

FINAL SCOPING REPORT (SR)
AND
ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT (EMPR)
FOR
TSMG (PTY) LTD.

By



**SCOPING REPORT (SR) AND ENVIRONMENTAL MANAGEMENT PROGRAMME
REPORT (EMPr) FOR MINING RIGHT APPLICATION FOR MINING
AGGREGATE, CONCRETE SAND (SILICA), BUILDING SAND (SILICA),
FOUNDRY (SILICA), GLASS SAND (SILICA), SAND (GENERAL), SILCRETE
(SILICA), SILICA SAND (SILICA), CRUSHER SAND (SILICA), FILING SAND,
METALLURGICAL (SILICA), DIAMOND (GENERAL), AND SAND
MANUFACTURED FROM THE HARD ROCK MINERALS, IN RESPECT OF
PORTION 4 OF THE
FARM DOORNKRAAL 420 JR, IN THE MAGESTERIAL DISTRICT OF CULLINAN.**

FILE REFERENCE NUMBER SAMRAD: DMPR RefNo: GP 30/5/1/2/2/10138 MR

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IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a mining operation permit or mining right if among others the mining “will not result in unacceptable pollution, ecological degradation, or damage to the environment”.

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation, or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application has considered any minimum requirements applicable, or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required for applications for environmental authorization for listed activities triggered by an application for a right or a permit are submitted in the exact format of this template and provide all the information required in terms of this template. Furthermore, please be advised that failure to submit the required information 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. ~~OB~~

OBJECTIVE OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The objective of this report process is to:

- a) Determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context.
- b) Identify the alternatives considered, including the activity, location, and technology alternatives;
- c) describe the need and desirability of the proposed alternatives and activity, including the need and desirability of the activity in the context of the preferred location;
- d) Through the undertaking of an impact and risk assessment process inclusive of cumulative impacts, which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of the impact of the proposed activity and technology alternatives on these aspects to determine:
 - i. The nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
 - ii. The degree to which these impacts
 - (aa) Can be reversed;
 - (bb) May cause irreplaceable loss of resources; and
 - (cc) Can be managed, avoided, or mitigated;
- e) Identify the most recent environmental dynamic in the proposed location for the activity based on the condition of environmental sensitivity identified during the assessment;
- f) Identify, assess, and rank the impacts the activity will impose on the preferred location through the life of the activity;
- g) Identify sustainable measures to manage, avoid or mitigate identified impacts; and
- h) Identify residual risks that need to be managed and monitored.

LIST OF ABBREVIATIONS

SR	Scoping Report
BID	Background Information Document
CBA	Critical Biodiversity Area
CRR	Comments and Responses Report
DFFE	Department of Forestry, Fisheries, and the Environment (DFFE)
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme report
ESA	Ecological Support Area
GIS	Geographic Information Systems
GISTM	Global Industry Standard on Tailings Management
GNR	Government Notice Regulation
Ha	Hectares
I&APs	Interested and Affected Parties
Km	Kilometer's
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
NBA	National Biodiversity Assessment
NFEPA	National Freshwater Ecosystem Priority
NEM: BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM: WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
PPP	Public Participation Process
PWP	Prospecting Work Programme
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System

SDGs	Sustainable Development Goals
WMA	Water Management Area

EXECUTIVE SUMMARY

This Scoping Report (SR) and Environmental Management Programme (EMPr) has been prepared in support of a mining right application by TSMG (Pty) Ltd for the extraction of aggregate, silica sand, building sand, crusher sand, silcrete, foundry sand, glass sand, diamonds (general), and other associated hard rock minerals in respect of portion 4 of the Farm Doornkraal 420 JR, located in the Magisterial District of Cullinan, Gauteng. The report has been prepared in accordance with the requirements of the Mineral and Petroleum Resources Development Act (Act 28 of 2002) and the National Environmental Management Act (Act 107 of 1998) to support the Environmental Authorisation process and ensure that the proposed mining activities are undertaken in an environmentally responsible and sustainable manner.

The proposed mining operation will utilize conventional open-cast mining methods, including hydraulic mining, conventional mechanical mining, excavation, crushing, and screening producing small tailing waste, and haulage, supported by the necessary operational infrastructure. Comprehensive baseline environmental studies using geospatial and cloud computing for obtaining recent satellites have been undertaken to evaluate the existing physical, biological, and socio-economic environment, identify environmentally sensitive features, and assess the potential impacts associated with the project. The assessment considered key environmental aspects, including biodiversity, surface and groundwater resources, air quality, noise, heritage resources, land capability, and surrounding communities.

A comprehensive Public Participation Process (PPP) was undertaken in accordance with the NEMA EIA Regulations to ensure meaningful engagement with government authorities, Interested and Affected Parties (I&APs), landowners, and local communities. Public notices, newspaper advertisements, stakeholder notifications, and community meetings were conducted to identify concerns and obtain input into environmental assessment. Comments received during the review period will be incorporated with the Final Scoping Report and Environmental Management Programme report to support transparent and informed decision-making by the competent authority.

The baseline assessment indicates that the identified environmental amenities that could be affected and can be effectively avoided, minimised, or mitigated through the implementation of the proposed Environmental Management Programme (EMPr), specialist recommendations in the EIA phase, and progressive rehabilitation measures. Subject to compliance with all applicable legislative requirements and Environmental Authorisation conditions, the proposed mining operation is expected

to contribute positively to regional socio-economic development through employment creation, local procurement, and the sustainable supply of mineral resources, while maintaining acceptable environmental performance throughout the project lifecycle.

Details of the Applicant

Table 1: Showing details of the applicant

Name of Applicant:	TSMG (Pty) Ltd		
Registration number (if any):	2012/158615/07		
Trading name (if any):	TSMG (Pty) Ltd		
Responsible person: (e.g., CEO, Director, etc.)	Director		
Contact person:	Riaan Raymond Timm		
Physical address:	Portion 6 of farm Kaalfontein Rayon 1001		
Postal address:	PO Box 177 Rayton Pretoria Gauteng		
Postal code:	1001	Cellphone:	+27 71 345 8145
Email:	riaantimm@yahoo.com		

Scope of Project

A systematic review and geospatial visualisation were done for the relevant background literature, site visit and the baseline environmental of the area around MR and is used to support the scope of the area. The biophysical and socioeconomic issues that require assessment were identified. During this process, key stakeholders (including affected state organs) and interested and affected parties (I&APs) were given the opportunity to express their concerns and comment on the proposed activities, allowing for the identification of additional issues that may require assessment. All issues and comments raised in response to the Draft Scoping Report (DSR) will be prescribed in a Comments and Responses Report (CRR). The CRR will be included as an appendix to the Final Scoping Report, which will be submitted to the Department of Mineral and Petroleum Resources (DMPR) for consideration and decision-making in accordance with Regulation 21(1) of Government Notice (GN) R982.

Therefore, the purpose of this FSR is to:

- Provide a detailed description of the scope of the proposed project area to be covered;
- Provide a detailed description of the baseline environment;
- Provide the description of the process of the identification of areas requiring assessment;

- Provide a description of the level of assessment to be undertaken during the impact assessment;
- Provide details of how the stakeholder and the interested and affected parties' engagements will be conducted;
- Provide the details of the processes to be followed to inform the stakeholders and the interested and affected parties of the project activities and associated impacts; and
- Provide details of how the issues raised will be addressed and responses.

Project Location

The proposed MR area is located north of Cullinan and is accessible using the existing R515 road, which passes the mining right application area from Cullinan via Refilwe to Kalliergo Farming. There are dilapidated buildings within the MR areas, but they also belong to the applicant. The applicant will identify and engage all landowners, lawful occupiers, households, farm workers, tenants, and livelihood users potentially affected by the mining sequence. Any relocation on residents residing adjacent to the MR will be determined by the buffer zone, subject to documented and lawful consultation, compensation, livelihood-restoration measures, grievance procedures, and applicable statutory approvals. These mining phases will also help on how mining coexists with game farming.

Environmental Consultants

Vahlegwe Mining Advisory and Consulting (Pty) Ltd is an independent Environmental Assessment Practitioner (EAP) and was appointed to undertake the scoping report for the mining right applied for in terms of MPRDA Act 28 of 2002.

Table 2: Showing details of the EAP

Company name:	Vahlegwe Mining Advisory and Consulting (Pty) Ltd
Contact person:	Sunday Mabaso
Physical address:	238 Vorster Ave, Glenvista Extension 3, Johannesburg South 2190
Telephone:	+27 11 432 0062 / +27 74 569 7312
Email:	info@vahlegweadvisory.co.za sunday@vahlegweadvisory.co.za

Public Participation Process Methodology

Public Participation Process (PPP) was undertaken as required in terms of Regulation 41 of NEMA: EIA Regulations, 2017 (as amended). During the undertakings of the PPP, potential environmental

and social impacts were identified and will be investigated, and all stakeholders and I&APs by the project were given the PP period to comment, raise concerns, and contribute to the assessment to ensure that local knowledge, needs, and values are taken into consideration throughout the process.

The draft SR was made available for public review and comments for 30 days, and all comments or concerns raised will be recorded and responded to in the CRR.

The following processes were followed to undertake the PPP:

- A newspaper advertisement was published and advertised in Citizens on the 27th of July in the national newspaper.
- A Background Information Document (BID), including Interested and Affected Parties (IAPs) Registration Forms, were distributed to various stakeholders, including the I&APs, via email and hand delivered on the 28th of July 2026.
- Site notices were posted at various places within the vicinity of the MR site on the 28th of July 2026.
- A public consultation with the local community will be facilitated by the community leaders with the applicant's proposed date around 18th August 2026. I&APs will comment and express concerns on the draft SR until the 27th of August 2026. Therefore, the Final Scoping Report (SR) and Environmental Management Programme (EMPr) will only be submitted once the prescribed public review period has concluded. All comments received during the review process are documented in the CRR. The Environmental Assessment Practitioner (EAP) compiled and submitted to determine whether amendments to the reports are necessary and Interested and Affected Parties (I&APs) will be afforded a reasonable opportunity to review any material changes or responses where applicable.
- An electronic copy is accessible accessed and downloaded on www.vahleengweadvisory.co.za from 27 July 2026.

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- A. Environmental Screening tool

CHAPTER 1: SCOPE OF ENVIRONMENTAL IMPACT ASSESSMENT

1.1 Introduction

TSMG has applied for a mining right over a property previously held a mining right under Arman Aslanian with a long history predating TSMG's involvement. Arman Aslanian held the mining right under the previous regulatory regime and was converted under the MPRDA, 2002; however, the mining operations never commence before the right expired in terms of the applicable legislation. Following the expiry of the mining right, TSMG acquired the mining right and the associated interests from Arman Aslanian. Consequently, while TSMG is the current holder, the mining right itself is not a new right in the sense of representing a newly identified mining area or a new mining project. Rather, it is an existing mining right with historical origins in Arman's tenure, which had lapsed under the old regulatory framework before being acquired by TSMG.

TSMG (Pty) Ltd (hereafter referred to as "the applicant") has applied for a mining right in terms of Section 22 of the Mineral and Petroleum Resources Development Act (Act 28 of 2002). Therefore, Vahlegwe Mining Advisory and Consulting (VMAC) has been appointed by the applicant as an independent Environmental Assessment Practitioner (EAP) to facilitate and conduct the Environmental Authorisation process (EA) for the mining right application to mine the aggregate, concrete sand (silica), building sand (silica), foundry (silica), glass sand (silica), sand (general), silcrete (silica), silica sand (silica), crusher (silica), filing sand, metallurgical (silica), diamond (general), and sand manufactured from the hard rock minerals in respect of Portion 4 of the Doornkraal 420 JR, in the Magisterial District of Cullinan. The proposed MR area is located north of Cullinan and is accessible using the existing R515 road, which passes southeast of the mining right application area from Cullinan via Refilwe to Kalliergo Farming.

