonally experience increased moisture levels and can withstand increased levels of erosion (e.g., *Jamesbrittenia macrantha* and *Polygala sekhukhuniensis*). Ecological integrity varies spatially across the habitat's extent, depending on impacting influences. AIP proliferation is evident throughout the habitat, although it is not prolific.
Transformed Habitat	This habitat was associated with areas in which little to no vegetation structure can be assigned to the floral communities, e.g., of associated with areas of current and historic mining practices and infrastructure, illegal mining areas, areas used for current subsistence farming, and the surrounding village/communal areas. Overall species richness within this habitat unit was moderately low to low. The floral community was largely dominated by AIP species, supporting only a few indigenous species. Typical indigenous species recorded within the habitat were limited to those which favour disturbed habitats (e.g., *Gomphocarpus fruitcosus*). Although the diversity of species was low, culturally and/or medicinally significant species (such as *Boscia albitruca* and *Sclerocarya bierra* subsp. *caffra*) have been kept within the region and persist throughout the habitat. This habitat has been severely impacted by anthropogenic activities and associated edge effects (e.g., dumping, AIP proliferation, soil disturbance and intense grazing pressures) which has resulted in the degradation of the unit and overall low species diversity. The Transformed Habitat is significantly fragmented and thus does not support intact dispersal and ecological corridors within the landscape. As such, the overall ecological condition of the habitat is low.

12.6.2 Fauna

The area has an abundance of faunal species from different classes. Several listed Species of Special Concern (SCC) were confirmed within the focus area, as well as the observed presence of suitable habitat for other potential SCC known to occur in the greater area. Table 12-5 provides a brief breakdown of the faunal classes represented in the focus area.

Table 12-5: Faunal classes within the study area.

Faunal class	Description
Mammals	The Sekhukhune Mountain Bushveld habitat unit is considered largely natural and has the potential to support the largest diversity of mammal species within the focus area. Although anthropogenic influences like firewood collecting, poaching and illegal mining have significantly reduced the potential mammal species diversity and abundance in this habitat unit. The Plains Bushveld, Transformed Habitat, Erosion Gulley Habitat and Freshwater Habitat within the focus area experience notably increased degrees of anthropogenic impacts due to easier access, including mining, grazing, firewood collecting, cultivation and poaching. These impacts have greatly reduced the mammal species abundances within the focus area and has limited it to a few common species apart from the domestic animals. *Canis mesomelas* (Black-backed Jackal), *Atilax paludinosus* (Water Mongoose), *Herpestes sanguineus* (Slender Mongoose), *Helogale parvula* (Dwarf Mongoose), *Pronolagus saundersiae* (Hewitt's Rock Rabbit), *Chlorocebus pygerythrus* (Vervet Monkey), *Papio hamadryas ursinus* (Chacma Baboon), *Procavia capensis* (Rock Hyrax), *Sylvicapra grimmia* (Duiker), *Hystrix africaeaustralis* (Cape Porcupine), *Genetta* (Genet) and *Lepus saxatilis* (Scrub Hare) were some of the mammal species observed within the focus area. *Parahyaena brunnea* (Brown Hyaena), *Tragelaphus strepsiceros* (Kudu) and *Panthera pardus* (Leopard) has been spotted in the surrounding areas by community members and may move through the focus area but are highly unlikely to reside permanently within the focus area due to increased human presences. Considering the above, the overall mammal diversity of the focus area is considered moderately low to intermediate and dominated by smaller mammals and mesocarnivores who are more adept to living in and around areas which are in close proximity to human communities.
Avifauna	The Sekhukhune Mountain Bushveld habitat occurred mostly on mountainsides and koppies where it is structurally the most complex, a characteristic which is considered a primary determinant of avian assemblages. Within these areas foraging and breeding opportunities are plentiful and serve to support a diversity of avifaunal species. The abundance of grass within this habitat is important for granivorous species whilst the presence of cliffs and rocky outcrops provide ideal perching and roosting opportunities for raptor and vulture species like *Falco biarmicus* (Lanner Falcon) and *Gyps coprotheres* (Cape Vulture). The relatively homogenous structure of the Plains Bushveld, with medium to high density tree layer and overgrazed grass layer, will support an intermediate diversity of birds. Water dependant bird species were restricted to the Freshwater habitats (seasonally commensurate with rainfall events) and mostly observed along the Olifants River. Avifaunal species observed were dominated by small insectivores, granivores and mixed feeders, feeding on both seeds, fruit, and insects. Larger predatory avifauna were limited, although, a few species were observed including, *Circaetus pectoralis* (Black-chested Snake-Eagle), *Circaetus cinereus* (Brown Snake-Eagle), *Milvus aegyptius* (Yellow Billed Kite, LC) and *Gyps coprotheres* (Cape Vulture). Overall, habitat availability and avifaunal diversity within the focus area is considered intermediate.
Herpetofauna	Several reptile species were observed throughout the focus area with the highest diversity and abundances within the rocky outcrops of the Sekhukhune Mountain Bushveld habitat. Reptiles are inherently secretive and shy, making their detection and identification in the field challenging. Based on the available databases, atlases, previous reports, food resources and habitat, it is deemed likely that the focus area will be able to support a high diversity of reptiles and will provide habitat for several SCC. It is likely that the Sekhukhune Mountain Bushveld harbours a high diversity of reptiles, the Plains Bushveld an intermediate diversity whilst the Transformed and Erosion Gulley habitats will have a moderately low diversity of reptile species as persecution, predation of reptiles and decreased habitat suitability is likely higher in these units. Snakes in particular will face increased persecution rates in areas of human settlements.

Faunal class	Description
	Amphibians were limited as they are mostly associated with the Freshwater habitat that are largely comprised of ephemeral drainage lines and channels offering limited year-round sources of water for moisture dependant amphibian species due to the ephemeral nature of these systems. The Olifants River provides a more permanent water resources for potential amphibian species. Overall, the focus area is considered to have a moderately low sensitivity for amphibians.
Invertebrates	The Sekhukhune Mountain Bushveld including rocky outcrops, Olifants River and the freshwater habitat within the uplands of the focus area provides ideal habitat for a diversity of invertebrates. Significant portions of the Plains Bushveld, Transformed Habitat and Erosion Gulley Habitat are degraded in nature comprise of homogenous vegetation and are interspersed with areas of bare ground, or human settlements which are of limited value for many invertebrates. Coleopterans, Lepidopterans, Hemipterans, Orthopterans and Dipterans were the most abundant orders observed within the focus area. The TOPS protected *Hadogenes polytrichbothirus* (Rock Scorpion) was observed In the Sekhukhune Mountain Bushveld habitat under sheet rock. The focus area is considered to have a moderately high invertebrate diversity within the Sekhukhune Mountain Bushveld habitat which has mostly escaped human disturbances. The Plains Bushveld, Transformed Habitat and the Erosion Gulley Habitat provide decreased opportunities for resources and support only a moderately low invertebrate diversity.

12.7 Surface water

The project site falls within the Olifants River catchment within the B52J quaternary in Olifants Water Management Area 4. The main river draining the BPM is the Rapholo and Monametsi River which are non-perennial. The Rapholo River cut in between the BPM and drains into the Olifants river. The overall surface water hydrology baseline is described in Table 12-6.

Table 12-6: Surface water hydrology baseline

Baseline aspect	Description
Surface water hydrology	• The mining operation falls within the Rapholo River and Bok River catchments of the Olifants River. • The Olifants River is approximately 7 km away from the BPM surface rights area. The BPM mine area is largely drained by the non-perennial Rapholo River with the Middelpunt Hill shaft and Atokia Village situated in the Bok River catchment. • Rapholo River is classified as a losing stream due to the fact that its unconsolidated boundaries (alluvial aquifer) only extend a couple of metres from the main channel and approximately 6 m deep, with the local groundwater level approximately 25 m below the river channel. Water movement is thus only possible from the Rapholo River down towards the groundwater table (SAS, 2015). • The non-perennial Monametsi River is a south flowing tributary of the Rapholo River and drains a small east-west trending valley. The Monametsi River is fed by surface drainage from the surrounding hills, as well as the non-perennial Monametsi spring, near Brakfontein shaft. Artisanal mining in the area has taken place adjacent to the Monametsi River impacting on what was considered to be a pristine environment at monitoring point BSW13 (SAS, 2018a). • The Bok River is non-perennial and drains to the Malips Dam situated within Atokia Village. A spring located in the lower portion of the Bok River (Jagdlust spring, approximately 1 km upstream of the confluence with the Olifants River) creates visible stream flow and water pools in this lower section of the river before it infiltrates into the alluvial Olifants River floodplain (ERM, 2009). A wetland and riparian zone delineation study has not been conducted at BMP and is not required by the WUL.
Surface water quality	Surface water was routinely monitored at the three Olifants points, seepage to Rapholo River and Bok River. Ad hoc sampling has previously been done in the open pit area and additional seepage monitoring is undertaken in the Rapholo River in the TSF area and behind the community hall. **Olifants River:** • The Olifants River complies with the 2011 WUL limits for mean data for 2017 and 2018 to date with the exception of occasional values that exceed the limits mid-stream and/or downstream

Baseline aspect	Description
	for TDS, sodium and chloride. Ammonia as NH3 is not reported on so compliance could not be confirmed but ammonia as NH4 is frequently below detection limit with detected levels typically higher downstream. • Comparing the up- and downstream data in the Olifants River a localised impact from Rapholo River may be indicated (TDS of 438 mg/l upstream compared to 466 mg/l downstream of Rapholo River) but quality improves downstream after the confluence of the Bok River (TDS of 446 mg/l if the anomalies in the next bullet are excluded). • Downstream of Bok River had peak levels (anomalies) in January and October 2017, similar to the quality in the Bok River, but is not indicating any increasing trends over 2017/18. The peaks are most significant for nitrate with a high of 46.3 mg/l as N in January and 14.8 mg/l as N in October compared to the annual mean of 6.8 mg/l as N and 0.8 mg/l as N in 2012-15. There are no similar peaks upstream indicating possible impacts from Bok River or sampling/data capture errors. Due to no peaks in the Bok River data and the likely dilution of Bok River quality as it enters the Olifants River, an error is more likely. **Rapholo River**: As there is no surface flow in the Rapholo River for most of the year the quality data largely represents seepage flow from the unlined RWDs. • The data exceed the WUL limits and shows a slight improvement but some monitoring points show deterioration in TDS. The date also shows an improvement in nitrate levels probably due to no use of explosives during care and maintenance. • There is a clear increasing trend in TDS moving downstream in the Rapholo, compared to the previous period which had similar TDS levels from up- to downstream. • Monametsi River represented a suitable upstream reference site for BPM prior to artisanal mining impacting on this stream. The WUL limits at this monitoring point over the long term are exceeded for TDS and magnesium for median and 95th percentile values, and for chloride, sulfate and ammonia (free, unionised) for 95th percentile values. The 2017/18 data, however indicated compliance for most parameters tested except for TDS and occasional magnesium. There were TDS and nitrate peaks in January 2017, which could potentially be linked to illegal mining. **Bok River**: The Bok River system monitoring points begin at the Malips Club Dam, and continues downstream through Atokia Village and the local rural community before discharging into the Olifants River. • For the Bok River, monitoring data showed improvements in nitrate levels probably linked to no use of explosives during care and maintenance. The water quality becomes increasingly impaired downstream. • High TDS levels of the surface water sampling points have been picked up and are characterised by higher chloride levels, typically exceeding1000 mg/l. The Bok River does, however, have lower nitrate levels than Rapholo River. • It is evident that cumulative inputs of contaminants into the Bok River occur. As the downstream quality is more similar to the Middelpunt Hill shaft quality than the Malips Dam quality (largely water from Central Area) this indicates the greatest influence on the Bok River quality is from Middelpunt Hill via seepage and to a lesser extent overflows from Malips Dam or seepage impacts from irrigation. The local rural community may also be contributing to impacts on this watercourse, with specific mention of increased nitrate, most likely due to inadequate sanitation. • Despite extensive non-compliance recorded at the downstream monitoring points in the Rapholo and Bok Rivers in the 2017/18 assessment period, water quality in the Olifants River does indicate assimilation of localised mining impact. It can, therefore, be concluded that impact from several decades of mining is localised. This is largely due to the fact that the Rapholo and Bok rivers are losing streams hence water in these rivers is not reaching the Olifants River under normal flow conditions.
Surface water use	Potential use of surface water by surrounding communities and the environment is as follows: • **domestic use** is limited as no farmers or other parties use or rely on the Rapholo or Bok River as a water source for domestic purposes due to their ephemeral nature. Use is, however, occurring in the Monametsi River, which is fed by Monametsi spring, and the Bok River where the community has created a dam (Bok irrigation dam). Some water reticulation has been installed by the local municipality to all the villages surrounding the Mine (Digby Wells, 2013);

Baseline aspect	Description
	• **livestock and game watering** in the Rapholo River is possible only where goats, cattle and game drink from water that pools in the Rapholo and Bok rivers and from the Monametsi River. Malips dam serves as a watering hole for game and birds on site and Bok irrigation dam provides water for livestock; • **irrigation** by local communities is on a subsistence basis from Bok irrigation dam; • **recreational use** is restricted to Malips Dam on the Bok River where Atokia Village uses the dam for fishing; • **aquatic ecosystems** are limited as the Rapholo and Bok rivers are mostly dry except during storm events.

12.8 Geohydrology

The general geohydrological baseline for the project is described in Table 12-7.

Table 12-7: General geohydrological baseline for BPM

Baseline aspect	Description
Overview	The project area overlies the Critical Zone and Main Zone intrusive rocks of the eastern limb of the Rustenburg Layered Suite, of the Bushveld Complex. The dip of the layering varies between 15˚SSW at Brakfontein 464KS, 20˚SSW in the tailings dam area to 30˚SSW adjacent to the Olifants River. The economic targets are provided by the PGM-bearing Merensky reef and UG2 chromitite horizons. The local geology is mainly ultramafic, composed of norites, anorthosites and pyroxenites with thin stringers and layers of chromitites. In addition, swarms of dolerite dyke exist at various depths and orientations. Usually, dykes have low permeability and are barriers to groundwater flow. At BPM, however, the top 60-80 m of the dykes are weathered just like the host rocks. When dykes are encountered underground, they are blasted, and mining continues through them.
Aquifers	Logs of 243 boreholes drilled historically were evaluated to characterise the number and thickness of the aquifer layers. In general, water strikes have been intercepted at depths between 10 and 150 mbgl and can be sub-divided into four aquifer layers based on the frequency distribution (Digby Wells Environmental, 2021): • **Alluvial aquifers**: This is an unconfined alluvial deposit located along the Olifants River, which is made up of unconsolidated sand and gravel. The aquifer thickness varies between 7 m and 21 m along the river. Alluvial deposits are also found along the Rapholo Stream but are often dry, except near the plant area where seepage from the unlined two TSFs and return water dams recharge the aquifer. • **Shallow weathered aquifer**: The top approximately 60 m of the Bushveld formation is weathered. Within the Rapholo valley, this aquifer is typically characterised by weathered and fractured norite, pyroxenite and anorthosite, dipping with the Bushveld strata. In the underground mine workings, this aquifer, in particular the highly weathered pyroxenites, yields most of the groundwater inflow. It is classified as the most important aquifer in the study area, with the highest yields. • **Fractured Aquifer**: Small amount of water strikes have been recorded between 60 – 80 m. Although the aquifer appears to be dominated by fracturing, partial weathering could be present. • **A deep un-weathered fractured aquifer** represents discrete fracture zones in otherwise fresh hard rock. Such aquifers have been observed to a depth of 130 – 140 m and are controlled by fracture orientation, depth, connectivity and aperture.
Groundwater Elevation and Flow Direction	Regionally within the catchment, the groundwater level in the top weathered aquifer does not seem to have been affected by the underground mining that is taking place in the deep basement rocks (Digby Wells, 2020). This shows that the mine dewatering has not impacted the water table in the shallow weathered aquifer.
Groundwater inflow	Considerable groundwater inflow from the weathered zone into the underground workings is likely to occur when roof construction of the underground mine extends into the hanging wall of the weathered rocks. The inflow amount is dependent on the degree of weathering, size of hanging wall roof bolts and size of blast-induced fractures in the hanging wall. It is highly recommended that mining activities take place below a vertical depth of 80 m (maximum depth of weathering) to avoid groundwater inflow into the underground workings (Digby Wells Environmental, 2021).
Groundwater use	BPM 's surrounding communities mainly rely on the boreholes for water supply, some are maintained by the government, donated by BPM or privately owned. In the 2022 hydro-census survey, 75 boreholes were located in the 10 surrounding villages.
Groundwater Quality	Based on the geology of the area no acid-mine drainage is expected at BPM as observed from the monitoring data as well as geochemical. The rocks are all mafic and ultramafic with no acid-forming minerals such as pyrite. The groundwater quality around the current mining area has been impacted by mining activities. This is demonstrated in the August 2022 water monitoring conducted by Letsolo that there are parameters of concern based on the Water Use License (WUL) and South African

Baseline aspect	Description
	Water Quality Guidelines (SAWQG) for Domestic Use such as electrical conductivity, total dissolved solids, chloride, sulfate, nitrate, fluoride, calcium, magnesium and sodium. There is a high salt concentration indicated by the total dissolved solids with the highest concentration observed in the borehole in between the TSFs. However, the main contributor to the total dissolved solids is chloride which is the main parameter of concern (Letsolo Water and Environmental Services, 2022). This was also indicated in the groundwater model update report in 2021 (Digby Wells Environmental, 2021). The background chloride concentration upgradient of the mine was approximately 50 mg/L and any chloride increase when the groundwater flows by the mine is attributed to mining activities. The currently monitored borehole ZGGW7 has a chloride concentration at 53 mg/L at a pH of 8.18 as of August 2022. This still supports the background chloride concentration that was indicated by Digby Wells (2020). However, at 3 km in the easterly direction from Zeekoegat Farm towards the current mining area based on a hydro-census conducted in October 2022, borehole SFBH1 is highly contaminated.

12.9 Air quality

12.9.1 Air quality sensitive receptors

Air quality sensitive receptors (AQSRs) relate to where people reside. Residential areas included as sensitive receptors in this study include Ga-Makgoba, Madikelong, Bogalatladi, Zeekoegat, Malomanye, Sefateng, Mphaaneng, Malogeng, Josaphat, Pelangwe, India, Ga-Nkoana, Monametsi, Maroteng, Ga-Selepe, Tsibeng, Manotwane, Sealane, Mosotse, Mangaka, Ga-Phasha, Ga-Mampa, Ga-Makgopa, Makyake, Dilokong and Tswereng. The main towns in the region are Burgersfort, Polokwane, Haenertsburg and Lebowakgomo. All identified AQSRs are listed in Table 12-8, indicting the distance and direction from BPM.

Table 12-8: Identified air quality sensitive receptors in relation to BPM

AQSR		Distance and Direction from Start-Up Project area	AQSR		Distance and Direction from Start-Up Project area
1	Ga-Makgoba	~9 km west-northwest	14	Maroteng	~8 km south-southeast
2	Madikelong	~7 km northwest	15	Ga-Selepe	~9 km southeast
3	Bogalatladi	~5 km northwest	16	Tsibeng	~8 km east-northeast
4	Zeekoegat	~3 km west	17	Manotwane	~14 km southeast
5	Malomanye	~4 km southwest	18	Sealane	~16 km southeast
6	Sefateng	~2 km north-northwest	19	Mosotse	~14 km east-southeast
7	Mphaaneng	~10 km west	20	Mangaka	~15 km east-southeast
8	Malogeng	~11 km west-southwest	21	Ga-Phasha	~14 km east-southeast
9	Dal Josaphat	~11 km southwest	22	Ga-Mampa	~17 km east-southeast
10	Pelangwe	~11 km south-southwest	23	Ga-Makgopa	~20 km southeast
11	India	~11 km south-southwest	24	Makyake	~16 km southeast
12	Ga-Nkoana	~17 km south-southwest	25	Dilokong	~22 km southeast
13	Monametsi	~ 5 km south-southeast	26	Tswereng	~18 km east

12.9.2 Ambient air pollutant concentrations in the project area

A dustfall monitoring network comprising of twenty-four (24) single dustfall units are in place at BPM (Figure 12-2), with nine (9) of them being residential while the other fifteen (15) are non-residential dustfall stands.

The residential dust fall out monitoring network at BPM follows the American Society for Testing and Materials standard method for collection and analysis of dust fall out (ASTM International, 1998). Dust fall out rates for the period May to July 2022 were less than 400 mg/m²/day at five residential monitoring locations, and thus well below the residential limit 600 mg/m²/day. An exceedance to the

residential limit was recorded at W of MPH road caravan in June 2022 (628 mg/m²/day). During the month of July, there was one exceedance of the residential limit at Motsepe clinic (831 mg/m²/day).

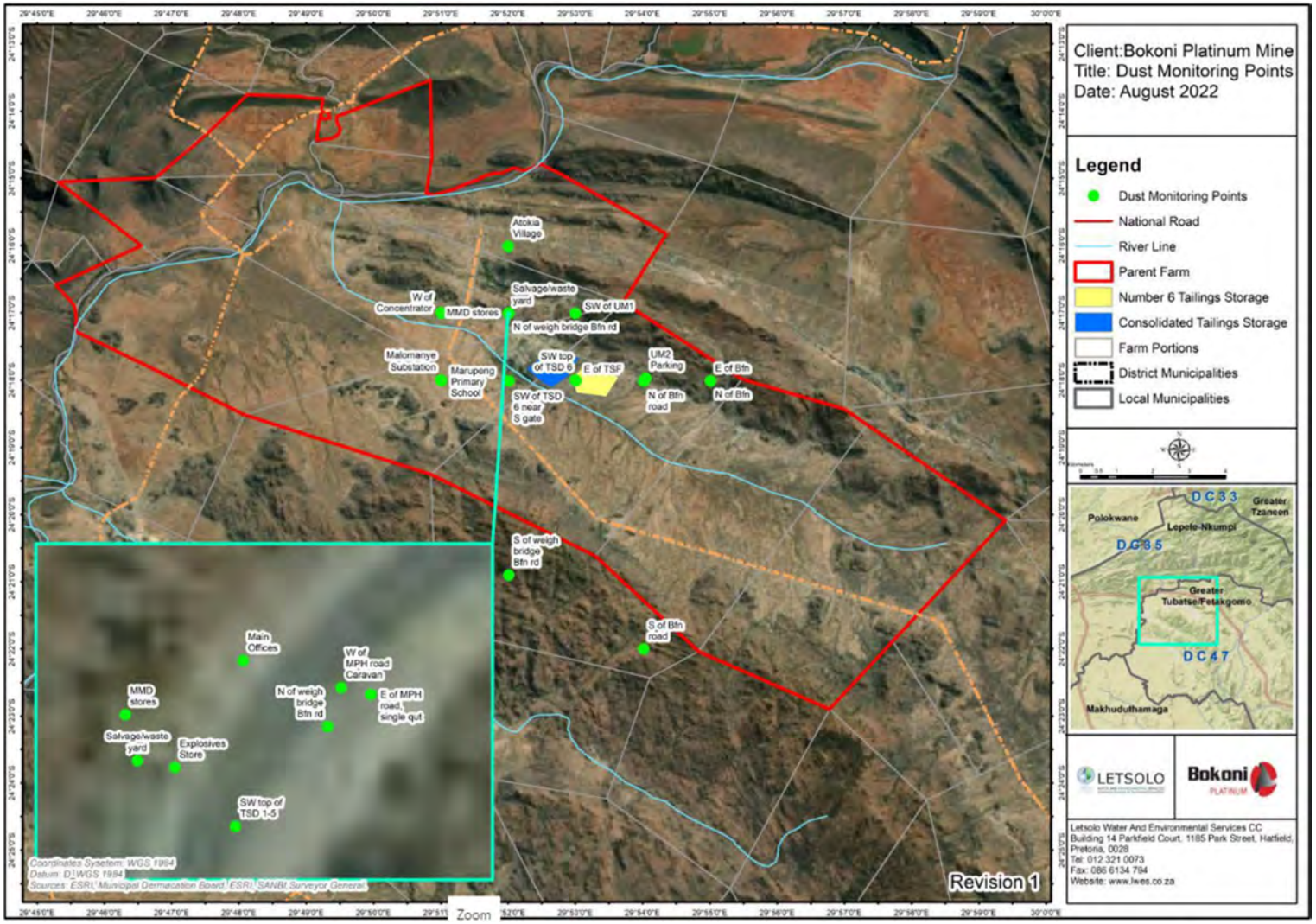
There was a single exceedance of the non-residential limit (1 200 mg/m²/day) and the alert threshold (2 400 mg/m²/day) at the non-residential sites. This incident occurred in July 2022 at SW Top of TDS 6 bucket (site number 19) with a record (4 299 mg/m²/day).

12.9.3 Existing Emission Sources

Land use in the region includes human settlements, farming, mining and platinum processing. Sources of atmospheric emissions include:

- Gaseous and particulate emissions from platinum processing and smelting operations;
- Gaseous and particulate emissions from mining operations;
- Miscellaneous fugitive dust sources including vehicle entrainment on roads and windblown dust from open areas;
- Gaseous and particulate emissions from agricultural activities;
- Gaseous and particulate emissions from vehicles;
- Gaseous and particulate emissions from household fuel burning;
- Gaseous and particulate emissions from biomass burning during certain periods of the year (e.g. wildfires); and
- Deposition of gaseous and particulate emissions from long range transformation of pollutants.

The main pollutant of concern would be particulate matter (TSP; PM10 and PM2.5) resulting from vehicle entrainment on the roads (paved, unpaved and treated surfaces), windblown dust, and mining and exploration activities. Airborne particulate matter (PM) comprises a mixture of organic and inorganic substances, varying in size, shape and density. Gaseous pollutants such as SO_2, NOx, CO and CO_2 would result from vehicles, small boilers and generators, and harbour emissions, but these are expected to be at low concentrations.



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BPM – START-UP PROJECT
Dust Fall Out Monitoring Points

Project No.
590847

Figure 12-2: Dust monitoring network at BPM

12.10 Noise

A noise survey was conducted for the study area. The noise sensitive receptors and the noise survey results is provided in the sections below.

12.10.1 Noise sensitive receptors

Noise sensitive receptors generally include places of residence and areas where members of the public may be affected by noise generated by the mining and processing operations. Noise sensitive receptors within 10 km of the Bokoni Platinum Mine include numerous villages, including some villages within the Mining Rights area and located close to the current and proposed operations (Figure 12-3). Residential areas included as sensitive receptors in this study include Ga-Makgoba, Madikelong, Bogalatladi, Zeekoegat, Malomanye, Sefateng, Mphaaneng, Malogeng, Josaphat, Pelangwe, India, Ga-Nkoana, Monametsi, Maroteng, Ga-Selepe, Tsibeng, Manotwane, Sealane, Mosotse, Mangaka, Ga-Phasha, Ga-Mampa, Ga-Makgopa, Makyake, Dilokong and Tswereng.

12.10.2 Noise survey results

Day-and night-time noise measurements were conducted between 24 and 28 October 2022 at the eight locations shown in Figure 12-3. The highest day and night-time noise levels were measured at Site 8, a location away from local communities and BPM activities, but close (~30 m) to the local road between Malogeng and Bogalatladi and the R37 (this road links the communities of Malogeng, Pelangwe, India, Ga-Nkoana - as well as communities further south - with the R37 regional road). In general noise levels were low, with day-time noise levels at all sites apart from Site 8 lower than typical rural levels as defined in SANS 10103. Measured night-time noise levels were more akin to SANS 10103 typical levels for suburban areas (due to high levels of natural noise from birds and insects) at all locations apart from Site 8, where levels were similar to SANS 10103 levels for urban areas with one or more roads or business premises.

The International Finance Corporation (IFC) states that noise impacts should not exceed the levels presented in Table 12-9 or result in a maximum increase above background levels of 3 dBA at the nearest receptor location off-site (IFC, 2007

It is further important to note that the IFC noise level guidelines for residential, institutional and educational receptors correspond with the SANS 10103 guidelines for urban districts.

Table 12-9: IFC noise level guidelines

Area	One Hour LAeq (dBA) 07:00 to 22:00	One Hour LAeq (dBA) 22:00 to 07:00
Industrial receptors	70	70
Residential, institutional and educational receptors	55	45

A summary of the survey results as well as the co-ordinates for the eight sites are included in Table 12-10.

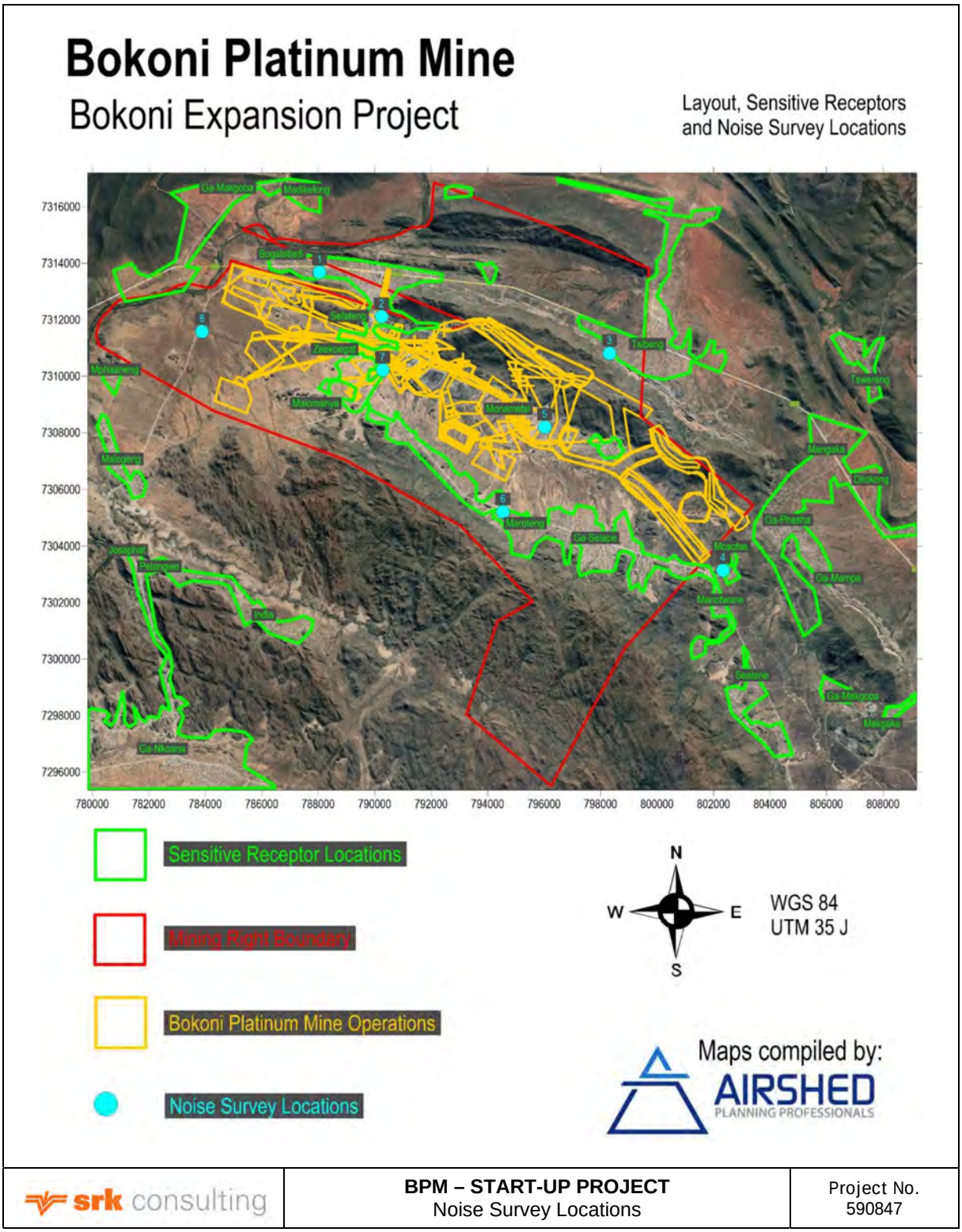


Figure 12-3: Locations of environmental baseline noise survey sites

Table 12-10: Results from and details of the eight sites surveyed

Site number	Visual and acoustic observations	Co-ordinates	One Hour LAeq (dBA) 07:00 to 22:00	One Hour LAeq (dBA) 22:00 to 07:00
1	Medium grass, shrubs, uncultivated land, hill (± 300m to the south). Noise sources included birds, chickens, vehicle and community activities, insects and dogs.	24.263040°S; 29.836730°E	51.1	54.8
2	Trees and shrubs, Mine residential area to the south. Noise sources included community activity, vehicle traffic, birds and insects.	24.277290°S; 29.859110°E	51.0	51.0
3	Short grass, shrubs, uncultivated land, village (southwest). Noise sources included birds, vehicles and community activities, goats, insects and birds.	24.287170°S; 29.938730°E	46.3	48.5
4	Trees and small shrubs, soccer field, primary school to the north, sandy soil. Noise sources included birds and insects.	24.355730°S; 29.979580°E	46.3	46.7
5	Trees and shrubs, small grass, Village, loamy soil, graveyard (±20m southwest). Noise sources include community activities such as people talking, birds, chickens and insects.	24.311313°S; 29.916504°E	46.3	59.5
6	Lots of trees and shrubs ±100m from the local road. Noise sources included gusty winds, birds and insects.	24.338502°S; 29.902642°E	55.6	52.3
7	Medium trees and shrubs, open land, sandy soil. Mine(± 400 m to the east), birds and insects	24.294182°S; 29.859701°E	50.7	44.9
8	Open area, trees and shrubs ± 30m from the road. Noise sources included vehicle passing on the local road, birds and insects.	24.282909°S; 29.796503°E	58.2	56.1

12.11 Sites of historical and cultural importance

The surveyed area is largely disturbed by mining, and mining related infrastructure, roads, housing, and animal husbandry. A broad historical and geographic context of the surveyed area is summarised in Table 12-11.

Table 12-11: Summary of surrounding historical and geographical cultural heritage baseline

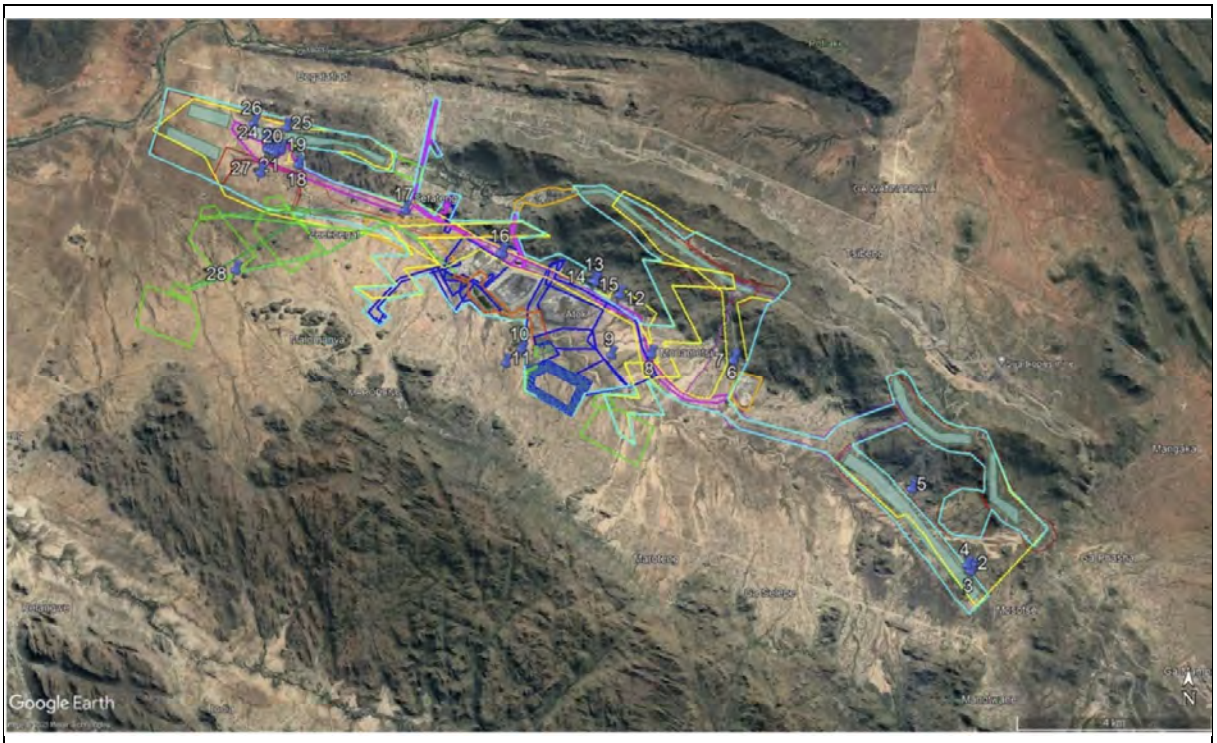
Historical context	Description	Photo
Stone Age	• No Stone Age sites are indicated in a historical atlas of this area however, the environment would definitely be supportive to Stone Age activities • Several stone tools were found during the survey. These date to the Middle and Late Stone Age but were found scattered and out of context along the river or in the eroded area.	 **Figure 12-4: Sample of stone tools found during the survey**
Iron Age	• Iron Age potshards and features have been located at the farm De Grooteboom by Higgitt et.al. (2015: 22-24). These were towards the south of the current area being investigated. • During the current survey lower and upper grinding stones were found close to the river (Figure 12-5). • Pottery, with and without decoration was also found in the eroded area, thus being out of context (Figure 12-6). It therefore serves as proof that these people did utilize the area. • The general broader environment around the surveyed area is suitable for Iron Age people. The mountains would give shelter and building material and the valleys good grazing and ample water sources.	 **Figure 12-5: Upper grinding stone**  **Figure 12-6: Shard of pottery**

Historical context	Description	Photo
Historical Age	• Historical structures, such as farm houses and infrastructure may be found in the area. • Such buildings have been identified on neighbouring farms during past surveys (Archaetnos database). • Signs of the earliest historical mining activities were also identified on adjacent farms. • Many graves from this period are also known from other nearby farms (Archaetnos database). • One Provincial Heritage site is known from the area. About 10 km towards the south of the study area the Tšate Valley site is situated. It commemorates the rise of the Pedi Kingdom (Figure 12-7).	 **Figure 12-7: Statue of Chief Sekhukhune**

Table 12-12 includes a summary of the findings and observations extracted from the Heritage study

Table 12-12: Findings and observations from the heritage assessment

Aspect	Findings/observations
Field survey	The surveyed area was largely disturbed due to recent human activity, in the form of mining, related mining infrastructure, agriculture and housing of local communities. The agricultural activity in the area seems to be relatively old as many old agricultural fields were found. The size of the proposed development is approximately 4500 Ha, and the survey took approximately 42 hours to complete.
Heritage resources identified within the BPM area	Database research showed various sites in the greater geographical area: • The closest to the study area are those found by Coetzee (2017, 2022) and Pelser (2021, 2022). • The nearest site identified by Coetzee (2017, 2022) is the ruins of old building about 0,5 km from the investigated area. • Pelser (2021, 2022) identified scattered Stone Age and Iron Age remains along the Rapholo River.
Heritage resources identified within the project area	Twenty-seven sites were identified during the survey as shown in Figure 12-8 with the majority of the sites being graves (Sites 3-9 and 11 -26).



srk consulting	**BPM – START-UP PROJECT** Heritage points identified in the project area	Project No. 590847

Figure 12-8: Location of heritage site identified during the survey of the area.

12.12 Socio-economic structure

Table 12-13 presents the socio-economic baseline for the area within which BPM is located**.**

Table 12-13: Socio-economic baseline

Baseline aspect	Description
Local context	
SDM is the smallest of five districts, namely Mopani, Vhembe Capricorn, Waterberg, and Northwest. The area is known as the gateway to other African countries, as it shares its borders with Botswana, Zimbabwe, and Mozambique. The district (a Category C municipality) consists of four local municipalities: Elias Motsoaledi, Ephraim Mogale, Makhuduthamaga, and FTLM. These comprise 117 wards since the amalgamation of the municipalities of Fetakgomo and Tubatse in 2016.	
Geographic location and climate	
The mine is located on various farms near the R37 in the SDM within the Limpopo Province of South Africa. The area is approximately 70 km northeast of Burgersfort and falls within two wards of the FTLM: 33 and 34. The mining zone forms part of the Olifants River sub-catchment area, with the Rapholo River, which flows along its southern boundary into the Olifants River. This stretch of the river lies immediately South of the town of Atok, which is around 3 km South of the R37 between Polokwane and Mashishing. The area is suitable for farming as many products can be cultivated. The area has good soil conditions and a subtropical climate with reasonable access to water, fruit, vegetables, grain, cotton, citrus, maize, tobacco and meat. The primary resources that contribute to agricultural production are the Olifants, Steelpoort and Spekboom Rivers, which provide water to the region. These water sources are critical to the long-term irrigation of crops. BPM is located within a Grassland biome between a range of hills to the north and a range of low mountains to the south. The plain is divided in two by the Rapholo River, a major river in the area, which joins the Olifants River downstream. The project occurs at an elevation of 800 m above mean sea-level (mamsl) and 1,600 mamsl, the average altitude of the adjacent mountains. The plain, hills and mountains are sparsely vegetated with grasses, shrubs and occasional small trees with stunted growth. Indigenous trees are almost absent, except in a few localised habitats. The	

vegetation is dominated by grassland but is extensively over-grazed by cattle and sheep. Notable expanses of bare soil can be seen on the surrounding properties, and erosion is evident along watercourses in the area. There is some subsistence agriculture in the adjacent areas, which is limited to small family-farmed maize fields

The area has a high potential for desertification from overgrazing over a prolonged period, and the local rural poor do not have the necessary skills and resources to undertake longer-term crop production.

According to the FTLM LED Strategy**Invalid source specified.**, the natural resource base and economy of the Greater Tubatse Municipal Area are not yet fully developed and, therefore, cannot support the local population, forcing a large percentage of people in the economically active age cohorts to seek employment opportunities outside of the municipal area. The scarcity of arable land forces communities to cultivate steep slopes and other environmentally unsuitable areas, which increases the occurrence of erosion with the resultant loss of fertile soils.

Fetakgomo Tubatse Local Municipality governance structures

FTLM is situated North of the N4 Highway (leading to Middleburg, Belfast, and Mbombela) and East of the N1 Highway (Groblersdal and Polokwane). The local municipality functions as a strong economic centre within SDM due to the concentration of mining activities and therefore features many important roads, such as the R37, R36, and R555 (SDM, 2022). The municipality has a landmass of 5,705.7 km^2, which is approximately 42% of the entire district (Wazimap, 2023). The Start-Up Phase falls within Ward 34 of FTLM, although the larger mining area also spreads to Ward 33. These represent two out of 39 wards within FTLM.

The FTLM comprises approximately 342 villages and is primarily dominated by rural landscapes with only six proclaimed townships. Like most rural municipalities in South Africa, FTLM is characterised by a weak economic base, inadequate infrastructure, major service backlogs, dispersed human settlements, and high poverty levels. Recent expansions in mining activities within the LM have placed pressure on its environment and have resulted in land-use conflicts within the region. Due to the concentrated mining activities along the R37 and R555, FTLM functions as the economic centre within the SDM and is a significant source of employment and economic growth for the region (Fetakgomo Tubatse Local Municipality, 2022).

Language and race groups

The bulk of FTLM's population comprises Black African citizens (98.74%), followed by White (1.01%) and Coloured (0.25%%) (Stats SA, 2016). Considering the first language, most residents within the local municipality speak Sareede (91.59% of people), followed by Siswati and Afrikaans (1.91% and 1.11%, respectively) (Stats SA, 2016). At the ward-level, approximately 80% of people speak Sepedi, followed by 5.45% who speak Xitsonga, 3.96% Afrikaans, and 2.84% IsiXhosa.

Gender and age

Considering gender, the male-to-female ratio for Ward 343 is 1:0.95 (Stats SA, 2011), meaning that the ward has more men than women. The 2016 DHS provided a similar ratio for FTLM (1:1.06). This is slightly different from the ratio for SDM at 1:1.16 (2011) and 1:1.13 (2016), where women outnumber men (ibid). This can be explained by the fact that the area around the mine has more male migrant workers.

The age distribution is essential to determine the economically active population (15-64) in the mine's AoI. The 2016 DHS provides the most recent age distribution statistics. This data for FTLM indicates that 15.01% of the local municipality's residents are between 0-6 years of age, followed by 25.05% who are of school-going age (aged 7-18 years).

To determine the age distribution closer to the mine in Ward 34, Table 10.23 provides data from the 2011 census at district, municipality, and ward levels. The largest age category is for those members within the economically active age (15-64) (71.49%) (Stats SA, 2011). Furthermore, 25.05% of residents are of school-going age (7-18 years), while nearly half of the population (48.33%) fall within the South African youth category (between 14 and 35 years). This suggests a young population who may be economically active and looking for employment opportunities. At 4.29%, the mine area has the least residents aged 65 or older (ibid).

Table 12-14: Population age category

Age categories	SDM	FTLM	Ward-level[4]
0-6	18.59	18.16	16.59
7-13	15.17	14.43	12.81
14-18	11.55	11.03	8.78
19-35	26.85	29.60	34.44
36-64	21.10	21.05	23.57

[3] Old Ward 12 of FLM

[4] Ward 12 of the previous FLM (currently Ward 34 of FTLM)

65+	6.75	5.73	3.81
Total	100.0%	100.0%	100.0%

Source: Stats SA, 2011

Household income and poverty intensity

Household income[5] is widely distributed across income brackets in the FTLM. Household incomes are illustrated in Table 12-15 and shows that a high percentage (16%) of households in FTLM have no income. This means that not one person in the household received an income, not even in the form of a pension or social grant and is, therefore, experiencing extreme poverty.

When combining the income brackets three to five in Table 12-15 one can determine that the majority of the FTLM (50%) earn between R 801 and R6 400 monthly. This is a low annual income and is reflective of inexpensive, labour intensive jobs available in the area.

Table 12-15: Municipal population by household income

Income bracket No.	Monthly household income range	% Households in FTLM
1	No income	16%
2	R 1 – R 800	18%
3	R 801 – R 1 600	19%
4	R 1 601 – R 3 200	18%
5	R 3 201 – R 6 400	13%
6	R 6 401 – R 25 600	13%
7	R 25 601 or more	2%

Source: Stats SA, 2012

Services and infrastructure

The IDP 21/23 (FTLM, 2022) indicates that water shortage is the main challenge in all the villages or 39 wards. The main causes of water shortage or deficit are an insufficient source of water. The total number of households, estimated at 133 106, cannot access water, and the backlog is estimated at 90%.

The main challenges identified are illegal connections, limited communal standpipes, ageing infrastructure, drought, lack of financial resources, the topography of the area, informal and scattered settlements, and insufficient bulk supply. Approximately (90%) of villages have no access to water and depend on privately owned water sources and boreholes. There are 413 communal boreholes some of which are dysfunctional/waterless, and a considerable proportion of the population depends on borehole water. The municipality provides free basic water services to its communities, where most of the households are classified as poor or needy, i.e., total income is below R1, 500 per month. Presently, approximately 60% of households fall into this category. FTLM has developed indigent registers and policies for providing Free Basic Electricity (FBE), mostly centred around formal urban settlement areas, where currently only 22.1% of the total households receive the service and 17200 households are on the waiting list. In the FTLM 13.2% of households have no access to electricity, with 77.05% representing a total number of households that have an in-house prepaid meter, 1.98% of households still use paraffin and 11.71% of households use candles.

Access to education

According to the SDM IPD, the district has 414 primary schools (106 in FTLM), 319 secondary schools (129 in FTLM) and 47 combined schools (nine in FTLM) (SDM, 2022). There are also several special and private schools, as well as colleges. Most schools in the local municipality have access to water and electricity (98.34% and 98.89%, respectively). The following list of challenges persists with regard to the provision of education in the municipality (SDM, 2022):

- Lack of educators in rural schools;
- Scholars do not complete secondary education;
- Lack of tertiary institutions;
- The percentage of people with Grade 12 is very low;
- Lack of government support, especially for early childhood development;
- Few literacy campaigns and Adult Basic Education and Training (ABET) centres; and
- Limited learnerships, internships and bursary schemes

Health facilities

The local municipality has 38 clinics and two district hospitals (SDM, 2021). In addition, more than 100 mobile clinics offer weekly or bi-weekly services in rural areas. The SDM IDP estimates that just under half of the local municipality's

[5] Household income is defined as all receipts by all members of a household, in cash and in kind, in exchange for employment, or in return for capital investment, or receipts obtained from other sources such as pension. Other sources of income are, for example social grants, Unemployment Insurance Fund, remittances, rentals, investments, sales or products, services, etc.

population (48%) can access a clinic within a 5 km radius (ibid). The capacity of healthcare facilities is also severely stretched: there is around one clinic per 17,000 people and one hospital for every 97,500 (SDM, 2020).
Within the municipality, the following healthcare challenges remain (SDM, 2022):
• Insufficient number of health facilities (there is one clinic for every 17 people and approximately 97,50 people/hospital);
• Inadequate health infrastructure;
• Inaccessibility of health facilities, mainly due to poor roads and a lack of transportation;
• Too few health professionals; and
• A lack of medicine.

Transportation infrastructure

The FTLM IDP (FTLM, 2022) indicates that the municipal road network comprises 527 surfaced and 870 un-surfaced roads. Most of the wards in the Area of Influence (AoI) depend on un-surfaced roads for access to socio-economic opportunities. Most access roads are either not tarred or in poor condition (even rocky), with un-surfaced, poorly maintained roads particularly found in scattered villages, thus, transport is limited. These roads are mainly used by buses and taxis to transport passengers. Both surfaced, and un-surfaced roads deteriorate during rainy seasons, and the lack of stormwater drainage and bridges worsens conditions. Furthermore, it is evident that most access roads are muddy during rainy seasons, and most people have to cross rivers to access other villages.

Socio-economic profile

Census data (Stats SA, 2011) show that only 13.67% of the FTLM population aged between 15 and 65 years are employed (Table 12-16). The number of unemployed persons in the local municipality was measured at 14.76% in 2011.

Table 12-16: Employment status per region

	Employed	Unemployed	Discouraged work-seeker	Other not economically active	N/A
FTLM	13.67%	14.76%	3.23%	27.88%	40.46%

Source: Stats SA, 2012

Vulnerability

According to Blaikie. et. al (2004) as quoted by the World Health Organisation's practical guide on environmental health in emergencies and disasters "vulnerability is the degree to which a population, individual or organization is unable to anticipate, cope with, resist and recover from the impacts of disasters". Poverty is a major contributor to vulnerability, and considering high unemployment, and general poverty in the BPM area, it is reasonable to conclude that the area is demographically vulnerable. Population growth is expected to increase in areas where new economic development opportunities are available, and this could increase vulnerability, more so if it is coupled with reduced water availability and degradation and loss of land (whether mine-induced or not).

Very few people reside in the district's more traditional towns and urban areas (only around 5%) (SDM, 2022). In FTLM, the towns of Atok and Apel represent the most prominent settlement areas closest to the mining area. Towns such as Driekop, Burgersfort (the capital of FTLM), Steelpoort, and Orichstad are located toward the eastern parts of the local municipality. Important roads, such as the R37, R36 and R555 service the towns and surrounding areas. As one of the province's major trading towns with government offices, Burgersfort has been identified by the FTLM IDP as a provincial growth point (FTLM, 2022). It is, therefore, not surprising that the town has experienced population growth and related challenges, such as the growth of informal settlements, rising land prices, and a lack of bulk social service infrastructure (ibid). Towns such as Driekop are also expected to experience growth due to mining-related developments.

Six proclaimed townships in the district can be classified as dispersed settlements connected by a few secondary gravel roads. According to the SDM IDP, the greatest concentration of settlements can be found in the western parts of the municipality (SDM, 2022). The FTLM IDP also refers to the mushrooming of especially informal settlements, most noticeably in an area close to Burgersfort known as Extension 10 (FTLM, 2022).

In addition to towns and townships, the area also has many smaller, more traditional villages. In SDM, 54 sparsely populated settlements accommodate around 95% of the district's total population (SDM, 2022). In the district, FTLM has the most significant number of villages (387), representing 44% of all the villages (ibid).

Several townships and villages can be found within the immediate surrounding areas of the project area .

13 Potential Impacts identified

High-level potential environmental and social impacts for the proposed BPM Expansion Project and associated activities are indicated in Table 13-1. These impacts will be confirmed by specialist input during the EIA phase of the EA process as well as input from I&APs during the public participation process associated with the EA process.

The impact rating methodology for the magnitude, duration and spatial scale applied are provided for in Section 14. The impacts have been assumed and rated prior to any mitigation measures being put in place and these impacts will be confirmed through specialist investigations during the impact assessment phase.

Table 13-1: Potential impacts of the proposed BPM Expansion Project

Aspect	Potential Impact	Impact (+/-)	Magnitude	Duration	Extent
Geology	The proposed project will undertake underground mining activities thus this will have an impact on the geology of the area .	_	Moderate	Long-term	Local
Topography	The topography of the area may be permanently altered due to the proposed underground and surface mining activities anticipated as part of this project. In addition to this, there is also various surface infrastructure which is being proposed to support the underground mining projects such as ventilation shafts and general office areas.	_	Moderate	Long-term	Local
Climate	The main activities will be underground with some surface infrastructure. It is not anticipated that the proposed project will have an impact on the climate.	_	Low	Long-term	Local
Soils	Soil loss due to the clearing of land, poor soil management and storage, as well as excavations specifically within the project area.	_	Moderate	Long-term	Local
Land use	Majority of the project area has already been converted to a mining land use due to the existing mining activities, however, the open pits will be within new development areas which may have a negative impact on land use.	_	Low	Long-term	Local
Biodiversity	Potential negative impact on biodiversity due to vegetation clearing which may result in the loss of fauna and flora communities.	_	Moderate	Long-term	Local
	Potential impact to biodiversity due to an increase in alien invasive species due to proposed project activities.	_	Moderate	Long-term	Local
	Potential negative impact on sub-quaternary catchment reach levels due to mining activities upstream	_	Moderate	Long-term	Regional
Surface water	Potential impact on the surface water of the area as the proposed projects may reduce availability of water to downstream/down-gradient water users	_	Moderate	Long-term	Regional
	Due to clearing activities, the is a potential that soil erosion may increase due to exposed soils.	_	Moderate	Long-term	Regional
	Possible negative impact to watercourses due to the crossings and infrastructure within close proximity to the rivers.	_	Moderate	Long-term	Regional
	Increased risk of flooding due to catchment hydrology (surface hardening etc)	_	Moderate	Long-term	Regional
Blasting and vibration	Potential negative impact on surrounding area and settlements due to blasting activities and the increase in ground vibrations.	_	Moderate	Long-term	Local
	Negative impact on surrounding settlement structures due to the impact of air blasts and fly rock.	_	Moderate	Long-term	Local

Aspect	Potential Impact	Impact (+/-)	Magnitude	Duration	Extent
Groundwater	There is a potential negative impact on the groundwater quality in the proposed site area due to the increase in underground mining and surface mining.	–	Moderate	Long-term	Local
	Increase in seepage due to potential ore and waste rock stockpiles at each potential project	–	Moderate	Long-term	Local
Air quality	During construction and operations there may be an increase in the emission of gaseous and particulate matter due to platinum processing, mining operations and long range transformation of pollutants	–	Moderate	Long-term	Local
	Potential increase in miscellaneous fugitive dust sources including vehicle entrainment on roads and windblown dust from open areas;	–	Moderate	Long-term	Local
Noise	During construction and operation of the open pits as well as the underground mining activities, there will be an increase in blasting within the area.	–	Low	Long-term	Local
	Ore from the ore pits will be transported via trucks to the processing plant at BPM,. Based on this, there will be an increase in road traffic noise.	–	Moderate	Long-term	Local
	During operations, the mining equipment as well as the processing plant may result in an increase in the noise levels of the area	–	Moderate	Long-term	Local
Cultural heritage	Cultural heritage sites may be impacted due to the development of infrastructure and associated activities.	–	Moderate	Long-term	Local
Socio-economic	The proposed project expansion may have a positive impact on the socio-economic aspects as the expansion of the BPM mining activities will most likely create additional jobs.	+	Moderate	Long-term	Local
Visual	The area is surrounded by multiple receptors and is best described as an area medium scenic, cultural or historical significance. The development of the open pits and associated infrastructure will have a negative impact on the visual aspects of the area.	–	Low	Long-term	Local
Cumulative Impact	Majority of the proposed project will be within the BPM mining right area and surface right area. BPM is already an existing mine and will utilise the existing infrastructure. In addition to this, new surface infrastructure will be within close proximity to the existing infrastructure. In terms of the surface mining, these are new activities, which may resulting in additional impacts. In terms of the biophysical it is anticipated that there may be an impact on aspects such as biodiversity, groundwater and heritage, however, this will be assessed as part of the EIA phase.	–	Low	Long-term	Local
	In terms of the socio-economic aspect the proposed project may have a positive cumulative impact on the surrounding areas due to the potential increase in jobs due to the new mining activities.	+	Moderate	Long-term	Local

14 Methodology to be used in determining the significance of environmental and social impacts

This section presents the methodology that will be applied by SRK for determining the significance of potential environmental and social impacts during the EIA/EMPr phase.

The impact assessment methodology has been formalised to comply with Regulation 31(2)(l) of NEMA, which states:

> *(2) An environmental impact assessment report must contain all information that is necessary for the competent authority to consider the application and to reach a decision …, and must include –*
>
> *(l) an assessment of each identified potentially significant impact, including –*
>
> *(i) **cumulative impacts**;*
>
> *(ii) the **nature** of the impact;*
>
> *(iii) the **extent** and **duration** of the impact;*
>
> *(iv) the **probability** of the impact occurring;*
>
> *(v) the **degree** to which the impact can be **reversed**;*
>
> *(vi) the **degree** to which the impact may **cause irreplaceable loss of resources**; and*
>
> *(vii) the **degree** to which the impact can be **mitigated**.*

The EIA methodology will require that each potential impact identified is clearly described (providing the nature of the impact) and assessed in terms of the following factors:

- Extent (spatial scale) → will the impact affect the national, regional or local environment, or only that of the site?;
- Duration (temporal scale) → how long will the impact last?;
- Magnitude (severity) → will the impact be of high, moderate or low severity?; and
- Probability (likelihood of occurring) → how likely is it that the impact may occur?

To enable the scientific approach for the determination of the environmental and/or social significance (importance) of each identified potential impact, a numerical value has been linked to each factor. Table 14-1 presents the applicable ranking scales.

Table 14-1: Ranking scales for environmental significance

Occurrence	**Duration:** 5 – Permanent 4 – Long-term (ceases with the operational life) 3 – Medium-term (5-15 years) 2 – Short-term (0-5 years) 1 – Immediate	**Probability:** 5 – Definite/don't know 4 – Highly probable 3 – Medium probability 2 – Low probability 1 – Improbable 0 – None
Severity	**Extent/scale:** 5 – International 4 – National 3 – Regional 2 – Local 1 – Site only 0 – None	**Magnitude:** 10 – Very high/uncertain 8 – High 6 – Moderate 4 – Low 2 – Minor

Once the above factors had been ranked for each identified potential impact, the environmental and/or social significance of each impact was calculated using the following formula:

Significance = *(duration + extent + magnitude) x probability*

The maximum value that can be calculated for the environmental significance of any impact is 100. The environmental significance of any identified potential impact is then rated as either: high, moderate or low on the following basis:

- More than 60 significance value indicates a high (H) environmental significance impact;
- Between 30 and 60 significance value indicates a moderate (M) environmental significance impact; and
- Less than 30 significance value indicates a low (L) environmental significance impact.

In order to assess the degree to which the potential impact can be reversed, cause irreplaceable loss of resources and be mitigated, each identified potential impact was assessed twice:

- Firstly, the potential impact was assessed and rated prior to implementing any mitigation and management measures; and
- Secondly, the potential impact was assessed and rated after the proposed mitigation and management measures have been implemented.

The purpose of this dual rating of the impact before and after mitigation is to indicate that the significance rating of the initial impact is and should be higher in relation to the significance of the impact after mitigation measures have been implemented. Table 14-2 provides an example of an impact assessment before and after mitigation using the SRK methodology.

The rating of the identified impact and mitigation and management proposed will be based on sound, validated scientific information and professional judgement in the context of the specific project and site conditions, and not emotion.

Table 14-2: Example of EIA Table

Nature of the impact	Significance of potential impact ***before*** mitigation						Mitigation measure	Significance of potential impact ***after*** mitigation					
	P	D	E	M	Significance			P	D	E	M	Significance	
Construction Phase													
Description	3	4	3	6	39	**Moderate**	*Description*	1	4	3	6	13	**Low**
Operational Phase													
Description	5	4	3	6	65	**High**	*Description*	3	4	3	6	39	**Moderate**
Rehabilitation and Decommissioning Phase													
Description	3	4	3	6	39	**Moderate**	*Description*	1	4	3	6	13	**Low**

15 The positive and negative impacts that the proposed activity and alternatives

Refer to Section 13 for the preliminary positive and negative impacts identified for the proposed Project. A detailed assessment of the potential positive and negative impacts associated with the project will be developed and included in the EIA/EMPr.

16 Possible mitigation measures that could be applied and the level of risk

The proposed BPM Expansion Project will occur within the existing BPM mining right areas, which has already been affected by current mining activities. The specialist studies will assess potential environmental and socio-economic impacts that may occur as a result of the proposed BPM Expansion Project. Appropriate mitigation and management measures to avoid and /or minimise the identified impacts associated with the project will be developed and included in the EIA/EMPr. Refer to Section 13 for the potential positive and negative impacts identified for the proposed BPM Expansion Project.

17 Motivation where no alternatives were considered

Alternatives relating to location were considered in the previous EMPrs compiled for BPM. The location of the proposed BPM Expansion Project is constrained to the location of the mineral resource, and proven reserve. As such, no property alternatives were considered for the proposed BPM Expansion Project, however, design layouts were considered within the existing BPM properties (Section 10). In addition to this, the location of surface infrastructure is also dependent on existing mining activities which were undertaken prior to the mine being put under care and maintenance. The finalisation of the engineering design studies associated with the proposed BPM Expansion Project will take place in parallel with the Scoping/ EIA process. If alternatives are identified as part of the specialist and engineering studies, these will be included in the Draft EIA/ EMPr.

18 Statement motivation the preferred site

Alternatives relating to location were considered in the previous EMPrs compiled for BPM. The location of the proposed BPM Expansion Project is constrained to the location of the mineral resource, and proven reserve. As such, no property alternatives were considered for the proposed BPM Expansion Project, however, design layouts were considered within the existing BPM properties (Section 10). In addition to this, the location of surface infrastructure is also dependent on existing mining activities which were undertaken prior to the mine being put under care and maintenance. The finalisation of the engineering design studies associated with the proposed BPM Expansion Project will take place in parallel with the Scoping/ EIA process. If alternatives are identified as part of the specialist and engineering studies, these will be included in the Draft EIA/ EMPr.

19 Plan of Study for EIA

19.1 Description of alternatives to be considered including the option of not going ahead with the activity

Refer to Section 10 for consideration of alternatives.

19.2 Description of aspects to be assessed as part of the environmental impact assessment process

Table 19-1 provides the aspects which will be specifically assessed as part of the EIA process for the proposed BPM Expansion Project.

Table 19-1: Specialist studies undertaken for the proposed BPM Expansion Project

Specialist study	Specialist
Air Quality	Airshed Planning Professionals
Blasting and vibration opinion	Blast Management & Consulting

Specialist study	Specialist
Terrestrial and aquatic biodiversity	SAS Environmental Group of Companies
Freshwater and Wetland	SAS Environmental Group of Companies
Groundwater	Digby Wells
Heritage	Archaetnos
Hydropedology	SAS Environmental Group of Companies
Noise	Airshed Planning Professionals
Closure	SRK Consulting (Pty) Ltd
Surface water	SRK Consulting (Pty) Ltd
Socio-Economic	SRK Consulting (Pty) Ltd
Traffic	Koleko Transportation Engineering and Planning
Visual	Digby Wells

19.3 Description of aspects to be assessed by specialists

Previous specialist assessments have been undertaken for BPM for the existing approvals. Further specialist assessments are required for the areas where additional infrastructure will be required for the proposed BPM Expansion Project.

A team of specialists has been appointed to undertake various specialist investigations. Specialist studies will be undertaken as part of the scoping and impact assessment phase of the EA process. the EIA/ EMPr of the proposed BPM Expansion Project. All specialists will investigate the baseline environment, assess the impacts associated with the proposed project (including cumulative effects) of each proposed activity/aspect in relation to the construction, operational, closure and decommissioning phases. The specialists will develop appropriate and implementable mitigation measures to avoid, reduce and/or mitigate the potential impacts that have been identified. The specialists will make use of the impact assessment methodology described in Section 14.

Findings from these studies will be incorporated into the EIA/EMPr and will include the input and recommendations provided from stakeholder engagement. Table 19-1 outlines the specialist studies that will be undertaken for the proposed BPM Expansion Project.

19.4 Proposed method of assessing the environmental aspects including the proposed method of assessing alternatives

The EIA/EMPr will be undertaken according to a standardised methodology, which is detailed in Section 14. The methodology is compliant with the NEMA Regulations.

Generally, the impact assessment is divided into three parts:

- **Issue identification** – each specialist will be asked to evaluate the ‘aspects’ arising from the project description and ensure that all issues in their area of expertise have been identified;
- **Impact definition** – positive and negative impacts associated with these issues will then be defined – the definition statement will include the activity (source of impact), aspect and receptor as well as whether the impact is direct, indirect or cumulative. Fatal flaws should also be identified at this stage; and
- **Impact evaluation** – this is not a purely objective and quantitative exercise. It has a subjective element, often using judgement and values as much as science-based criteria and standards. The impact will be clearly described to provide a clear understanding of the impacts and the rational of

the assessment. The sensitivity of the receiving environment, the effect on the receiving environment and the significance of the impacts will be clearly described.

19.5 The proposed method of assessing duration significance

The duration significance of identified impacts will be assessed using the established criteria, where the duration of time relates to how long that impact will occur for during that phase of the project. Specific durations will be allocated to each project phase in the EIA/EMPr document where the detailed impact assessment rating will be undertaken. For example, for the operation phase criteria are:

- Short term: Up to 18 months;
- Medium term: 18 months to 5 years; and
- Long term: Longer than 5 years.

Refer to Section 14 for the significance assessment, which includes duration.

19.6 The stages at which the Competent Authority will be consulted

Pre-Application consultation with the CA (the DMRE Limpopo) was undertaken on 5 December 2022. During this meeting the required EA process for the proposed BPM Expansion Project was discussed and agreed upon.

The CA will be consulted throughout the application process via email, phone calls and potential meetings during the:

- Final Scoping Phase;
- Draft EIA/EMPr Phase; and
- Final EIA/EMPr Phase.

20 Particulars of the public participation process with regard to the impact assessment process that will be conducted

The public participation process (PPP) will be ongoing throughout the EA phases. The stakeholder engagement proposed for the impact assessment phase is presented in Figure 11-1.

20.1 Stakeholder engagement during impact assessment phase

Registered I&APs will be informed once the CA (DMRE) have accepted the Scoping Report and given permission for the commencement of the impact assessment phase of the S&EIR process.

Stakeholder engagement during the impact assessment phase will focus on providing information and opportunity for public comment on the findings of the specialist studies, recommendations, impacts identified and the proposed management measures. The draft findings will be presented in the draft EIA/EMPr report to be commented on by the public.

Registered I&APs will be informed throughout the process using preferred communication channels/methods to be identified during the PPP. Registered I&APs will be invited to engagement meetings where the contents of the Draft EIA/EMPr will be presented and Registered I&APs will have the opportunity to comment. Registered I&APs will be invited to comment on the Draft EIA/EMPr report in any of the following ways:

- By raising comments during meetings where the content of the Draft EIA/EMPr Report will be presented;

- By completing comments forms available with the report at public places, and by submitting additional written comments, by email or by telephone, to SRKs stakeholder engagement office;
- The Draft EIA/EMPr report will be available for comment for a period of 30 days at public places in the project area as per the announcement and scoping phase and placed on the SRK website; and
- All comments and issues raised during the comment period will be included in the CRR that will accompany the final EIA/EMPr report.

All stakeholder engagement will be conducted in line with the NEMA requirements as well as the POPIA.

20.2 Notification of authority decision

Registered I&APs will be notified of the authority decision on the EIA/EMPr via mail, email and SMS and by advertisements in the local newspapers.

Notification to registered I&APs will summarise the authorities' decision and provide information according to legal requirements about how to lodge an appeal should they wish to do so.

20.3 Description of the tasks that will be undertaken during the environmental impact assessment process

The following activities will take place as part of the planned EA process going forward:

- Complete specialist studies of the proposed BPM Expansion Project;
- Assess potential impacts using SRK's impact assessment methodology;
- Develop an EIA/EMPr which will include management measures to avoid and/or mitigate and manage the potential impacts identified in the impact assessment;
- Provide registered I&APs feedback on the impact assessment phase;
- Make the draft EIA/EMPr available for I&AP and authority comment;
- Submit the final EIA/EMPr to the relevant authorities following the incorporation of I&APs comments; and
- Communicate the decision of the DMRE and DWS to registered I&APs (refer to Box 1).

21 Measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored

Detailed mitigation and management measures for identified positive and negative impacts associated with the proposed BPM Expansion Project will be developed and included in the EIA/EMPr report.

Each impact identified within the impact assessment process, whether the significance is low or high, will have a mitigation measure stipulated where applicable. Furthermore, a post-mitigation assessment of the significance of the impact will also be completed, which will provide an indication of the effectiveness of said mitigation measure.

22 Other information required by the Competent Authority

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

Detailed mitigation and management measures of potential positive and negative impacts associated with the proposed BPM Expansion Project will be developed and included in the EIA/EMPr report. Extensive specialist work has already been conducted as part of the previous EIA/EMPr processes for the BPM and there is an understanding of the socio-economic environment within the area. This aspect will be further investigated by the appointed socio-economic specialist in the EIA phase of the study.

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

Assessment of sites of historical and cultural heritage importance has been undertaken on several occasions associated with EA processes. A heritage assessment will be conducted as part of project for activities and infrastructure associated with the proposed BPM Expansion Project.

23 Other matters required in terms of Sections 24(4)(a) and (b) of the Act

Not Applicable.

24 Undertaking regarding correctness of information

I Michelle Miles herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and I&APs has been correctly recorded in the report.

25 Undertaking regarding level of agreement

I, Michelle Miles herewith undertake that the information provided in the foregoing report is correct, and that the level of agreement with Interested and Affected Parties and stakeholders has been correctly recorded and reported herein.

26 Statement of SRK independence

Neither SRK nor any of the authors of this report have any material present or contingent interest in the outcome of this report, nor do they have any pecuniary or other interest that could be reasonably regarded as being capable of affecting their independence or that of SRK.

SRK has no prior association with ARM in regard to the mineral assets that are the subject of this report. SRK has no beneficial interest in the outcome of the technical assessment being capable of affecting its independence.

SRK's fee for completing this report is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of that professional fee is not contingent upon the outcome of the report.

27 Conclusion

This report has provided a detailed description of the proposed BPM Expansion Project, which includes:

- A brief description of the projects
- The proposed locality of the new infrastructure;
- Alternatives considered;
- The baseline environmental conditions from previous EMPrs conducted for the BPM area;
- The public participation process undertaken so far; and

- A summary of potential environmental and social impacts.

The following activities will take place as part of the planned EA process going forward:

- Develop the FSR once comments and feedback have been received from I&APs and authorities;
- Submit the FSR to DMRE for decision-making;
- Completion of specialist studies of the proposed BPM Expansion Project;
- Assess potential impacts using SRK's impact assessment methodology;
- Develop an EMPr which will include management measures to avoid and/or mitigate and manage the potential impacts identified in the impact assessment;
- Provide registered I&APs feedback on the impact assessment phase;
- Submit the draft EIA/EMPr for I&AP and authority comment;
- Submit the final EIA/EMPr to the relevant authorities following the incorporation of I&APs comments; and
- Communicate the decision of the DMRE and DWS to registered I&APs.

Signature of the EAP

DATE: Final to be signed

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

Appendices

Appendix A: EAP CV, Qualifications and Registration

Michelle Miles

Environmental Scientist

Profession	Environmental Science and Management
Education	B.Sc (Hons) Environmental Water Management, Rhodes University, 2013 B.Sc, Geography and Environmental Science, Rhodes University, 2014
Registrations/ Affiliations	Member, EAPASA, 2020/1057
Awards	None

Specialisation

Environmental project management; Environmental and social impact assessments, Environmental advisory, Environmental construction management.

Expertise

Michelle has 8 years' experience within the environmental science and management field. She has been involved in a various aspects of projects ranging from concept studies all the way through to environmental construction management.

Michelle has experience in conducting environmental legal reviews as well as environmental permitting processes such as Environmental Impact Assessments and Basic Assessments.

Her experience includes environmental permitting, environmental advisor such as environmental design requirements, environmental screenings and environmental compliance auditing.