The applicant will utilise conventional open-cast mining equipment, such as an excavator, to streamline the operating process and guarantee the effective and regulated removal and disposal of the minerals in terms of regulation 20 of MPRDA. Based on the proposed minerals applied, conventional mechanical and hydraulic mining methods that will be suitable for the mining techniques will be used to accommodate extraction of all minerals. Consequently, TSMG will reduce environmental disruption and guarantee adherence to relevant laws, including the Environmental Impact Assessment (EIA) Regulations and the National Environmental Management Act (NEMA). Therefore, the EIA regulation and process necessitating the comprehensive environmental evaluation of the planned activities, assesses potential consequences that might

worsen the quality of the environment. In keeping with national environmental management objectives, this approach encourages less generation of waste and preserving resource in a sustainable matter. It also aligns with sustainable development goals (SDGs) and Global Industry Standard on Tailings Management (GISTM) of the applicant's dedication to rehabilitation and appropriate land management after mining, as well as the socioeconomic circumstances of the areas nearby and any cumulative effects.

1.2 Purpose of the report

The purpose of the Scoping Report (SR) is to identify key component of the environmental authorisation process, define, and undertake a preliminary assessment of the existing environmental baseline, evaluate the potential extent and significance of the proposed mining activities. This provides relevant information to interested and affected parties (I&APs), stakeholders, and decision-makers regarding the nature, scope, and potential impacts of the proposed development. Through this process, the applicant seeks to demonstrate its commitment to sustainable development, regulatory compliance, and the promotion of socio-economic growth within the region.

1.3 Expertise of the EAP

1.3.1 The qualifications of the EAP (with evidence as an appendix)

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

Table 3 Expertise of the EAPs

NAME	Sunday Mishack Mabaso
QUALIFICATIONS	MBA; GDE: Mining Engineering, NHD: Mineral Resource Management, Certificates: (i) Global Environmental Management, (ii) Climate Change and Energy Law, (iii) Mine Closure and Land Rehabilitation, (iv) Integrated Waste Management, and (v) Energy Efficiency and Sustainability.
RESPONSIBILITY FOR THE PROJECT	Project Leader and Reviewer
PROFESSIONAL REGISTRATION	EAPASA (Reg. No. 2022/4485) SAIMM (709244) IAIAsa (7442) LaRSSA

EXPERIENCE	Sunday Mabaso has been the Principal Consultant at Vahlegwe since May 2021, with more than 30 years of experience in the mining industry, including over 20 years of service at the Department of Mineral Resources and Energy, of which he served seven (7) years as a Regional Manager (3 years in Northern Cape and 4 years in Gauteng). He has acquired various qualifications in mining, including a Graduate Diploma in Engineering: Mining, a Post Graduate Certificate in Climate Change and Energy Law from the University of the Witwatersrand, and a Certificate in Global Environmental Management from the Technical University of Denmark, a Certificate in Mine Closure and Land Rehabilitation from the University of Pretoria and Certificate in Integrated Waste Management Program with the Institute of Waste management. His areas of expertise include Environmental Management, Mining Legislation, Mine Economics, and Social and Labour Plans. Sunday has published several academic papers, including: Mabaso SM. (2025) The impact of gold mine closures and future planning for sustainable development in the Witwatersrand Goldfields: Mine Closure Conference 2025, 19-20 February 2025, The Southern Institute of Mining and Metallurgy: ISBN 9781-1-7764673-8-9 Mabaso, SM. (2023) Legacy Gold Mine Sites & Dumps in the Witwatersrand: Challenges and Required Action. Natural Resources, 14, 65-77. https://doi.org/10.4236/nr.2023.145005 Mabaso, SM. (2023). Social and Environmental Challenges caused by Legacy Gold Mining in Johannesburg: Government's Action Plan. eBook: ISBN: 978-81-19491-53-7.DOI: 10.9734/bpi/npgees/v9/10672F Ramontja, T. and Mabaso, S. 2022. Evolution of South Africa's Mining Regulatory Framework as it relates to the Empowerment and Participation of Mining Communities. https://doi.org/10.1007/978-3-031-07048-8_6
NAME	Lusizo Nqasha
QUALIFICATIONS	Bachelor of Arts in Environmental Geography Bachelor of Arts Honours in Geography

	Master of Science Candidate in Geography
RESPONSIBILITY FOR THE PROJECT	Report compiler
PROFESSIONAL REGISTRATION	EAPASA Candidate (Reg. No. 2024/9364) SAIMM (711284)
EXPERIENCE	Nqasha Lusizo is a passionate geoscientist and environmental specialist with excellent knowledge in remote sensing, GIS, and environmental science and management. Having worked as an environmental consultant for more than a year, he has a solid background in environmental audits, mining rehabilitation, environmental impact assessments (EIAs), and geospatial analysis for sustainable development. Lusizo is currently employed at Vahlegwe Mining Advisory and Consulting as a GIS and EIA Consultant. He has expertise in mineral rights applications, environmental survey maps, and remote sensing models that facilitate strategic decision-making and regulatory compliance. His technological expertise includes sophisticated geospatial programming (Java-Script) for environmental change detection and land use/land cover (LULC) monitoring and water assessment as well as ArcGIS Pro, QGIS, Google Earth Engine (GEE), and ERDAS. Lusizo's background includes a Master of Science in Geography from the University of the Witwatersrand, where he studied geospatial modeling, environmental science, and the effects of mining. By co-supervising Honors students in GIS and RS modeling, he has supported environmental research and capacity growth. He has expertise in waste management, water quality analysis, environmental health and safety (EHS), and field-based environmental evaluations. To address difficult ecological problems and promote responsible resource management, Lusizo is dedicated to combining scientific rigor, geospatial technology, and sustainable environmental practices. Lusizo has published an academic paper, including: Nqasha, and Mpanza, the application of remote sensing techniques in mapping abandoned tailings storage facilities in the West Rand, Gauteng,

	South Africa. https://hdl.handle.net/10210/519599
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2 Location of the overall activity

2.1 Description of the location

Table 4: Details of the overall activity location

Farm Name:	Portion 4 of the Doornkraal 420 JR
Application area (Ha)	33.81 ha
Magisterial district:	Magisterial District of Cullinan
Distance and direction from the nearest town	The proposed MR area is located north of Cullinan, which is accessible using the existing R515 road, which passes southeast of the mining right application area from Cullinan via Refilwe to Kalliergo Farming
21-digit Surveyor General Code for each farm portion	[T0JR00000000042000014]

2.2 Description of the scope of the proposed overall activity

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

2.2.1 Illustration of the MR area

Figure 1 shows adjacent towns to the proposed mining right area MR. The operation will be conducted under a mining right as defined by the Mineral and Petroleum Resources Development Act (Act 28 of 2002), which allows for specified mining activities with a maximum duration of 30 years, subject to renewal for an additional 30 years.

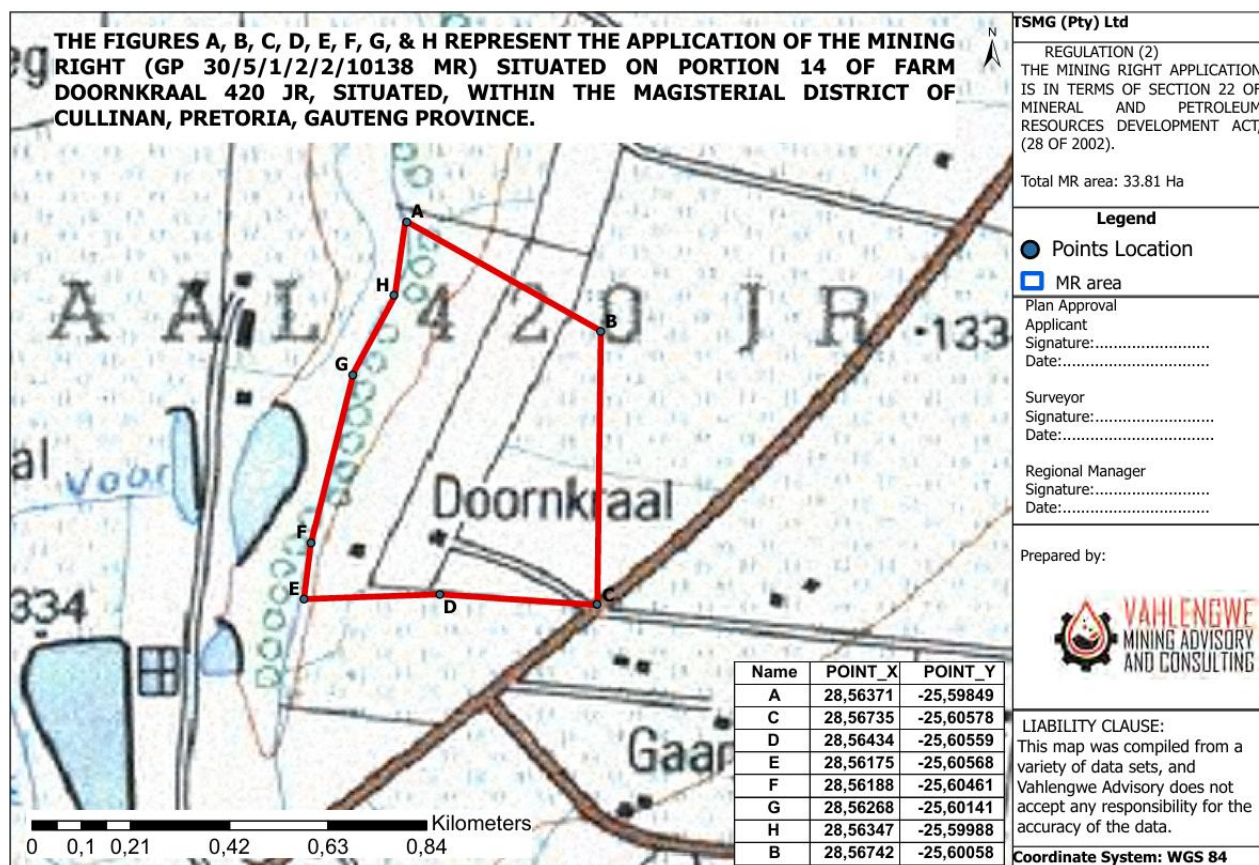


Figure 1: Locality map of the proposed mining right area

2.2.2 Description of the undertaken mining activities

The scope of the activity includes:

- **Site clearance:** Site preparation includes removing vegetation, building access roads, and setting up makeshift facilities, e.g., storage spaces and site offices.
- **Mining Operation and Method:** conventional open-cast mining method will be used to dig the minerals from the earth and extract the minerals conventional mechanical and hydraulic mining methods.
- **Equipment Deployment:** The use of machinery such as transport trucks, tipper trucks, bulldozers, excavators, etc. To transfer broken ore to processing or stockpiling facilities inside the mining right area, excavators will load it into haul trucks.
- **Ore Extraction Process:** When the ore is broken up into workable pieces will be processed using a processing plant.
- **Material Handling:** To lessen environmental disruption, ore and aggregates are removed methodically. Overburden, or waste rock, is stored separately for use in rehabilitation at a later stage. Processing of the minerals will run sustainable which will produce less tailings material.