Michelle has work on large infrastructure and mining projects throughout her work life. This includes working on various Engineering, Procurement, Management and Construction (EPCM) projects ranging from concept level projects to execution project.

Michelle is a registered Environmental Assessment Practitioner with Environmental Assessment Practitioners Association of South Africa (EAPASA).

Employment

2021 - present	SRK Consulting (Pty) Ltd, environmental Scientist, Johannesburg
2016 - 2021	Hatch Africa (Pty) Ltd, Intermediate Environmental Advisor, Johannesburg

Publications

None

Languages

English – read, write, speak (excellent)

Afrikaans – read, speak (basic)

Michelle Miles

Environmental Scientist

Key Experience: Environmental permitting

Location:	Limpopo, South Africa
Project duration & year:	2022 - Ongoing
Client:	African Rainbow Minerals (ARM)
Name of Project:	Bokoni Permitting Project
Project Description:	An Environmental Impact Assessment and well as a Basic Assessment for the Bokoni Platinum Mine. The Mine has been under care and maintenance. ARM acquired the mine in 2022 and would like to operate the existing minign infrastructure as well as expand the mine.
Job Title and Duties:	• Assistance with the compilation of the EIA and EMPr Reports as well as the Basic Assessment Report • Specialist management • Public participation and stakeholder engagement • Client liaison
Value of Project:	R 9.2 million

Location:	Limpopo, South Africa
Project duration & year:	2022
Client:	Anglo American Platinum
Name of Project:	Combined Basic Assessment
Project Description:	Basic Assessment for the proposed pre-assembly yard and cable yard at the Mogalakwena Complex
Job Title and Duties:	• Environmental coordinator • Assistance with the compilation of the Basic Assessment Report and associated documents • Public participation and stakeholder engagement
Value of Project:	R 500 000

Location:	Northern Cape, South Africa
Project duration & year:	2021 - 2022
Client:	Kudumane Manganese Resources (KMR)
Name of Project:	Kudumane Integrated Environmental Authorisation
Project Description:	Two Environmental Impact Assessment for the Kudumane Manganese Resources Expansion Projects
Job Title and Duties:	• Environmental coordinator • Assistance with the compilation of the EIA and EMPr Reports • Public participation and stakeholder engagement • Client liaison
Value of Project:	R1.6 million

Location:	Mokopane, Limpopo, South Africa
Project duration & year:	2021 - 2022
Client:	Anglo American Platinum
Name of Project:	North Waste Rock Dump Basic Assessment
Project Description:	Basic Assessment for the proposed Mogalakwena Complex North Waste Rock Dump.
Job Title and Duties:	• Environmental coordinator • Assistance with the compilation of the EIA and EMPr Report • Public participation and stakeholder engagement
Value of Project:	R 500 000

Michelle Miles

Environmental Scientist

Key Experience: Environmental permitting

Location:	Mpumalanga, South Africa
Project duration & year:	2021 – Ongoing
Client:	Thungela Resources
Name of Project:	Proposed Elders Colliery
Project Description:	Scoping and Environmental Impact Assessment and Environmental Management Programme as well as a Water Use Licence for the Proposed Elders Colliery
Job Title and Duties:	• Environmental coordinator • Assistance with the compilation of the EIA and EMPr Report • Public participation and stakeholder engagement • Client liaison
Value of Project:	R1.5 million

Location:	Mpumalanga, South Africa
Project duration & year:	2021 – Ongoing
Client:	Thungela Resources
Name of Project:	Clydesdale Pit Project
Project Description:	Scoping and Environmental Impact Assessment and Environmental Management Programme as well as a Water Use Licence for the Proposed Clydesdale Pit Project
Job Title and Duties:	Assistance in compiling the Scoping and EIA Report
Value of Project:	R1 million

Location:	Thabazimbi, North West, South Africa
Project duration & year:	2021 – Ongoing
Client:	Anglo American Platinum
Name of Project:	Amandelbult Integrated EA Project
Project Description:	Scoping and Environmental Impact Assessment and Environmental Management Programme as well as a Water Use Licence for five capital projects as well as Stay in Business projects
Job Title and Duties:	Environmental advisory Specialist co-ordination Client liaison
Value of Project:	R 5 million

Location:	Zambia
Project duration & year:	2021 - 2022
Client:	Mopani Copper Mine
Name of Project:	ESIA/ESMP update and consolidation
Project Description:	Update of the Mopani Copper Mine (Mulfuria and Nkana Mines) and consolidate past Environmental Impact Studies (EIS) and Environmental Project Briefs (EPB) conducted in accordance with the Zambian Environmental Management Act, 2011.
Job Title and Duties:	Assistance with compiling the EIS and ESMP documents
Value of Project:	$ 320 000

Michelle Miles

Environmental Scientist

Key Experience: Environmental permitting

Location:	North West, South Africa
Project duration & year:	2020 - 2021
Client:	Anglo American Platinum
Name of Project:	Mortimer SO2 Abatement Project
Project Description:	Feasibility and Revalidation Study for the Mortimer SO2 Abatement Project including a Section 29 (Part1) Amendment.
Job Title and Duties:	• Project management • Compilation of the Section 29 Amendment • Client liaison • Environmental advisory
Value of Project:	R500 000

Location:	Richards Bay, KwaZulu Natal, South Africa
Project duration & year:	2019 - 2020
Client:	Nyanza Light Metals,
Name of Project:	Nyanza TiO2 Pilot Plant,
Project Description:	Scoping and Environmental Impact Report as well as the associated Environmental Management for the Nyanza TiO2 Pilot Plant.
Job Title and Duties:	• Junior Environmental Consultant • Assistance with the compilation of the EIA and EMPr Report • Public participation and stakeholder engagement • Client liaison
Value of Project:	R1.5 Million

Location:	Redford Road, Western Cape, South Africa
Project duration & year:	2019 -2021
Client:	Western Cape Government: Road and Public Transport
Name of Project:	DR 1797 Road Upgrade Project
Project Description:	A Basic assessment to upgrade the DR 1797 Road in the Western Cape.
Job Title and Duties:	• Project management • Compilation of the Basic Assessment and Environmental Management Programme • Stakeholder engagement • General authorisation in terms of the National Water Act
Value of Project:	R500 000 in environmental fees

Location:	Welkom and Virginia, Free State Province, South Africa
Project duration & year:	2017 - 2019
Client:	Matjhabeng Local Municipality,
Name of Project:	Nyakallong, Theronia and Virginia Waste Water Treatment Works Upgrade,
Project Description:	Scoping and Environmental Impact Report as well as the associated Environmental Management Plans for the upgrade of the Nyakallong, Theronia and Virginia Waste Water Treatment Works.
Job Title and Duties:	• Junior Environmental Consultant • Assistance with the compilation of the EIA and EMPr Report • Public participation and stakeholder engagement Client liaison
Value of Project:	R 2.5 million in environmental fees

Michelle Miles

Environmental Scientist

Key Experience: Environmental permitting

Location:	Western Cape, South Africa
Project duration & year:	2017 - 2018
Client:	Western Cape Government Roads
Name of Project:	Basic Assessment for the flood damage repairs to structures on the MR309 in Seweweekspoort Pass, Western Cape
Project Description:	Basic Assessment and Water Use Licence process for the upgrade and repair of 30 stormwater management structures along the MR309 road within the Seweweekspoort in the Western Cape.
Job Title and Duties:	• Junior Environmental Consultant • Assistance with the compilation of the EIA and EMPr Report • Public participation and stakeholder engagement • Client liaison
Value of Project:	R250 000 in environmental fees

Location:	Jericho Dam, Amsterdam, Mpumalanga Province, South Africa
Project duration & year:	2017 - 2018
Client:	Department of Water and Sanitation
Name of Project:	Jericho Dam Pump Station Refurbishment
Project Description:	Basic Assessment for the construction of a new pump station to replace the existing pump station at the Jericho Dam which is a National Key Point.
Job Title and Duties:	• Junior Environmental Consultant • Assistance with the compilation of the EIA and EMPr Report • Public participation and stakeholder engagement • Client liaison
Value of Project:	R 216 000 in environmental fees

Key Experience Environmental Management and Advisory

Location:	Rustenburg, North West, South Africa
Project duration & year:	2021 - 2021
Client:	Anglo American Platinum
Name of Project:	PMR Silt Handling Sump
Project Description:	The relining of Dam 2 at the Precious Metal Refinery which required the construction of a silt sump.
Job Title and Duties:	• Project Manager • Client liaison • Compilation of the Minimum applicability Checklist to be submitted to the NWDEDECT
Value of Project:	R350 000

Location:	Polokwane, Limpopo, South Africa
Project duration & year:	2021
Client:	Anglo American Platinum
Name of Project:	Conceptual Closure Plan for the Anglo American Platinum Polokwane Metallurgical Complex
Project Description:	Conceptual closure plan for the Polokwane Metallurgical Complex based on the Anglo American Platinum Closure Toolbox
Job Title and Duties:	• Assistance in compiling the PMC closure plan
Value of Project:	R30 000

Michelle Miles

Environmental Scientist

Key Experience **Environmental Management and Advisory**

Location:	Saldanha Bay, Western Cape Gqeberha, Eastern Cape Richards Bay, Kwa-Zulu Natal
Project duration & year:	2021
Client:	AFRY Switzerland Ltd
Name of Project:	Project Karadeniz LTA 3 Powerships
Project Description:	Appointed lenders environmental due diligence team
Job Title and Duties:	• Review of existing information • Conducted sit visits to the various locations • Assisted in compiling the technical due diligence
Value of Project:	Confidential

Location	Northern KwaZulu Natal, South Africa
Project duration & year:	2020
Client:	Umkhanyakude District Municipality
Name of Project:	Wastewater Risk Abatement Plan
Project Description:	Compliance assessment of the Umkhanyakude District Municipality WWTW within Northern KwaZulu Natal.
Job Title and Duties:	• Environmental Advisor • Environmental reporting • Environmental risk assessment
Value of Project:	R500 000

Location:	Secunda, Mpumalanga, South Africa
Project duration & year:	2019
Client:	Sasol Technology Group,
Name of Project:	Coarse Ash Waste Disposal Project
Project Description:	Concept study for the expansion of the coarse ash dump at Sasol, Secunda.
Job Title and Duties:	• Environmental Project Lead • Compilation of an environmental Design Criteria Environmental permitting strategy
Value of Project:	R 200 000

Location:	Richards Bay, KwaZulu Natal, South Africa
Project duration & year:	2018 - 2020
Client:	Rio Tinto
Name of Project:	Zulti South
Project Description:	The development of the Zulti South Project to mine the sand dune south of Richards Bay.
Job Title and Duties:	• Environmental Advisor • EPCM • Development of Construction Environmental Management Plans • Compilation of RACI matrix’s • Procurement procedures • Tender evaluation
Value of Project:	Confidential

Michelle Miles

Environmental Scientist

Key Experience	Environmental Management and Advisory
Location:	Polokwane, Limpopo Province, South Africa
Project duration & year:	2017 – 2018
Client:	Anglo American Platinum
Name of Project:	SO_2 Abatement Plant at Polokwane Smelter
Project Description:	Environmental Control Officer for the construction phase of the SO_2 Abatement Plant.
Job Title and Duties:	• Environmental Control Officer
Value of Project:	R 2.2 million in environmental fees

Location:	Mpumalanga, South Africa
Project duration & year:	2016 - 2017
Client:	Eskom
Name of Project:	Eskom Majuba Rail Project
Project Description:	External environmental auditor for the construction phase of the Eskom Majuba Railway line
Job Title and Duties:	• Environmental assistant • Water monitoring and reporting • Borrow pit permitting and closure
Value of Project:	R 2 million

Key Experience	Social licence to operate
Location	Free State, Gauteng and North West, South Africa
Project duration & year:	2021
Client:	Harmony Gold
Name of Project:	Update of 10 Harmony Gold SLPs
Project Description:	Five year review and update of Harmony Gold's SLP for ten operations including the development of Local Economic Development/ Mine Community Development projects.
Job Title and Duties:	Assisted in compiling the 10 SLPs as well as developed the Local Economic Development/ Mine Community Development projects
Value of Project:	R 5 million

Key Experience	Due diligence and technical reviews
Location	South Africa
Project duration & year:	2021
Client:	Confidential
Name of Project:	Project Startling TDD
Project Description:	Environmental, Social, Health and Safety technical due diligence of several wind farm projects located in South Africa, Senegal and Egypt to IFC, EP and EBRD requirements
Job Title and Duties:	Assisted with the technical due diligence and compiled various sections of the report
Value of Project:	Confidential

Michelle Miles

Environmental Scientist

Key Experience	Due diligence and technical reviews
Location	South Africa
Project duration & year:	2021
Client:	Confidential
Name of Project:	Project Karadeniz
Project Description:	Environmental, Social, Health and Safety technical review of three proposed IPPs located in South Africa to IFC and South African legislation requirements.
Job Title and Duties:	• Assisted with the technical due diligence and compiled various sections of the report • Conducted the site visit to the 3 proposed locations
Value of Project:	Confidential

MB 2019/10/02

Mandisa Buthelezi
Admitted Attorney of the High Court of South Africa
Commissioner of Oaths Ex Officio
Hatch Building, 58 Emerald Parkway Road
Greenstone Hill, Modderfontein
Republic of South Africa

CERTIFIED A TRUE
COPY OF THE
ORIGINAL

RHODES UNIVERSITY

THIS IS TO CERTIFY THAT

MICHELLE LOUISE KAYTON

WAS THIS DAY AT A CONGREGATION OF THE UNIVERSITY
ADMITTED TO THE DEGREE OF

BACHELOR OF SCIENCE

VICE CHANCELLOR

DEAN OF THE FACULTY OF SCIENCE

REGISTRAR

GRAHAMSTOWN
12 APRIL 2014

2019/10/02
Mandisa Buthelezi
Admitted Attorney of the High Court of South Africa
Commissioner of Oaths Ex Officio
Hatch Building, 58 Emerald Parkway Road
Greenstone Hill, Modderfontein
Republic of South Africa

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BACHELOR OF SCIENCE

WITH HONOURS

IN

ENVIRONMENTAL WATER MANAGEMENT

VICE-CHANCELLOR

ACTING DEAN OF THE FACULTY OF SCIENCE

REGISTRAR

GRAHAMSTOWN
9 APRIL 2015

Evert Jacobs

Principal Environmental Scientist

Profession	Environmental Scientist
Education	MSc Ecology, Nelson Mandela University, 2009 BSc (Hons) Zoology, University of Port Elizabeth, 2002 Bsc Zoology and Botany, University of Port Elizabeth, 2001
Registrations/ Affiliations	Professional Natural Scientist, 400128/10 Environmental Assessment Practitioners of South Africa, 2019/1992
Awards	None

Specialisation

My experience in the last 12 years have focused on integration of environmental management into the project life cycle to entrench environmental sustainability into projects (both greenfields and brownfields). Projects where social and environmental issues are determined and addressed as part of the project development stages, prior to the ESIA phase, typically have a higher rate of success with less social resistance from local communities, particularly on large extractive or infrastructure projects.

My areas of expertise include gateway logistics on integrated multidisciplinary projects (pit to port / turnkey), environmental management and permitting within EPCM and EPC projects, infrastructure (port, marine and railway development), mining, oil and gas, integrated environmental management, environmental monitoring (marine water quality, vegetation and air quality), mining products (ore, coal, etc.) related environmental issues, environmental legislation, environmental impact assessments, spatial analysis, project planning and project management.

Expertise

I am an Environmental and Social Specialist, involved in management of environmental development projects, for more than 17 years. Throughout my career I have gained extensive experience in very large infrastructure, mining, and energy projects, specifically in guiding developments from concept phase through to execution and construction. This included the integration of ESIA commitments into the project life cycle process including operational preparedness and performance against the issued Environmental License, international and corporate standards.

I started my career in ecological research where I also lectured students in Zoology and Botany as supplementary instruction. I then moved into consulting in the environmental management and impact assessment fields and subsequently became an environmental expert on international EPCM projects and operational management. I have extensive experience with South African legislation and international finance requirements.

Employment

2003 - 2008	SRK Consulting, Environmental Scientist, Port Elizabeth, South Africa
2008 - 2021	Hatch Africa, Senior Environmental Advisor, Johannesburg and Port Elizabeth, South Africa
2021 - Present	Independent Contractor, Self Employed, South Africa
2022 - Present	SRK Consulting, Environmental Consultant, South Africa

Languages

English – Read, write, speak

Afrikaans – Read, write, speak

Evert Jacobs

Principal Environmental Scientist

Key Experience: Environmental and Social Assessment

Location:	Rusternburg, South Africa
Project duration & year:	6 months, 2022
Client:	Anglo Platinum
Name of Project:	PMR Siltpad
Project Description:	The project involved the permitting of maintenance activities for the PMR facility. An initial review was conducted that identified potential listed activities triggered to be assessed in a Basic Environmental Assessment. Upon further reviews it was presented to the authorities and during discussion, due to the maintenance components, decided to authorise the project through a maintenance management plan which I assisted in drafting as part of the team.
Job Title and Duties:	Environmental Specialist
Value of Project:	R250 000

Location:	Eswatini
Project duration & year:	2022
Client:	ESWADE
Name of Project:	Mbabane – Manzini Corridor Dam Project
Project Description:	This project entails construction of two dams within a drainage region to provide water for agricultural activities as well as supply of water for domestic use. The project is being conducted to African Development Bank and World Bank standards and my roles is to review compliance to these standards and the associated financing agreements. Part of this roles includes advising the client on the compilation of terms of reference for studies required ensuring they meet the required standards.
Job Title and Duties:	Environmental and Social Safeguards consultant
Value of Project:	Confidential

Location:	Northern Cape, South Africa
Project duration & year:	2022
Client:	ACWA
Name of Project:	Redstone Solar Thermal Power Plant
Project Description:	The project entails the development of a greenfields solar thermal plant. The facility obtained financing from the African Development Bank, IFC and South African development banks and are required to meet the international standards during the development and construction of the facility.
Job Title and Duties:	Environmental and Social Safeguards consultant
Value of Project:	Confidential

Location:	Lesotho
Project duration & year:	2021 - 2022
Client:	Lesotho Highlands Development Agency
Name of Project:	Lesotho Highlands Water Project Phase 2
Project Description:	Development of dams within the Lesotho Senqu / Orange River scheme to supply water to Lesotho and South Africa. My roles is reviewing of technical documentation to ensure the bank and international standards are adhered to and to provide guidance on good practise and inputs into environmental assessments to manage risk.
Job Title and Duties:	Environmental and Social Safeguards consultant
Value of Project:	Confidential

Evert Jacobs

Principal Environmental Scientist

Key Experience: Environmental and Social Assessment

Location:	Multinational
Project duration & year:	2021 -2022
Client:	Metier Private Equity
Name of Project:	Metier SCIF II Sustainable Capital International Fund
Project Description:	The Fund invests in energy efficiency, renewables, water and waste management businesses and projects supporting Africa's development objectives and environmental commitments. Current portfolio companies include projects in South Africa, Gabon and Nigeria. The fund has obtained financing from a consortium of financiers including the African Development Bank and European Investment banks and is required to meet the international standards set out by these financiers in their respective financing agreements.
Job Title and Duties:	Environmental and Social Safeguards consultant
Value of Project:	Confidential

Location:	KwZulu-Natal, South Africa
Project duration & year:	2021
Client:	Confidential
Name of Project:	Confidential
Project Description:	As part of a project due diligence for a mining client I was required to comment on the impacts of South Africa's new climate change regulations and provide an estimate of carbon taxes for the re-instatement of a metals refinery.
Job Title and Duties:	Environmental Advisor / Reviewer
Value of Project:	R800 000

Location:	Palma, Mozambique
Project duration & year:	2019
Client:	CCS JV
Name of Project:	Mozambique LNG Environmental Monitoring
Project Description:	Evert served as the project manager for coordination of specialist monitoring activities as part of the construction activities for a Greenfields LNG facility. The role including coordination of monitoring activities and drafting of procedures and specifications as part of the monitoring activities on site.
Job Title and Duties:	Environmental Coordinator
Value of Project:	USD 10m

Location:	Sishen, Northern Cape, South Africa
Project duration & year:	2016
Client:	Kumba Iron Ore
Name of Project:	Sishen Asbestos Disposal Options
Project Description:	Evert Assisted Kumba Iron Ore with an options analysis to determine disposal options for asbestos removal on mining sites. The asbestos contamination resulted from years of rail transport and when Kumba took over a rail portion overlying an iron ore resource, the disposal of the material prevented projects and mine expansion. Evert used his asbestos experience gained during construction removal on Transnet projects to assess the options for asbestos disposal using the Hatch 4 Quadrant Analysis Tool.
Job Title and Duties:	Environmental Facilitator / Specialist
Value of Project:	R650 000

Evert Jacobs

Principal Environmental Scientist

Key Experience: Environmental and Social Assessment

Project duration & year:	2016
Client:	Keben and Associates
Name of Project:	Mozambique – South Africa LNG Supply Line
Project Description:	This project involved a pre-feasibility study review of a 2000 km LNG pipeline from the Gas fields in Northern Mozambique to Gauteng in South Africa. I provided expert ecological and environmental input into the route alignment options and was also in charge of project management for the South African portion of the project. The project formed part of a multi-country (Mozambique and South Africa) review and included a social and environmental sensitivity analysis, heritage review, social review, ecological review and legal and permitting analysis of the pipeline route alignment proposed.
Job Title and Duties:	Environmental Project Manager
Value of Project:	R750 000
Location:	Mpumalanga, South Africa
Project duration & year:	2016
Client:	Standard Bank
Name of Project:	Eskom Mine Acquisitions
Project Description:	I formed part of the technical team appointed to conduct an IFC and equator principles review of the Eskom coal mines owned by Anglo PLC that were put up for sale. I was responsible for the environmental risk assessment and environmental and social reviews associated with 4 active coal mines and additional unexploited resources.
Job Title and Duties:	Environmental Reviewer
Value of Project:	R1 000 000
Location:	Botswana
Project duration & year:	2015 - 2021
Client:	Botswana Oil
Name of Project:	Project Ikaegeng
Project Description:	As part of the Botswana Oil technical advisory team, I was responsible for advising the client on the social and environmental performance requirements throughout the project development phase which commenced with a project definition stage. In this regard my roles included review of the carbon restrictions committed to by the government in terms of global agreements and how these implicated the development which was significant. This was done within the environmental framework developed as part of the project.
Job Title and Duties:	Environmental Advisor
Value of Project:	R60 000 000
Location:	Tete, Mozambique
Project duration & year:	2015
Client:	Standard Bank
Name of Project:	Revobue Mine
Project Description:	I was responsible for conducting technical reviews of the environmental and social studies to date to determine the acquisition risks. The role included a country specific review of the environmental requirements as well as a review against world bank, IFC standards and equator principles.
Job Title and Duties:	Environmental Reviewer
Value of Project:	R1 200 000

Evert Jacobs

Principal Environmental Scientist

Key Experience: Environmental and Social Assessment

Project duration & year:	2015
Client:	Standard Bank
Name of Project:	Kipoi Copper Mine
Project Description:	I was tasked with an IFC review of the Kipoi copper mine (heap leach process) operational activities as part of a proposed expansion of the mine. The project included review of the site Environmental Management Systems, monitoring data (water quality, air quality, groundwater), waste management and site management practices in order to secure funding under IFC guidelines for expansion of the facilities.
Job Title and Duties:	Environmental Reviewer
Value of Project:	R1 000 000
Location:	Lome, Togo
Project duration & year:	2014
Client:	Togo Invest and Ubu Investments
Name of Project:	Togo Rail
Project Description:	This project involved scoping of the ESIA process and screening of a new Greenfields rail line connecting the northern border of Togo to the Port of Lomé as part of a pre-feasibility assessment. Included in this project was an options analysis of the stockpile locations for iron ore export facilities. My role was to conduct an initial assessment using available land cover data to inform the route determination and scoping of the social impact based on the number dwellings that would require relocation. The IFC guidelines were used in determination of the feasibility costs and ultimate relocation and environmental requirements for the project.
Job Title and Duties:	Environmental Project Manager
Value of Project:	R850 000
Location:	Northern Cape and Eastern Cape, South Africa
Project duration & year:	2014 – 2018
Client:	Transnet SOC
Name of Project:	Ngqura Manganese Phase 1 Rail
Project Description:	I was responsible for management of contractors and auditing of several contractors on site against environmental authorisations, environmental management plans, water use licenses and their environmental policies and procedures against the client standards. As part of this role, I managed the construction setup where the Environmental Management System setup was conducted to enable auditing and reporting to the national Department of Environmental Affairs.
Job Title and Duties:	Environmental Project Manager
Value of Project:	R2 000 000
Project duration & year:	2014
Client:	Standard Bank and Standard Chartered
Name of Project:	Lumwana Copper
Project Description:	I was the environmental specialist responsible for a technical environmental and social review of the mine construction and expansion activities under IFC funding. This involved a quarterly review of construction activities and site operations, monitoring data for air quality and water quality, waste management and site operational practices.
Job Title and Duties:	Environmental Reviewer
Value of Project:	R1 000 000

Evert Jacobs

Principal Environmental Scientist

Key Experience: Environmental and Social Assessment

Location:	Ciudade del Este, Paraguay, South America
Project duration & year:	2014
Client:	Tronox
Name of Project:	Alto Parana
Project Description:	The project environmental scope included two work packages for the Key Elements Analysis that was initiated as a preparation project for pre-feasibility. Work Package 1 was a review of the in-country legislation as well as international regulations for the establishment of a Greenfields mine, transport corridor through other countries as well as a port terminal located on the east coast of South America. Included in this work was a review of the environmental and social features of the project and the preparation for further investigations. Work Package 2 included a review of the restoration options and techniques to prepare for fields trials to determine the viability of restoration in the area which consists of high value agricultural land as well as rain forest. Evert coordinated and managed the environmental team as well as providing some specialist input into the engineering work packages.
Job Title and Duties:	Environmental Manager
Value of Project:	R900 000

Location:	Mpumalanga, South Africa
Project duration & year:	2013
Client:	Anglo American
Name of Project:	Mafube Options Analysis
Project Description:	Evert was the environmental lead on the pre-feasibility study for the Mafube mine expansion. Included in the scope was an options analysis using a proprietary tool (Hatch's 4 quadrant analysis options analysis tool) for various expansion options related to the mining infrastructure placement.
Job Title and Duties:	Environmental Project Manager
Value of Project:	R700 000

Location:	Matola, Mozambique
Project duration & year:	2012 – 2013
Client:	Grindrod Terminals
Name of Project:	Matola Coal Terminal Expansion
Project Description:	The Matola coal and magnetite terminal studies considered expansion of the facility to handle 20 Mtpa of product. I served as the project Environmental Manager responsible for compiling a permitting strategy and directing specialist investigations prior to the start of the environmental authorisation. This project progressed into a bankable feasibility study that included a full ESIA completed against international standards and included dredge modelling and impacts on the marine environment. Part of my role included management of the environmental consultants (a joint venture between a local company and an internationally recognised ESIA consultant) and I was responsible for commencement of the monitoring programmes during early stages (pre-feasibility) to ensure that international standards can be met. This project proceeded to construction utilising international funding.
Job Title and Duties:	Environmental Project Manager
Value of Project:	R8 000 000

Evert Jacobs

Principal Environmental Scientist

Key Experience: Environmental and Social Assessment

Location:	Northern Cape and Eastern Cape, South Africa
Project duration & year:	2012 – 2016
Client:	Transnet SOC
Name of Project:	Ngqura Manganese Export Corridor
Project Description:	I served as the environmental manager for the project team appointed by Transnet Capital Projects to conduct pre-feasibility and feasibility studies for upgrading of their manganese export corridor between Hotazel in the Northern Cape of South Africa to the Port of Ngqura situated in Port Elizabeth. The Environmental Services team was appointed to conduct the environmental studies for this project to enable the permitting processes required for ESIA's for the rail corridor as well as port facilities. This role included the management and coordination of several permitting processes for Environmental Authorisation, Water Use Licenses, Borrow pits and Atmospheric Emissions Licenses for a Greenfields port terminal and 800 km of rail and grave relocations. The project was completed against the client stage gate requirements which included adherence to international standards and included setting up of monitoring protocols during pre-feasibility.
Job Title and Duties:	Environmental Project Manager
Value of Project:	R20 000 000

Location:	Saldanha Bay, South Africa
Project duration & year:	2009 – 2010
Client:	Transnet SOC
Name of Project:	Phase 1B Dredging
Project Description:	My role was managing of the environmental assessment process to obtain authorisation, managing of the construction teams, and dredging contractors to comply with the relevant standards and authorisations as well as managing of environmental consultants to monitor marine water quality parameters prior to and during dredging activities. This included drafting of environmental specifications, auditing of the specifications and authorisations, EIA quality control, monitoring protocols and management plans and managing changes to project descriptions and ensuring permits were in place to allow for dredging activities to be completed successfully. Part of my role included stakeholder management of parties who were concerned about the nearby Langebaan Lagoon, a RAMSAR listed site. This required convening the Environmental Monitoring Committee (EMC) that reported to stakeholders on the project performance.
Job Title and Duties:	Environmental Manager
Value of Project:	R2 000 000

Location:	Saldanha Bay, South Africa
Project duration & year:	2009 – 2012
Client:	Transnet SOC
Name of Project:	Saldanha Iron Ore Terminal Reverse Osmosis Plant
Project Description:	My role included drafting of the environmental specifications and monitoring protocols needed for establishing an environmental baseline prior to the operational phase as well as auditing of contractors and internal teams against the authorisations, permits, specifications and company and project policies. I compiled the operational specifications and audited the commissioning requirements during handover.
Job Title and Duties:	Environmental Manager
Value of Project:	R5 000 000

Evert Jacobs

Principal Environmental Scientist

Key Experience: Environmental and Social Assessment

Location:	Saldanha Bay, South Africa
Project duration & year:	2009 - 2012
Client:	Transnet SOC
Name of Project:	Phase 1A Air Quality Monitoring
Project Description:	The project involved installation of dust mitigation systems and monitoring of dust fall and particulate matter in and around the Port of Saldanha. My role was managing of the monitoring programmes and providing input into the dust mitigation procedures and systems to ensure compliance with standards and permitting requirements. Included in this role was a critical review of all monitoring reports and results and determination of dust fall limits for iron ore.
Job Title and Duties:	Environmental Manager
Value of Project:	R2 000 000

Location:	Inhambane, Mozambique
Project duration & year:	2011
Client:	Rio Tinto
Name of Project:	Project Alpha
Project Description:	Evert served as the project environmental manager for delivering the conceptual level studies for a Greenfields pit to port mining development in Inhambane, Mozambique. The conceptual level studies included investigations into the various options for two mining licenses, two port locations as well as the connecting transportation corridors linking the mine sites to the port locations.
Job Title and Duties:	Environmental Manager
Value of Project:	R1 000 000

Nelson Mandela Metropolitan University

This is to certify that, all the requirements having been met, the degree

Magister Scientiae

(ZOOLOGY)

with all the associated rights and privileges, was conferred upon

Evert Philippus Jacobs

(ID No.: 7803015073083)

at a congregation of the Nelson Mandela Metropolitan University on

18-APRIL-2009

Certificate No.: 20090723

Vice-Chancellor

Registrar

07/098

Gold foiling on this certificate indicates its authenticity.

University
of
Port Elizabeth

Universiteit
van
Port Elizabeth

This is to certify that, the requirements having been satisfied, the degree of

Hiermee word verklaar dat, nadat aan die vereistes voldoen is, die graad

Baccalaureus Scientiae Honores

(Zoology / Dierkunde)

has been conferred upon

toegeken is aan

EVERT PHILIPPUS JACOBS
197336200

Vice-Chancellor / Vise-Kanselier

Registrar / Registrateur

Port Elizabeth
20 April 2002

ID 7803015073083

University
of
Port Elizabeth

Universiteit
van
Port Elizabeth

This is to certify that, the requirements having been satisfied, the degree of

Hiermee word verklaar dat, nadat aan die vereistes voldoen is, die graad

Baccalaureus Scientiae

has been conferred upon

toegeken is aan

EVERT PHILIPPUS JACOBS

Vice-Chancellor / Vise-Kanselier

Registrar / Registrateur

Port Elizabeth

21 April 2001

The South African Council for Natural Scientific Professions certifies in terms of section 20(3)(a) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003), that

Mr E P Jacobs

is registered as a Professional Natural Scientist, Reg. no **400128/10**

in the following field(s) of practice:

Environmental Science

Expiry Date: **31 May 2013**

SACNASP
South African Council for Natural Scientific Professions

The bearer of this card has satisfied the requirements determined by the Council for the relevant category and is subject to a Code of Conduct administered by the Council.

Private Bag X540 I Silverton 0127 I Gauteng Prov.RSA
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www.sacnasp.org.za

Appendix B: DFFE Screening Tool

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

EIA Reference number: Bokoni Expansion Project

Project name: Bokoni ARM

Project title: ARM Bokoni Expansion Project

Date screening report generated: 30/11/2022 09:04:00

Applicant: ARM

Compiler: SRK

Compiler signature: 

.....

Application Category: Mining|Mining Right

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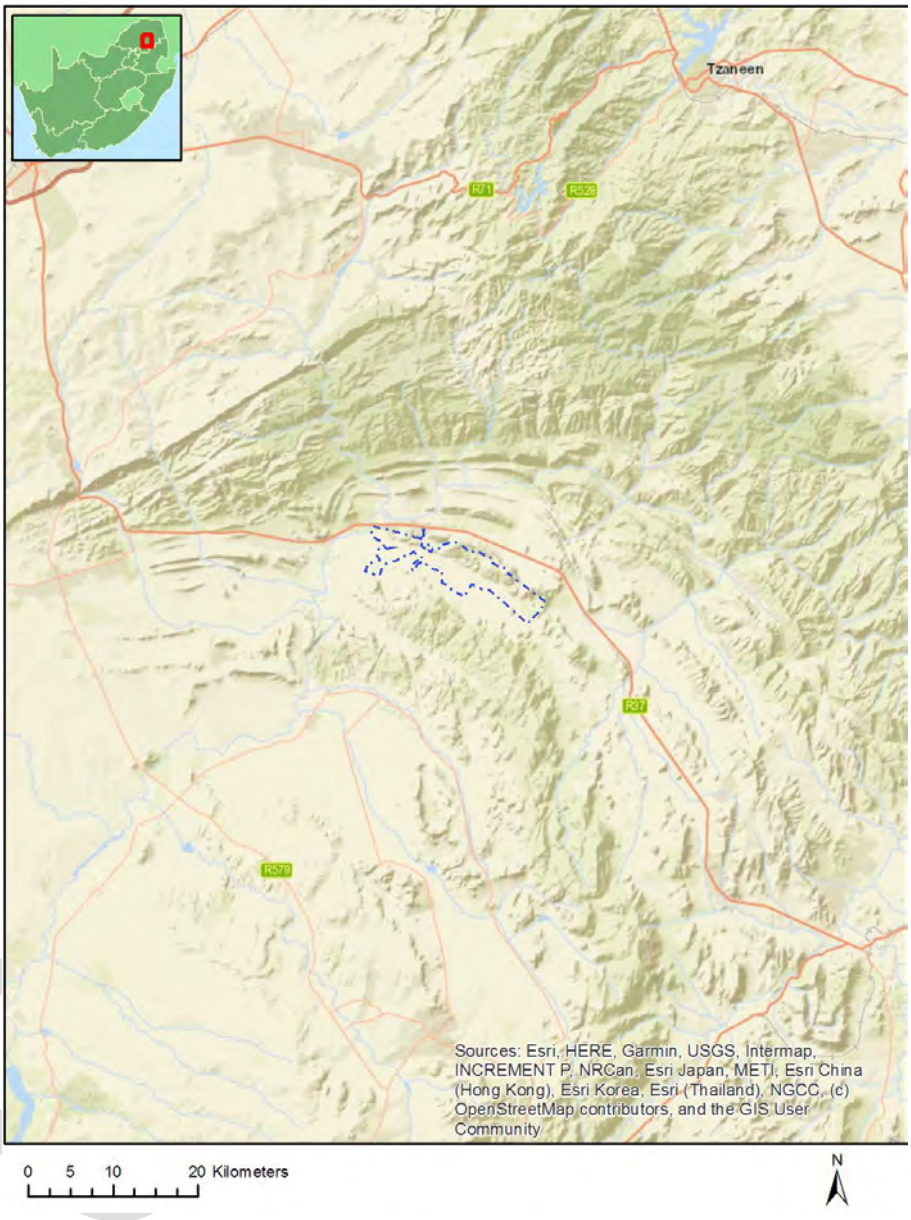
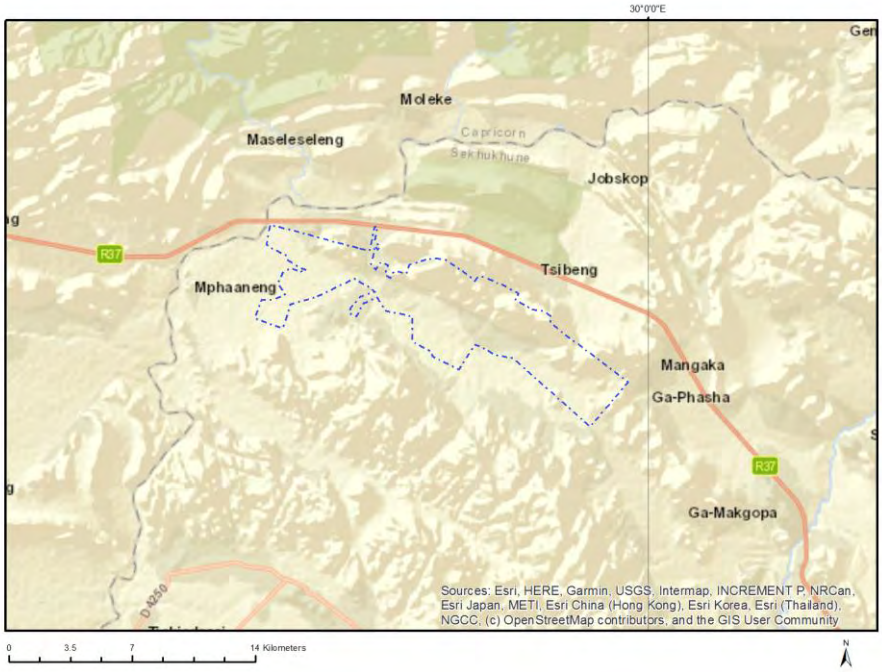
Proposed Project Location

Orientation map 1: General location

General Orientation: Bokoni ARM



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

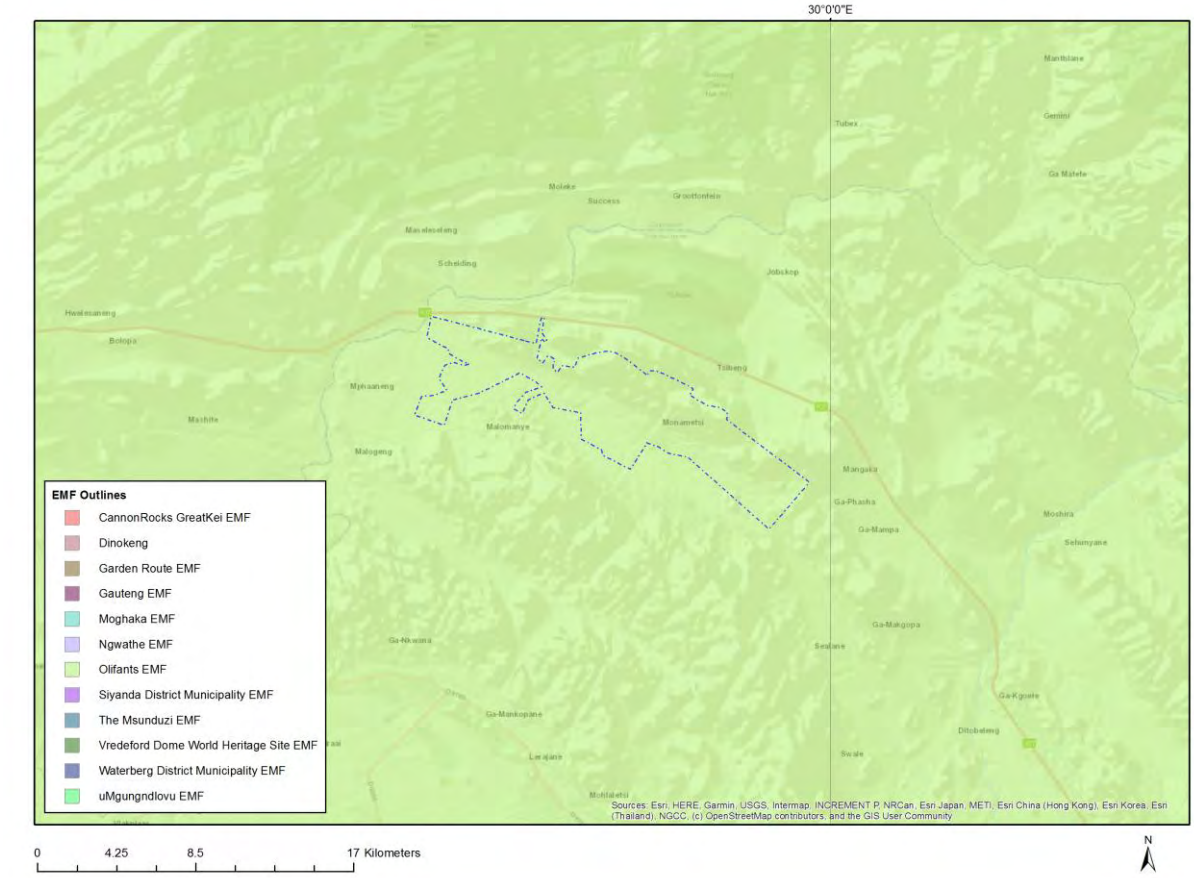
No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	BRAKFONTEIN	464	0	24°19'51.08S	29°55'15.76E	Farm
2	UMKOANESSTAD	419	0	24°18'45.27S	29°53'16.31E	Farm
3	MIDDELPUNT	420	0	24°18'14.31S	29°50'52.82E	Farm
4	KLIPFONTEIN	465	0	24°20'51.6S	29°57'6.46E	Farm
5	WINTERSVELD	417	0	24°16'35.76S	29°55'40.66E	Farm
6	JAGDLUST	418	0	24°15'26.55S	29°52'48.48E	Farm
7	ZEEKOEGAT	421	0	24°16'24.9S	29°50'27.37E	Farm
8	DIAMAND	422	0	24°17'15.04S	29°47'55.27E	Farm
9	MIDDELPUNT	420	0	24°18'14.31S	29°50'52.82E	Farm Portion
10	JAGDLUST	418	3	24°15'47.4S	29°52'14.37E	Farm Portion
11	UMKOANESSTAD	419	0	24°18'45.27S	29°53'16.31E	Farm Portion
12	KLIPFONTEIN	465	0	24°20'51.6S	29°57'6.46E	Farm Portion
13	DIAMAND	422	0	24°17'15.04S	29°47'55.27E	Farm Portion
14	UMKOANESSTAD	419	2	24°17'10.44S	29°53'27.77E	Farm Portion
15	UMKOANESSTAD	419	1	24°17'54.96S	29°53'6.26E	Farm Portion
16	BRAKFONTEIN	464	0	24°19'51.08S	29°55'15.76E	Farm Portion
17	JAGDLUST	418	0	24°15'25.7S	29°52'9.17E	Farm Portion
18	UMKOANESSTAD	419	7	24°19'33.94S	29°53'30.14E	Farm Portion
19	UMKOANESSTAD	419	4	24°18'19.8S	29°54'33.46E	Farm Portion
20	UMKOANESSTAD	419	5	24°18'52.53S	29°53'11.6E	Farm Portion
21	WINTERSVELD	417	0	24°15'52.76S	29°55'50.75E	Farm Portion
22	UMKOANESSTAD	419	3	24°18'9.62S	29°54'13.46E	Farm Portion
23	ZEEKOEGAT	421	0	24°16'32.13S	29°50'37.31E	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 nearby wind or solar developments found.

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Olifants EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/Zone_46,_67,_78,_80,_92,_103,_122,_129.pdf

[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 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 Right**.

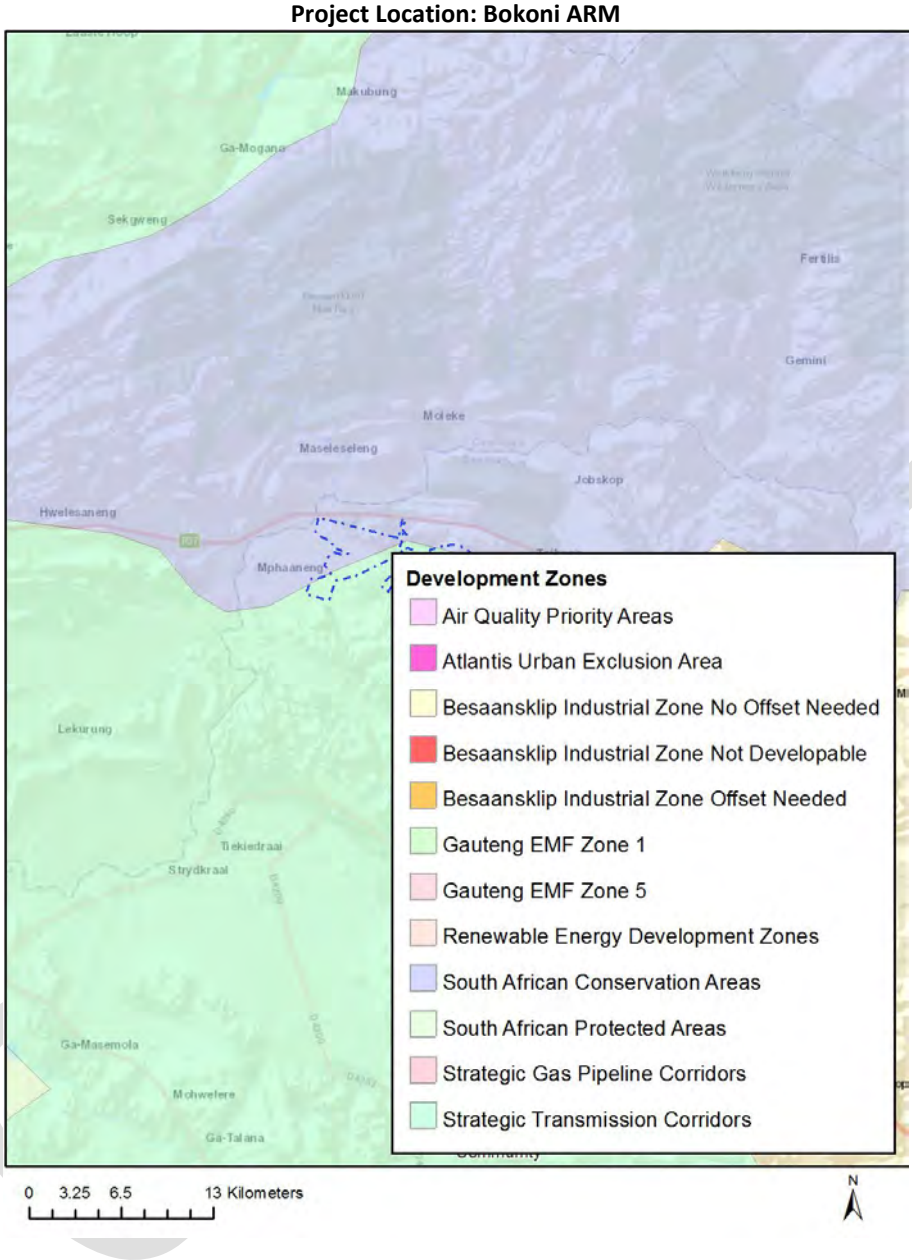
Relevant development incentives, restrictions, exclusions or prohibitions

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-International corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf
South African Conservation Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2022_Q2_Metadata.pdf

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones

Project Location: Bokoni ARM



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 environmental sensitivities of the proposed development footprint, 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.

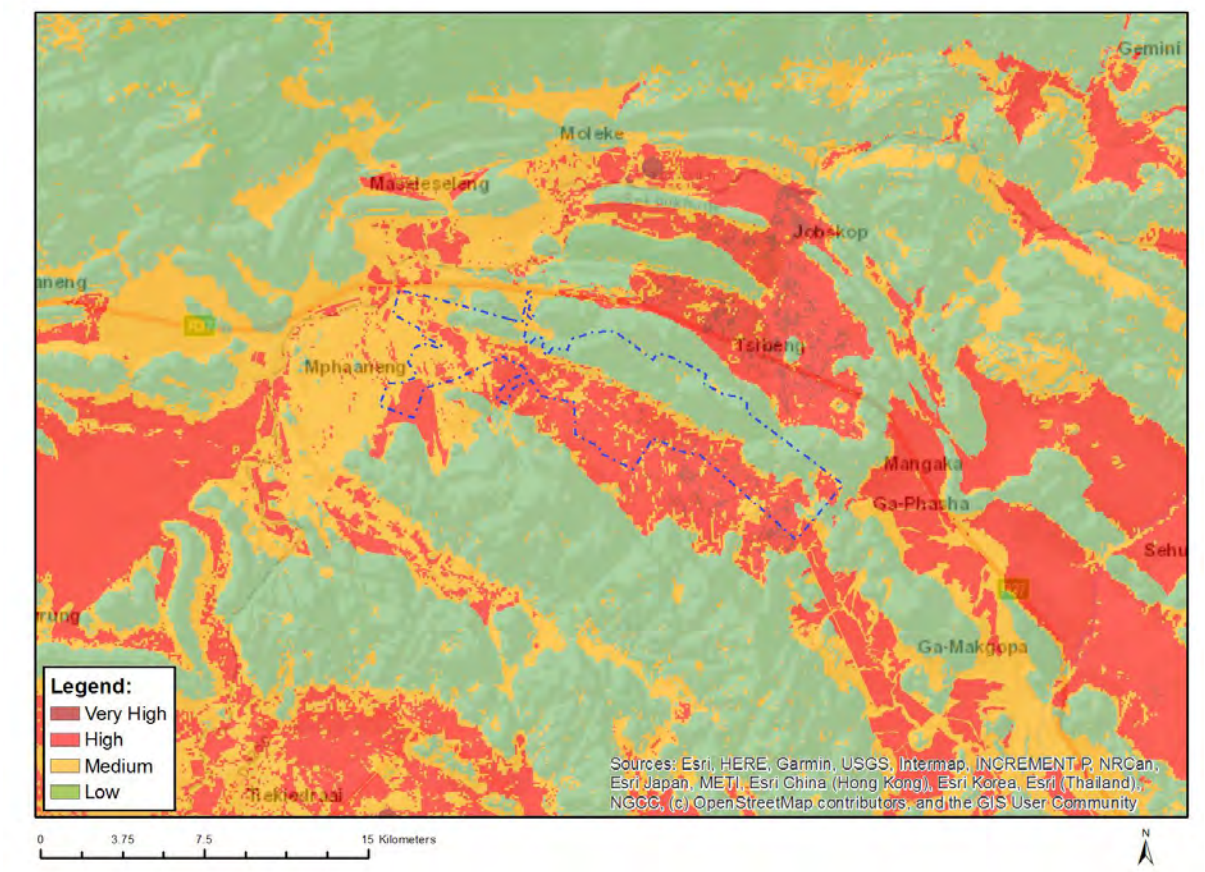
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
5	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
6	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf
7	Hydrology	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols

	Assessment	/Gazetted_General_Requirement_Assessment_Protocols.pdf
8	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Noise_Impacts_Assessment_Protocol.pdf
9	Radioactivity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
10	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
11	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
12	Climate Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
13	Health Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
14	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
15	Ambient Air Quality Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
16	Seismicity Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
17	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
18	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



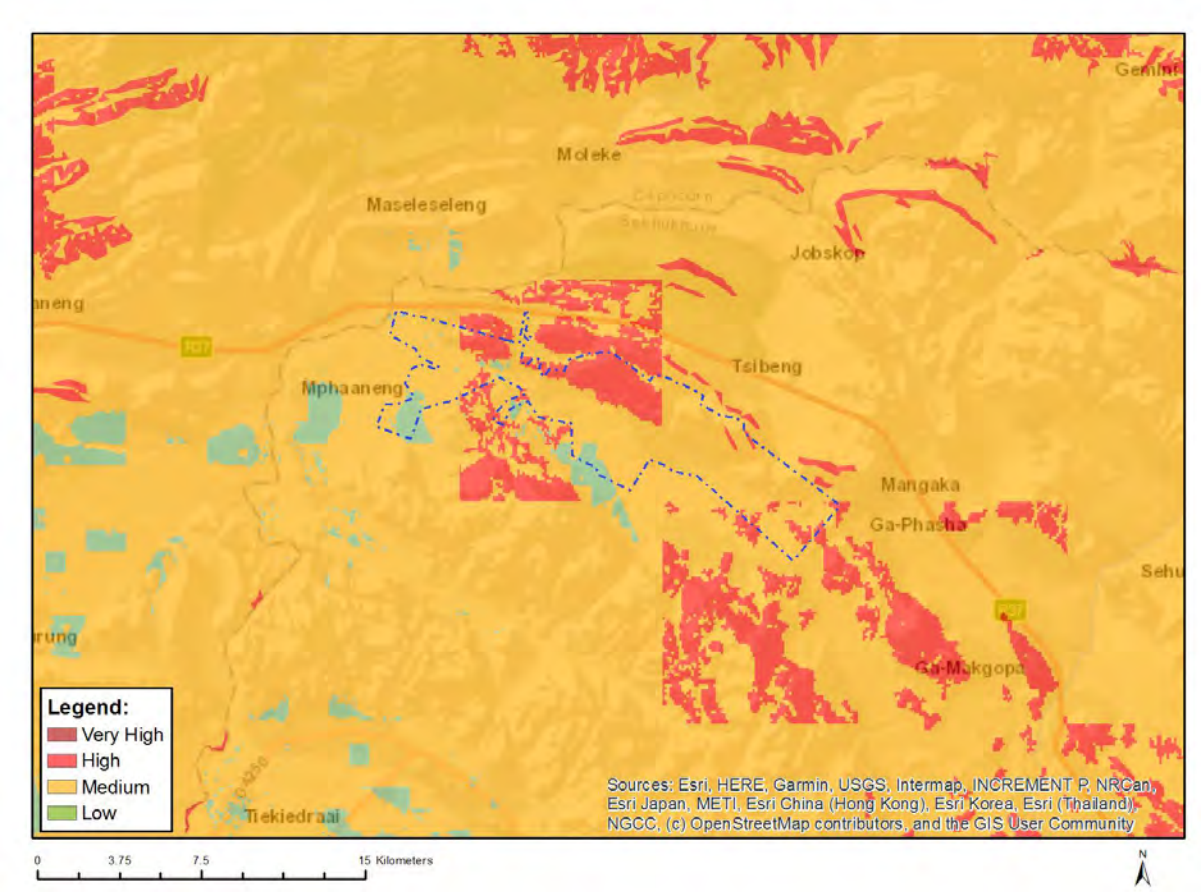
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Subsistence Farming;Land capability;09. Moderate-High/10. Moderate-High
High	Subsistence Farming;Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
High	Subsistence Farming;Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
High	Subsistence Farming_Old fields;Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
High	Subsistence Farming_Old fields;Land capability;09. Moderate-High/10. Moderate-High
High	Subsistence Farming_Old fields;Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
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
Very High	Land capability;11. High/12. High-Very high/13. High-Very high/14. Very high/15. Very high
Very High	Subsistence Farming;Land capability;11. High/12. High-Very high/13. High-Very high/14. Very high/15. Very high

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.

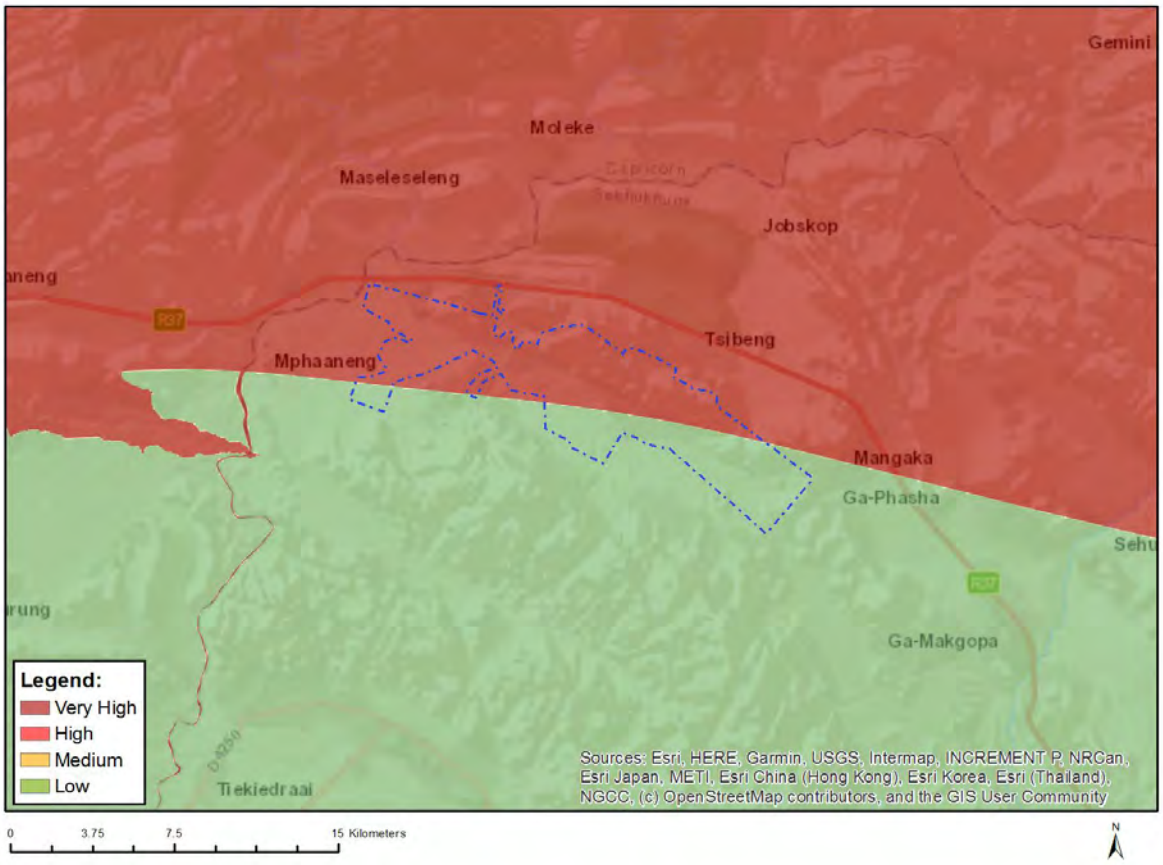
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Gyps coprotheres
High	Aves-Falco biarmicus
Low	Subject to confirmation
Medium	Aves-Sagittarius serpentarius
Medium	Aves-Aquila rapax
Medium	Mammalia-Cercopithecus albogularis schwarzi
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Dasymys robertsii

Medium	Reptilia-Crocodylus niloticus
Medium	Reptilia-Kinixys lobatsiana
Medium	Invertebrate-Aroegas fuscus

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

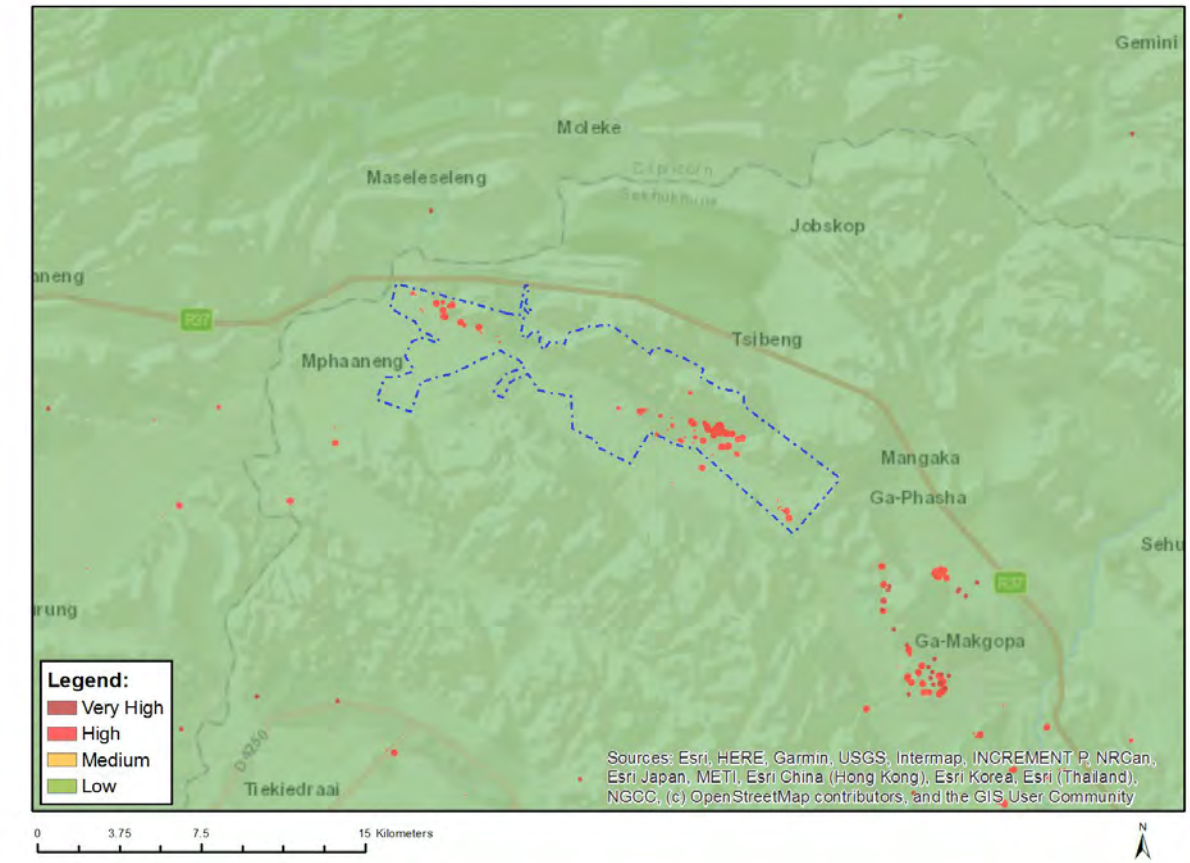


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Strategic water source area

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

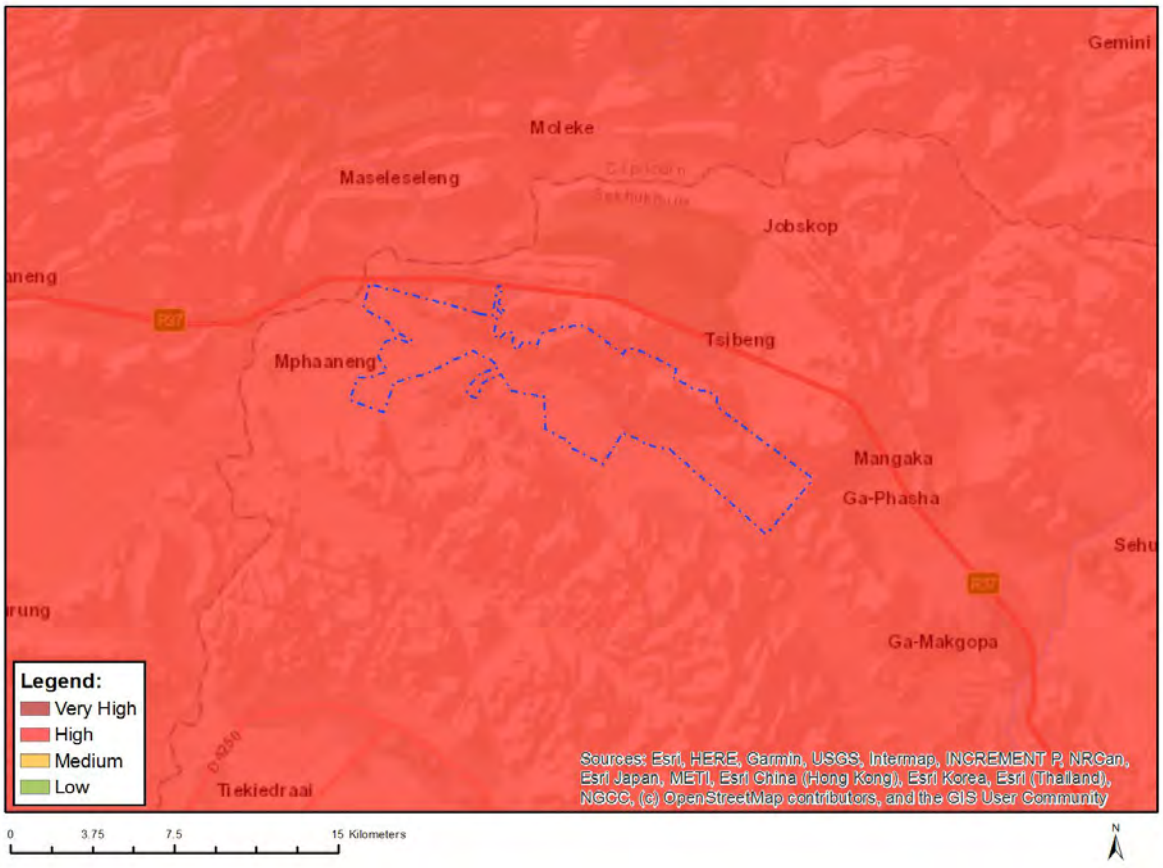


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 150m of a Grade IIIa Heritage site
High	Within 100m of a Grade IIIb Heritage site
High	Within 50m of a Grade IIIc Heritage site
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

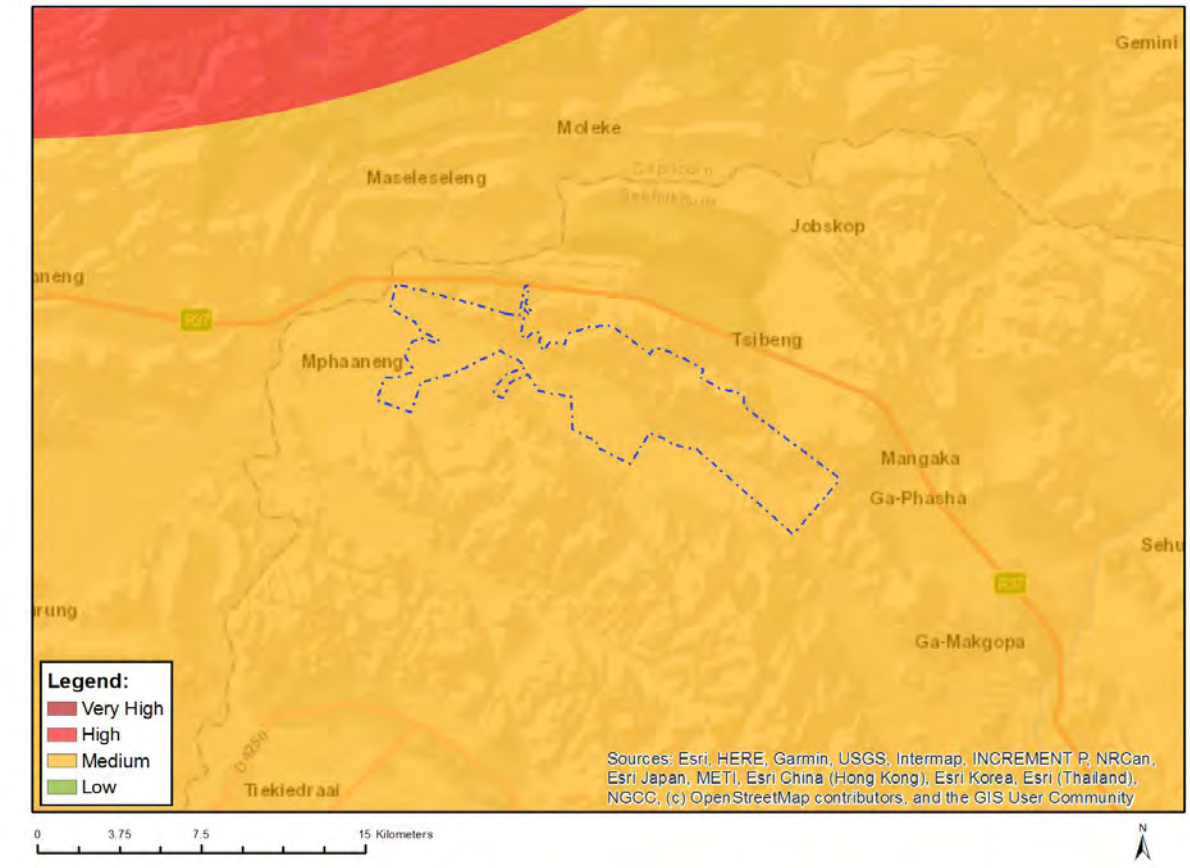


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
High	Dangerous and restricted airspace as demarcated
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