- **Environmental Management:** Water spraying on haul routes is one way to reduce dust. Management of noise during equipment operation. Restoration of land capabilities by progressive rehabilitation of mined-out regions.
- **Sustainability and Compliance:** All mining activities in the operation will be carried out in accordance with the NEMA and the MPRDA. Effective mitigation strategies to reduce ecological and socioeconomic effects provided by specialist studies during the Environmental Impact Assessment (EIA) process guiding mine rehabilitation to post-mining restoration and careful land management.

3 Listed and Specified Activities

The proposed MR application triggers these activities **listed in NEMA Listing Notices 1, 2, and 3**. Table 5 presents a summary of the NEMA-listed activities triggered by the proposed project. The listed activities in the table have been reviewed and corrected to reflect only those activities lawfully triggered by the proposed mining-right application and associated infrastructure. The legal triggers have been cross-referenced to the final site layout, infrastructure footprint, waste facilities, water uses and specialist findings.

Table 5: Listing notices that triggered the MR project's listed activities

Proposed Activity	Applicable Legislation	Activity No.	Full Listed Activity Description	Relevance to the Project
Mining Right Area	GN 984	Activity 17	Any activity including the operation of that activity, that requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks directly related to the extraction of a mineral resource or the primary processing of a mineral resource.	The proposed development involves the establishment and operation of a mining right area together with associated mining infrastructure and primary mineral extraction activities.
Extraction of the mineral	GN R984	Activity 19	The removal and disposal of a mineral, which requires a permission in terms of section 20 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 permission.	All the mineral extraction activities associated with the proposed project.
Vegetation Clearance	GN 983	Activity 27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	Indigenous vegetation will be cleared to accommodate mining infrastructure, haul roads, access roads and associated facilities.
Buildings	GN 325	Activity 17	Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including— (a) associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource [,] ; or (b) [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum	Construction of offices, change houses and other supporting buildings forms part of the mining operation.

			Resources Development Act, 2002 (Act No. 28 of 2002)] the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.	
Crushing and Screening Plant	GN 325	Activity 21	[Any activity including the operation of that activity associated with the primary processing of a mineral resource including winning, reduction, extraction, classifying, concentrating, crushing, screening and washing but excluding the smelting, beneficiation, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.]	Mineral ore extracted from the mine will undergo primary crushing and screening before transportation.
Fuel Storage	GN R983	Activity 14	The development and related operation 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 cubic metres or more but not exceeding 500 cubic metres.	Fuel storage tanks will be constructed and supply mining vehicles as well as equipment.
Water Storage Dam	GN R983	Activity 13	The development of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of activity 16 in Listing Notice 2 of 2014.	Abstraction of water from the boreholes and stored in the storage areas, including tanks.
NEMWA Activities				
Construction of Waste Management Facility	Category B 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).	Waste generated during mining operations may require facilities authorised under NEMWA.

Residue Stockpile/Residue Deposit	Category B Activity 11	The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right, exploration right or production right in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).	The project includes the establishment and management of mine residue deposits associated with mining activities.
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3.1 Description of the activities to be undertaken

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

The pre-construction phase of the proposed opencast mining method focuses on preparatory tasks that establish the foundation for safe, effective, and compliant operations. The applied commodities to be mined include aggregate, concrete sand (silica), building sand (silica), foundry (silica), glass sand (silica), sand (general), silcrete (silica), silica sand (silica), crusher (silica), filing sand, metallurgical (silica), diamond (general), and sand manufactured from the hard rock minerals, which are essential raw materials to produce various commodities.

For linear activities like establishing access roads, haul routes, or conveyor alignments, the pre-construction stage entails route selection and design based on geography, property ownership, and environmental sensitivity. The chosen path is evaluated to minimise disturbance to delicate ecosystems, wetlands, and cultural heritage regions while optimizing access to processing facilities and transportation infrastructure. While environmental experts assess possible impacts, engineering teams develop complex layouts, drainage systems, and erosion-control techniques. Before any mining activity begins, this all-encompassing strategy ensures that the project possesses a transparent, technically sound, and environmentally responsible strategy for the mining pit and associated linear infrastructure.

➤ Construction phase activities

A series of preliminary tasks that provide the operational and physical foundation for safe, effective extraction make up the mining method's building stage. Start by clearing vegetation for road construction, preparing the site, creating gateways and workspaces, installing necessary infrastructure and safety systems, putting environmental protection measures in place, and conducting thorough pre-operational testing are some of the activities. These duties will be meticulously carried out to guarantee the mining infrastructure's structural sustainability and operation, to facilitate the recovery of resources later, to safeguard worker safety, and to minimize environmental disruption.

The phase also entails a number of specific, short-term projects, such as building and upgrading access roads connected to current routes; setting up site facilities like parking, ablution blocks, workshops, maintenance areas, and security offices; stripping and stockpiling topsoil for future

rehabilitation; building stormwater management and bulk fuel storage; and separating and storing topsoil, subsoil, and overburden for future use. After assembly, the screening plant will be prepared for use. There will be no on-site housing; all construction activities are temporary with set start and end dates; staff and equipment will be housed in temporary offices; portable chemical toilets are the preferred ablution solution, and employees will be transported daily to and from off-site housing.

➤ **Operating Method**

The applicant will utilize various machinery to excavate different minerals through the conventional open-cast mining method. The operation will begin with the establishment of the site clearance of the approved footprint. The phase will include initial conventional mechanical and hydraulic mining methods will then be utilized to break up the ore deposit and open a pit. Excavators, front-end loaders, articulated haul trucks, and ancillary support equipment will also be used to remove the blasted material containing ore minerals and transfer ore to on-site stockpiles or a primary crushing/screening area, as needed. To minimize off-site effects, when possible, covered haulage and water sprays will be employed to manage dust. Waste rock will be handled at a designated disposal area and gradually restored according to the restoration plan, whereas topsoil will be collected and stored separately for future restoration.



Figure 2: An example of the open-pit method

- **Access Roads**

The proposed mining right is accessible via the existing road infrastructure. Accessibility to the application area will be via the existing regional road network (R515 from Cullinan), but new roads will be built leading to the farm. Thus, roads are already built within the MR during the prospecting phase.

- **Infrastructure**

Infrastructure will be established on-site for the duration of the project life operation, preferably. The following infrastructure will be utilized on-site:

- Site Preparation and Pre-Construction
- conventional mechanical and hydraulic mining methods to form an open pit
- Loading and Hauling
- Ore Processing and Handling
- Mine residues
- Management Support Infrastructure

- Environmental Management Activities
- Closure and Rehabilitation (long-term)
- **Power supply**

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

- **Water supply**

The processing plant will use minimal water to be sourced from the constructed collecting rainwater, including allowing on-site groundwater extraction via rainwater tankers during times of high demand or drought. Potable Water: Staff members' drinkable water will be stored in specifically labelled tanks with regular testing for microbiological contaminants and a backup supply from the municipal supplies.

At the site, the water level will be established and continuously monitored by a qualified geohydrological scientist. This monitoring will support drilling activities and ensure the sustainable use of water for dust suppression, mineral processing, domestic supply, and rehabilitation purposes. The storage equipment (lined reservoirs and modular tanks) will be adequately sized. A water use license will be applied under National Water Act 36 of 1998, along with related mining water rules, will govern groundwater abstraction and bulk water usage. The project will get the necessary water usage authorizations and follow the department of water and sanitation (DWS) mine water management policy.

To preserve clean water, on-site water handling will prioritise rigorous conservation by reusing, waste treatment, and recycling. Runoff as well as process water will be collected in sedimentation ponds and decant systems, cleaned (settling, purification, disinfection), and reused for drilling, dust suppression, and equipment cleaning. Water is required for the mining activities, especially processing of the plant, cooling machinery, preventing dust and fire explosions. Plumes will be used for polluted water to detect leaks or contamination early on, and all storage and transfer facilities will have bunding, spill response strategies, metering, and monitoring programs in place. Progressive restoration will include restoring natural drainage and cleaning up any contaminated watercourses. Surface and groundwater resources will be safeguarded throughout the mine's life through EA compliance, regular reporting, and adaptable management strategies.

- **Waste management and disposal**

The mine will adopt GISTM guidelines and execute a hierarchical waste management plan that focuses on avoidance, minimization, segregation, reuse, treatment, and safe disposal. All waste streams will be classified at the source as hazardous (fuels, oils, solvents, and contaminated PPE), process materials and tailings (if any processing occurs), inert building and demolition debris, mining waste (overburden and waste rock), and operational and domestic waste from site offices and camps. The classification will guide decisions about handling, storing, transporting, and final disposal, and it will be documented in a site-specific Waste Management Plan (WMP).

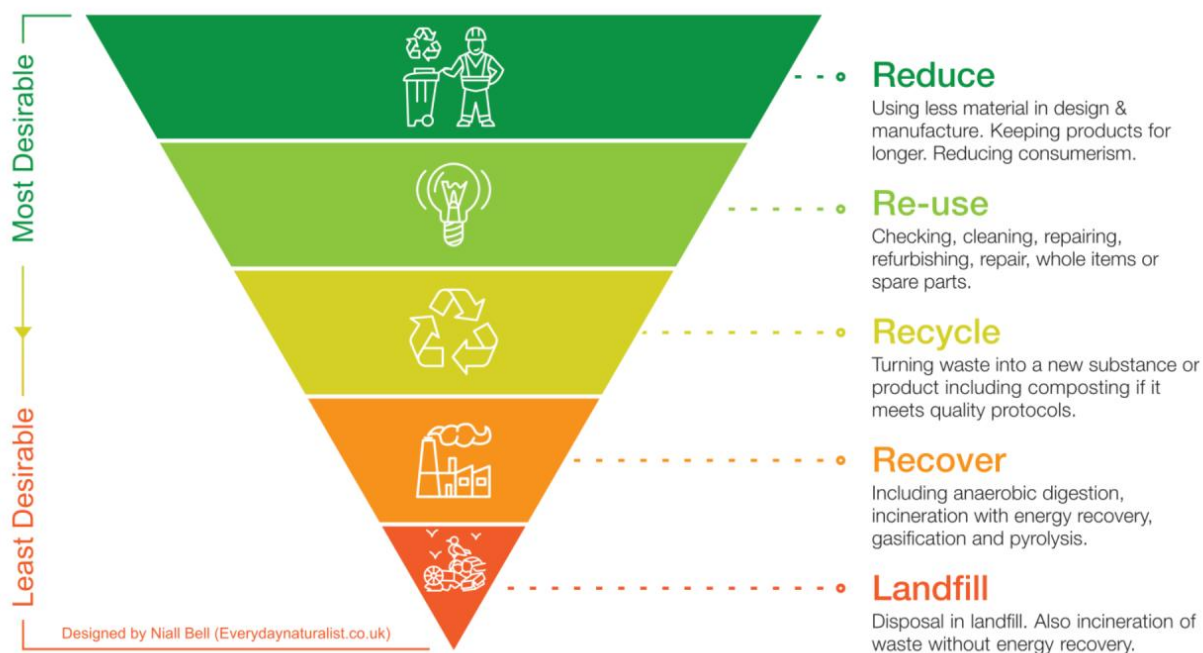


Figure 3: Demonstrates hierarchical waste management.

➤ **Segregation, storage, and on-site handling**

- Segregation: To avoid cross-contamination and to make recycling and proper disposal easier, waste will be separated at the source using clearly labelled containers and defined storage spaces.
- Overburden and topsoil: To minimize the long-term impact, overburden and topsoil will be placed in specially designed landfills with erosion control and progressive rehabilitation sequencing, while topsoil will be scraped individually and stacked for progressive rehabilitation.
- Hazardous materials: Used oils and contaminated materials will be gathered in labelled barrels and evacuated by certified hazardous waste contractors; fuels, lubricants, and chemicals will be kept in bunded, impermeable areas with secondary containment, spill kits, and trained people.