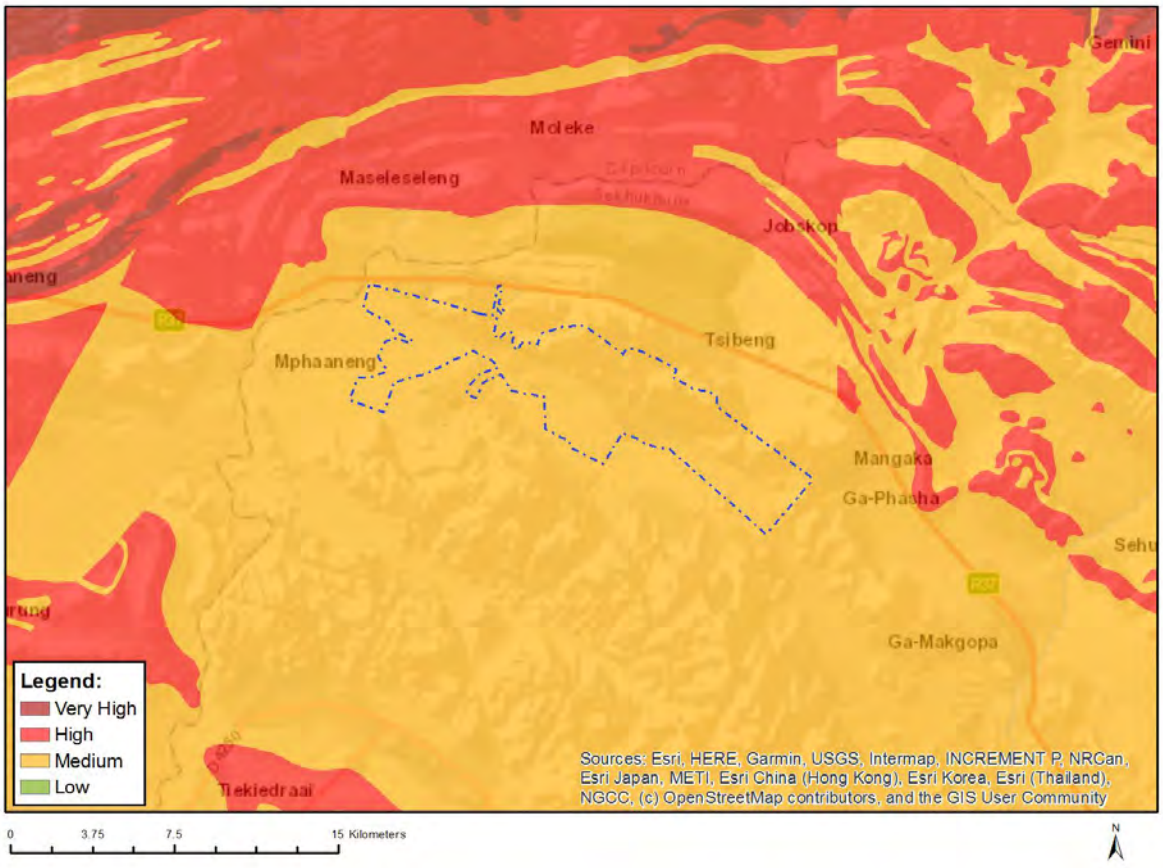


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Military and Defence Site

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

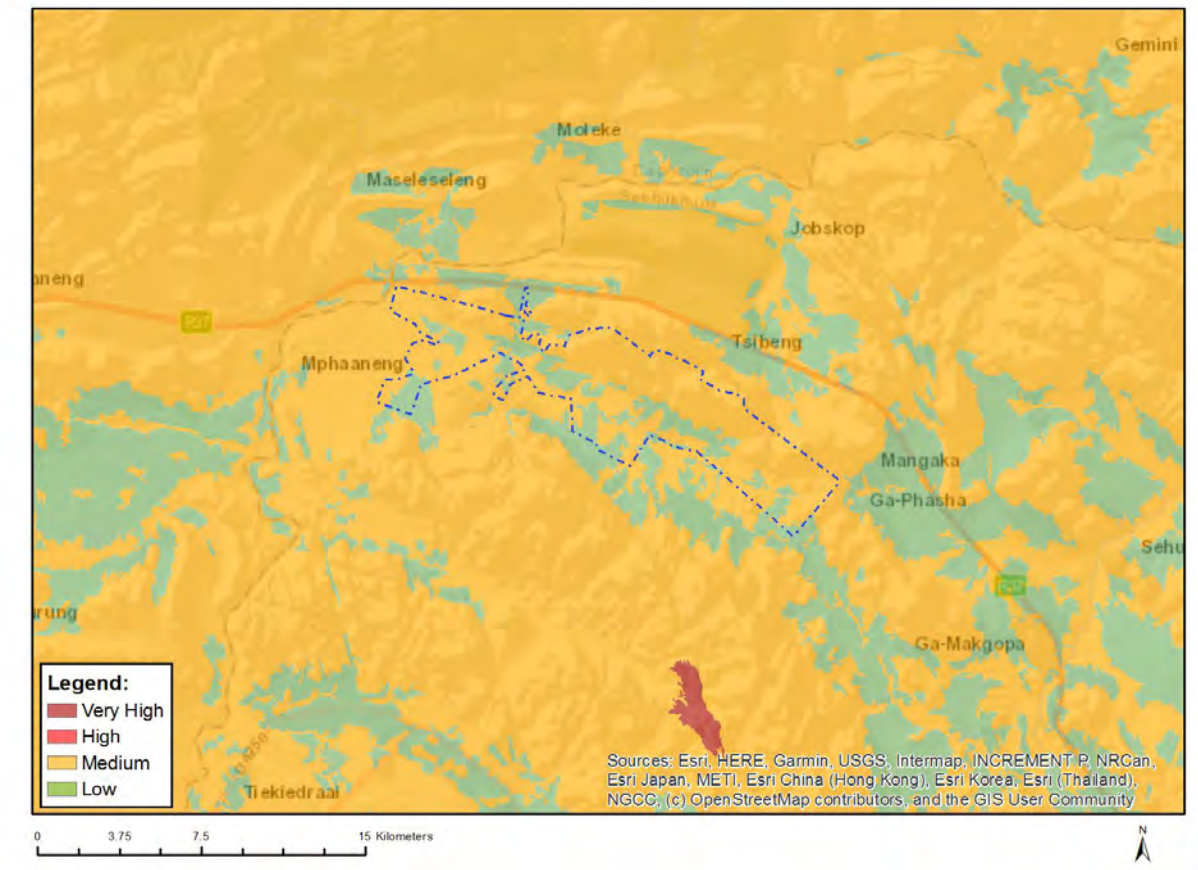


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

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

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



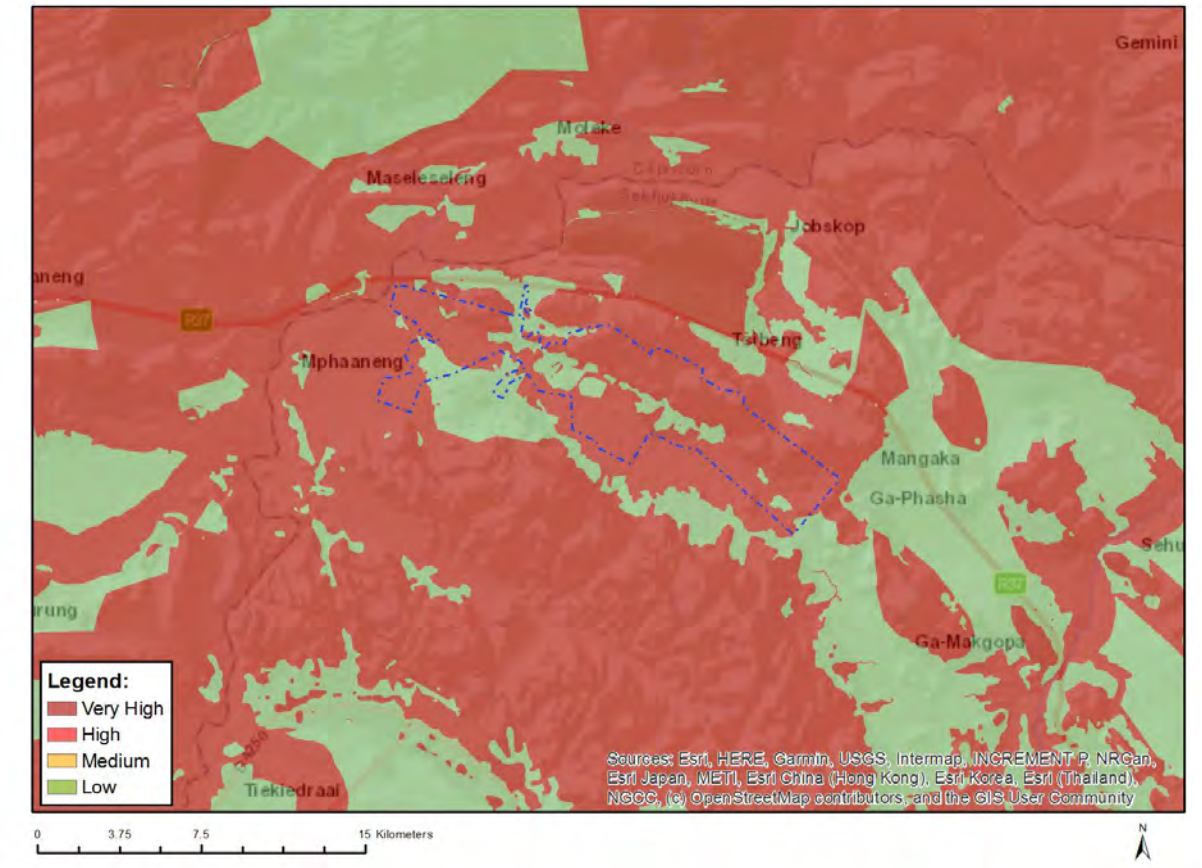
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their 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)
Low	Low Sensitivity
Medium	Sensitive species 1252
Medium	Sensitive species 1033
Medium	Sensitive species 587
Medium	Asparagus sekukuniensis
Medium	Asparagus hirsutus
Medium	Sensitive species 303
Medium	Plectranthus venteri
Medium	Sensitive species 485
Medium	Polygala sekhukhuniensis
Medium	Sensitive species 92
Medium	Combretum petrophilum

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Critical biodiveristy area 1
Very High	Critical biodiveristy area 2
Very High	Ecological support area 1
Very High	Ecological support area 2

Appendix C: Property Windeeds

Deeds Office Property

KS, BRAKFONTEIN, 464, 0, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/01 08:13	Farm Number	464
Reference	-	Registration Division	KS
Report Print Date	2022/12/01 08:13	Portion Number	a
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB119/41
Farm Name	BRAKFONTEIN	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	464	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	2391.0433H
Previous Description	-	LPI Code	T0KS00000000046400000
Suburb / Town**	2KM NORTH OF MONAMETSI	Co-ordinates (Lat/Long)**	-24.327305 / 29.918712

OWNER INFORMATION (1)

REPUBLIEK VAN SUID-AFRIKA — Owner 1 of 1

Company Type**	GOVERNMENT	Document	T3571/2000PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	REPUBLIEK VAN SUID-AFRIKA	Purchase Price (R)	CRT
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	2000/01/18
Share (%)	-		

ENDORSEMENTS (8)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K143/2000SPTA	-	-	-
2	K3570/2009LPTA	RICHTRAU NO 177 PTY LTD	-	-
3	K5367/2002LPTA	LEBOWA PLATINUM MINES LTD	-	-
4	K5368/2002RMPTA	LEBOWA PLATINUM LTD	-	-
5	K5820/2008LPTA	LEBOWA PLATINUM MINES LTD	-	-
6	CONVERTED FROM PTA	-	-	-
7	LEBOWA	-	-	-
8	RELEASED AREA	-	-	-

HISTORIC DOCUMENTS (4)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K5820/2008LPTA	-	-	-
2	B32746/2009PTA	-	-	-
3	B47881/2013PTA	-	-	-
4	DU1000/1892PTA	SUID-AFRIKAANSE ONTWIKKELINGSTRUST	Unknown	-

Deeds Office Property

KS, DIAMAND, 422, 0, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/02 08:12	Farm Number	422
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 08:19	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB156/7
Farm Name	DIAMAND	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	422	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	2238.6520H
Previous Description	(LEBOWA)	LPI Code	T0KS00000000042200000
Suburb / Town**	4KM NORTH OF MALOGENG	Co-ordinates (Lat/Long)**	-24.275914 / 29.777388

OWNER INFORMATION (2)

NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR — Owner 1 of 2

Company Type**	GOVERNMENT	Document	T680/1940PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR	Purchase Price (R)	SECT 28
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	1940/01/18
Share (%)	-		

OWNER INFORMATION (2)

NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR — Owner 2 of 2

Company Type**	GOVERNMENT	Document	T72950/2006PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	-
Share (%)	-		

ENDORSEMENTS (46)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-12922/2012CPTA	-	-	-
2	K1201/1978RMPTA	STEELE ALETTA SOPHIA	-	-
3	K1219/1977RMPTA	RESTON ANNIE LAURIE	-	-
4	K159/1977RMPTA	BREYTENBACH HELENA CATHERINA	-	-
5	K1578/1982RMPTA	STEELE JOHANNES MARTHINUS STEPHANUS	-	-
6	K1609/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
7	K1753/1975SPTA	STEELE HENDRINA CHRISTINA ALIDA	-	-
8	K1754/1975SPTA	-	-	-
9	K1872/1977RMPTA	LEBOWA PLATINUM MINES LTD	-	-
10	K2222/1978RMPTA	LEBOWA PLATINUM MINES LTD	-	-
11	K2256/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
12	K2302/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
13	K2432/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
14	K2489/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
15	K2490/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
16	K2491/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
17	K2650/1975RMPTA	LEBOWA PLATINUM MINES	-	-

ENDORSEMENTS (46)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
		LTD		
18	K2864/1978RMPTA	LEBOWA PLATINUM MINES LTD	-	-
19	K2871/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
20	K3165/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
21	K3192/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
22	K3194/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
23	K3193/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
24	K325/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
25	K3278/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
26	K3279/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
27	K3280/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
28	K3281/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
29	K3282/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
30	K3283/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
31	K324/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
32	K3277/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
33	K3455/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
34	K3554/1975RMPTA	LEBOWA PLATINUM MINES LTD	-	-
35	K4158/2006SPTA	-	-	-
36	K4291/2015SPTA	-	-	-
37	K459/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
38	K5845/2008LPTA	LEBOWA PLATINUM MINES LTD	-	-
39	K644/1976RMPTA	LEBOWA PLATINUM MINES	-	-

ENDORSEMENTS (46)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
		LTD		
40	K646/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
41	K645/1976RMPTA	LEBOWA PLATINUM MINES LTD	-	-
42	VA1206/2022	LEBOWA PLATINUM MINES LTD	-	-
43	VA2927/91-K2222/78RMPTA	-	-	-
44	VA20992/2000PTA	LEBOWA PLATINUM MINES LTD	-	-
45	CONVERTED FROM PTA	-	-	-
46	LEBOWA	-	-	-

HISTORIC DOCUMENTS (5)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K5845/2008LPTA	-	-	-
2	B3941/2010PTA	-	-	-
3	B48189/2013PTA	-	-	-
4	T680/1940PTA	S A ONTWIKKELINGSTRUST	Unknown	-
5	T680/1940PTA	GOVERNMENT OF LEBOWA	Unknown	-

Deeds Office Property

KS, JAGDLUST, 418, 0, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/02 07:53	Farm Number	418
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 07:53	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB157/15
Farm Name	JAGDLUST	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	418	Province	LIMPOPO
Registration Division	KS	Remaining Extent	YES
Portion Number	0 (REMAINING EXTENT)	Extent	1375.0865H
Previous Description	-LG895/968 (LEBOWA)	LPI Code	T0KS00000000041800000
Suburb / Town**	-	Co-ordinates (Lat/Long)**	-

OWNER INFORMATION (2)

GOVERNMENT OF LEBOWA — Owner 1 of 2

Company Type**	ADMINISTRATOR	Document	T10267/1936PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	GOVERNMENT OF LEBOWA	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	1936/06/18
Share (%)	50		

OWNER INFORMATION (2)

GOVERNMENT OF LEBOWA — Owner 2 of 2

Company Type**	ADMINISTRATOR	Document	T18506/1935PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	GOVERNMENT OF LEBOWA	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	-
Share (%)	50		

ENDORSEMENTS (8)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-2915/2014CPTA	-	-	-
2	I-992/2014CPTA	-	-	-
3	K2403/2004RMPTA	LEBOWA PLATINUM MINES LTD	-	-
4	K2860/1993RMPTA	-	-	-
5	K405/1936SPTA	-	-	-
6	K465/1936SPTA	-	-	-
7	CONVERTED FROM PTA	-	-	-
8	LEBOWA	-	-	-

HISTORIC DOCUMENTS (2)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	T10267/1936PTA	BAPEDI TRIBE 1/2	Unknown	-
2	T18506/1935PTA	BAPEDI TRIBE 1/2	Unknown	-

Deeds Office Property

KS, KLIPFONTEIN, 465, 0, LIMPOPO

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SEARCH CRITERIA			
Search Date	2022/12/02 07:49	Farm Number	465
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 07:49	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	T44863/1989
Farm Name	KLIPFONTEIN	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	465	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	2841.8803H
Previous Description	(LEBOWA)	LPI Code	T0KS00000000046500000
Suburb / Town**	1KM NORTH OF GASELEPE	Co-ordinates (Lat/Long)**	-24.350427 / 29.952722

OWNER INFORMATION (1)			
GA-MANOTWANE COMMUNITY DEVELOPMENT TRUST			Owner 1 of 1
Company Type**	TRUST	Document	T86179/2015PTA
Registration Number	3449/2006	Microfilm / Scanned Date	-
Name	GA-MANOTWANE COMMUNITY DEVELOPMENT TRUST	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	2015/10/02
Share (%)	-		

ENDORSEMENTS (11)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-12922/2012CPTA	-	-	-
2	I-871/2014LGPTA	-	-	-
3	I-8637/2013IPTA	140/2013-20131028	-	-
4	I-9024/2000CPTA	-	-	-
5	K143/2000SPTA	-	-	-
6	K1626/2000RMPTA	LEBOWA MINERAL TRUST	-	-
7	K336/2002RMPTA	LEBOWA PLATINUM MINES LTD	-	-
8	K3717/2001RMPTA	LEBOWA PLATINUM MINES LTD	-	-
9	K460/2002RMPTA	CHIEF MPHAHLELE & HIS TRIBE	-	-
10	CONVERTED FROM PTA	-	-	-
11	LEBOWA	-	-	-

HISTORIC DOCUMENTS (4)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	DU1000/0800PTA	S A ONTWIKKELINGSTRUST	Unknown	-
2	T44863/1989PTA	REPUBLIEK VAN SUID-AFRIKA CRT	CRT	-
3	T44863/1989PTA	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR	SECT 239-200/93	-
4	T44863/1989PTA	GOVERNMENT OF LEBOWA	Unknown	-

Deeds Office Property

KS, MIDDELPUNT, 420, 0, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/02 07:45	Farm Number	420
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 07:46	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB119/1938
Farm Name	MIDDELPUNT	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	420	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	1544.8853H
Previous Description	-	LPI Code	T0KS00000000042000000
Suburb / Town**	1KM NORTH OF SEFETENG B	Co-ordinates (Lat/Long)**	-24.295825 / 29.866132

OWNER INFORMATION (2)

NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR — Owner 1 of 2

Company Type**	GOVERNMENT	Document	T24685/1969PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR	Purchase Price (R)	SECT 239-200/93
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	1969/06/17
Share (%)	-		

OWNER INFORMATION (2)

NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR			Owner 2 of 2
Company Type**	GOVERNMENT	Document	T3575/2000PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	-
Share (%)	-		

ENDORSEMENTS (11)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-12922/2012CPTA	-	-	-
2	I-9038/2000CPTA	-	-	-
3	K115/1969PCPTA	-	-	-
4	K143/2000SPTA	-	-	-
5	K1671/2000RMPTA	LEBOWA MINERAL TRUST	-	-
6	K3571/2009LPTA	RICHTRAU NO 177 PTY LTD	-	-
7	K4290/2015SPTA	-	-	-
8	K5750/2008LPTA	LEBOWA PLATINUM MINES LTD	-	-
9	CONVERTED FROM PTA	-	-	-
10	LEBOWA	-	-	-
11	RELEASED AREA	-	-	-

HISTORIC DOCUMENTS (4)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K5750/2008LPTA	-	-	-
2	B32747/2009PTA	-	-	-
3	B47864/2013PTA	-	-	-
4	T24685/1969PTA	SUID-AFRIKAANSE ONTWIKKELINGSTRUST	Unknown	-

Deeds Office Property

KS, MOEIJELYK, 412, 0, LIMPOPO

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SEARCH CRITERIA			
Search Date	2022/12/02 08:23	Farm Number	412
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 08:23	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	DB371/47
Farm Name	MOEIJELYK	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	412	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	2270.9632H
Previous Description	-	LPI Code	T0KS00000000041200000
Suburb / Town**	-	Co-ordinates (Lat/Long)**	-

OWNER INFORMATION (1)			
JIBENG INV PTY LTD			Owner 1 of 1
Company Type**	COMPANY	Document	T40696/2001PTA
Registration Number	200001519907	Microfilm / Scanned Date	-
Name	JIBENG INV PTY LTD	Purchase Price (R)	150 000
Multiple Owners**	NO	Purchase Date	2001/02/09
Multiple Properties**	NO	Registration Date	2001/05/02
Share (%)	-		

ENDORSEMENTS (9)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-992/2014CPTA	-	-	-
2	K2660/1975RMPTA	-	-	-
3	K3423/1992RMPTA	SAMANCOR LTD	-	-
4	K3721/1994RMPTA	-	-	-
5	K5/2001SPTA	RAND MINES LTD	-	-
6	VA1248/1992PTA	K2660/1975RM	-	-
7	VA9/2001PTA	RAND MINES LTD	-	-
8	CONVERTED FROM PTA	-	-	-
9	RELEASED AREA	-	-	-

HISTORIC DOCUMENTS (7)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K2661/1975SPTA	-	-	-
2	B1747/2001PTA	-	-	-
3	T32747/1975PTA	LOTZABA FORESTS LTD	Unknown	-
4	T86442/1992PTA	RAND MINES LTD 678057*	678 057	-
5	T23834/1996PTA	RANDGOLD & EXPLORATION CO LTD	10 645 704	-
6	T1904/2001PTA	MOLOTO THOKWANE PHINEAS	150 000	-
7	T1904/2001PTA	MOLOTO BERTHA MODIEGI	150 000	-

Deeds Office Property

KS, PASCHAS KRAAL, 466, 1, PRETORIA

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SEARCH CRITERIA

Search Date	2022/12/02 08:29	Farm Number	466
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 08:30	Portion Number	1
Farm Name	-	Remaining Extent	NO
Deeds Office	Pretoria	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	T3155/1926
Farm Name	PASCHAS KRAAL	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	466	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	1	Extent	2156.8861H
Previous Description	-LG939/968 (LEBOWA)	LPI Code	T0KS00000000046600001
Suburb / Town**	1KM NORTH OF MASHEGENG	Co-ordinates (Lat/Long)**	-24.365943 / 29.987134

OWNER INFORMATION

No owner information to display

ENDORSEMENTS (1)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	CONVERTED TO LMP	-	-	-

HISTORIC DOCUMENTS

No historic documents to display

Deeds Office Property

KS, UMKOANESSTAD, 419, 0, LIMPOPO

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SEARCH CRITERIA			
Search Date	2022/12/01 08:20	Farm Number	419
Reference	-	Registration Division	KS
Report Print Date	2022/12/01 08:20	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	DB119/40
Farm Name	UMKOANESSTAD	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	419	Province	LIMPOPO
Registration Division	KS	Remaining Extent	YES
Portion Number	0 (REMAINING EXTENT)	Extent	2212.4882H
Previous Description	(LEBOWA)	LPI Code	T0KS00000000041900000
Suburb / Town**	2KM NORTH OF MOGABANE	Co-ordinates (Lat/Long)**	-24.303478 / 29.887206

OWNER INFORMATION (1)			
GOVERNMENT OF LEBOWA			Owner 1 of 1
Company Type**	ADMINISTRATOR	Document	T12586/1931PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	GOVERNMENT OF LEBOWA	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	1931/12/15
Share (%)	-		

ENDORSEMENTS (14)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-2915/2014CPTA	-	-	-
2	I-947/2021LG	-	-	-
3	I-937/2021LG	-	-	-
4	K23/2004RMPTA	-	-	-
5	K4441/1989RMPTA	-	-	-
6	K4710/2007SPTA	-	-	-
7	K4759/2007SPTA	-	-	-
8	K557/1993RMPTA	A F C LTD	-	-
9	K7380/2001SPTA	-	-	-
10	K8862/2008SPTA	RUSTENBURG PLATINUM MINES LTD	-	-
11	VA864/1999PTA	-	-	-
12	VA8926/2003PTA	-	-	-
13	CONVERTED FROM PTA	-	-	-
14	LEBOWA	-	-	-

HISTORIC DOCUMENTS (2)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	T12586/1931PTA	-	-	-
2	T12586/1931PTA	BAPEDI TRIBE	Unknown	-

Deeds Office Property

KS, UMKOANESTAD, 419, 1, LIMPOPO

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SEARCH CRITERIA			
Search Date	2022/12/01 08:18	Farm Number	419
Reference	-	Registration Division	KS
Report Print Date	2022/12/01 08:19	Portion Number	1
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	T1214/2022
Farm Name	UMKOANESSTAD	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	419	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	1	Extent	300.3080H
Previous Description	-	LPI Code	T0KS00000000041900001
Suburb / Town**	-	Co-ordinates (Lat/Long)**	-

OWNER INFORMATION (1)			
TRUSTEES OF THE BAPEDI TRIBE			Owner 1 of 1
Company Type**	TRUSTEE	Document	T1214/2022
Registration Number	-	Microfilm / Scanned Date	-
Name	TRUSTEES OF THE BAPEDI TRIBE	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	2022/02/16
Share (%)	-		

ENDORSEMENTS (1)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K376/2022L	BOKONI PLATINUM MINES PTY LTD	-	-

HISTORIC DOCUMENTS

No historic documents to display

Deeds Office Property

KS, UMKOANESSTAD, 419, 2, LIMPOPO

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SEARCH CRITERIA			
Search Date	2022/12/01 08:23	Farm Number	419
Reference	-	Registration Division	KS
Report Print Date	2022/12/01 08:24	Portion Number	2
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	T1215/2022
Farm Name	UMKOANESSTAD	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	419	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	2	Extent	4.6163H
Previous Description	-	LPI Code	T0KS00000000041900002
Suburb / Town**	-	Co-ordinates (Lat/Long)**	-

OWNER INFORMATION (1)			
TRUSTEES OF THE BAPEDI TRIBE			Owner 1 of 1
Company Type**	TRUSTEE	Document	T1215/2022
Registration Number	-	Microfilm / Scanned Date	-
Name	TRUSTEES OF THE BAPEDI TRIBE	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	2022/02/16
Share (%)	-		

ENDORSEMENTS

No endorsements to display

HISTORIC DOCUMENTS

No historic documents to display

Deeds Office Property

KS, UMKOANESTAD, 419, 3, LIMPOPO

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SEARCH CRITERIA			
Search Date	2022/12/01 08:25	Farm Number	419
Reference	-	Registration Division	KS
Report Print Date	2022/12/01 08:25	Portion Number	3
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	T1216/2022
Farm Name	UMKOANESSTAD	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	419	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	3	Extent	277.0000SQM
Previous Description	-	LPI Code	T0KS00000000041900003
Suburb / Town**	1KM NORTH OF MONAMETSI	Co-ordinates (Lat/Long)**	-24.302674 / 29.903754

OWNER INFORMATION (1)			
TRUSTEES OF THE BAPEDI TRIBE			Owner 1 of 1
Company Type**	TRUSTEE	Document	T1216/2022
Registration Number	-	Microfilm / Scanned Date	-
Name	TRUSTEES OF THE BAPEDI TRIBE	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	2022/02/16
Share (%)	-		

ENDORSEMENTS

No endorsements to display

HISTORIC DOCUMENTS

No historic documents to display

Deeds Office Property

KS, UMKOANESTAD, 419, 4, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/01 08:26	Farm Number	419
Reference	-	Registration Division	KS
Report Print Date	2022/12/01 08:27	Portion Number	4
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	T1217/2022
Farm Name	UMKOANESSTAD	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	419	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	4	Extent	969.0000SQM
Previous Description	-	LPI Code	T0KS00000000041900004
Suburb / Town**	0KM NORTH OF MONAMETSI	Co-ordinates (Lat/Long)**	-24.305489 / 29.9093

OWNER INFORMATION (1)

TRUSTEES OF THE BAPEDI TRIBE — Owner 1 of 1

Company Type**	TRUSTEE	Document	T1217/2022
Registration Number	-	Microfilm / Scanned Date	-
Name	TRUSTEES OF THE BAPEDI TRIBE	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	2022/02/16
Share (%)	-		

ENDORSEMENTS

No endorsements to display

HISTORIC DOCUMENTS

No historic documents to display

Deeds Office Property

KS, UMKOANESSTAD, 419, 5, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/01 08:27	Farm Number	419
Reference	-	Registration Division	KS
Report Print Date	2022/12/01 08:28	Portion Number	5
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	T1218/2022
Farm Name	UMKOANESSTAD	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	419	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	5	Extent	77.2625H
Previous Description	-	LPI Code	T0KS00000000041900005
Suburb / Town**	1KM NORTH OF MOGABANE	Co-ordinates (Lat/Long)**	-24.312413 / 29.885413

OWNER INFORMATION (1)

TRUSTEES OF THE BAPEDI TRIBE — Owner 1 of 1

Company Type**	TRUSTEE	Document	T1218/2022
Registration Number	-	Microfilm / Scanned Date	-
Name	TRUSTEES OF THE BAPEDI TRIBE	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	2022/02/16
Share (%)	-		

ENDORSEMENTS

No endorsements to display

HISTORIC DOCUMENTS

No historic documents to display

Deeds Office Property

KT, WATERKOP, 113, 0, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/02 08:28	Farm Number	113
Reference	-	Registration Division	KT
Report Print Date	2022/12/02 08:28	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB80/904
Farm Name	WATERKOP	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	113	Province	LIMPOPO
Registration Division	KT	Remaining Extent	YES
Portion Number	0 (REMAINING EXTENT)	Extent	2071.3085H
Previous Description	-LG1570/968	LPI Code	T0KT00000000011300000
Suburb / Town**	0KM NORTH OF YOSMITE	Co-ordinates (Lat/Long)**	-24.021544 / 30.196024

OWNER INFORMATION (1)

NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA — Owner 1 of 1

Company Type**	GOVERNMENT	Document	T7711/1928PTA
Registration Number	-	Microfilm / Scanned Date	-
Name	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	1928/07/13
Share (%)	-		

ENDORSEMENTS (15)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-2915/2014CPTA	-	-	-
2	KT,113PTA	-	-	-
3	K1002/1993RMPTA	-	-	-
4	K1732/1978RMPTA	-	-	-
5	K2528/1985RMPTA	-	-	-
6	K2876/1996RMPTA	GENCOR LTD	-	-
7	K3296/1990RMPTA	-	-	-
8	K3343/2003RMPTA	SAMANCOR LTD	-	-
9	K397/1928SPTA	-	-	-
10	K4451/2001RMPTA	THUNGELA OPERATIONS PTY LTD	-	-
11	K4527/1990RMPTA	GRITTEN MICHAEL TURMEAU	-	-
12	K630/2000RMPTA	IMPALA PLATINUM LTD	-	-
13	K633/2000RMPTA	B H P BILLITON SA LTD	-	-
14	CONVERTED FROM PTA	-	-	-
15	RELEASED AREA	-	-	-

HISTORIC DOCUMENTS (4)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K3296/1990RMPTA	-	-	-
2	K2876/1996RMPTA	GENCOR LTD	-	-
3	K1732/1978RMPTA	-	-	-
4	K633/2000RMPTA	-	-	-

Deeds Office Property

KS, WINTERSVELD, 417, 0, LIMPOPO

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SEARCH CRITERIA

Search Date	2022/12/02 07:51	Farm Number	417
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 07:51	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Limpopo	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB185/32
Farm Name	WINTERSVELD	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	417	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	2459.7515H
Previous Description	-	LPI Code	T0KS00000000041700000
Suburb / Town**	-	Co-ordinates (Lat/Long)**	-

OWNER INFORMATION (1)

SAMANCOR CHROME LTD — Owner 1 of 1

Company Type**	COMPANY	Document	T14689/1993PTA
Registration Number	192600888306	Microfilm / Scanned Date	-
Name	SAMANCOR CHROME LTD	Purchase Price (R)	-
Multiple Owners**	NO	Purchase Date	-
Multiple Properties**	NO	Registration Date	1993/02/24
Share (%)	-		

ENDORSEMENTS (11)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K2036/1992SPTA	-	-	-
2	K2036/1992SPTA	-	-	-
3	K2449/1979RMPTA	JAGDLUST CHROME CO PTY LTD	-	-
4	K2450/1979SPTA	-	-	-
5	K2403/2004RMPTA	LEBOWA PLATINUM MINES LTD	-	-
6	K2857/1993SPTA	-	-	-
7	K2858/1993SPTA	-	-	-
8	K2862/1993RMPTA	-	-	-
9	K38/1973LPTA	-	-	-
10	CONVERTED FROM PTA	-	-	-
11	RELEASED AREA	-	-	-

HISTORIC DOCUMENTS (5)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	K2862/1993RMPTA	-	-	-
2	K848/2001SPTA	-	-	-
3	T33235/1979PTA	CHROMETCO MINERALS PTY LTD	Unknown	-
4	T14688/1993PTA	SAMANCOR CHROME LTD NIL	-	-
5	T14689/1993PTA	SAMANCOR LTD	-	-

Deeds Office Property

KS, ZEEKOEGAT, 421, 0, PRETORIA

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SEARCH CRITERIA

Search Date	2022/12/02 08:11	Farm Number	421
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 08:11	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Pretoria	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB156/4
Farm Name	ZEEKOEGAT	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	421	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	2127.6897H
Previous Description	-	LPI Code	T0KS00000000042100000
Suburb / Town**	2KM NORTH OF BOGALATLADI	Co-ordinates (Lat/Long)**	-24.26881 / 29.820018

OWNER INFORMATION

No owner information to display

ENDORSEMENTS (1)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	CONVERTED TO LMP	-	-	-

HISTORIC DOCUMENTS

No historic documents to display

Deeds Office Property

KS, ZWARTKOPPIES, 413, 0, PRETORIA

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SEARCH CRITERIA

Search Date	2022/12/02 08:26	Farm Number	413
Reference	-	Registration Division	KS
Report Print Date	2022/12/02 08:27	Portion Number	0
Farm Name	-	Remaining Extent	NO
Deeds Office	Pretoria	Search Source	Deeds Office

PROPERTY INFORMATION

Property Type	FARM	Diagram Deed Number	DB80/37
Farm Name	ZWARTKOPPIES	Local Authority	FETAKGOMO LOCAL MUNICIPALITY
Farm Number	413	Province	LIMPOPO
Registration Division	KS	Remaining Extent	NO
Portion Number	0	Extent	1436.4142H
Previous Description	-	LPI Code	T0KS00000000041300000
Suburb / Town**	2KM NORTH OF LEDINGWE	Co-ordinates (Lat/Long)**	-24.306638 / 30.007403

OWNER INFORMATION

No owner information to display

ENDORSEMENTS (1)

#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	CONVERTED TO LMP	-	-	-

HISTORIC DOCUMENTS

No historic documents to display

Appendix D: Public Consultation Documents

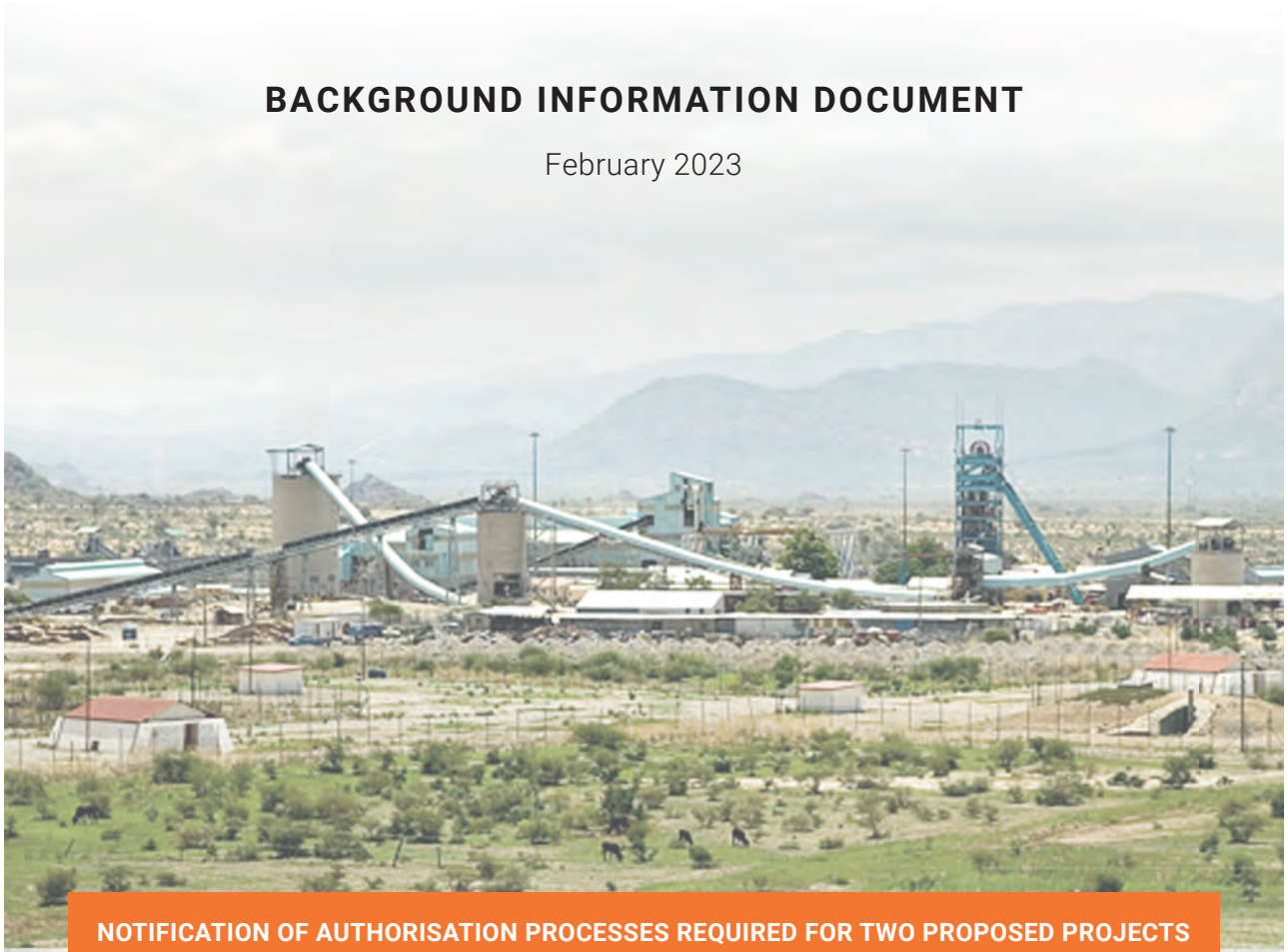
srk consulting

BOKONI PLATINUM MINE

START-UP AND EXPANSION PROJECTS

BACKGROUND INFORMATION DOCUMENT

February 2023



NOTIFICATION OF AUTHORISATION PROCESSES REQUIRED FOR TWO PROPOSED PROJECTS AT BOKONI PLATINUM MINE, NEAR BURGERSFORT, LIMPOPO PROVINCE

DMRE REF. NO. LP 30/5/1/2/59 MR & LP 30/5/1/2/65 MR

DWS REF. NO. 06/B52J/ACEFGIJ/11541 & 03/B52J/ACGIJ/4638

SRK PROJECT NUMBER: 590847

This document is also available in Sepedi

Purpose of this background information document is to:

- Inform stakeholders about the two new proposed projects and associated environmental authorisation processes;
- Provide a brief description of the two projects; and
- Provide information on how you can register as an Interested and Affected Party (I&AP) and participate in this process.
- To comment on the proposed projects and register as an Interested and Affected Party (I&AP), please complete the enclosed Registration and Comment Form, or contact SRK (refer to details on page 11).

BACKGROUND

African Rainbow Minerals (ARM) acquired the Bokoni Platinum Mine (BPM) from Anglo American Platinum and Atlatsa Resources during 2022. BPM is situated on portions of the farms Jagdlust 418 KS, Winterveld 417 KS, Zeekoegat 421 KS, Diamand 422 KS, Middelpunt 420 KS, Umkoanesstad 419 KS, Brakfontein 464 KS, Klipfontein 465 KS and Avoca 472 KS, between Polokwane and Burgersfort on the regional road R37 (refer to Figure 1).

BPM has mined the Merensky reef since the 1960s and the UG2 reef since 1998 via underground and open pit mining operations. During October 2017, BPM was placed under Care and Maintenance.

Currently the mining operation at BPM consists of a vertical shaft and various decline shaft systems to access underground mining areas, access roads, water and power infrastructure, as well as a processing concentrator plant.

ARM intends to apply for the necessary authorisation from the Department of Mineral Resources and Energy (DMRE) to commence with a section of the mine whilst applying for the necessary authorisation and licences to expand the BPM operation that would require authorisation from the DMRE and the Department of Water and Sanitation (DWS).

EXISTING AUTHORISATIONS OF BPM

BPM's operations are manged in accordance with the consolidated Environmental Management Programme (EMPr) approved in 2012 by the DMRE. The following activities and infrastructure have previously been authorised:

- Drilling and blasting
- Opencast mining (Farms Klipfontein 465 KS and Zeekoegat 421 KS) – opencast mining concluded, and areas have been rehabilitated
- Various underground mining areas
  - Vertical, UM1, UM2 and Brakfontein
  - Middelpunt Hill shaft
  - Klipfontein decline shaft
  - Zeekoegat decline shaft
- Mineral Processing:
  - Merensky processing plant
  - UG2 processing plant
- Ventilation facilities (various fans and vents)
- Fuel and chemicals storage and use
- Domestic and hazardous waste handling
  - Management of waste rock dumps (WRDs) and Tailings Storage Facilities (TSFs)
  - Merensky Reef: TSFs
  - Merensky Reef: Waste Rock Dumps
  - UG2 Reef: TSFs
  - UG2 Reef: Waste Rock Dumps
- Water supply, including:
  - Processing water
  - Potable water
  - Surface water drainage
  - Water storage and discharge
  - Waste water treatment plants (WWTPs) - five WWTP on site at the Middelpunt Hill, Atokia Village, UM2, Brakfontein and the concentrator plant
  - Sewage treatment plants
- Access roads
- Electricity supply infrastructure and substations
- Employee housing
- Offices, parking areas, stores, workshops, laydown areas and other administrative and supporting facilities.

BPM also has two existing Water Use Licences (WULs); WUL No. 06/B52J/ACEFGIJ/11541 and WUL No. 03/B52J/ACGIJ/4638, through which the following Section 21 water uses, as described in the National Water Act, Act 36 of 1998 (NWA), have been authorised:

- 21(a) Taking water from a water resource;
- 21(b) Storing of water;
- 21(c) Impeding or diverting the flow of water in a watercourse;
- 21(e) Engaging in a controlled activity;
- 21(g) Disposing of waste in a manner which may detrimentally impact on a water resource;
- 21(i) Altering the bed, banks or characteristics of a watercourse; and
- 21(j) Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people.

OVERVIEW OF PROPOSED PROJECTS

Start-Up Project

In order for BPM to restart the operation at the mine, the mine plans to establish the Klipgat portal operation over the existing UM1 and Klipgat decline shaft areas. This project will be known as the Start-up Project and will consist of the following proposed mining related activities and associated infrastructure (refer to Figure 1):

- Redevelopment of the Klipgat portal, to be located over the previous authorised UM1 shaft and Klipgat decline shaft operation, to access Middelpunt West & Middelpunt East underground areas. The Klipgat Portal will be; the operation will include a portal, water and waste management systems, ore silo/stockpile, workshops, fuel storage, grout plant and temporary construction facilities (laydown, offices, parking, diesel storage, ablutions);
- Developing a new processing plant with a processing capacity of 240 kilo tons per month (ktpm) including include a crusher and mill plant, Chrome Recovery Plant, product silos, workshops, oil and fuel storage and temporary construction facilities;
- Conveyor belt system from Klipgat portal to new processing plant;
- Relocation of existing explosive magazine to make space for new plant;
- Modifications to existing concentrator plant, i.e. upgrade stormwater management and pollution control dams, and refurbishment of pipelines and other supporting infrastructure.

Expansion Project

In addition to the Start-up Project, BPM is also planning to expand the mining operation. Through the proposed Expansion Project, ARM aims to optimally mine the ore at BPM that could support a life-of-mine plan of more than 50 years. The following key infrastructure are proposed as part of the Expansion Project (refer to Figure 1):

Key infrastructure

- Open pit areas: UG2 (4 pits) and Merensky (3);
- Waste rock dumps (WRDs) associated with the different open pit areas;
- New tailings storage facility and return water dam complex.

Supporting Infrastructure

- Additional pollution control dams/settling dams: associated with the open pits,
- Access and haul roads to be used by the mine;
- Upgrade and formalising selected community roads;
- Community centre and post office;
- Pipelines and powerlines;
- Ventilation shafts for underground operations.

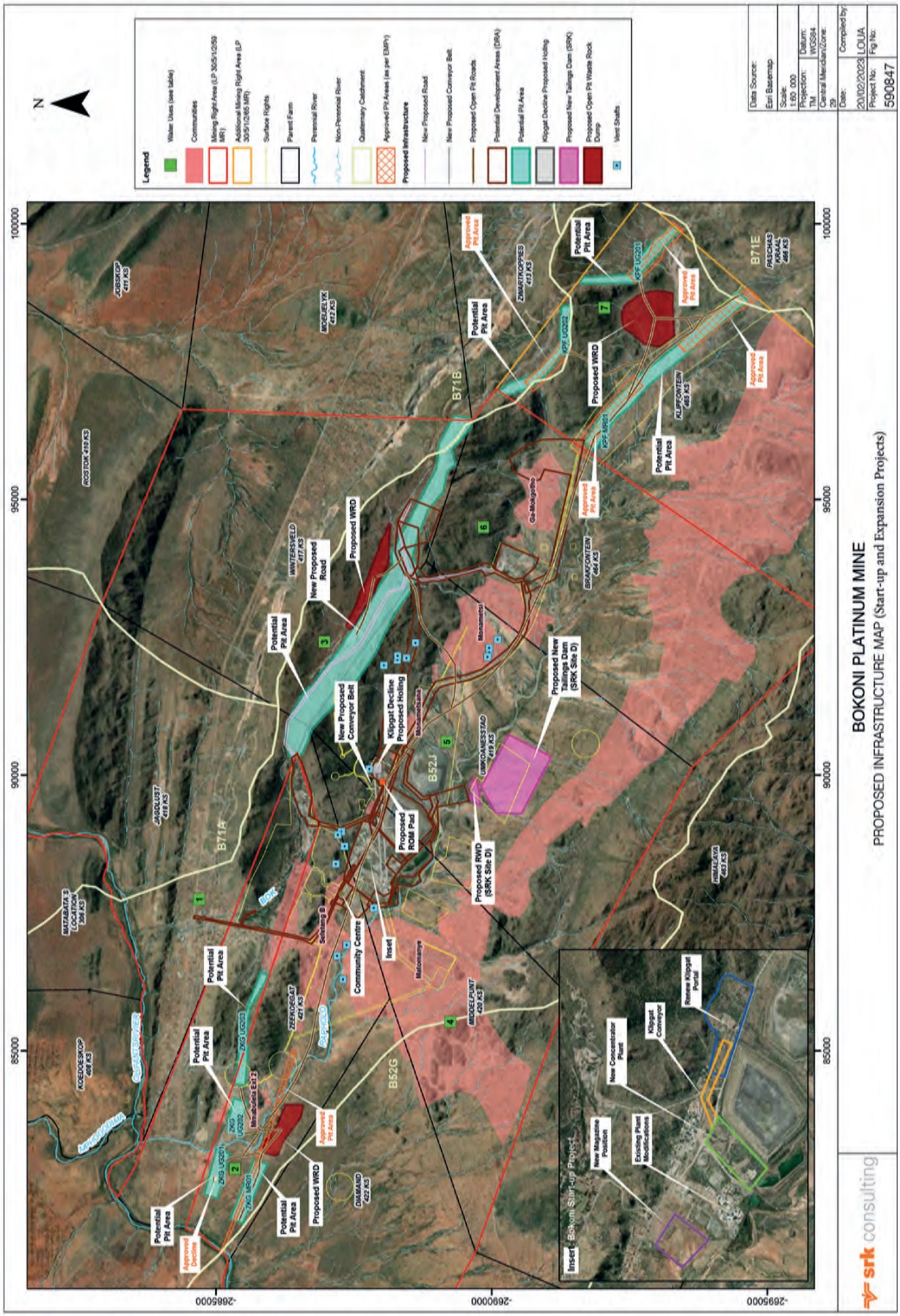


Figure 1: Locality Map showing the location of the key infrastructure of the two proposed projects in relation to BPM mining rights area

LEGAL REQUIREMENTS

Before ARM may commence with the proposed projects, the mine needs to obtain the necessary authorisations from the relevant authorities. Due to the nature and extent of the proposed activities associated with the BPM Start-up Project, a Basic Assessment process will be followed as part of the environmental authorisation (EA) application, in respect of the listed activities that will be triggered under the National Environmental Management Act (Act No. 107 of 1998) (NEMA). This proposed BPM Start-up Project will be subject to approval from DMRE.

The proposed BPM Expansion Project will however require a full Scoping and Environmental Impact Assessment (S&EIA) process as part of an integrated EA process, to obtain authorisation from the DMRE in respect of NEMA and the National Environmental Management: Waste Act (Act No. 36 of 1998) (NEM:WA). ARM will also need to undertake a Water Use Licence Application (WULA) process in order to obtain authorisation from DWS in respect of the water uses that the proposed Expansion Project will trigger. The WULA will be undertaken in accordance with the National Water Act (Act No. 36 of 1998) (NWA). Furthermore, a Section 102 application in terms of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA), will be required since the Expansion Project will require the mine to update the mine's Mine Work Programme and amend the Environmental Management Programme (EMPr).

SRK Consulting (South Africa) Pty (Ltd) (SRK) has been appointed as the independent Environmental Assessment Practitioner (EAP) to conduct the necessary impact assessments as part of the environmental authorisation applications, undertake the regulatory required stakeholder engagement processes and prepare the relevant project documentation for each project.

The sections below provide further details of the project specific activities that will be triggered in respect of said Acts and for which authorisation will be applied for.

National Environmental Management Act (NEMA)

Both proposed projects require environmental authorisation from the DMRE in terms of the NEMA and the amended EIA Regulations (Government Notice (GN) R. 983 to 985, published in 2014, as amended in 2021).

The following listed activities will be triggered by the respective proposed project:

Listed Notice	ACTIVITY	Proposed Projects	
		Start-Up	Expansion
GNR 983 (Listing Notice 1)	**9** - Bulk transportation of water or storm water via pipeline	√	√
	10 - Bulk transportation of sewage, process water, etc., via pipeline	√	√
	11 - Transmission and distribution of electricity with a capacity of more than 33 but less than 275 kilovolts	√	√
	12 - The development of dams with a physical footprint of 100m^2 or more, within 32m of a watercourse	√	√
	14 - The development of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, with combined capacity of 80m^3 but not exceeding 500m^3	√	√
	19 - The infilling or depositing of any material of more than 10m^3 into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10m^3 from a watercourse	√	√

Listed Notice	ACTIVITY	Proposed Projects	
		Start-Up	Expansion
GNR 983 (Listing Notice 1)	**21D** - Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of Section 102 of the Mineral and Petroleum Resources Development Act	√	√
	24 - The development of a road with a reserve wider than 13,5m, or where no reserve exists where the road is wider than 8m	√	x
	27 - The clearance of an area of 1 ha or more, but less than 20 ha of indigenous vegetation	√	√
	30 - Any process or activity identified in terms of section 53(1) of the national Environmental Management: Biodiversity Act (Act No. 10 of 2004).	x	√
	56 - Widening of a road by more than 6m, or the lengthening of a road by more than 1km	√	x
GNR 984 (Listing 2)	**4** - The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, with a combined capacity of more than 500m^3	x	√
	6 - Facilities or infrastructure which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent	x	√
	11 - The development of facilities or infrastructure for the transfer of 50 000 m^3 or more water per day, from and to or between, (i) water catchments (ii) water treatment works, or (iii) impoundments, excluding treatment works where water is to be treated for drinking purposes.	x	√
	15 - The clearance of an area of 20 ha or more of indigenous vegetation	x	√
	17 - Any activity which requires a mining right as contemplated in the MPRDA	x	√
	27 - The development of a road with a reserve wider than 30m; or catering for more than one lane of traffic in both directions	x	√
GNR 985 (Listing 3)	**4** - The development of a road wider than 4m with a reserve of less than 13.5m	√	√
	10 - The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30m^3 but not exceeding 80m^3	√	√
	12 - The clearance of an area of more than 300m^2 or more of indigenous vegetation	√	√
	14 - The development of dams with a physical footprint of 10m^2 or more, within 32m of a watercourse	√	√
	18 - The widening of a road by more than 4m, or the lengthening of a road by more than 1km	√	√
	22 - The expansion and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage facilities will be expanded by 30m^2 or more but less than 80m^2.	√	√

National Environmental Management: Waste Act (NEM:WA)

The following waste management activities, as detailed in GN R 921, under Category B, will be triggered by the proposed Expansion Project:

Activity 10 - The construction of a facility for a waste management activity listed in Category B of this Schedule (not in isolation to associated waste management activity).

Activity 11 - The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which requires a mining right, exploration right or production right in terms of MPRDA.

Mineral and Petroleum Resources Development Act (MPRDA)

According to Section 102 of the MPRDA, and in terms of the proposed projects, no mining right, mine work programme and/or EMPr may be amended without the written consent of the Minister of Minerals and Energy. Therefore, the Amended EMPr and updated Mine Work Programme relating to the Expansion Project will be submitted to the DMRE for approval and consent by the Minister through a Section 102 application.

National Water Act (NWA)

A number of new water uses will be triggered by the proposed Expansion Project which will require licensing by DWS in terms of the NWA. The Expansion Project will require a WULA in terms of Section 21 of NWA.

The following water uses are anticipated to be associated with the Expansion Project:

- **Section 21(a)** - Taking water from a water resource
- **Section 21(c)** - Impeding or diverting the flow of water in a watercourse
- **Section 21(i)** - Altering the beds, banks, course or characteristics of a water course
- **Section 21(f)** - Discharge waste/water containing waste into a water resource
- **Section 21(g)** - Disposing of waste in a manner which may detrimentally impact on a water resource
- **Section 21(j)** - Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people

No new water uses will be triggered the proposed Start-up Project. All water aspects will be managed within the ambit of the existing WULs of the mine.

Further details of the water uses to be licensed in terms of the Expansion Project will be provided during the Scoping and EIA phases.

Based on the Listed Notice activities triggered, the Start-Up Project will require a Basic Assessment process (refer to Figure 2) to be followed in terms of NEMA and will not trigger any activities in terms of NEM:WA. All waste associated with the Start-up project will be managed in accordance with current authorisation and through the use of existing processes, infrastructure and procedures.

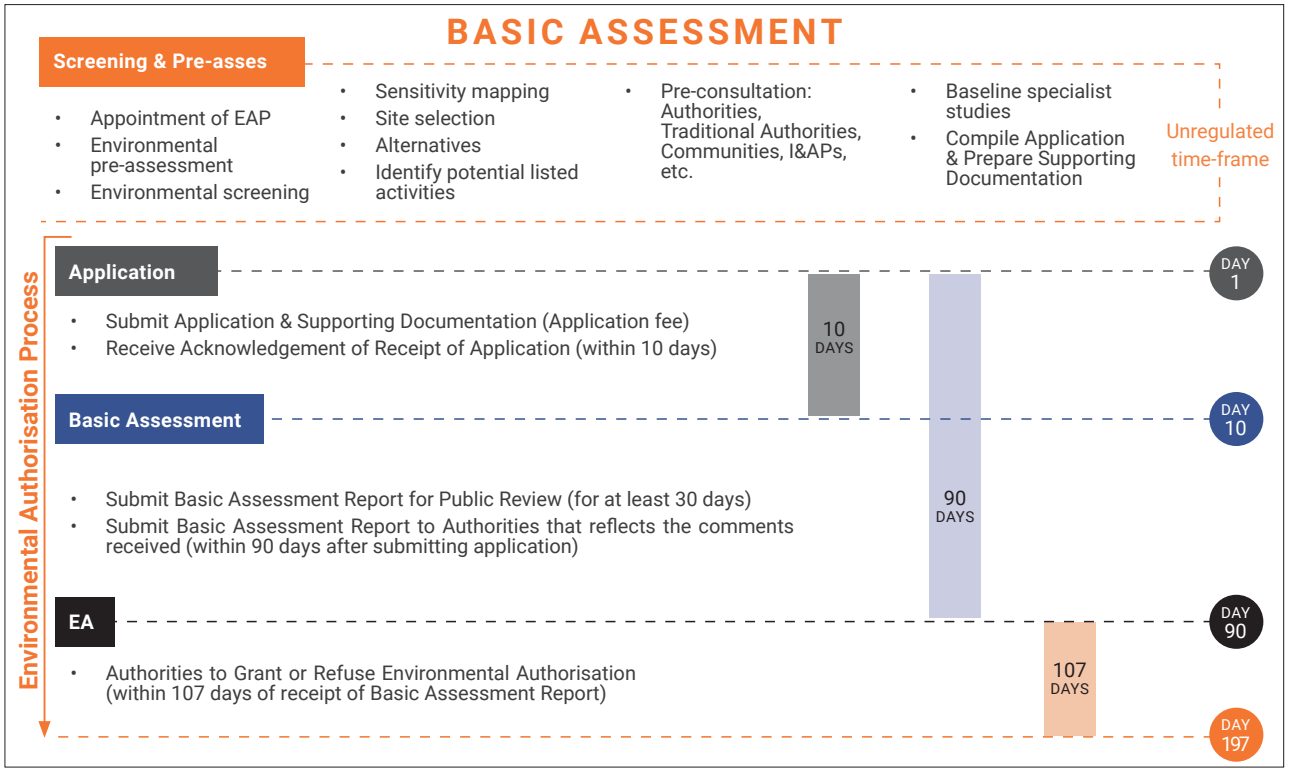


Figure 2: Basic Assessment Process

The Expansion Project will require a full S&EIA and a WULA process to be undertaken in terms of NEMA, NEM:WA and NWA. (Refer to Figure 3).

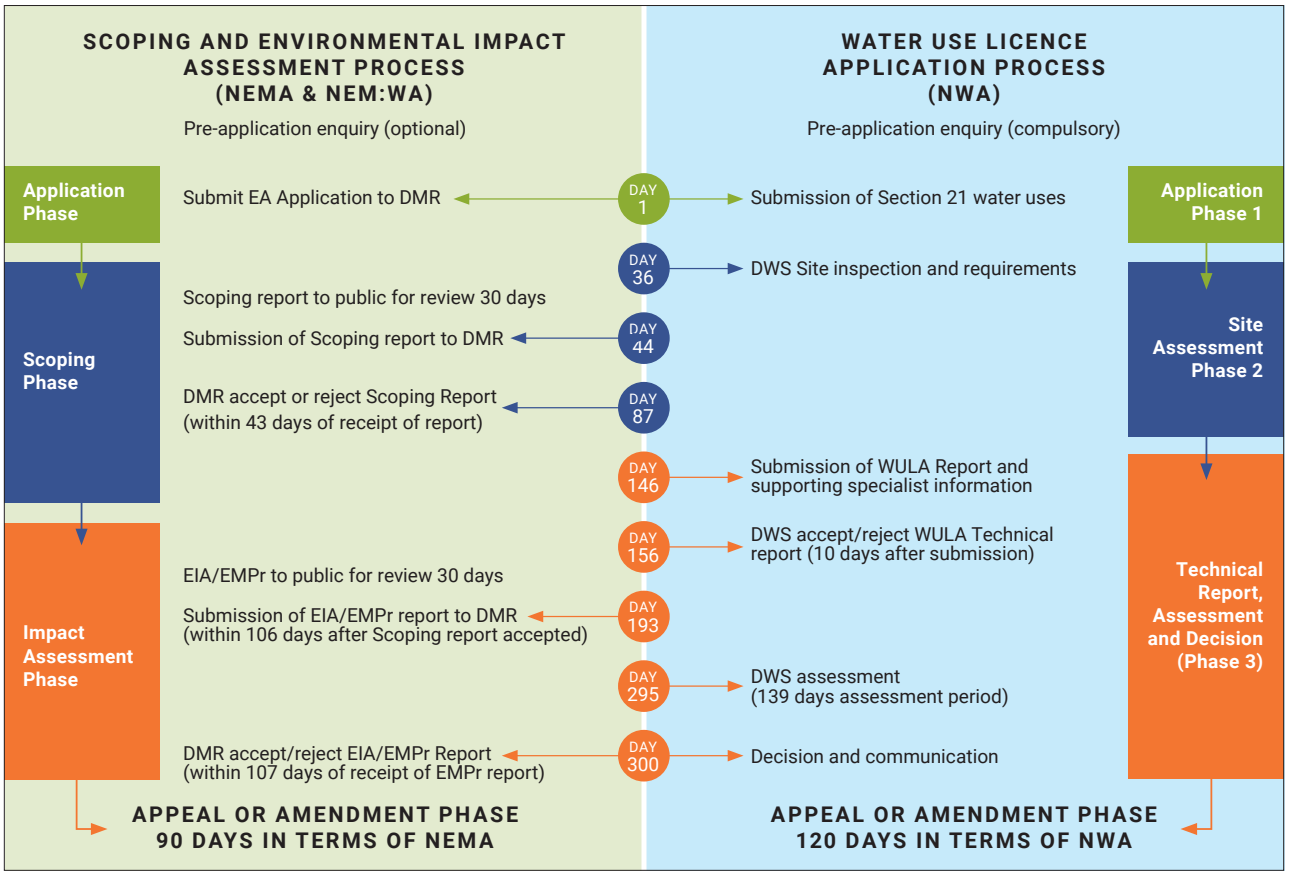


Figure 3: Integrated S&EIA and WUL Processes

SPECIALIST STUDIES

Various levels of specialist studies (desktop and/or detailed) will be undertaken in terms of the two proposed projects. These will include the following:

- Blast & vibration
- Closure & rehabilitation
- Freshwater aquatic ecosystems
- Geochemistry
- Groundwater
- Cultural and heritage resources
- Hydropedology
- Noise
- Socio-economics
- Soils, land use and land capability
- Surface water
- Terrestrial Biodiversity
- Traffic
- Visual

PUBLIC PARTICIPATION

The public participation processes, undertaken as part of the environmental, waste and water use authorisation processes, will be conducted in terms of the NEMA EIA 2014 Regulations, as amended in 2021, as well as GNR 267 under the NWA, which provides clear guidelines for stakeholder engagement during the authorisation processes. The process offers stakeholders the opportunity to be informed about the projects, raise comments or queries and make suggestions for enhanced projects benefits. The technical specialists and project team will evaluate and address relevant issues and suggestions during the authorisation processes.

The public participation processes which will be conducted as part of the Basic Assessment and the S&EIA processes is included in Figure 2 and Figure 3 respectively. During the processes, I&APs will be identified, the project will be announced, and potential impacts of the proposed project will be identified and assessed.

Following the announcement of the project, the relevant draft reports associated with the Basic Assessment and S&EIA processes will be made available for public comment, for a period of 30 calendar days. These reports will then be updated to incorporate comments from Interested and Affected Parties (I&APs), and submitted to the DMRE, who will in consultation with other authorities at provincial and local levels, will accept or reject the reports.

INVITATION TO REGISTER AS AN I&AP

Please note that you must register as an I&AP to be kept informed of the project activities and further opportunities to comment on the project. More documents will become available during the Basic Assessment and S&EIA processes.

I&APs are encouraged to register and submit questions, comments and suggestions by completing the attached Registration and Comment Form and returning it to the SRK Public Participation Office (details below).

AVAILABILITY OF THE DRAFT BASIC ASSESSMENT REPORT AND THE DRAFT SCOPING REPORT FOR PUBLIC COMMENT

As part of the stakeholder engagement process, the Draft Basic Assessment Report (DBAR) and Draft Scoping Report (DSR) will be made available for public review and comment from 14 April 2023 to 19 May 2023.

The draft reports will be available in PDF format on the SRK website, **https://www.srk.com**, and the following public places:

Public places where the Draft Basic Assessment Report and Draft Scoping Report will be made available

PUBLIC PLACE	LOCALITY
Baroka-Ba-Nkwana Traditional Authority Offices	Ga-Nkwana Moshate
Roka--Selepe Traditional Authority Offices	Selepe Village Moshate
Maesela-Manotwane Traditional Authority Offices	Manotwane Village Moshate
Bapedi Kingdom Traditional Authority Offices	Mohlaletse Village Moshate
BPM's Social Performance Department	BPM Protection Services

All stakeholders are encouraged to comment on the DBAR & DSR by 19 May 2023, as your comments and suggestions on any aspect of the projects will ultimately assist in the development of the project related documentation which will inform the authorities decision.

You are welcome to comment on the proposed projects, BID and/or DBAR/DSR by:

- Completing the enclosed Registration and Comment Form and submitting it to the stakeholder engagement office;
- Writing a letter or additional written submission by email or fax;
- Attending stakeholder meetings during the Basic Assessment, Scoping and EIA Phases of the projects; and/or
- Contacting the SRK public participation office.

CONTACT US

Should you have any questions or require any additional information, please contact:

SRK Consulting

Att: Portia Tsotetsi, Public Participation Office, P.O. Box 55291, Northlands, 2116,

Tel: (011) 441 1111 / 066 240 8900 **Fax:** 086 503 1222 **Email:** PTsotetsi@srk.co.za

NOTICE OF PUBLIC PARTICIPATION PROCESSES

RELATING TO TWO PROPOSED PROJECTS AT BOKONI PLATINUM MINE, BURGERSFORT, LIMPOPO PROVINCE

REGISTRATION AND COMMENT SHEET

Accompanying Background Information Document

February 2023

Please provide your contact details to the SRK Consulting Stakeholder Engagement Office (see details below) to register as an Interested and Affected Party

CONTACT DETAILS

TITLE		**FIRST NAME**	
INITIALS		**SURNAME**	
ORGANISATION			
POSTAL ADDRESS			
		POSTAL CODE	
LAND LINE TEL NO		**CELL NO**	
FAX NO		**EMAIL**	

REGISTRATION AS AN INTERESTED AND AFFECTED PARTY (I&AP) (please mark applicable box with X)

Please formally register me as an interested and affected party (I&AP) so that I may receive further information and notifications during the environmental authorisation application process.	**YES**	**NO**

PLEASE INDICATE FOR WHICH PROJECT YOU WOULD LIKE TO REGISTER AS AN I&AP

Early Start up project			**YES**	**NO**
Future expansion project			**YES**	**NO**
I would like all future notifications to be sent to me by:				
E-mail:	**Letter:**	**Fax/ tel:**	**SMS:**	
I would like to receive documents for comment as follows:				
Email:	**Paper copies:**	**CD:**		

Comments

(Please feel free to attach additional sheets if required)

NAME:	**SIGNATURE:**	**DATE:**

SRK Stakeholder Engagement Office:

Att: Portia Tsotetsi, Public Participation Office, **P.O. Box** 55291, Northlands, 2116,

Tel: (011) 441 1111 / 066 240 8900; **Fax**: 086 503 1222 / **Email**: PTsotetsi@srk.co.za

THANK YOU FOR YOUR PARTICIPATION

MOEPO WA BOKONI PLATINUM

PROJEKE YA GO THOMA LE YA KATOTOLOŠO

TOKOMANE YA TSHEDIMOŠO E HLATHOLLAGO SETLOGO

Febereware 2023

TSEBIŠO YA DITSHEPETŠO TŠA TUMELELO TŠEO DI NYAKEGAGO MABAPI LE DI PROJEKE TŠE PEDI TŠEO DI ŠIŠINTŠWEGO MO MOEPONG WA BOKONI PLATINUM, KGAUSWI LE BURGERSFORT, PROFENSE YA LIMPOPO

DMRE REF. NO. LP 30/5/1/2/59 MR & LP 30/5/1/2/65 MR

DWS REF. NO. 06/B52J/ACEFGIJ/11541 & 03/B52J/ACGIJ/4638

SRK PROJECT NUMBER: 590847

Tokomane ye e hwetšagala le ka Seisemane

Maikemišetšo a Tokomane ye ya Tshedimošo e Hlathollago Setlogo ke go:

- Tsebiša bakgathatema ka ga diprojeke tše pedi tše mpsha tše di šišintšwego le ditshepedišo tša ditumelelo tša tikologo tšeo di amanago le tšona;
- Fana ka hlaloso ye kopana ya diprojeke tše tše pedi; le
- Fana ka tshedimošo ya mokgwa wo o ka ingwadišago bjalo ka motho yo a nago le kgahlego ebile a amegago (I&AP) le go tšea karolo tshepedišong ye.
- Go fa ditshwayotshwayo ka ga diprojeke tše di šišintšwego le go ingwadiša ingwadišago bjalo ka motho yo a nago le kgahlego ebile a amegago (I&AP), hle tlatša Foromo ya Boingwadišo le Ditshwayotshwayo ye e kgomareditšwego mo, goba ikgokaganye le SRK (lebelela dintlha go letlakala la bo 11).

HLATHOLLO YA SETLOGO

Moepo wa Bokoni Platinum (BPM) wa African Rainbow Minerals (ARM) o dikarolong tša dipolasa tše di latelago: Jagdlust 418 KS, Winterveld 417 KS, Zeekoegat 421 KS, Diamand 422 KS, Middelpunt 420 KS, Umkoanesstad 419 KS, Brakfontein 464 KS, Klipfontein 465 KS le Avoca 472 KS, magareng ga Polokwane le Burgersfort tseleng ya selete ya R37 (lebelela Seswantšho sa pele).

BPM e epile legogo la Merensky go tloga ka bo-1960 le legogo la UG2 go tloga ka 1998 ka ditiro tša meepo ya ka fase ga mmu le ya molete wo o bulegilego. BPM e ile ya bewa ka fase ga lenaneo la Tlhokomelo nakong ya October 2017. Ga bjale ditiro tša meepo ko BPM di akaretša mokoti wa go tšwa godimo go ya fase le mekoti ya go theoga ka dibopego tše di fapanego bakeng sa go fihlelela mafelo a meepo ye e ka fase ga mmu, ditsela tša phihlelelo, mananeokgoparara a meetse le mohlagase, gammogo le polante ya concentrator.

ARM e ikemišeditše go dira kgopelo ya tumelelo ye e nyakegago go tšwa go Kgoro ya Methopo ya Diminerale le Enetši (DMRE) go thoma ka karolo ya moepo mola gape e dira kgopelo ya tumelelo le dilaesense tše di nyakegago go tšwa go DMRE le Kgoro ya Meetse le Tlhwekišo (DWS) go katološa ditiro tša BPM.

DITUMELELO TŠEO BMP E NAGO LE TŠONA

Ditiro tša BPM di laolwa go ya ka Lenaneo le le kopantšwego la Taolo ya Tikologo (EMPr) leo le dumeletšwego ke DMRE ka ngwaga wa 2013. Ditiro le mananeokgoparara a a latelago di dumeletšwe nakong e fetilego:

- Go epa le go thuthupiša
- Meepo ye e bulegilego (Polosa ya Klipfontein 465 KS le ya Zeekoegat 421 KS) – meepo ye e bulegilego e fedile, gomme mafelo meepo a tsošološitšwe
- Mafelo a go fapafapana a meepo ya ka fase ga mmu
- Ditiro tša Diminerale:
- Didirišwa tša go tsenya moya (difene le mašoba a go ntšha moya a go fapafapana)
- Polokelo le tšhomišo ya makhura le dikhemikhale
- Go swara ditlakala tša ka gae le tše kotsi
- Kabo ya meetse a go nwa le a ditiro tša moepo
- Polokelo le go tšhollwa ga meetse
- Dipolante tša tlhwekišo ya meetse a ditšhila (WWTP) .
- Dipolante tša tlhwekišo ya ditšhila
- Ditsela tša go tsena moepeng
- Mananeokgoparara a kabo ya mohlagase le diteišene tše nnyane tša mohlagase
- Dintlo tša bašomi
- Diofisi, mafelo a go phaka dikoloi, mafelo a polokego ya didirišwa, mafelo a go lokiša, mafelo a go bea didirišwa le metšhene ka nakwana le mafelo a mangwe a go thekga taola ya moepo.

Moepo wa BPM o na le Dilaesense tše pedi tše di lego gona tša Tšhomišo ya Meetse (WULs); WUL No. 06/B52J/ACEFGIJ/11541 le WUL No. 03/B52J/ACGIJ/4638, yeo ka yona Molao wa Meetse wa Bosetšhaba, Act 36 of 1998 (NWA) ya Karolo ya masomepeditee (21) ya ditšhomišo tša meetse, e dumeletšwego:

- 21(a) Go tšea meetse mothopong wa meetse;
- 21(b) Go boloka meetse;
- 21(c) Go šitiša goba go fapoša go elela ga meetse go moela wa meetse;
- 21(e) Go dira mošomo wa ka fase ga taolo;
- 21(g) Go lahla ditlakala ka mokgwa wo o ka amago mothopo wa meetse ka tsela ye mpe;
- 21(i) Go fetola mobu wa noka goba dimelo tša tsela ya meetse; le
- 21(j) Go tloša, go ntšha goba go lahla meetse ao a hwetšwago ka fase ga mobu ge go hlokega bakeng sa tšwelopele ya maleba ya mošomo goba bakeng sa polokego ya batho.

KAKARETŠO YA DIPROJEKE TŠEO DI ŠIŠINTŠWEGO

Projeke Ya Go Thoma

Gore BPM e thome ditiro ko moepong gape, moepo o rera go hloma ditiro tša kgoro ya Klipgat godimo ga mafelo ao a lego gona a melete ya go namelela a UM1 le Klipgat. Projeke ye e tla tsebja bjalo ka Projeke ya go Thoma gomme e tla akaretša mediro ye e latelago ye e šišintšwego ye e amanago le meepo le mananeokgoparara ao a amanago le yona (lebelela Seswantšho sa Pele):

- Tlhabollo leswa ya kgoro ya Klipgat, yeo e tlago bewa godimo ga mokoti wa UM1 le wa Klipgat yeo e dumeletšwego peleng, go fihlelela mafelo a ka fase ga mmu a Middelpunt West le Middelpunt East. Ditiro tša Kgoro ya Klipgat di tla akaretša hlomo ya kgoro, ditshepedišo tša taolo ya meetse le ditlakala, disilo goba setoko sa diminerale, mafelo a go lokiša, polokelo ya makhura, polante ya grout le mafelo a meago a nakwana (mafelo a go bea didirišwa le metšhene ka nakwana, diofisi, mafelo a go phaka dikoloi, polokelo ya disele, dintlwana tša boithomelo);
- Thlabollo ya polante ye mpsha ya ditšweletšwa tša moepo yeo e nago le bokgoni bja go tšweletša bja 240 kilo tonne ka kgwedi (ktpm), go akaretša polante ya go pšhatlaganya le ya tšhilo, Polante ya go Tsošološa minerale ya Chrome, disilo tša ditšweletšwa, mafelo a go lokiša, polokelo ya oli le makhura le mafelo a meago a nakwana;
- Tshepedišo ya lepanta la go sepetša go tšwa go kgoro ya Klipgat go ya go polante ye mpsha ya ditšweletšwa tša moepo;
- Go hudušwa ga makasine wa go thuthupa wo o lego gona go dira sekgoba sa polante ye mpsha;
- Diphetošo go polante ya concentrator ye e lego gona le mpshafatšo ya diphaephe le mananeokgoparara a mangwe a thekgo.