3 Scoping the area where mining right is located

Identifying the key environmental issues to be studies:

- Air quality
- Water quality (hydrology, wetland, geohydrology)
- Land
- Noise
- Flora and Fauna
- Socioeconomic environment
- Existing communities

4 Detailed Environmental Baseline Description for the TSMG Mining Right Area

4.1 Regional Setting and Existing Land Uses

The proposed TSMG MR Area is located within a predominantly rural and agricultural landscape that has undergone varying degrees of transformation as a result of commercial farming, rural settlement development, infrastructure establishment, and localized industrial activities. Interpretation of the satellite imagery indicates that the mining right area is surrounded by an extensive mosaic of cultivated agricultural fields, centre-pivot irrigation systems, farm dams, access roads, scattered farmsteads, and patches of remaining natural vegetation. The broader landscape reflects a productive agricultural environment where intensive crop production forms the dominant land use. Despite the extensive modification of the landscape, several pockets of indigenous vegetation remain intact, particularly in less accessible areas and along drainage features, contributing to ecological diversity and environmental functionality.

The mining right area itself appears to comprise a combination of open grassland, shrub-dominated vegetation, scattered trees, and localized disturbed areas associated with existing farming activities or historical land uses. The absence of significant urban development within the mining right boundary suggests that the area currently retains many characteristics of a rural environment. However, the presence of nearby residences, farming operations, irrigation infrastructure, and rural businesses indicates the existence of several sensitive environmental and socio-economic receptors that could potentially be affected by future mining activities.

4.1.1 Agricultural Land Use

Agriculture is the dominant land use surrounding the proposed mining right area. Large-scale cultivated fields occur immediately north, west, and east of the mining right boundary, with several fields supported by centre-pivot irrigation systems, indicating the availability and utilization of

water resources for intensive agricultural production. The varying colours and textures of the cultivated fields suggest different crop types, growth stages, and cultivation practices occurring throughout the area.

The extensive agricultural infrastructure visible in the surrounding landscape demonstrates the economic significance of farming within the region. Agricultural activities likely include crop cultivation, livestock grazing, irrigation farming, and supporting agricultural enterprises. The presence of productive agricultural land increases the environmental sensitivity of the area, as mining-related impacts such as dust generation, changes in water quality, groundwater impacts, and noise may have direct implications for crop production, livestock management, and rural livelihoods. The agricultural landscape therefore constitutes a valuable economic resource that requires careful consideration during environmental planning and management.

4.1.2 Residential and Socio-Economic Environment

The landscape surrounding the TSMG Mining Right Area contains numerous farmsteads, rural homesteads, agricultural worker residences, and small-scale commercial facilities. These residential receptors are dispersed throughout the area and are connected by a network of local roads and farm access routes. Several structures are visible in close proximity to the mining right area, indicating that numerous people reside or work within the immediate zone of influence of the proposed operation.

Additional socio-economic receptors include rural businesses and recreational facilities such as the Doornkraal Protea Country Venue situated south of the mining right area. Such facilities are particularly sensitive to visual intrusion, increased traffic volumes, dust generation, and noise impacts that may arise during mining activities. The rural character of the landscape contributes significantly to the quality of life, visual amenity, and tourism potential of the area.

4.1.3 Air Quality Environment

The existing air quality within the study area is expected to reflect conditions typical of a rural agricultural environment. Current sources of atmospheric emissions are likely associated primarily with farming activities, including land preparation, ploughing, harvesting, movement of agricultural machinery, operation of irrigation equipment, and vehicle traffic on unpaved roads. Seasonal dust generation is likely to occur during dry winter months when soil moisture is limited and vegetation cover is reduced.

Additional contributions to local air quality conditions may originate from nearby commercial and industrial activities, including operations associated with facilities visible within the broader landscape. Dust emissions from existing excavation areas or historical mining activities observed to the southeast may also influence local ambient air quality. Overall, air quality is expected to be relatively good compared to urban or industrial centres; however, the presence of agricultural crops, residences, businesses, and recreational facilities increases the sensitivity of the receiving environment. Future mining activities would therefore require effective dust suppression and emissions management measures to prevent degradation of existing air quality conditions.

4.1.4 Surface Water Environment

The surface water environment surrounding the mining right area appears to be a significant environmental component. Several water bodies are visible within the broader landscape, including farm dams, irrigation reservoirs, and water storage ponds associated with agricultural operations. These water resources likely serve multiple functions, including irrigation supply, livestock watering, stormwater retention, and emergency water storage.

Particularly notable is the presence of a drainage corridor and areas of denser vegetation to the south and southwest of the mining right area. These features exhibit characteristics consistent with natural drainage systems, seasonal watercourses, riparian habitats, or wetland-associated ecosystems. Such systems play a critical role in the movement, storage, and filtration of water across the landscape and provide important ecological functions.

The observed network of water features highlights the importance of maintaining surface water quality and flow regimes. Mining activities have the potential to influence these systems through increased sedimentation, erosion, accidental contamination, altered runoff patterns, and changes in catchment hydrology. Consequently, water resources within and surrounding the mining right area represent a high-priority environmental consideration.

4.1.5 Groundwater Environment

The extensive agricultural development evident throughout the region strongly suggests a significant dependence on groundwater resources for domestic, agricultural, and commercial purposes. The presence of irrigated farming operations and dispersed farmsteads indicates that boreholes and groundwater abstraction may form an important component of local water supply systems. Groundwater likely supports crop irrigation, livestock watering, domestic consumption, and various agricultural processing activities.

Given the importance of groundwater to surrounding land users, the groundwater environment is considered environmentally and socio-economically sensitive. Potential mining activities would require a detailed hydrogeological assessment to determine groundwater occurrence, flow patterns, recharge characteristics, and potential interactions between mining operations and existing groundwater users. Protection of groundwater quality and quantity would be essential to maintaining the sustainability of agricultural production and rural livelihoods in the area.

4.1.6 Biodiversity and Ecological Environment

Landscape is dominated by agricultural activities. The mining right area and surrounding environment continue to support important biodiversity resources. The proposed mining right area appears to contain a mixture of grassland vegetation, shrubland communities, scattered trees, and areas of secondary natural habitat. These vegetation communities potentially provide habitat for a range of plant and animal species adapted to transformed rural landscapes.

Natural and semi-natural vegetation fragments occurring throughout the area function as ecological refuges and movement corridors between larger habitat patches. These habitat areas are particularly important in landscapes where agricultural transformation has reduced the extent of indigenous vegetation. Connectivity between habitat patches allows for movement of wildlife, maintenance of genetic diversity, and continuation of ecological processes within the landscape.

The area likely supports a variety of terrestrial fauna, including small mammals, reptiles, amphibians, insects, and numerous bird species. Farm dams, drainage lines, and potential wetland habitats may provide breeding and feeding opportunities for aquatic and semi-aquatic species. Bird diversity is expected to be relatively high due to the availability of agricultural habitats, natural vegetation patches, water resources, and open grassland areas. Specialist biodiversity investigations would be required to determine the presence of any protected species, species of conservation concern, or sensitive ecological communities.

4.1.7 Wetland and Aquatic Ecology

The drainage features visible south of the mining right area, together with associated vegetation patterns, suggests the probable occurrence of wetland or wetland-associated ecosystems. Wetlands play a fundamental role in maintaining ecological integrity, regulating hydrological processes, improving water quality, supporting biodiversity, reducing flood risks, and facilitating groundwater recharge.

The ecological condition of these systems cannot be conclusively determined from satellite imagery alone; however, they represent potentially sensitive environmental features. Such habitats often support a higher diversity of flora and fauna than surrounding terrestrial ecosystems and may provide critical breeding, feeding, and refuge areas for numerous species. Potential impacts on wetland and aquatic ecosystems would therefore require detailed assessment and implementation of appropriate mitigation measures to ensure long-term ecological sustainability.

4.1.8 Visual and Landscape Character

The visual character of the area is defined by a rural agricultural landscape comprising cultivated fields, open grasslands, scattered farmsteads, irrigation infrastructure, farm dams, and patches of natural vegetation. The landscape is generally open and expansive, with relatively low levels of existing industrial development. This contributes to a sense of rural character and scenic quality that is valued by local residents, landowners, and visitors.

The proposed mining right area occupies a relatively prominent position near the agricultural activities and may be visible from nearby roads, farm residences, and recreational facilities. Mining infrastructure, excavation activities, stockpiles, and associated vehicle movements have the potential to alter the visual quality of the landscape significantly. Visual impacts should therefore be considered an important component of future environmental assessments.

4.1.9 Overall Environmental Sensitivity

The environmental baseline indicates that the TSMG MR Area is situated within a moderately to highly sensitive rural landscape characterized by productive agricultural land, important water resources, remnant indigenous vegetation, potential wetland systems, groundwater-dependent activities, and dispersed rural communities. While the area has experienced substantial transformation through agricultural development, several environmental features retain significant ecological, hydrological, and socio-economic value. The most prominent environmental sensitivities include agricultural productivity, surface and groundwater resources, biodiversity habitats, drainage systems, air quality receptors, visual resources, and nearby residential land uses. Consequently, any future mining activities would require robust environmental management measures to ensure that the ecological integrity, agricultural sustainability, and environmental quality of the area are maintained throughout the life of the mine and during closure and rehabilitation phases.

4.2 Tailings, process residues, and erosion control

Small tailings or fine residues are generated during on-site processing, they will be treated in tailings or lined settling ponds equipped with seepage collection, controlled decant systems, and progressive closure processes. Very little tailings that will be produced and they will be recycled and used, thus there will be no facility. Sedimentation and runoff control structures will protect watercourses while also allowing for water recycling for dust suppression and operational purposes. Tailings management must correspond to the Global Institute Standard on Tailings Management (GISTM) objectives, which strive for minimal environmental impact. Effective design, monitoring, and contingency planning reduce seepage, dust formation, and downstream contamination, (Figure 3).

4.2.1 Off-site disposal, recycling, and contractor use

Recyclable materials (metals, plastics, and paper) will be separated, sold, or provided to recycling contractors; non-hazardous general waste will be compacted and delivered to designated municipal or commercial disposal sites. Hazardous waste will only be accepted by licensed hazardous waste handlers who have comprehensive waste manifests and chain-of-custody papers. Every outside contractor's permission and compliance with national waste regulations will be examined, Figure 3.

4.2.2 Monitoring, reporting, and rehabilitation

Waste volumes, storage integrity, leak events, and off-site transfers will all be monitored; records will be kept for environmental reporting and regulatory inspections. To restore landforms and lessen long-term erosion and aesthetic effects, progressive restoration will employ recovered vegetation and stockpiled topsoil; closing plans will involve final trash collection, deactivation of temporary facilities, and confirmation that there is no contamination left. Through training, adaptive management, and audits, compliance with industry best practices and national laws will be upheld.

4.2.3 Operation Timeframe

The MR operation will run for thirty (30) years and may be extended for an additional thirty years, for a maximum of sixty years. In order to prevent seepage and guarantee long-term geotechnical integrity, residues must be built with engineered designers, drainage systems, and stable embankments; they must also incorporate water management structures, such as pollution control dams and decant systems; during operation, they must be continuously monitored, inspected, and prepared for emergencies to manage risks of contamination or failure; and following mine closure, they must be rehabilitated through the establishment of vegetation and soil covering. Integration into the surrounding environment, continuous monitoring of surface and groundwater, structural

stability assessments, and legal compliance under the National Water Act and NEMA to guarantee that environmental and community safety requirements are fulfilled forever.

Table 6: Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (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)	REFERENCE WHERE APPLIED
The Constitution of the Republic of South Africa, 1996 Under Section 24 of the Constitution of the Republic of South Africa, 1996 (the Constitution) it is clearly stated that: Everyone has the right to a) an environment that is not harmful to their health or well-being; and b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that – (i) Prevent pollution and ecological degradation; (ii) Promote conservation; and (iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.	Vahlengwe Mining Advisory and Consulting has undertaken scoping process to identify potential impacts associated with the proposed mining activities. As NEMA protects the environment under S24, so mitigation measures recommended will aim to ensure that the potential impacts are effectively managed to acceptable levels to support the rights as enshrined in the Constitution.
National Environmental Management Act, 1998 (Act No. 107 of 1998) and EIA Regulations (as amended in 2017) Section 24 (1)(a) and (b) of NEMA state that:	Activities associated with the proposed mining activities are identified as the Listed Activities in the Listing Notice 2, Activity No. 17 of the NEMA Regulations GN R984 (as amended). As activity no. 17 states that Any

The potential impact on the environment and socio-economic conditions of activities that require authorization or permission by law, and which may significantly affect the environment, must be considered, investigated, and assessed prior to their implementing and reported to the organ of state charged by law with authorizing, permitting, or otherwise allowing the implementation of an activity. The EIA Regulation, 2014 was published under GN R 326 on 07 April 2017 (EIA Regulations) and came into effect on 07 April 2017. Together with the EIA Regulations, the Minister also published GN R 327 (Listing Notice No. 1), GN 325 (Listing Notice No. 2), and GN R 324 (Listing Notice No. 3) in terms of Sections 24(2) and 24D of the NEMA, as amended.	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.
Mineral and Petroleum Resource Development Act, 2002 (Act No. 28 of 2002) The Act makes provision for equitable access to and sustainable development of the nation's mineral and petroleum resources; and provide for matters connected therewith. Mineral and Petroleum Resource Development Act, 2002 (Act No. 28 of 2002): Mineral and Petroleum Resource Development Regulations GNR 527 of 2004;	The mining right project is applied in terms of Section 22 of the MPRDA, 2002 (Act No. 28 of 2002) and the planned activities are according to the scope of the MWP in terms of the Mineral and Petroleum Resource Development Act, 2002 (Act No. 28 of 2002): Mineral and Petroleum Resource Development Regulations GNR 527 of 2004. Section 20 of the MPRDA Act Permission to remove and disposal of minerals.

Regulation 11(1). The mining work programme must contain: - (a) the full particulars of the applicant; (b) a plan contemplated in regulation 2(2), showing the land and mining area to which the application relates; I registered description of the land or area to which the application relates; (d) the details of the identified mineral deposit concerned with regard to the type of mineral or minerals to be mined, its locality, extent, depth, geological structure, mineral content and mineral distribution; I the details of the market for, the market's requirements and pricing in respect of the mineral concerned; (f) the details with regard to the applicable timeframes and scheduling of the various implementation phases of the proposed mining operation, and a technically justified estimate of the period required for the mining of the mineral deposit concerned; (g) a financing plan that must contain – (i) the details and costing of the mining technique, mining technology and production rates applicable to the proposed mining operation	
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(ii) the details and costing of the technological process applicable to the extraction and preparation of the mineral or minerals to comply with market requirements (v) the details regarding other relevant costing, capital expenditure requirements, and expected revenue applicable to the proposed mining operation; (vi) a detailed cash flow forecast and valuation, excluding financing of the proposed mining operation, which forecast must clearly indicate how the applicable regulatory costs will be accommodated therein; (vii) the details regarding the applicant's resources or proposed mechanisms to finance the proposed mining operation, and details regarding the impact of such financing arrangements on the cash flow forecast; and (viii) provisions for the execution of the social and labour plan.	
National Environmental Management: Air Quality Act, 2004 (Act 39 Of 2004) The National Environmental Management: Air Quality Act, 2004 (No. 39 of 2004) (NEM: AQA) governs all aspects of air quality, including pollution prevention, national norms and standards, and the requirement	The mining operation will not be conducting activities that may require the application for an AEL. Regulation 2 of NEMAQA: National Dust Control Regulations GN R827 (01 November 2013) indicates that the purpose of the Act is to prescribe general measures for the control of dust in all areas. Therefore, TSMG will

for an Atmospheric Emissions Licence (AEL) for listed activities that emit pollutants into the atmosphere and have or may have a significant negative impact on the environment. Activities requiring an AEL are listed in GN No. 893 (22 November 2013), which was published in accordance with Section 21(1) ((b) of the NEM: AQA. According to Section 22 of NEM: AQA, no one may engage in a listed activity without an AEL.	be required in terms of Regulation 6 and 7 of the Act to implement measures for controlling dust and conducting ambient air quality monitoring of PM₁₀, respectively.
National Environmental Management: Waste Act, 2008 The National Environmental Management: Waste Act of 2008 (No. 59 of 2008) (NEM: WA) governs all aspects of waste management, with a focus on waste avoidance and minimization. NEM: WA developed a system for categorizing and licensing waste management activities. Listed waste management activities that exceed certain thresholds are subject to an impact assessment and licensing process. Activities in Category A necessitate a Basic Assessment, whereas activities in Category B necessitate a scoping and EIA process.	TSMG has applied for an integrated waste management license for Activity 10 and Activity 11 of GNR 921. There will be activities that trigger a waste management license.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM:BA) The NEM:BA governs the management and conservation of South Africa's biodiversity within the framework established by NEMA. This	As the proposed MR area occupies the virgin land. So, fauna and flora impact assessment will be conducted as part of the EIA study assessment.

Act also governs the protection of species and ecosystems that require national protection, as well as the management of invasive and alien species. The following regulations have been promulgated in accordance with the NEM:BA and are also relevant: • Alien and Invasive Species Lists, 2014 published (GN R.599 in GG 37886 of 1 August 2014); • National Environmental Management: Biodiversity Act, 2004: Threatened and Protected Species Regulations	
National Noise Control Regulations, R.154 of 1992 (the Noise Regulations) promulgated in terms of Section 25 of the Environmental Conservation Act, 1989 (Act 73 of 1989) The National Noise-Control Regulations (GN R154 in Government Gazette No. 13717 dated 10 January 1992) (NCRs) form part of the Environmental Conservation Act and these Regulations apply to external noise. The NCRs differentiates between Disturbing Noise levels (which is objective and scientifically measurable which are generally compared to existing ambient noise level) and Noise Nuisance (which is a subjective measure and is defined as noise that “disturbs or impairs or may disturb or impair the convenience or peace of any person”).	Conventional mechanical and hydraulic mining methods affect the ecological species and residents within and adjacent to the MR area. The EMPr includes measures to control and manage noise levels that should be implemented during mining activities.

Local Authorities use Controlled Areas to identify areas with high noise levels. Restrictions have been set out for development that occurs in these Controlled Areas. These regulations make provision for guidelines pertaining to noise control and measurements. The regulations make reference to the use of the South African National Standards 10103:2008 (SANS) guidelines for the Measurement and Rating of Environmental Noise with Respect to Land Use, Health, and Annoyance and to Speech Communication.	
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) The National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) is the main piece of legislation in South Africa that protects and regulates the management of heritage resources. The Act requires Heritage Resources Agencies, in this case the South African Heritage Resources Agency (SAHRA) and the Limpopo Heritage Resources Authority (LHRA), to be notified of any developments that may exceed certain minimum thresholds as soon as possible.	Since there are residents within the MR area is highly sensitivity and corresponded with screening tool, the Heritage Impact Assessment will be formed as part of the EIA study assessments.
National Water Act, 1998 (Act No.36 of 1998) The National Water Act (Act No. 36 of 1998) (NWA) is the primary regulatory legislation, controlling and managing the use of water	A cohesive water use license application and, where necessary, an application for an exemption to comply with some of the requirements under the GN704 has been submitted to the Department of Water and Sanitation (DWS) for their consideration.

resources as well as the pollution thereof in South Africa. The NWA recognises that the ultimate aim of water resource management is to achieve sustainable use of water for the benefit of all users and that the protection of the quality of water resources is necessary to ensure sustainability of the nation’s water resources in the interests of all water users. The NWA presents strategies to facilitate sound management of water resources, provides for the protection of water resources, and regulates use of water by means of Catchment Management Agencies, Water User Associations, Advisory Committees, and International Water Management. The National Government has overall responsibility for and authority over water resource management, including the equitable allocation and beneficial use of water in the public interest. Further, an industry can only be entitled to use water if the use is permissible under the NWA. The enforcing authority on water users is the Department of Water and Sanitation (DWS).	Protection of water resources Every person in control of a mine or activity must take reasonable measures to- (a) prevent water containing waste or any substance which causes or is likely to cause pollution of a water resource from entering any water resource, either by natural flow or by seepage, and must retain or collect such substance or water containing waste for use, re-use, evaporation or for purification and disposal in terms of the Act; (b) design, modify, locate, construct and maintain all water systems, including residue deposits, in any area so as to prevent the pollution of any water resource through the operation or use thereof and to restrict the possibility of damage to the riparian or in-stream habitat through erosion or sedimentation, or the disturbance of vegetation, or the alteration of flow characteristics; (c) cause effective measures to be taken to minimise the flow of any surface water or floodwater into mine workings, opencast workings, other workings or subterranean caverns, through cracked or fissured formations, subsided ground, sinkholes, outcrop excavations, adits, entrances or any other openings;
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5 Need and desirability of the proposed activities.

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

➤ Need

The need of the proposed mining minerals, including aggregate, concrete sand (silica), building sand (silica), foundry sand (silica), glass sand (silica), general sand, silcrete (silica), silica sand, crusher sand, filling sand, metallurgical silica, diamonds, and manufactured sand from hard rock minerals on Portion 4 of the Farm Doornkraal 420 JR is justified by the sustained and growing demand for construction materials, industrial minerals, and strategic mineral resources within Gauteng Province, the City of Tshwane Metropolitan area, broader South African economy.

Need for Construction and Infrastructure Materials

Pretoria particularly Cullinan region forms part of one of SA's most significant economic and development corridors. Ongoing urban expansion, industrial development, road construction, housing projects, commercial developments, and public infrastructure programmes require substantial quantities of construction materials.

The proposed minerals will contribute directly to the supply of:

- **Aggregate** for concrete production, road construction, railway ballast, drainage systems, and civil engineering projects.
- **Crusher sand and manufactured sand** as alternatives to natural river sand, reducing pressure on increasingly scarce riverine resources.
- **Building sand and filling sand** for residential, commercial, and industrial construction projects.
- **Concrete sand** for the production of ready-mix concrete, precast concrete products, paving blocks, and structural elements.

The availability of these materials from a local source will reduce transportation distances, lower project costs, minimise carbon emissions associated with hauling materials over long distances, and improve security of supply to the regional construction sector.

Need for Silica-Based Minerals

Silica-bearing materials constitute an essential component of numerous industrial and manufacturing processes. The proposed mining area contains silica resources suitable for various end uses, including:

Glass Sand

Glass-grade silica is a critical raw material for:

- Container glass manufacturing;
- Flat glass production;
- Automotive glass;
- Fibreglass products;
- Solar panel glass.

The increasing demand for renewable energy infrastructure and manufacturing industries supports the continued need for quality silica resources.