Projeke ya Katološo

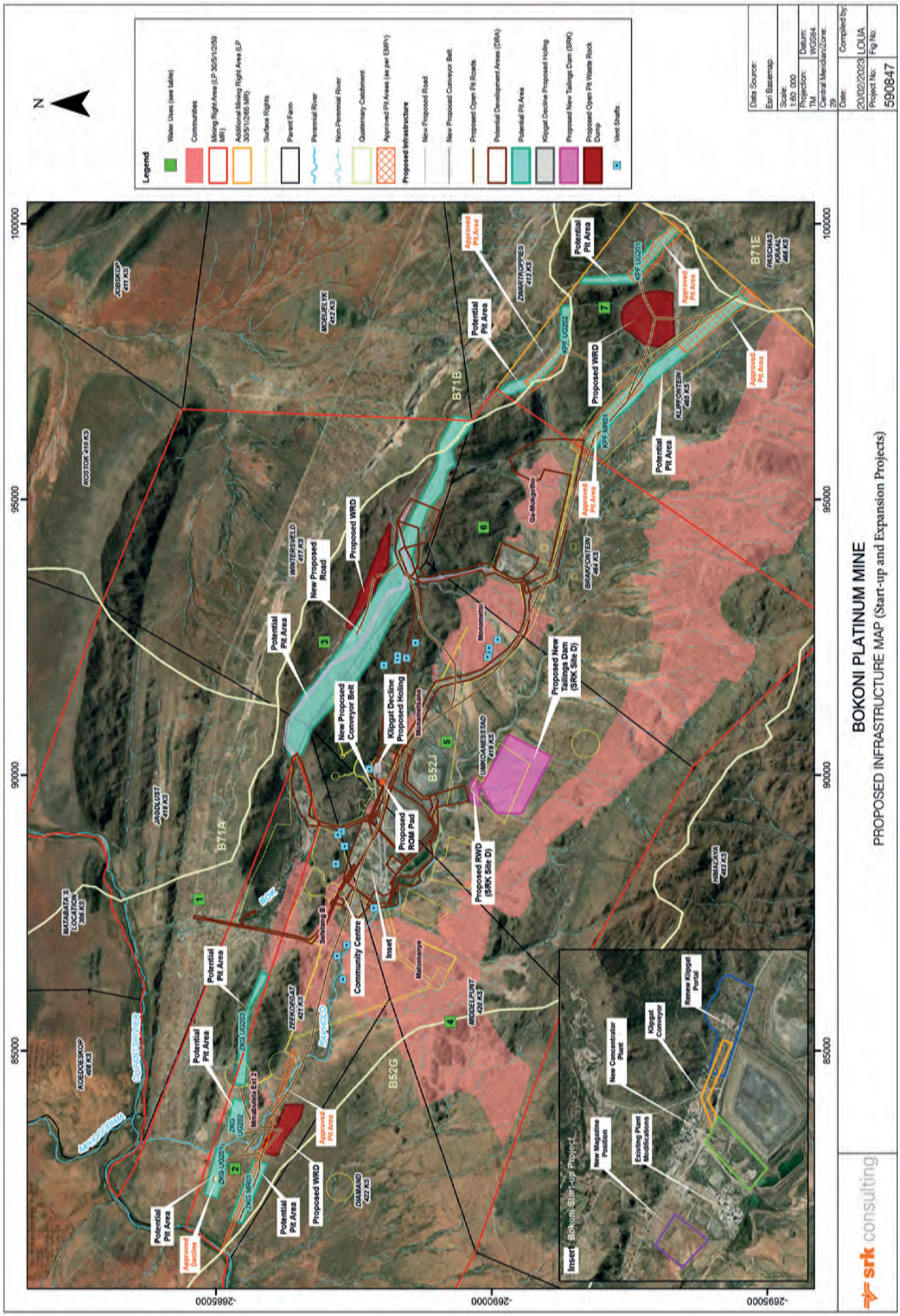
Go tlaleletša go Projeke ya go Thoma, BPM e rera gape go katološa ditiro tša meepo. Ka Projeke ya Katološo ye e šišintšwego, ARM e ikemišeditše go epa diminerale ko BPM ka mokgwa o kaone dudu wo o ka thekgago leano la katološo ya bophelo bja moepo ka mengwaga ya go feta ye masomehlano (50). Mananeokgoparara a bohlokwa a a latelago a šišintšwe bjalo ka karolo ya Projeke ya Katološo (lebelela Seswantšho sa Pele):

Mananeokgoparara a Bohlokwa:

- Mafelo a melete ye e bulegilego: UG2 (melete ye 4) le melete ye e bulegilego ya Merensky (3);
- Mafelo a go lahlela maswika a ditšhila (WRDs) ao a amanago le mafelo a go fapana a melete ye e bulegilego;
- Lefelo le leswa la polokelo ya ditšhila le moago wa letamo la meetse a go boela morago

Mananeokgoparara a Thekgo:

- Matamo a tlaleletšo a taolo ya tšhilafatšo goba matamo a go swara ditšhila: ao a amanago le melete ye e bulegilego,
- Ditsela tša go fihlelela le go sepetsa tsa moepo tšeo di tlago šomišwa ke moepo;
- Kaonafatšo le go dira semmušo ga ditsela tša setšhaba tše di kgethilwego;
- Lefelo la setšhaba le poso;
- Diphaephe le megala ya mohlagase;
- Mekoti ya go tsenya moya bakeng sa ditiro tša ka fase ga mobu.



Seswantšho sa Pele – Mmapa wa Selegae wo o bontšhago lefelo la mananeokgoparara a bohlokwa a diprojeke tše pedi tše di šišintšwego mabapi le lefelo la ditokelo tša meepo tša BPM.

DINYAKWA TŠA MOLAO

Pele ga ge ARM e ka thoma ka diprojeke tše di šišintšwego, moepo o swanetše go hwetša ditumelelo tše di nyakegago go tšwa go balaodi ba maleba. Ka lebaka la mohuta le bogolo bja mediro ye e šišintšwego yeo e amanago le Projeke ya go Thoma, tshepedišo ya Tekolo ya Motheo e tla latelwa bjalo ka karolo ya kgopelo ya tumelelo ya tikologo (EA), mabapi le mediro ye e lokeleditšwego yeo e tlago hlohleletšwa ka fase ga Molao wa Taolo ya Tikologo ya Bosetšhaba (Act No. 107 ya 1998) (NEMA). Projeke ye ya go Thoma ye e šišintšwego e tla ba ka fase ga tumelelo go tšwa go DMRE.

Le ge go le bjalo, Projeke ya Katološo ye e šišintšwego e tla nyaka Tekanyo ya Modiro ka botlalo le Tekolo ya Khuetšo ya Tikologo (EIA) bjalo ka karolo ya tshepedišo ye e kopantšwego ya EA, go hwetša tumelelo go tšwa go DMRE mabapi le NEMA le Molao wa Bosetšhaba wa Taolo ya Tikologo: Ditiro tša Ditlakala (Act No. 36 wa 1998) (NEM: WA). ARM e tla swanelwa gape ke go dira tshepedišo ya Kgopelo ya Laesense ya Tšhomišo ya Meetse (WULA) ka nepo ya go hwetša tumelelo go tšwa go DWS mabapi le ditšhomišo tša meetse tšeo Projeke ya Katološo ye e šišintšwego e tlago di hlohleletša. WULA e tla dirwa go ya ka Molao wa Bosetšhaba wa Meetse (Act No. 36 wa 1998) (NWA). Go feta fao, kgopelo ya Karolo ya lekgolo le metšo e mebedi (102) go ya ka Molao wa Tlhabollo ya Methopo ya Diminerale le Petroleamo (Act No. 28 wa 2002) (MPRDA), e tla nyakega ka ge Projeke ya Katološo e tla nyaka gore moepo o mpshafatše Lenaneo la Mošomo wa Moepo le go fetoša Lenaneo la Taolo ya Tikologo Lenaneo (EMPr).

SRK Consulting (SRK) e kgethilwe bjalo ka mošomi yo a ikemetšego wa Tekolo ya Tikologo (EAP) go dira dikelo tša khuetšo tše di nyakegago bjalo ka karolo ya dikgopelo tša tumelelo ya tikologo, go dira ditshepedišo tša kopanelo ya bakgathatema tše di nyakegago tša taolo le go lokišetša ditokomane tša di maleba tša projeke bakeng sa projeke ye nngwe le ye nngwe.

Dikarolo tše di lego ka mo fase di fa dintlha tše dingwe tša mediro ye e itšego ya projeke yeo e tlago hlohleletšega mabapi le Melao ye e boletšwego yeo ka yona tumelelo e tlago go kgopelwa.

Molao wa Bosetšhaba wa Taolo ya Tikologo (NEMA)

Diprojeke tše ka bobedi tše di šišintšwego di nyaka tumelelo ya tikologo go tšwa go DMRE go ya ka NEMA le Melawana ya EIA ye e fetotšwego (Tsebišo ya Mmušo (GN) R. 983 go ya go 985, yeo e phatlaladitšwego ka 2014, bjalo ka ge e fetošitšwe ka 2021).

Ditiro tše di latelago tše di lokeleditšwego di tla hlohleletša ke projeke ye e šišintšwego ka go latelana:

Tsebišo ye e Lokele-ditšwego	MOŠOMO	Diprojeke tše di Šišintšwego	
		Ya go Thoma	Ya Katološo
GNR 983 (Tsebišo ye e Lokeledi-tšwego ya Pele)	**9** - Go sepetša meetse goba meetse a ledimo ka bontši ka phaephe	√	√
	10 - Go sepetša meetse a ditšhila, meetse a ditiro tša moepo, bjalobjalo, ka phaephe	√	√
	11 - Go fetiša le go aba mohlagase ka bokgoni bja go feta dikilovolts tše masometharo-tharo (33) eupša ka fase ga dikilovolts tše makgolo a mabedi le masomešupa-hlano (275)	√	√
	12 - Tlhabollo ya matamo ao a fetago disekwere mithara tše lekgolo (100m^2) goba go feta, ka gare ga moela wa meetse wa dimithara tše masometharo-pedi (32m)	√	√
	14 - Tlhabollo ya mafelo goba mananeokgoparara a polokelo, goba a polokelo le go swara didirišwa tše kotsi, tša bolume ya tekano ya dikhubiki mithara tše masomeseswai (80m^3) eupša ya go se fete dikhubiki mithara tše makgolohlano (500m^3)	√	√
	19 - Go thibele mokoti goba go tšhela sedirišwa sefe goba sefe sa go feta dikhubiki mithara tše lesome (10m^3) ka gare, goba go epa, go tloša goba go šuthiša mmu, santa, dikgapetla, grit ya dikgapetla, maswika a mannyane goba	√	√

Tsebišo ye e Lokele-ditšwego	MOŠOMO	Diprojeke tše di Šišintšwego	
		Ya go Thoma	Ya Katološo
GNR 983 (Tsebišo ye e Lokeledi-tšwego ya Pele)	**21D** - Mošomo ofe goba ofe go akaretšwa tshepedišo ya mošomo woo wo o nyakago phetošo goba phetogo ya tokelo goba tumelelo go ya ka Karolo ya 102 ya Molao wa Tlhabollo ya Methopo ya Diminerale le Petroleamo	√	√
	24 - Tlhabollo ya tsela yeo e nago le reserve ye e fetago dimithara tše lesometharo fegelwana hlano (13,5m) ka bophara, goba moo go se nago reserve tseleng yeo e nago dimithara tša go feta tše seswai (8m) ka bophara	√	x
	27 - Go tloša dimela tša setlogo lefelong la tekano ya go feta hektare e tee (1 ha) eupša ka fase ga dihektare tše masomepedi (20 ha)	√	√
	30 - Tshepedišo goba mošomo ofe goba ofe wo o lemogilwego go ya ka karolo ya 53(1) ya Molao wa bosetšhaba wa Taolo ya Tikologo: Mehutahuta ya Diphedi (Act No. 10 wa 2004)	x	√
	56 - Go katološwa ga tsela ka go feta dimithara tše tshela (6m), goba go lelefatša tsela ka go feta khilomithara e tee (1km)	√	x
GN R. 984 (Tsebišo ye e Lokeledi-tšwego ya Bobedi)	**4** - Tlhabollo le tshepedišo ya mafelo goba mananeokgoparara a polokelo ao a amanego, goba polokelo le go swara didirišwa tše kotsi, a tekano e kopantšwego ya go feta dikhubiki mithara tše makgolohlano (500m^3)	x	√
	6 - Mafelo goba mananeokgoparara ao a nyakago tumelelo goba laesense goba tumelelo goba laesense ye e fetotšwego go ya ka molao wa bosetšhaba goba wa profense wo o laolago tlhagišo goba go lokollwa ga dikhemikhale, tšhilafatšo goba meetse a ditšhila a ditiro tša moepo	x	√
	11 - Tlhabollo ya mafelo goba mananeokgoparara a go sepetša meetse a bolumu ya go feta dikhubiki mithara tše dikete tše masomehlano (50 000 m^3) goba go feta ka letšatši, go tšwa le go ya goba magareng ga, ((i) mafelo a go kgoboketša meetse (ii) mešomo ya tlhwekišo ya meetse, goba (iii) di- impoundment, go sa akaretšwe mešomo ya tlhwekišo moo meetse a swanetšego go hlwekišwa bakeng sa go nwa	x	√
	15 - Go tloša dimela tša setlogo lefelong la tekano ya dihektare tše masomepedi (20 ha) goba go feta	x	√
	17 - Mošomo ofe goba ofe wo o nyakago tokelo ya meepo bjalo ka ge go hlalošitšwe ka go MPRDA	x	√
	27 - Tlhabollo ya tsela yeo e nago le reserve ya bophara bja go feta dimithara tše lesometharo (30m); goba ya go dumelela dikoloi tša go feta tše pedi go feta ka nako e tee ka mahlakoreng ka moka a tsela	x	√
GN R. 985 (Tsebišo ye e Lokeledi-tšwego ya Boraro)	**4** - Tlhabollo ya tsela ya go feta dimithara tše nne (4m) ka bophara yeo e nago le reserve ya ka fase ga dimithara tše lesometharo fegelwana hlano (13,5m) ka bophara	√	√
	10 - Katološo le tshepedišo ya mafelo goba mananeokgoparara a polokelo ao a amanego, goba polokelo le go swara didirišwa tše kotsi, moo polokelo e bjalo e diregago ka gare ga ditšhelo tša bolumu ya kakaretšo ya tekano ya dikhubiki mithara tše masometharo (30m^3) goba go feta eupša ka fase ga tše masomeseswai (80m^3)	√	√
	12 - Go tloša dimela tša setlogo lefelong la tekano ya disekwere mithara tše makgolotharo (300 m^2) goba go feta	√	√
	14 - Tlhabollo ya matamo ao a fetago disekwere mithara tše lesome (10m^2) goba go feta, ka gare ga moela wa meetse wa dimithara tše masometharo-pedi (32m)	√	√
	18 - Go katološa tsela ka dimithara tša go feta tše nne (4m), goba go lelefatša tsela ka go feta khilomithara e tee (1km)	√	√
	22 - Katološo le tshepedišo ya mafelo goba mananeokgoparara a polokelo ao a amanego, goba polokelo le go swara didirišwa tše kotsi, moo mafelo a bjalo tlago katološwa ka tekano ya disekwere mithara tše masometharo (30m^2) goba go feta eupša ka fase ga tše masomeseswai (80m^2)	√	√

Taolo ya Tikologo ya Bosetšhaba: Molao wa Ditlakala (NEM:WA)

Mešomo ye e latelago ya taolo ya ditlakala, bjalo ka ge e hlalošitšwe ka botlalo go GN R 921, ka fase ga Legoro la B, e tla hlohleletšwa ke Projeke ya Katološo ye e šišintšwego:

Mošomo wa bo lesome (10) - Kago ya lefelo la mošomo wa taolo ya ditlakala wo o lokeleditšwego go Legoro la B la Šetule ye (e sego ka go ikarola mošomong wa taolo ya ditlakala wo o amanago le wona).

Mošomo wa bo lesometee (11) - Go hlongwa goba go bušetša setoko sa mašaledi goba peeletšo ya mašaledi go tšwa medirong yeo e nyakago tokelo ya meepo, tokelo ya go nyakišiša goba tokelo ya tšweletšo ya diminerale go ya ka MPRDA.

Molao wa Tlhabollo ya Methopo ya Diminerale le Petroleamo (MPRDA)

Go ya ka Karolo ya 102 ya MPRDA, le go ya ka diprojeke tše di šišintšwego, ga go tokelo ya meepo, lenaneo la mošomo wa moepo le/goba EMPr yeo e ka fetošwago ntle le tumelelo ye e ngwadilwego ya Tona ya Diminerale le Enetši. Ka fao, EMPr ye e Fetošitšwego le Lenaneo la Mošomo wa Meepo leo le mpshafaditšwego leo le amanago le Projeke ya Katološo di tla romelwa go DMRE go hwetša tumelelo go tšwa go Tona ka kgopelo ya Karolo ya 102.

Molao wa Bosetšhaba wa Meetse (NWA)

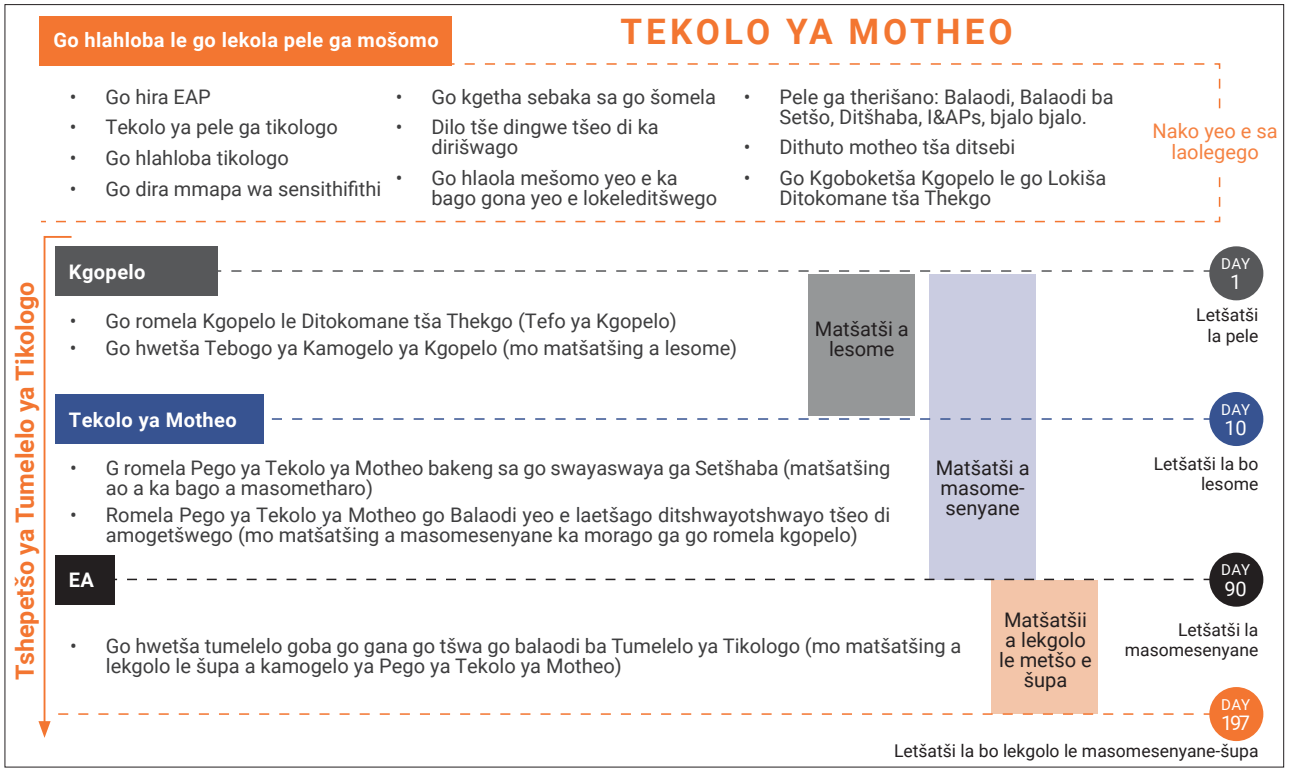
Palo ya ditšhomišo tše mpsha tša meetse e tla hlohleletšwa ke Projeke ya Katološo ye e šišintšwego yeo e tlago nyaka dilaesense go DWS go ya ka NWA. Projeke ya Katološo e tla nyaka WULA go ya ka Karolo ya 21 ya NWA. Ditšhomišo tša meetse tše di latelago di letetšwe go amana le Projeke ya Katološo:

- **Karolo ya 21(a)** - Go tšea meetse mothopong wa meetse
- **Karolo ya 21(c)** - Go šitiša goba go fapoša go elela ga meetse go moela wa meetse
- **Karolo ya 21(i)** - Go fetola mobu wa noka, mabopong a noka, tsela goba dimelo tša tsela ya meets
- **Karolo ya 21(f)** - Go tšhollela ditlakala goba meetse ao a nago le ditlakala ka gare ga mothopo wa meetse
- **Karolo ya 21(g)** - Go lahla ditlakala
- **Karolo ya 21(g)** - Go lahla ditlakala ka mokgwa wo o ka amago mothopo wa meetse ka tsela ye mpe
- **Karolo ya 21(j)** - Go tloša, go ntšha goba go lahla meetse ao a hwetšwago ka fase ga mobu ge go hlokega bakeng sa tšwelopele ya maleba ya mošomo goba bakeng sa polokego ya batho

Ga go ditšhomišo tše mpsha tša meetse tšeo di tlago hlohleletša Projeke ye e šišintšwego ya go Thoma. Dikarolo ka moka tša meetse di tla laolwa ka gare ga ldi-WUL tše di lego gona tša moepo.

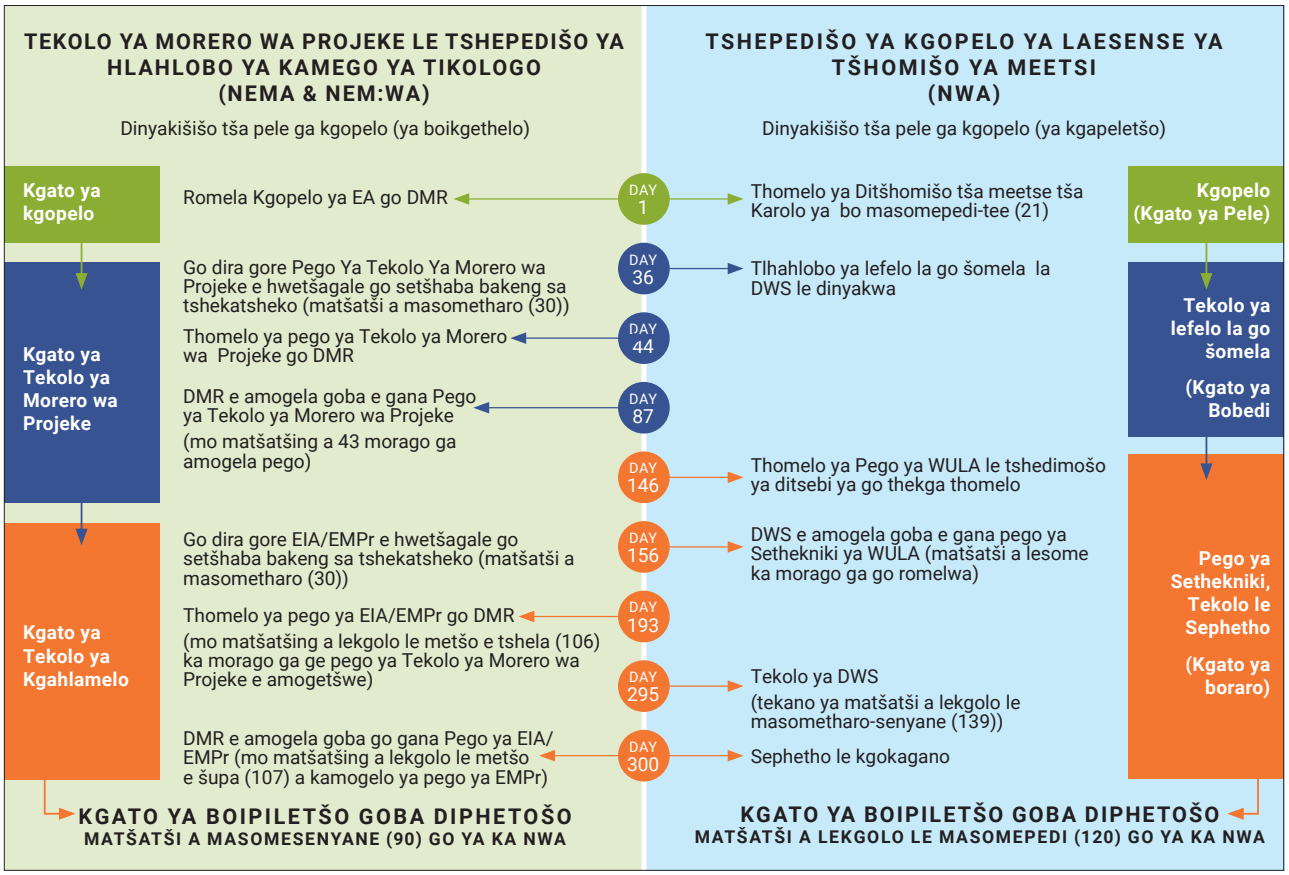
Dintlha tše dingwe tša ditšhomišo tša meetse tšeo di tlago fiwa laesense go ya ka Projeke ya Katološo di tla fiwa nakong ya ge tekano ya mošomo wa projeke e lekolwa gomme le EIA e dirwa.

Go ya ka mediro ya Tsebišo ye e Lokeleditšwego yeo e hlohleleditšwego, Projeke ya go Thoma e tla nyaka tshepedišo ya Kelo ya Motheo (lebelela Seswantšho sa Bobedi) yeo e swanetšego go latelwa go ya ka NEMA gomme e ka se hlohleletše mediro efe goba efe go ya ka NEM:WA. Ditlakala ka moka tšeo di amanago le projeke ya go Thoma di tla laolwa go ya ka tumelelo le tšhomišo ya ditshepedišo tše di lego gona, mananeokgoparara le ditshepedišo.



Seswantšho sa Bobedi: Tshepetšo ya Motheo ya Kelo

Projeke ya Katološo e tla nyaka S&EIA ye e tletšego le tshepedišo ya WULA yeo e swanetšego go dirwa go ya ka NEMA, NEM:WA le NWA. (Bona Seswantšho sa Boraro).



Seswantšho sa Boraro: Ditshepetšo tša S&EIA le WUL tše di Kopantšwego

DITHUTO TŠA DITSEBI

Maemo a go fapafapana a dithuto tša ditsebi (tša khomphutha/goba tše di nago le dintlha ka botlalo) a tla dirwa go ya ka diprojeke tše pedi tše di šišintšwego. A tla akaretša tše di latelago:

- Go thuthupa & go thothomela
- Go tswalela & tsošološo
- Ditshepedišo tša tswalano ya diphedi le tikologo ya tšona tša meetse a hlwekilego
- Thuto ya Geochemistry
- Meetse a ka fase ga lefase
- Methopo ya setšo le ya bohwa
- Thuto ya Hydropedology
- Lešata
- Thuto ya ekonomi ya leago
- Mabu, tšhomišo ya naga le bokgoni bja naga
- Meetse a godimo ga mmu
- Mehutahuta ya Diphedi tša Lefaseng
- Sephethephethe
- Ditshwantšo

GO TŠEA KAROLO GA SETŠHABA

Ditshepetšo tša go tšea karolo ga setšhaba, tšeo di dirilwego bjalo ka karolo ya ditshepedišo tša tumelelo ya tšhomišo ya tikologo, ditlakala le meetse, di tla dirwa go ya ka Melawana ya NEMA EIA ya 2014, bjalo ka ge e fetošitšwe ka 2021, gammogo le GNR 267 ka fase ga NWA, yeo e fago ditlhahlo tše di kwagalago tša kopanelo ya bakgathatema nakong ya ditshepedišo tša tumelelo. Tshepetšo e fa bakgathatema sebaka sa go tsebišwa ka ga diprojeke, go rotoša ditshwayotshwayo goba dipotšišo le go dira ditšhišinyo tša mehola ye e kaonafaditšwego ya diprojeke. Ditsebi tša sethekniki le sehlopha sa projeke di tla sekaseka le go rarolla ditaba le ditšhišinyo tša maleba nakong ya ditshepedišo tša tumelelo.

Ditshepetšo tša go tšea karolo ga setšhaba tšeo di tlago dirwa bjalo ka karolo ya Tekolo ya Motheo le ditshepedišo tša S&EIA di akareditšwe go Seswantšhosa Bopedi le Seswantšho sa Boraro ka go latelelana. Nakong ya ditshepedišo, di-I&AP di tla lemogwa, projeke e tla tsebagatšwa, gomme ditlamorago tšeo di ka bago gona tša projeke ye e šišintšwego di tla lemogwa le go hlahlobja.

Ka morago ga tsebišo ya projeke, dipego tša maleba tša sethalwa tšeo di amanago le ditshepedišo tša Tekolo ya Motheo le S&EIA di tla hwetšagala gore setšhaba se fane ka ditshwayotshwayo, sebakeng sa matšatši a masometharo. Dipego tše di tla mpshafatšwa ka morago go akaretša ditshwayotshwayo go tšwa go batho bao ba nago le Kgahlego e bile ba Amegago (I&APs), gomme tša romelwa go DMRE, yeo ka therišano le balaodi ba bangwe maemong a profense le a selegae, e tlago amogela goba ya gana dipego.

MEMO YA GO INGWADIŠA BJALO KA I&AP

Hle ela hloko gore o swanetše go ingwadiša bjalo ka I&AP gore o dule o tsebišwa ka ga mediro ya projeke le dibaka tše dingwe tša go swayaswaya projeke. Ditokomane tše ntši di tla hwetšagala nakong ya ditshepedišo tša Kelo ya Motheo le S&EIA.

Di-I&AP di hlohleletšwa go ingwadiša le go romela dipotšišo, ditshwayotshwayo le ditšhišinyo ka go tlatša Foromo ya Boingwadišo le Ditshwayotshwayo yeo e kgomareditšwego lengwalong le go e bušetša go Kantoro ya go Kgatha Tema ya Setšhaba ya SRK (dintlha di ka fase).

GO HWETŠAGALA GA PEGO YA TEKOLO YA MOTHEO LE PEGO YA TEKOLO YA TEKANO YA MOŠOMO WA PROJEKE TŠE DI THADILWEGO BAKENG SA DITSHWAYOTSHWAYO TŠA SETŠHABA

Bjalo ka karolo ya tshepedišo ya kopono ya bakgathatema, Pego ya Tekolo ya Motheo le Pego ya Tekolo ya Tekano ya Mošomo wa Projeke (DSR) tše di Thadilwego di tla hwetšagala bakeng sa tshekatsheko ya setšhaba le ditshwayotshwayo go tloga ka la 14 April go fihla ka la 19 May ngwageng wa 2023.

Dipego tše di thadilwego di tla hwetšagala ka sebopego sa PDF mo wepsaeteng ya SRK **https://www.srk.com**, le mafelong a setšhaba a a latelago:

LEFELO LA SETŠHABA	LEFELO
Dikantoro tša Bolaodi Bja Setšo tša Baroka-Ba-Nkwana	Ga-Nkwana Moshate
Dikantoro tša Bolaodi Bja Setšo tša Roka--Selepe	Selepe Village Moshate
Dikantoro tša Bolaodi Bja Setšo tša Maesela-Manotwane	Manotwane Village Moshate
Dikantoro tša Bolaodi Bja Setšo tša Bapedi Kingdom	Mohlaletse Village Moshate
Kgoro ya Tiragatšo ya Leago ya BPM	Ditirelo tša Tšhireletšo tša BPM

Bakgathatema ka moka ba hlohleletšwa go swayaswaya ka ga DBAR & DSR ka 19 May, ka ge ditshwayotshwayo tša gago le ditšhišinyo ka ga lehlakore lefe goba lefe la diprojeke di tla feleletša di thuša ka tlhabollong ya ditokomane tše di amanago le projeke tšeo di tlago tsebiša sephetho sa balaodi.

O amogetšwe go swayaswaya ka ga diprojeke tše di šišintšwego, BID le/goba DBAR/DSR ka:

- Go tlatša Foromo ya Boingwadišo le Ditshwayotshwayo ye e tswaletšwego lengwalong le e go e romela go kantoro ya kopano ya bakgathatema;
- Go ngwala lengwalo goba thomelo ya tlaleletšo ye e ngwadilwego ka email goba fekse;
- Go tsenela dikopano tša bakgathatema nakong ya dikgato tša diprojeke tša Tekolo ya Motheo le Tekolo ya Tekano ya Mošomo wa Projeke; le/goba
- Go ikgokaganya le ofisi ya go tšea karolo ga setšhaba ya SRK.

IKGOKAGANYE LE RENA

Ge o ka ba le dipotšišo goba o nyaka tshedimošo efe goba efe ya tlaleletšo, hle ikopanye le:

SRK Consulting

Att: Portia Tsotetsi, Public Participation Office, P.O. Box 55291, Northlands, 2116,

Tel: (011) 441 1111 / 066 240 8900 **Fax:** 086 503 1222 **Email:** PTsotetsi@srk.co.za

TSEBIŠO YA MANANEO A GO TŠEA KAROLO A SETŠHABA
MABAPI LE DI Projeke TŠE PEDI TŠEO DI ŠIŠINTŠWEGO MO MOEPOng WA BOKONI PLATINUM, BURGERSFORT, Profense YA LIMPOPO

LETLAKALA LA BOINGWADIŠO LE DITSHWAYOTSHWAYO

Tokomane ya Tsebišo e Hlathollago Taba ye e sepedišanago le yona

February 2023

Hle fana ka dintlha tša gago tša kgokagano go Kantoro ya Kgokaganyo ya Bakgathatema ya SRK Consulting (bona dintlha ka fase) go ingwadiša bjalo motho wo o nago le kgahlego ebile a amegago

DINTLHA TŠA KGOKAGANO

SEHLOGO		**LEINA**	
INITIALS DITLHAHLOBO TŠA MATHOMO		**SEFANE**	
MOKGATLO			
ATERESE YA POSO			
		KHOUTU YA POSO	
NOMORO YA MOGALA		**NOMORO YA SELLATHEKENG**	
NOMORO YA FEKSE		**EMAIL**	

NGWADIŠO BJALO KA MOTHO WO A NAGO LE KGAHLEGO EBILE A AMEGAGO (I&AP) (ka kgopelo swaya lepokisi la maleba ka X)

Hle nngwadiše semmušo bjalo ka motho wo a nago le kgahlego ebile a amegago (I&AP) gore ke kgone go hwetša tshedimošo ya go latela le ditsebišo nakong ya tshepedišo ya kgopelo ya tumelelo ya tikologo.	**EE**	**AOWA**

HLE BONTŠHA GORE O RATA GO INGWADIŠA GO PROJEKE EFE BJALO KA I&AP

Projeke ya go Thoma ya Pele			**EE**	**AOWA**
Projeke ya Katološo ya ka Moso			**EE**	**AOWA**
Ke rata gore ditsebišo ka moka tša ka moso di romelwe go nna ka:				
E-mail:	**Lengwalo:**	**Fax/Nomoro ya mogala:**	**SMS:**	
Ke rata go amogela ditokomane tša go fa ditshwayotshwayo ka tsela ye e latelago:				
Email:	**Dikhopi tša pampiri:**	**CD:**		
Ditshwayotshwayo (Hle ikwe o lokologile go kgomaretša matlakala a tlaleletšo ge go nyakega)				
LEINA:	**MOSAENO:**	**LETŠATŠIKGWEDI:**		

SRK Stakeholder Engagement Office:
Att: Portia Tsotetsi, Public Participation Office, **P.O. Box** 55291, Northlands, 2116,
Tel: (011) 441 1111 / 066 240 8900; **Fax**: 086 503 1222 / **Email**: PTsotetsi@srk.co.za

RE LE LEBOGA KA GO TŠEA KAROLO

Molao wa Tšhireletšo ya tshedimošo ya motho ka noši, Act 4 ya 2013 (POPIA), wo o ikemišeditšego go tšwetša pele tšhireletšo ya tshedimošo ya motho ka noši, o thomile go šoma ka la 1 July 2021. Ka go ingwadiša, bakgathatema ba tšewa gore ba neelane ka tumelelo ya bona ya tshedimošo ya maleba (go akaretšwa dintlha tša kgokagano) go akaretšwa ka gare ga polokelongtshedimošetšo ya SRK le ARM gomme le go ikgokaganywa le bona ge e ba go nyakega.

CP8059NH

TSEBIŠO YA MANANEO A GO TŠEA KAROLO A SETŠHABA
MABAPI LE DI PROJEKE TŠE PEDI TŠEO DI ŠIŠINTŠWEGO MO MOEPONG WA BOKONI PLATINUM, BURGERSFORT, PROFENSE YA LIMPOPO
SRK PROJECT REF: 590847 **DMRE REF. NO. LP 30/5/1/2/59 M R & LP 30/5/1/2/65 MR**
DWS REF. NO. 06/B52J/ACEFGIJ/11541 & 03/B52J/ACGIJ/4638

MEMO YA GO INGWADIŠA BJALO KA MALOKO AO A NAGO LE KGAHLEGO EBILE A AMEGAGO MME LE GO SWAYASWAYA

African Rainbow Minerals (ARM) ke mong wa moepo wa Bokoni Platinum (BPM) wo o lego mo e ka bago dikhilomithara tše masomešupa (70km) bodikela bja Burgersfort ka gare ga Mmasepala wa Selegae wa Fetakgomo Tubatse. BPM e akaretša dikarolo tša dipolasa tše di latelago: Jagdlust 418 KS, Winterveld 417 KS, Zeekoegat 421 KS, Diamand 422 KS, Middelpunt 420 KS, Umkoanesstad 419 KS, Brakfontein 464 KS, Klipfontein 465 KS le Avoca 472 KS.