Foundry Sand

Foundry-grade silica sand is required for:

- Metal casting moulds and cores;
- Automotive component manufacturing;
- Engineering and machinery industries;
- Steel and iron foundries.

As South Africa continues to support local manufacturing and beneficiation initiatives, consistent supplies of foundry-quality silica remain important.

Metallurgical Silica

Metallurgical silica is used in:

- Ferroalloy production;
- Silicon metal manufacturing;
- Chemical industries;
- Refractory products;
- High-technology manufacturing applications.

The mineral therefore contributes to strategic industrial value chains and downstream beneficiation opportunities.

Silcrete and Silica Sand

Silcrete and silica sand have applications in:

- Construction and road-building;
- Cement manufacturing;
- Industrial abrasives;
- Water filtration systems;
- Ceramics and refractory products.

Mining these resources would assist in meeting both local and national industrial demands.

Diamond Resources

Diamonds remain an important mineral commodity within South Africa's mining sector. The Cullinan area is internationally recognised for its diamond-bearing geological formations and long mining history.

The extraction of diamonds from the proposed mining area would:

- Contribute to mineral resource development;
- Support beneficiation and cutting industries;
- Generate export revenue;
- Promote employment opportunities;
- Enhance regional economic growth.

The recovery of diamonds together with associated sand and aggregate products enables optimal utilisation of the mineral resource, reducing wastage and improving the economic viability of the operation.

Sustainable Utilisation of Available Mineral Resources

The proposed mining activity represents the responsible extraction of economically valuable mineral resources that would otherwise remain inaccessible. Development of the resource will ensure:

- Optimal utilisation of the mineral deposit;
- Support for regional economic development objectives;
- Creation of direct and indirect employment opportunities;
- Increased procurement opportunities for local businesses;
- Contribution to municipal, provincial, and national economic growth.

Furthermore, the production of manufactured sand from hard rock resources provides a sustainable substitute for natural sand resources, the availability of which is declining in many regions due to environmental constraints and increasing demand.

Strategic Importance of the Proposed Mine

The location of Portion 4 of Doornkraal 420 JR is advantageous because it lies within reasonable proximity to major markets in Gauteng, including Pretoria, Tshwane, Johannesburg, Ekurhuleni, and surrounding growth centres. Local production of construction and industrial minerals will:

- Ensure a stable supply of raw materials;
- Improve market competitiveness;
- Reduce transportation-related impacts;
- Support infrastructure development initiatives;
- Contribute to long-term economic resilience in the region.

➤ Desirability

The proposed mining of aggregate, concrete sand (silica), building sand (silica), foundry sand (silica), glass sand (silica), general sand, silcrete (silica), silica sand, crusher sand, filling sand, metallurgical silica, diamonds, and manufactured sand from hard rock minerals on Portion 4 of the Farm Doornkraal 420 JR is considered desirable in terms of South Africa's socio-economic development objectives, infrastructure requirements, mineral resource utilisation strategies, and regional economic growth imperatives.

The desirability of the proposed mining operation is assessed with reference to its potential contribution to economic development, employment creation, infrastructure development, mineral beneficiation, sustainable resource utilisation, and the supply of strategically important construction and industrial materials to local, provincial, and national markets.

Contribution to National and Provincial Development Objectives

The proposed mining activity aligns with the objectives of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA), which promotes the optimal exploitation of mineral resources to support economic growth, employment creation, and sustainable development.

The project will:

- Facilitate the responsible development of known mineral resources;
- Promote investment in the mining sector;
- Support industrialisation and beneficiation initiatives;
- Contribute to provincial and national economic growth;
- Enhance the utilisation of mineral assets for public benefit.

The extraction of minerals from the property will ensure that valuable resources are developed in a manner that contributes to South Africa's economic and developmental priorities.

Strategic Importance of Construction Materials

The Gauteng Province remains the economic hub of South Africa and experiences continuous demand for infrastructure, housing, commercial developments, industrial facilities, and transport networks.

The proposed mining operation will supply:

- Aggregate;
- Crusher sand;
- Concrete sand;
- Building sand;
- Filling sand; and
- Manufactured sand.

These materials are fundamental to:

- Road construction and maintenance;
- Housing developments;
- Commercial and industrial buildings;
- Municipal services infrastructure;
- Civil engineering projects;
- Railway and transportation infrastructure.

A local source of these materials is highly desirable as it reduces transportation distances, lowers construction costs, improves reliability of supply, and decreases environmental impacts associated with long-distance haulage.

Desirability of Silica-Based Mineral Resources

The silica-bearing resources occurring on the property have broad applications across numerous industries.

Glass Sand

Glass-grade silica is an essential raw material for:

- Flat glass manufacturing;
- Container glass production;
- Architectural glass;
- Automotive glazing;
- Solar panel manufacturing.

The growing demand for renewable energy technologies, construction materials, and manufactured glass products increases the desirability of securing additional silica resources.

Foundry Sand

Foundry-grade silica is critical for the manufacture of:

- Automotive components;
- Engineering products;
- Machinery parts;
- Iron and steel castings.

The availability of foundry sand supports local manufacturing industries and contributes to downstream mineral beneficiation.

Metallurgical Silica

Metallurgical silica is utilised in:

- Ferroalloy production;
- Silicon metal manufacturing;
- Chemical industries;
- Refractory materials;
- Advanced technology applications.

These industries play an important role in SA's industrial economy, making the development of silica resources strategically desirable.

Silcrete and Silica Sand

Silcrete and silica sand are used extensively in:

- Construction activities;
- Specialist industrial applications;
- Water filtration systems;
- Refractory products;
- Ceramics manufacturing.

The presence of these materials enhances the strategic value of the proposed mining operation.

Desirability of Diamond Recovery

The Cullinan area is internationally recognised as one of South Africa's most historically significant diamond-producing regions. The recovery of diamonds from the proposed mining area is desirable due to the following benefits:

- Generation of foreign exchange earnings;
- Creation of employment opportunities;
- Support for local beneficiation industries;
- Contribution to government revenue through taxes and royalties;
- Reinforcement of South Africa's position within the global diamond industry.

The extraction of diamonds alongside construction and silica minerals promotes comprehensive utilisation of the available mineral resource and improves overall resource efficiency.

Economic Development and Employment Benefits

The proposed mining operation is expected to contribute significantly to local and regional economic development through:

Direct Employment

The project may generate employment opportunities during:

- Site establishment;
- Mining operations;
- Mineral processing activities;
- Maintenance and support services.
- Rehabilitation and decommission

Indirect Employment

Additional economic opportunities are likely to arise through:

- Transport and logistics services;
- Equipment supply and maintenance;
- Contracting services;
- Fuel suppliers;
- Security services;
- Professional consulting services.

The creation of sustainable employment opportunities is particularly desirable given the ongoing need to stimulate economic growth and reduce unemployment within the broader Tshwane and Cullinan regions.

Promotion of Local Economic Development

The project has the potential to stimulate local economic development through:

- Procurement from local suppliers and service providers;
- Development of small and medium-sized enterprises;
- Skills development and training opportunities;
- Increased economic activity within surrounding communities.

The circulation of project expenditure within the local economy can contribute to improved socio-economic conditions and increased economic resilience.

Sustainable Use of Mineral Resources

The proposed mining operation represents the productive utilisation of an identified mineral resource that would otherwise remain undeveloped.

The desirability of the project is further strengthened by:

- Efficient extraction of multiple mineral commodities from a single resource area;
- Maximisation of resource recovery;
- Reduction of wastage through co-production of minerals;
- Use of hard-rock material to produce manufactured sand as an alternative to natural sand resources.

The production of manufactured sand is particularly desirable because it reduces pressure on environmentally sensitive river and alluvial sand sources.

Contribution to Infrastructure and Service Delivery

Government infrastructure programmes require substantial quantities of aggregate and sand products for:

- Roads and bridges;
- Water infrastructure;
- Schools and public facilities;
- Housing developments;
- Municipal infrastructure upgrades.

The proposed operation would contribute to ensuring an adequate and reliable supply of these materials, thereby supporting public infrastructure delivery and economic growth objectives.

6 Geological exploration undertaken on the proposed mining area

The geological potential of the mining right area was identified and investigated prior to TSMG's acquisition of the mining right. During the period when the mining right was held by Arman, a programme of geological exploration and evaluation was undertaken to determine the presence, extent, quality, and economic viability of mineral resource. These investigations typically included desktop geological studies, geological mapping, prospecting activities, drilling programmes, sampling, laboratory analyses, and resource estimation, before the MPRDA was enforced. The information generated through these exploration activities formed the basis for the granting of the mining right under the applicable legislation at the time.

Although Arman Aslanian was granted the mining right, mining operations never commenced and no commercial extraction took place until the right expired under the previous regulatory framework. As a result, the mineral resource remained undeveloped despite the knowledge and geological information that had already been established through earlier exploration work. The exploration data collected during Arman's tenure provided valuable insight into the geology, mineralisation characteristics, resource distribution, and mining potential of the area.

Subsequently, TSMG acquired the mining right and associated geological information after the expiry of the original right. The acquisition enabled TSMG to build on the existing body of geological knowledge rather than initiating exploration in a previously unexplored area. Any additional geological investigations undertaken by TSMG have therefore served to verify, update, refine, and expand the historical exploration results to support current mine planning, resource evaluation, and regulatory requirements. Consequently, the proposed mining development is founded on an established

exploration history and a known mineral resource that was initially identified and assessed during the period when the mining right was held by Arman Aslanian.

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

The preferred site was chosen primarily because of its advantageous geological qualities, particularly the results proven by Arman Aslanian and geological formations that make it a viable and resource-efficient location for large-scale collection and future mining operations. The site also benefits from limited incompatible land uses, manageable environmental sensitivities, and existing access routes, which reduce the requirement for major new infrastructure. These elements work together to reduce environmental disturbance, lower operational costs, and increase the feasibility of carrying out the proposed activities at this location.

The chosen activity is appropriate for the conventional open-cast mining, followed by potential mining, since it enables reliable measurement of mineral quality and quantity, as well as beneficiation characteristics, all of which are required for right decision-making prior to large-scale extraction. The recommended technological alternative increases the project's desirability by utilising modern, low-emission, energy-efficient equipment and processes that minimize soil disturbance, dust generation, and water use during extraction and material processing.

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

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

8.1 Details of the development footprint alternatives considered.

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

For the planned mining operations, no alternative development footprint was taken into consideration. The location and size of the commercially viable sand and gravel deposit, which is fixed and cannot be moved, limit the development footprint. By eliminating sensitive environmental characteristics, such as drainage lines, wetlands, and places of ecological value, whenever possible, the planned footprint was chosen to maximize resource recovery while minimizing environmental impacts. Additionally, the layout has been planned to minimize the disturbance footprint, make use of existing access routes if feasible, and enable incremental rehabilitation throughout the course of my life. The suggested development footprint is therefore thought to be the project's most practical and environmentally acceptable choice.

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

Although the mineral resource is location-specific and cannot be moved off-site, the EAP and specialist team assessed feasible internal layout and sequencing alternatives to reduce environmental harm. The preferred layout was selected because it avoids or minimises disturbance.

8.3 The type of activity to be undertaken.

Run-of-mine (ROM) activities are expected to include pre-construction and site preparation, conventional mechanical and hydraulic mining methods, loading and hauling, ore processing and handling, waste and tailings, management support infrastructure, environmental management activities, closure and rehabilitation (long-term).

The proposed activity entails mining the minerals utilizing opencast methods Figure 2. The mining method will involve excavating and removing an indefinite amount of material to process and confirm resource quality, grade variation, and metallurgical properties. This activity is critical in establishing the economic feasibility of future large-scale mining operations. The open-cast approach will be used during the bulk sampling process.

In addition to bulk sampling, which will initiate the opencast approach, the activity will include supporting operational components such as building temporary new access roads, deploying mobile equipment, implementing stormwater controls, and executing progressive rehabilitation of damaged regions. The activity is limited to the project footprint and is intended to minimize environmental disruption while providing vital technical data for mine design development. All activities will follow NEMA's management in environment principles, the requirements of the EIA Regulations, and the MPRDA's mandate to guarantee the orderly, efficient, as well as sustainable exploitation of mineral resources.

The provides the opportunity for better sustainable resource management, gradual development of infrastructure, lower risks, and more versatile financial planning. Usually, this entails beginning with exploration as well as feasibility analyses, moving into a pilot phase to test procedures, improving operations as systems become effective, scaling upward to full manufacturing, and finally ceasing operations with land rehabilitation, making sure the project continues to be sustainable and adaptable as time goes on.

8.4 The design or layout of the activity.

The layout plan is defined by the ThMR site's current position and the mitigation of the area.

8.5 Technology to Be Used in the Activity

Overview. The operation will use contemporary, established, and appropriate technologies for sustainable to safely and efficiently extract minerals utilising the opencast mining technique. The technologies chosen are focused on reducing the environmental imprint, conserving water and energy, regulating dust and noise emissions, and promoting progressive rehabilitation over the project's duration. Wherever possible, the technologies and equipment will be modular, movable, and easily relocated to minimise permanent surface damage and allow for speedy demobilisation and site restoration at the end of each phase of operation.

Opencast Extraction Technologies. The principal mining method will use hydraulic excavators, front-end loaders, articulated dump trucks, and dozers intended for selectively mining ore horizons. conventional mechanical and hydraulic mining methods can be used in competent rock zones, with electronic initiation systems to increase precision, eliminate fly rock, and minimise vibration impacts on the surrounding environment. Machine navigation systems with GPS capability will provide correct bench development, enhance mineral waste discrimination, and minimized unnecessary disruption of the surrounding environment.

Dust, Water, and Noise Management Technologies. Dust suppression will be accomplished with water carts equipped with adjustable nozzles, supplemented by chemical dust suppressants on haul routes as needed. Noise-reducing technology, real-time environmental monitors (dust, noise, and weather stations), and speed-controlled haul routes will all help to mitigate operational consequences. Drains, berms, silt traps, and lined sumps will absorb sediment-laden runoff for regulated reuse in dust suppression, thus reducing water use.

Materials Handling and Stockpile Management. Mobile crushing as well as screening devices can be used to size large volumes of materials for analysis. Stockpiles will be put on prepared, compacted pads, with stormwater trenches and sediment controls in place to minimize downstream impacts. Short-distance transfers will be made using front-end loaders and haul trucks, ensuring efficient material movement with minimum spillage and a danger of contamination.

Rehabilitation and Environmental Protection Technologies. Progressive and sustainable rehabilitation will be aided by soil management tools including tracked dozers for shaping as well as ripping compacted sections, mulching equipment, and hydroseeding units where vegetation coverage is necessary because the area is a natural undisturbed land. Environmental monitoring will include

drone footage for tracking landscape alterations, and handheld devices for documenting biodiversity and management of heritage compliance.

Energy and Emissions Efficiency. The primary focus will be on using low-emission diesel equipment, hybrid-equipped machinery, and solar-powered systems for illumination, security, and minor on-site amenities. These solutions cut greenhouse gas emissions and lessen the dependency on diesel generators.

8.6 The operational aspects of the activity; and

The operation will use a conventional open-cast mining to minimise all over environmental disturbance and proper rehabilitation to ensure safety, sustainability, and regulatory compliance throughout the project's duration. However, any optional action required for a specific reason shall be carried out sustainably.

9 The Option of Not Implementing the Activity

No alternative site was considered for this project because the proposed location uniquely meets all operational, environmental, and logistical requirements. The site contains the specific geological resources necessary for the planned activity and is situated within a region designated for such development. Its proximity to existing infrastructure and minimal need for additional land transformation further support its selection. Given these factors, there is no viable alternative that offers the same level of suitability, efficiency, and compliance with planning frameworks.

10 Details of the Public Participation Process (PPP) Followed

PPP describes the process of consulting and engagement with stakeholders and interested and affected parties (I&APs), which includes public gatherings and where it is requested to conduct one-on-one discussions to ensure effective engagement. Whether or not they attended public meetings, the impacted parties must be specifically consulted. (Information provided to affected parties must include enough detail about the anticipated operation to allow them to assess the impact the operations will have on them or the usage of their land).

10.1 Public Participation Processes

In accordance with Chapter 6 of the Environmental Impact Assessment Regulations, 2014 (as amended), promulgated under the National Environmental Management Act (NEMA), particularly Regulations 40 and 41, the public participation process is intended to provide Interested and Affected Parties (I&APs), stakeholders, and relevant authorities with a reasonable opportunity to obtain information about the proposed development, raise concerns, and contribute meaningfully to the

environmental assessment and decision-making process. Following these statutory requirements and recognised best-practice principles, it is critical to ensure that project documentation is made readily and conspicuously available to all stakeholders and I&APs who may be affected by or have an interest in the project. The materials listed below were prepared and distributed to stakeholders, including all identified I&APs, and the various public participation process (PPP) materials utilised during the EIA process are included as appendices to this report.

10.2 Newspaper advertisements:

A newspaper advertisement was published in the Citizens newspaper advert on the **27th of July 2026**. Publication was intended to conspicuously inform all I&APs residing in the surrounding communities very closer to the proposed area within the Magisterial District of Cullinan. The advert contained the information about TSMGs' intention to mine aggregate, concrete sand (silica), building sand (silica), foundry (silica), glass sand (silica), sand (general), silcrete (silica), silica sand (silica), crusher (silica), filing sand, metallurgical (silica), diamond (general), and sand manufactured from the hard rock minerals in respect of Portion 4 of the Doornkraal 420 JR, in the Magisterial District of Cullinan.

I&APs were informed and allowed to send any comments or concerns that they might have regarding the proposed project by contacting the EAP via email through the provided comments request form or by requesting additional information and the telephone. The EAP details were included in the advert, Background Information Document (BID) as distributed, and site notice. (attached as **Appendix** for ease of reference).

10.3 Background Information Document (BID):

The BID (**Appendix**) was distributed and presented the important information regarding the following:

- Project description of the proposed MR area.
- The EIA and the PPP will be undertaken in support of the MR process and the relevant contact details.
- Details about how stakeholders could register as an Interested and Affected Party (I&AP) and be kept informed about the project developments; and
- The public review and comment period for the draft Environmental Impact Assessment (EIA).

10.4 I&APs Registration Form:

A registration form was distributed to the community as it was incorporated into the BID for the registration of the I&APs (attached as **Appendix** for ease of reference).

10.5 Site notice:

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

10.6 Public meeting:

Public and one on one engagement will be facilitating discussions on the Draft SR, seeking comments, issues, concerns, and input from Interested and Affected Parties (I&APs). Public meeting will be facilitated by community leaders and suggest the date is 18th August 2026 which will be communicated to the I&APs.

11 The environmental attributes associated with the alternatives.

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

11.1 Baseline Environment

11.1.1 Type of environment affected by the proposed activity.

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

11.1.1.1 Regional Setting

The proposed mining area is situated under City of Tshwane municipality Figure 3 and within a region characterised by a combination of various uses but dominated by agricultural activities, few mining-related developments, natural vegetation, and dispersed settlements. The surrounding area is influenced by existing transportation networks, regional economic activities, and associated infrastructure that support both local communities and industrial operations. The region forms part of a broader socio-economic landscape where mining and agriculture contribute significantly to employment opportunities and economic development.

From an environmental perspective, the area is characterised by gentle topography, climate, drainage systems, soils, and biodiversity features, which collectively influence land capability and ecological functioning. The regional setting is further defined by the presence of sensitive environmental receptors, including water resources, ecological habitats, and neighbouring communities that may be affected by mining activities. Understanding the regional context is essential for assessing the potential environmental and socio-economic implications of the proposed project and for ensuring that the development is aligned with regional planning frameworks, environmental management objectives, and sustainable development principles.

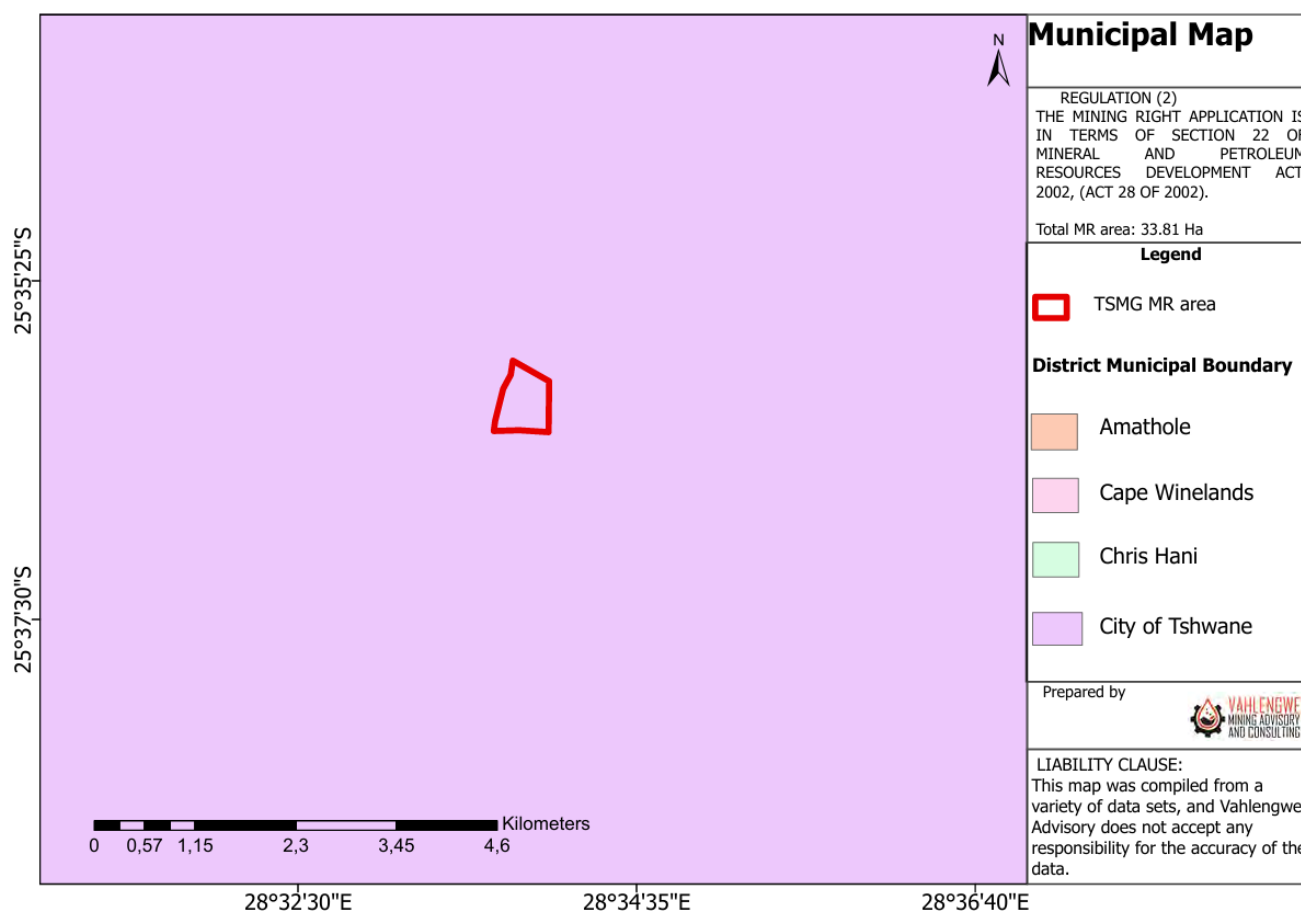


Figure 4: Municipal boundaries around the proposed MR

The aerial image shows the TSMG MR area outlined in red, covering a largely undeveloped tract of land surrounded by agricultural activities and associated infrastructure. The site is characterised by predominantly open grassland and sparsely vegetated areas, with evidence of historical disturbance including access tracks, old excavation areas, and scattered structures within the central and southern portions of the property. Cultivated agricultural fields are located along the northern, eastern, and north-western boundaries, while a major road corridor is visible immediately south-east of the mining right area, providing existing access to the site. The relatively flat topography and current land use suggest that the area has been subject to previous human activities but remains largely undeveloped in its current state.