Ga bjale, BPM e ka fase ga lenaneo la tlhokomelo, gomme ARM e na le maikemišetšo a go dira kgopelo ya tumelelo ye e nyakegago go tšwa go Kgoro ya Methopo ya Diminerale le Enetši (DMRE) go thoma ka karolo ya moepo mola gape e dira kgopelo ya tumelelo le dilaesense tše di nyakegago go tšwa go DMRE le Kgoro ya Meetse le Tlhwekišo (DWS), go katološa ditiro tša BPM. Dintlha tša diprojeke tšeo di šišintšwego ke BPM di akareditšwe mo seswantšhong se e lego ka mo fase:

Sehlogo sa Projeke:	Projeke ya go Thoma	Projeke ya Katološo
Tlhalošo ya porojeke le mananeokgoparara ao a nyakegago	• **Go hloma kgoro ya Klipgat godimo ga dishaft tša Klipgat le UM1 tšeo di lego gona go fihlelela mafelo a ka fase ga mmu a Middelpunt East le Middelpunt West;** • **Go hlabolla polante ye mpsha ya ditšweletšwa tša moepo yeo e nago le bokgoni bja go tšweletša bja 240 kilo tonne ka kgwedi (ktpm) le Polante ya go Tsošološa minerale ya Chrome;** • **Tshepedišo ya lebanta la go sepetša go tšwa go kgoro ya Klipgat go ya go polante ye mpsha ya ditšweletšwa tša moepo;** • **Go hududuša ga makasine wa go thuthupa wo o lego gona go dira sekgoba sa polante ye mpsha;** • **Diphetošo go polante ya concentrator ye e lego gona le mpshafatšo ya diphaephe le mananeokgoparara a mangwe a thekgo.**	Mananeokgoparara ao a latelago a maswa a bohlokwa ao a amanago le meepo le mananeokgoparara a thekgo a rulagantšwe go katološa tshepedišo le go oketša bophelo bja moepo tekano ya go feta mengwaga ye masomehlano (50): **Mananeokgoparara a Bohlokwa:** • **Mafelo a melete ye e bulegilego:** UG2 (melete ye 4) le melete ye e bulegilego ya Merensky (3); • **Mafelo a go lahlela maswika a ditšhila (WRDs)** ao a amanago le mafelo a go fapana a melete ye e bulegilego; • **Lefelo le leswa la polokelo ya ditšhila le moago wa letamo la meetse a go boela morago** **Mananeokgoparara a Thekgo:** • **Matamo a tlaleletšo a taolo ya tšhilafatšo goba matamo a go swara ditšhila:** ao a amanago le melete ye e bulegilego, • **Ditsela tša go fihlelela le tša go goga** tšeo di tlago šomišwa ke moepo; • **Kaonafatšo le go dira semmušo ga ditsela tša setšhaba tše di kgethilwego;** • **Lefelo la setšhaba le poso;** • **Diphaephe le megala ya mohlagase;** • **Dishaft tša go tsenya moya bakeng** sa ditiro tša ka fase ga mobu.
Dipolasa tšeo di amegilego (dikarolo tše di fapafapanego): .	• **Umkoanesstad 419 KS;** • **Middelpunt 420 KS; le** • **Zeekoegat 421 KS.**	• Winterveld 417 KS; • Jagdlust 418 KS; • Umkoanesstad 419 KS; • Klipfontein 465 KS • Zeekoegat 421 KS; • Brakfontein 464 KS; le • Middelpunt 420 KS.
Mešomo ye e Lokele-ditšwego ya Tekolo ya Khuetšo go Tikologo (EIA) ya NEMA:	➢ **Tsebišo ya Lenaneo ya pele (GNR 983) –** Mešomo ya bo 9,10, 11, 12, 14, 19, 21D, 24, 27, 56; le ➢ **Tsebišo ya Lenaneo ya boraro (GNR 985) –** Meš mo ya bo 4, 10, 12, 14, 18 , 22 le 23	➢ **Tsebišo ya Lenaneo la pele (GNR 983)** – Mešomo ya bo 9, 10, 11, 12, 14, 19, 21D, 27, 30; ➢ **Tsebišo ya Lenaneo la bobedi (GNR 984)** – Mešomo ya bo 4, 6, 11, 15, 17, 19, 27 ➢ **Tsebišo ya Lenaneo la borato (GNR 985)** – Mešomo ya bo 4, 10, 12, 14, 18, 22, 23
Ditiro tša Ditlakala:	Ga go na selo	➢ **GNR 921: Legoro la B** – Mošomo wa bo lesome (10) le lesometee (11)
Tšhomišo ya Meetsi ya WULA	Ga go na selo	➢ Karolo ya **21(a)** - Go tšea meetse mothopong wa meetse ➢ Karolo ya **21(c)** - Go šitiša goba go faposa go elela ga meetse go moela wa meetse ➢ Karolo ya **21(i)** - Go fetola mobu wa noka, mabopong a noka, tsela goba dimelo tša tsela ya meetse ➢ Karolo ya **21(f)** - Go tšhollela ditlakala goba meetse ao a nago le ditlakala ka gare ga mothopo wa meetse ➢ Karolo ya **21(g)** - Go lahla ditlakala ka mokgwa wo o ka amago mothopo wa meetse ka tsela ye mpe ➢ Karolo ya **21(j)** - Go tlolša, go ntšha goba go lahla meetse ao a hwetšwago ka fase ga mobu ge go hlokega bakeng sa tšwelopele ya maleba ya mošomo goba bakeng sa polokego ya batho

Pele ga ge ARM e ka thoma ka diprojeke tše di šišintšwego, moepo o swanetše go hwetša ditumelelo tše di nyakegago go tšwa go balaodi ba maleba. Ka lebaka la mohuta le bogolo bja mediro ye e šišintšwego yeo e amanago le Projeke ya go Thoma, tshepedišo ya Tekolo ya Motheo e tla latelwa bjalo ka karolo ya kgopelo ya tumelelo ya tikologo (EA), mabapi le mediro ye e lokeleditšwego yeo e tlago hlohleletšwa ka fase ga Molao wa Taolo ya Tikologo ya Bosetšhaba (Act No. 107 ya 1998) (NEMA). Projeke ye ya go Thoma ye e šišintšwego e tla ba ka fase ga tumelelo go tšwa go DMRE

Le ge go le bjalo, Projeke ya Katološo ye e šišintšwego e tla nyaka Tekanyo ya Modiro ka botlalo le Tekolo ya Khuetšo ya Tikologo (EIA) bjalo ka karolo ya tshepedišo ye e kopantšwego ya EA, go hwetša tumelelo go tšwa go DMRE mabapi le NEMA le Molao wa Bosetšhaba wa Taolo ya Tikologo: Ditiro tša Ditlakala (Act No. 36 wa 1998) (NEM: WA). ARM e tla swanelwa gape ke go dira tshepedišo ya Kgopelo ya Laesense ya Tšhomišo ya Meetse (WULA) ka nepo ya go hwetša tumelelo go tšwa go DWS mabapi le ditšhomišo tša meetse tšeo Projeke ya Katološo ye e šišintšwego e tlago di hlohleletša.

WULA e tla dirwa go ya ka Molao wa Bosetšhaba wa Meetse (Act No. 36 wa 1998) (NWA). Go feta fao, kgopelo ya Karolo ya lekgolo le metšo e mebedi (102) go ya ka Molao wa Tlhabollo ya Methopo ya Diminerale le Petroleamo (Act No. 28 wa 2002) (MPRDA), e tla nyakega ka ge Projeke ya Katološo e tla nyaka gore moepo o mpshafatše Lenaneo la Mošomo wa Moepo le go fetoša Lenaneo la Taolo ya Tikologo Lenaneo(EMPr).

Tsebišo e fiwa ka ga maikemišetšo a ARM a go romela dikgopelo tša ditumelelo go ya ka MPRDA, NEMA le Melawana ya yona ya EIA ya 2014 (bjalo ka ge e fetošitšwe), NEM:WA le NWA. SRK Consulting (SRK) e kgethilwe bjalo ka mošomi yo a ikemetšego wa Tekolo ya Tikologo (EAP) go dira dikelo tša khuetšo tše di nyakegago bjalo ka karolo ya dikgopelo tša tumelelo tše di fapafapanego, go dira ditshepedišo tša go tšea karolo ga setšhaba tše di nyakegago tša taolo le go lokišetša ditokomane tša projeke tša maleba tša projeke ye nngwe le ye nngwe. Tokomane ya Tsebišo e Hlathollago Taba (BID) yeo e nago le dintlha tše ntši ka ga diprojeke e hwetšagala mo wepsaeteng ya SRK **(https://www.srk.com/en/public-documents/two-proposed-projects-at-bokoni-platinum-mine-burgersfort-limpopo-province)** le mafelong a a latelago a setšhaba:

Lefelo la Setšhaba	Lefelo
Dikantoro tša Bolaodi Bja Setšo tša Baroka-Ba-Nkwana	Ga-Nkwana Moshate
Dikantoro tša Bolaodi Bja Setšo tša Roka--Selepe	Selepe Village Moshate
Dikantoro tša Bolaodi Bja Setšo tša Maesela-Manotwane	Manotwane Village Moshate
Dikantoro tša Bolaodi Bja Setšo tša Bapedi Kingdom	Mohlaletse Village Moshate
Kgoro ya Tiragatšo ya Leago ya BPM	Ditirelo tša Tšhireletšo tša BPM

Batho bao ba nago le kgahlego ebile ba amegago ba laletšwa go ingwadiša le go lebiša ditshwayotshwayo goba dipotšišo dife goba dife go:

SRK Consulting
Att: Portia Tsotetsi, Public Participation Office, **P.O. Box** 55291, Northlands, 2116,
Tel: 011-441-1111 / 066 240 8900; Fax: 086 503 1222 / **Email:** PTsotetsi@srk.co.za

ELA HLOKO: Mabapi le tshepedišo ya WULA, batho bao ba nago le kgahlego ebile ba amegago (I&APS) ba tsebišwa gore ge ba nyaka go romela ditshwayotshwayo tše di ngwadilwego goba dikganetšo mabapi le projeke ye e šišintšwego le ditšhomišo tša meetse tše di amanago le yona ba na le matšatši a masometshela (60) go dira bjalo. Hle romela ditshwayotshwayo goba dikganetšo tše bjalo go SRK pele ga la 28 February 2023 ka dintlha tšeo di filwego ka mo godimo.

CP8058NH

NOTICE OF PUBLIC PARTICIPATION PROCESSES RELATING TO TWO PROPOSED PROJECTS AT BOKONI PLATINUM MINE, BURGERSFORT, LIMPOPO PROVINCE

SRK PROJECT REF: 590847 **DMRE REF. NO.** LP 30/5/1/2/59 MR & LP 30/5/1/2/65 MR

DWS REF. NO. 06/B52J/ACEFGIJ/11541 & 03/B52J/ACGIJ/4638

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY & COMMENT

African Rainbow Minerals (ARM) is the owner of Bokoni Platinum Mine (BPM) which is located approximately 70km west of Burgersfort within the Fetakgomo Tubatse Local Municipality. BPM is situated on portions of the farms Jagdlust 418 KS, Winterveld 417 KS, Zeekoegat 421 KS, Diamand 422 KS, Middelpunt 420 KS, Umkoanesstad 419 KS, Brakfontein 464 KS, Klipfontein 465 KS and Avoca 472 KS.

BPM is currently under Care and Maintenance, and it is ARM's intention to apply for the necessary authorisation from the Department of Mineral Resources and Energy (DMRE) to commence with a section of the mine whilst also applying for the necessary authorisation and licences from the DMRE and the Department of Water and Sanitation (DWS), to expand BPM's operations. Details of the projects proposed by BPM are summarised in the table below:

Project Title:	Start-up Project	Expansion Project
Project description and infrastructure required	• Establish the Klipgat portal over the existing Klipgat and UM1 shafts to access Middelpunt East and Middelpunt West underground areas; • Developing a new processing plant with a processing capacity of 240 kilo tons per month (ktpm) and a Chrome Recovery Plant; • Conveyor belt system from Klipgat portal to new processing plant; • Relocation of existing explosive magazine to make space for new plant; • Modifications to existing concentrator plant and refurbishment of pipelines and other supporting infrastructure.	The following new key mining related infrastructure and supporting infrastructure are planned to expand the operation and prolong the life of the mine in excess of 50 years: **Key Infrastructure:** • **Open pit areas:** UG2 (4 pits) and Merensky (3) open pits; • **Waste rock dumps** (WRDs) associated with the different open pit areas; • **New tailings storage facility and return water dam complex** **Supporting Infrastructure:** • **Additional pollution control dams/settling dams:** associated with the open pits, • **Access and haul roads** to be used by the mine; • **Upgrade and formalising selected community roads;** • **Community centre and post office;** • **Pipelines and powerlines;** • **Ventilation shafts** for underground operations.
Affected farms (various portions):	• Umkoanesstad 419 KS; • Middelpunt 420 KS; and • Zeekoegat 421 KS.	• Winterveld 417 KS; • Jagdlust 418 KS; • Umkoanesstad 419 KS; • Klipfontein 465 KS • Zeekoegat 421 KS; • Brakfontein 464 KS; and • Middelpunt 420 KS.
NEMA Environmental Impact Assessment (EIA) Listed Activities:	**Listing Notice 1 (GNR 983)** – Activities 9,10, 11, 12, 14, 19, 21D, 24, 27, 56; and **Listing Notice 3 (GNR 985)** – Activities 4, 10, 12, 14, 18 ,22 and 23	➢ **Listing Notice 1 (GNR 983)** – Activities 9, 10, 11, 12, 14, 19, 21D, 27, 30; ➢ **Listing Notice 2 (GNR 984)** – Activities 4, 6, 11, 15, 17, 19, 27 ➢ **Listing Notice 3 (GNR 985)** – Activities 4, 10, 12, 14, 18, 22, 23
Waste Activities:	None	➢ **GNR 921: Category B – Activity 10 & 11**
WULA Water uses	None	➢ Section **21(a)** - Taking water from a water resource ➢ Section **21(c)** - Impeding or diverting the flow of water in a watercourse ➢ Section **21(i)** - Altering the beds, banks, course or characteristics of a water course ➢ Section **21(f)** - Discharge waste/water containing waste into a water resource ➢ Section **21(g)** - Disposing of waste in a manner which may detrimentally impact on a water resource ➢ **Section 21(j)** - Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people

Before ARM may commence with the proposed projects, the mine needs to obtain the necessary authorisations from the relevant authorities. Due to the nature and extent of the proposed activities associated with the Start-up Project, a Basic Assessment process will be followed as part of the environmental authorisation (EA) application, in respect of the listed activities that will be triggered under the National Environmental Management Act (Act No. 107 of 1998) (NEMA). This proposed Start-up Project will be subject to the approval from DMRE

The proposed Expansion Project will however require a full Scoping and Environmental Impact Assessment (EIA) process as part of an integrated EA process, to obtain authorisation from the DMRE in respect of NEMA and the National Environmental Management: Waste Act (Act No. 36 of 1998) (NEM:WA). ARM will also need to undertake a Water Use Licence Application (WULA) process in order to obtain authorisation from DWS in respect of the water uses that the proposed Expansion Project will trigger. The WULA will be undertaken in accordance with the National Water Act (Act No. 36 of 1998) (NWA). Furthermore, a Section 102 application in terms of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA), will be required since the Expansion Project will require the mine to update the mine's Mine Work Programme and amend the Environmental Management Programme (EMPr).

Notice is hereby given of ARM's intent to submit applications for authorisations in terms of the MPRDA, NEMA and its associated EIA Regulations of 2014 (as amended), NEM:WA and NWA. SRK Consulting (SRK) has been appointed as the independent Environmental Assessment Practitioner (EAP) to conduct the necessary impact assessments as part of the various authorisation applications, undertake the regulatory required public participation processes and prepare the relevant project documentation for each project.

A Background Information Document (BID) containing more detail on the projects is available on the SRK website (https://www.srk.com/en/public-documents/two-proposed-projects-at-bokoni-platinum-mine-burgersfort-limpopo-province) and at the following public places:

Public Place	Locality
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Roka--Selepe Traditional Authority Offices	Selepe Village Moshate
Maesela-Manotwane Traditional Authority Offices	Manotwane Village Moshate
Bapedi Kingdom Traditional Authority Offices	Mohlaletse Village Moshate
BPM's Social Performance Department	BPM Protection Services

Interested and affected parties (I&APs) are invited to register and direct any comments or queries to:

SRK Consulting
Att: Portia Tsotetsi, Public Participation Office, **P.O. Box** 55291, Northlands, 2116,
Tel: 011-441-1111 / 066-240-8900; **Fax**: 086-503-1222 / **Email**: PTsotetsi@srk.co.za

NOTE: In terms of the WULA process, I&APS are hereby notified that should you wish to submit written comments or objections in respect of the proposed project and associated water uses you have 60 days to do so. **Please submit such comments/objections to SRK by 28 April 2023 at the details provided above.**

NOTICE OF PUBLIC PARTICIPATION PROCESSES
RELATING TO TWO PROPOSED PROJECTS AT BOKONI PLATINUM MINE, BURGERSFORT, LIMPOPO PROVINCE

SRK PROJECT REF: *590847*

DMRE *REF. NO. LP 30/5/1/2/59 MR & LP 30/5/1/2/65 MR*
DWS *REF. NO. 06/B52J/ACEFGIJ/11541 & 03/B52J/ACGIJ/4638*

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY & COMMENT

African Rainbow Minerals (ARM) is the owner of Bokoni Platinum Mine (BPM) which is located approximately 70km west of Burgersfort within the Fetakgomo Tubatse Local Municipality. BPMis situated on portions of the farms Jagdlust 418 KS, Winterveld 417 KS, Zeekoegat 421 KS, Diamand 422 KS, Middelpunt 420 KS, Umkoanesstad 419 KS, Brakfontein 464 KS, Klipfontein 465 KS and Avoca 472 KS.

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Affected farms (various portions):	• Umkoanesstad 419 KS; • Middelpunt 420 KS; and • Zeekoegat 421 KS.	• Winterveld 417 KS; • Jagdlust 418 KS; • Umkoanesstad 419 KS; • Klipfontein 465 KS • Zeekoegat 421 KS; • Brakfontein 464 KS; and • Middelpunt 420 KS.
NEMA Environmental Impact Assessment (EIA) Listed Activities:	➢ **Listing Notice 1 (GNR 983)** – Activities 9,10, 11, 12, 14, 19, 21D, 24, 27, 56; and ➢ **Listing Notice 3 (GNR 985)** – Activities 4, 10, 12, 14, 18 ,22 and 23	➢ **Listing Notice 1 (GNR 983) –** Activities 9, 10, 11, 12, 14, 19, 21D, 27, 30; ➢ **Listing Notice 2 (GNR 984) –** Activities 4, 6, 11, 15, 17, 19, 27 ➢ **Listing Notice 3 (GNR 985) –** Activities 4, 10, 12, 14, 18, 22, 23
Waste Activities:	None	➢ **GNR 921: Category B** – Activity 10 & 11
WULA Water uses	None	➢ Section **21(a)** - Taking water from a water resource ➢ Section **21(c)** - Impeding or diverting the flow of water in a watercourse ➢ Section **21(i) -** Altering the beds, banks, course or characteristics of a water course ➢ Section **21(f)** - Discharge waste/water containing waste into a water resource ➢ Section **21(g)** - Disposing of waste in a manner which may detrimentally impact on a water resource ➢ Section **21(j)** - Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people

Before ARM may commence with the proposed projects, the mine needs to obtain the necessary authorisations from the relevant authorities. Due to the nature and extent of the proposed activities associated with the Start-up Project, a Basic Assessment process will be followed as part of the environmental authorisation (EA) application, in respect of the listed activities that will be triggered under the National Environmental Management Act (Act No. 107 of 1998) (NEMA). This proposed Start-up Project will be subject to the approval from DMRE

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NOTE*: In terms of the WULA process, I&APS are hereby notified that should you wish to submit written comments or objections in respect of the proposed project and associated water uses you have 60 days to do so. Please submit such* ***comments/objections to SRK by 28 April 2023*** *at the details provided above.*

Residents demand building of RDP houses to be monitored

Some of Unfinished RDP at Mabocha Village.

MABOTSHA

When Mabotsha residents learnt their RDP houses were approved by the Limpopo government and the Fetakgomo Tubatse Local Municipality (FTLM), they anticipated they will own fully finished houses by the year 2023.

The contractors for the houses were appointed in early 2022, but to this day, the houses are still incomplete.

According to the residents, the contractors will come to the sites for two days and leave afterwards. "Their job is incomplete. It's taking forever to finish these houses; we are unsure what is causing the delays as they are not communicating with us."

According to the concerned community members, some of the houses have no roofing and the contractors have left equipment scattered in their yards.

The residents pleaded with relevant authorities such as Limpopo Co-operative Governance, Human Settlements and Traditional Affairs (CoGHSTA) and FTLM to monitor RDP projects.

"We urge the Limpopo government to visit the sites to check if their projects are completed. There are so many families suffering because their promised houses are incomplete."

Shocking discovery of male bodies

MARBLE HALL - Two lifeless bodies of males were discovered at Mogononong dumping site next to a cemetery in Siyabuswa outside Marble Hall on Thursday, 09 February 2023 around 9:00 in the morning.

According to police, a community member alerted the SAPS in Siyabuswa about the discovery of the bodies and indicated that he came across the bodies on his way to the site to dump waste.

Brigadier Selvy Mohlala, Mpumalanga Provincial Police Spokesperson, said upon arrival, police noticed the lifeless bodies.

Mohlala revealed that the first victim who was dark in complexion sustained head injuries and some minor scratches on his body.

"According to observation, his age could be between 20 and 30. He had visible head injuries with signs showing that he was bleeding from the injury. He is described to be having a dark complexion. It is further said that he was wearing a blue pair of jeans as well as a white T-shirt.

Meanwhile, the age of the second victim who is also dark in complexion is estimated to be between 30 and 40. He was wearing black short trousers with grey T-shirt. His body shows that he was somehow stabbed with a sharp object on his throat with minor bruises on his body," explained Mohlala.

Mohlala added that the two were unknown neither by the police nor the community members around the place where their bodies were found.

"Police at this stage cannot rule out the possibility that the victims could have been taken from somewhere then assaulted and killed at the dumping site," further said Mohlala.

Mohlala indicated that the probing of the case was underway and a dedicated team of experts in the investigation field has been established under the leadership of Provincial Commissioner of SAPS in Mpumalanga, Lieutenant General Semakaleng Daphney Manamela who has strongly condemned the senseless killing of the two men while citing that police would work tirelessly to ensure that the perpetrators thereof were soon brought to book.

Anyone with information that may assist in identifying the two victims or with details that may help in locating the suspects is requested to contact Lieutenant Colonel Sakhile Sibanyoni at 082 457 5227, the crime stop toll-free number 08600 10111.

Alternatively, they may send information through MySAPSApp. All received information will be treated as confidential and callers may opt to remain anonymous.

TSEBIŠO YA MANANEO A GO TŠEA KAROLO A SETŠHABA
MABAPI LE DI PROJEKE TŠE PEDI TŠEO DI ŠIŠINTŠWEGO MO MOEPONG WA BOKONI PLATINUM, BURGERSFORT, PROFENSE YA LIMPOPO
SRK PROJECT REF: 590847
DMRE *REF. NO. LP 30/5/1/2/59 M R & LP 30/5/1/2/65 MR*
DWS *REF. NO. 06/B52J/ACEFGIJ/11541 & 03/B52J/ACGIJ/4638*

MEMO YA GO INGWADIŠA BJALO KA MALOKO AO A NAGO LE KGAHLEGO EBILE A AMEGAGO MME LE GO SWAYASWAYA

African Rainbow Minerals (ARM) ke mong wa moepo wa Bokoni Platinum (BPM) wo o lego mo e ka bago dikhilomithara tše masomešupa (70km) bodikela bja Burgersfort ka gare ga Mmasepala wa Selegae wa Fetakgomo Tubatse. BPM e akaretša dikarolo tša dipolasa tše di latelago: Jagdlust 418 KS, Winterveld 417 KS, Zeekoegat 421 KS, Diamand 422 KS, Middelpunt 420 KS, Umkoanesstad 419 KS, Brakfontein 464 KS, Klipfontein 465 KS le Avoca 472 KS.

Ga bjale, BPM e ka fase ga lenaneo la tlhokomelo, gomme ARM e na le maikemišetšo a go dira kgopelo ya tumelelo ye e nyakegago go tšwa go Kgoro ya Methopo ya Diminerale le Enetši (DMRE) go thoma ka karolo ya moepo mola gape e dira kgopelo ya tumelelo le dilaesense tše di nyakegago go tšwa go DMRE le Kgoro ya Meetse le Tlhwekišo (DWS), go katološa ditiro tša BPM. Dintlha tša diprojeke tšeo di šišintšwego ke BPM di akareditšwe mo seswantšhong se e lego ka mo fase:

Sehlogo sa Projeke:	Projeke ya go Thoma	Projeke ya Katološo
Tlhalošo ya porojeke le mananeokgoparara ao a nyakegago	**• Go hloma kgoro ya Klipgat godimo ga dishaft tša Klipgat le UM1 tšeo di lego gona go fihlelela mafelo a ka fase ga mmu a Middelpunt East le Middelpunt West;** **• Go hlabolla polante ye mpsha ya ditšweletšwa tša moepo yeo e nago le bokgoni bja go tšweletša bja 240 kilo tonne ka kgwedi (ktpm) le Polante ya go Tsošološa minerale ya Chrome;** **• Tshepedišo ya lebanta la go sepetša go tšwa go kgoro ya Klipgat go ya go polante ye mpsha ya ditšweletšwa tša moepo;** **• Go hudušwa ga makasine wa go thuthupa wo o lego gona go dira sekgoba sa polante ye mpsha;** **• Diphetošo go polante ya concentrator ye e lego gona le mpshafatšo ya diphaephe le mananeokgoparara a mangwe a thekgo.**	Mananeokgoparara ao a latelago a maswa a bohlokwa ao a amanago le meepo le mananeokgoparara a thekgo a rulagantšwe go katološa tshepedišo le go oketša bophelo bja moepo tekano ya go feta mengwaga ye masomehlano (50): **Mananeokgoparara a Bohlokwa:** . • **Mafelo a melete ye e bulegilego:** UG2 (melete ye 4) le melete ye e bulegilego ya Merensky (3); • **Mafelo a go lahlela maswika a ditšhila (WRDs)** ao a amanago le mafelo a go fapana a melete ye e bulegilego; • **Lefelo le leswa la polokelo ya ditšhila le moago wa letamo la meetse a go boela morago** **Mananeokgoparara a Thekgo:** . • **Matamo a tlaleletšo a taolo ya tšhilafatšo goba matamo a go swara ditšhila:** ao a amanago le melete ye e bulegilego, • **Ditsela tša go fihlelela le tša go goga** tšeo di tlago šomišwa ke moepo; • **Kaonafatšo le go dira semmušo ga ditsela tša setšhaba tše di kgethilwego;** • **Lefelo la setšhaba le poso;** • **Diphaephe le megala ya mohlagase;** • **Dishaft tša go tsenya moya bakeng** sa ditiro tša ka fase ga mobu.
Dipolasa tšeo di amegilego (dikarolo tše di fapafapanego): .	• Umkoanesstad 419 KS; • Middelpunt 420 KS; le • Zeekoegat 421 KS.	• Winterveld 417 KS; • Jagdlust 418 KS; • Umkoanesstad 419 KS; • Klipfontein 465 KS • Zeekoegat 421 KS; • Brakfontein 464 KS; le • Middelpunt 420 KS.
Mešomo ye e Lokeleditšwego ya Tekolo ya Khuetšo go Tikologo (EIA) ya NEMA:	➢ **Tsebišo ya Lenaneo ya pele (GNR 983) –** Mešomo ya bo 9,10, 11, 12, 14, 19, 21D, 24, 27, 56; le ➢ **Tsebišo ya Lenaneo ya boraro (GNR 985) –** Mešomo ya bo 4, 10, 12, 14, 18 , 22 le 23	➢ **Tsebišo ya Lenaneo la pele (GNR 983) –** Mešomo ya bo 9, 10, 11, 12, 14, 19, 21D, 27, 30; ➢ **Tsebišo ya Lenaneo la bobedi (GNR 984) –** Mešomo ya bo 4, 6, 11, 15, 17, 19, 27 ➢ **Tsebišo ya Lenaneo la borato (GNR 985) –** Mešomo ya bo 4, 10, 12, 14, 18, 22, 23
Ditiro tša Ditlakala:	Ga go na selo	➢ **GNR 921: Legoro la B** – Mošomo wa bo lesome (10) le lesometee (11)
Tšhomišo ya Meetsi ya WULA	Ga go na selo	➢ Karolo ya **21(a)** - Go tšea meetse mothopong wa meetse ➢ Karolo ya **21(c)** - Go šitiša goba go faposa go elela ga meetse go moela wa meetse ➢ Karolo ya **21(i)** - Go fetola mobu wa noka, mabopong a noka, tsela goba dimelo tša tsela ya meetse ➢ Karolo ya **21(f)** - Go tšhollela ditlakala goba meetse ao a nago le ditlakala ka gare ga mothopo wa meetse ➢ Karolo ya **21(g)** - Go lahla ditlakala ka mokgwa wo o ka amago mothopo wa meetse ka tsela ye mpe ➢ Karolo ya **21(j)** - Go tloša, go ntšha goba go lahla meetse ao a hwetšwago ka fase ga mobu ge go hlokega bakeng sa tšwelopele ya maleba ya mošomo goba bakeng sa polokego ya batho

.

Pele ga ge ARM e ka thoma ka diprojeke tše di šišintšwego, moepo o swanetše go hwetša ditumelelo tše di nyakegago go tšwa go balaodi ba maleba. Ka lebaka la mohuta le bogolo bja mediro ye e šišintšwego yeo e amanago le Projeke ya go Thoma, tshepedišo ya Tekolo ya Motheo e tla latelwa bjalo ka karolo ya kgopelo ya tumelelo ya tikologo (EA), mabapi le mediro ye e lokeleditšwego yeo e tlago hlohleletšwa ka fase ga Molao wa Taolo ya Tikologo ya Bosetšhaba (Act No. 107 ya 1998) (NEMA). Projeke ye ya go Thoma ye e šišintšwego e tla ba ka fase ga tumelelo go tšwa go DMRE

Le ge go le bjalo, Projeke ya Katološo ye e šišintšwego e tla nyaka Tekanyo ya Modiro ka botlalo le Tekolo ya Khuetšo ya Tikologo (EIA) bjalo ka karolo ya tshepedišo ye e kopantšwego ya EA, go hwetša tumelelo go tšwa go DMRE mabapi le NEMA le Molao wa Bosetšhaba wa Taolo ya Tikologo: Ditiro tša Ditlakala (Act No. 36 wa 1998) (NEM: WA). ARM e tla swanelwa gape ke go dira tshepedišo ya Kgopelo ya Laesense ya Tšhomišo ya Meetse (WULA) ka nepo ya go hwetša tumelelo go tšwa go DWS mabapi le ditšhomišo tša meetse tšeo Projeke ya Katološo ye e šišintšwego e tlago di hlohleletša.

WULA e tla dirwa go ya ka Molao wa Bosetšhaba wa Meetse (Act No. 36 wa 1998) (NWA). Go feta fao, kgopelo ya Karolo ya lekgolo le metšo e mebedi (102) go ya ka Molao wa Tlhabollo ya Methopo ya Diminerale le Petroleamo (Act No. 28 wa 2002) (MPRDA), e tla nyakega ka ge Projeke ya Katološo e tla nyaka gore moepo o mpshafatše Lenaneo la Mošomo wa Moepo le go fetoša Lenaneo la Taolo ya Tikologo Lenaneo(EMPr).

Tsebišo e fiwa ka ga maikemišetšo a ARM a go romela dikgopelo tša ditumelelo go ya ka MPRDA, NEMA le Melawana ya yona ya EIA ya 2014 (bjalo ka ge e fetošitšwe), NEM:WA le NWA.

SRK Consulting (SRK) e kgethilwe bjalo ka mošomi yo a ikemetšego wa Tekolo ya Tikologo (EAP) go dira dikelo tša khuetšo tše di nyakegago bjalo ka karolo ya dikgopelo tša tumelelo tše di fapafapanego, go dira ditshepedišo tša go tšea karolo ga setšhaba tše di nyakegago tša taolo le go lokišetša ditokomane tša projeke tša maleba tša projeke ye nngwe le ye nngwe.

Tokomane ya Tsebišo e Hlathollago Taba (BID) yeo e nago le dintlha tše ntši ka ga diprojeke e hwetšagala mo wepsaeteng ya SRK (https://www.srk.com/en/public-documents/two-proposed-projects-at-bokoni-platinum-mine-burgersfort-limpopo-province) le mafelong a a latelago a setšhaba:

Lefelo la Setšhaba	Lefelo
Dikantoro tša Bolaodi Bja Setšo tša Baroka-Ba-Nkwana	Ga-Nkwana Moshate
Dikantoro tša Bolaodi Bja Setšo tša Roka--Selepe	Selepe Village Moshate
Dikantoro tša Bolaodi Bja Setšo tša Maesela-Manotwane	Manotwane Village Moshate
Dikantoro tša Bolaodi Bja Setšo tša Bapedi Kingdom	Mohlaletse Village Moshate
Kgoro ya Tiragatšo ya Leago ya BPM	Ditirelo tša Tšhireletšo tša BPM

Batho bao ba nago le kgahlego ebile ba amegago ba laletšwa go ingwadiša le go lebiša ditshwayotshwayo goba dipotšišo dife goba dife go:

SRK Consulting
Att: Portia Tsotetsi, Public Participation Office, **P.O. Box** 55291, Northlands, 2116,
Tel: (011) 441 1111 / 066 240 8900; **Fax**: 086 503 1222 / **Email:** PTsotetsi@srk.co.za

ELA HLOKO: *Mabapi le tshepedišo ya WULA, batho bao ba nago le kgahlego ebile ba amegago (I&APS) ba tsebišwa gore ge ba nyaka go romela ditshwayotshwayo tše di ngwadilwego goba dikganetšo mabapi le projeke ye e šišintšwego le ditšhomišo tša meetse tše di amanago le yona ba na le matšatši a masometshela (60) go dira bjalo Hle romela ditshwayotshwayo goba dikganetšo tše bjalo go SRK pele ga la 28 February 2023 ka dintlha tšeo di filwego ka mo godimo.*

FRONT PAGE STORY

since January 2020.

He was responsible for anchoring efficiencies in organisational operations such as driving a destination marketing strategy for the district.

Mmotla was also responsible for brokering relationships with universities, royal houses and institutes across the country, and successfully coordinated programmes such as youth employment initiatives and two hundred Presidential Employment Stimulus Programme (PESP) job opportunities.

"Mmotla's portfolio included the brand positioning and corporate identity of the agency, as well as interface with various stakeholders including hiking clubs and youth initiatives. Sports tourism will benefit greatly through coordinated strategic engagements to ensure successful formal organisations across economic sectors in the District," added Serote.

He assured that Mmotla has the full support of the Board of Directors of SDA, to deliver on the organisation's mandate.

"We believe that Mmotla is the right person to drive the agency forward during this period. His capability and experience has prepared him to fulfil this role with excellence, we are confident that he will propel the many strategic initiatives that SDA undertakes, to inspire and unify our stakeholders, partners and employees, to continue the work of building the reputation of Sekhukhune District, as a tourism and investment destination, so as to contribute to its global competitiveness and attractiveness," stated Serote.

Amongst his various academics, Mmotla holds a Bachelor's Degree in Communications Science from the University of South Africa (UNISA).

"Sekhukhune Development Agency's mandate is to ensure the district is positively positioned, domestically and internationally as a peculiar vehicle to identify, initiate and implement high impact economic projects and create sustainable job opportunities. Notably, we want to get the people of Sekhukhune excited again about the agency. We have to increase levels of pride, sense of initiative and economic participation of the residents of Sekhukhune. I am humbled to be a part of the vision, to be an agency that inspires its vision and is admired globally," said Mmotla.

He added: "We were warned by Amilcar Cabral to bear in mind that people are not fighting for ideas, for things in anyone's head. They are fighting to win material benefits, to live better and in peace, to see their lives go forward, to generate the future of their children. The SDA is empowered to generate that future by transforming the District of Sekhukhune into a first economy."

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