A notable environmental feature of the site is the presence of a river system running along the western boundary of the mining right area, indicated by the light blue line. The river is associated with a riparian vegetation corridor that is visibly denser than the surrounding grassland and agricultural fields. Several dams or water storage features are present both within and adjacent to the mining right area, as indicated by the cyan polygons. Two large dams are located immediately west of the site, while smaller water features occur within the central portion of the mining right area. The proximity of these water

resources highlights the need for careful management of surface water, stormwater runoff, sediment control, and water quality protection during any future mining activities.

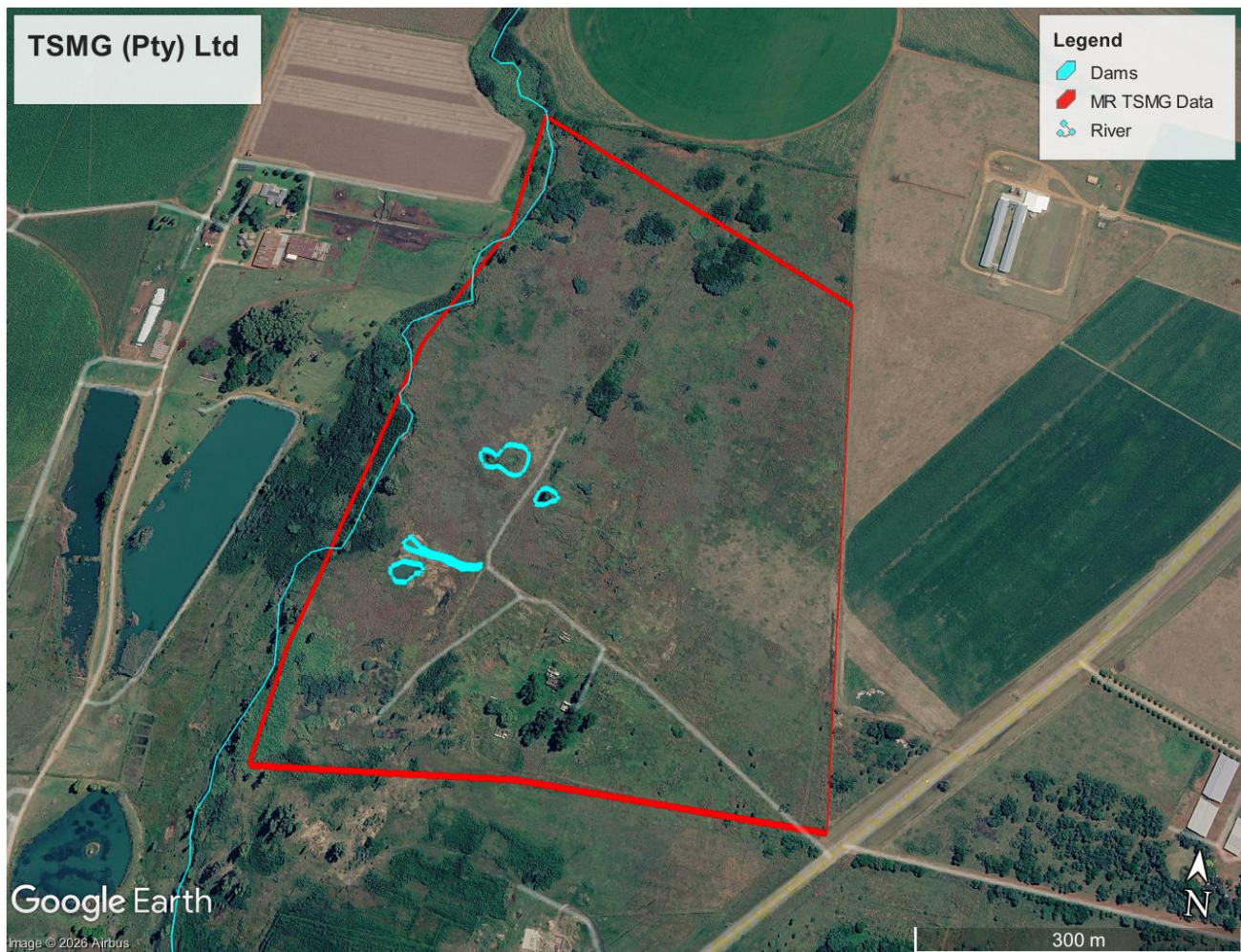


Figure 5: Demonstrates the watercourses within the MR area

The regional setting reflects a mixed agricultural and rural landscape where environmental sensitivity is closely linked to water resources and associated habitats. The river and dam systems may provide ecological functions, including habitat connectivity, groundwater recharge, and support for local biodiversity. Given the location of the watercourse along the western boundary and the presence of internal water features, any proposed mining development would need to consider appropriate buffer zones, drainage management measures, and compliance with water resource protection requirements. The surrounding agricultural land uses and nearby infrastructure further indicate the importance of minimising environmental impacts while ensuring compatibility with existing land uses in the area. Thus, mining will not affect or interfere with the river, but more than 50-meter buffer will be applied.

11.1.1.2 Climate

The climate graph for Cullinan illustrates a distinct summer rainfall pattern, with precipitation concentrated between October and March and significantly reduced during the winter months. The

wettest months are December (approximately 124 mm) and January (approximately 122 mm), while rainfall declines steadily from March and reaches a minimum in July (approximately 4 mm). This seasonal distribution is characteristic of the summer-rainfall regions of South Africa and indicates that surface water availability, vegetation growth, and groundwater recharge are likely to be greatest during the summer months. Conversely, the dry winter period may increase the susceptibility of exposed soils to wind erosion and dust generation.

The temperature data indicate warm to hot summers and cool winters. Mean daily maximum temperatures range from approximately 19°C in July to 27°C during January, February, October, and December. Mean daily minimum temperatures decrease from about 17°C in January and February to a winter low of approximately 5°C in June and July before increasing again towards summer. The relatively moderate annual temperature range reflects a temperate inland climate influenced by the area's elevation of approximately 1,449 m above sea level. Frost conditions are more likely during winter due to the low minimum temperatures, which may influence vegetation dynamics and agricultural activities in the region.

From an environmental and mining perspective, the climatic regime has important implications for project planning and management. Higher rainfall during the summer months may increase the potential for stormwater runoff, soil erosion, sediment transport, and flooding risks, requiring effective stormwater management measures. The dry winter period, characterised by low rainfall and cool temperatures, may increase dust generation from exposed mining surfaces, haul roads, and stockpiles, necessitating dust suppression measures. Understanding these seasonal climatic patterns is essential for designing appropriate environmental management strategies, scheduling operational activities, and mitigating potential impacts associated with the proposed mining operation.

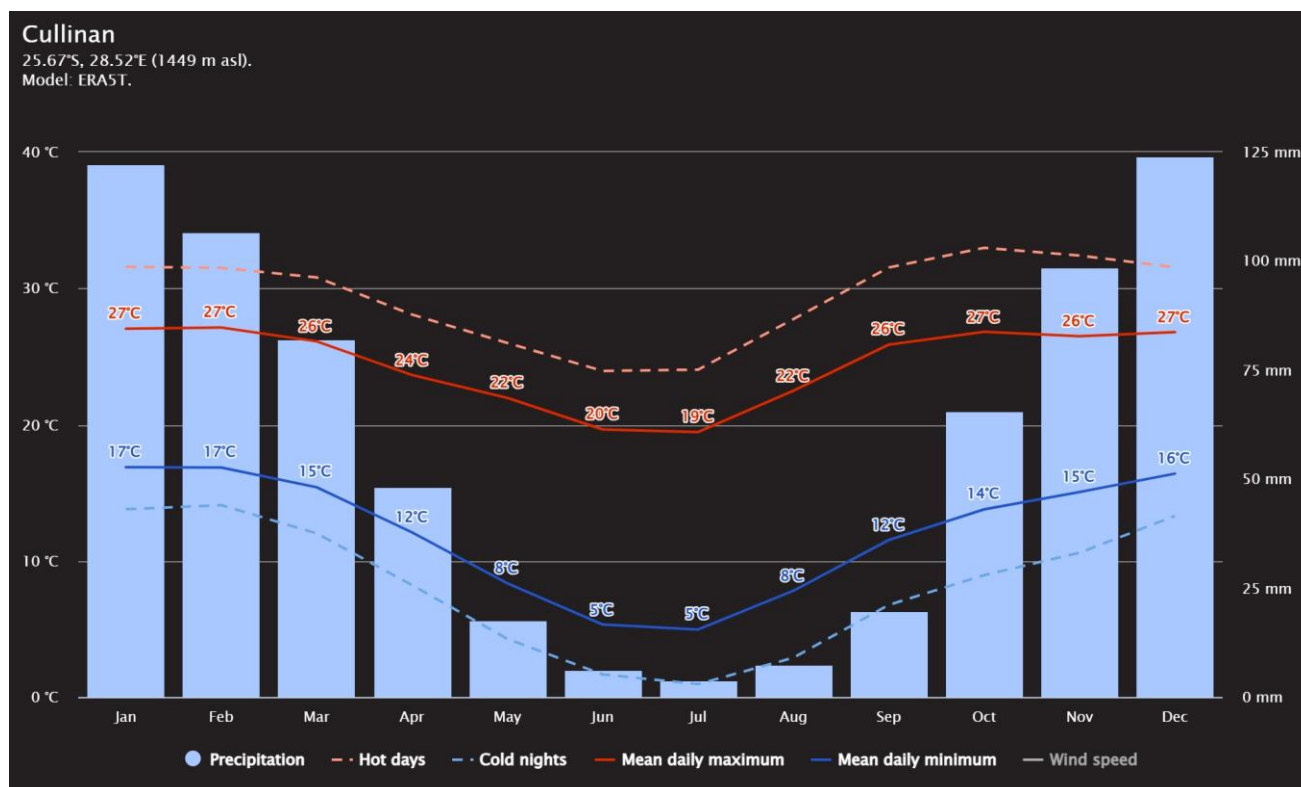


Figure 6: Climatic conditions of Cullinan in Gauteng (<https://meteoblue.com>)

11.1.1.3 Wind Direction

The primary wind directions as well as wind speed frequencies encountered in the area are indicated by the wind rose for Cullinan. According to the statistics, the most common wind direction is north-northeast (NNE), with secondary predominant winds coming from the northeast (NE), east-southeast (ESE), alongside west-northwest (WNW) sectors. These wind directions are predominant, indicating that air masses along with airborne particulates produced in the area are most likely to travel along these directional pathways. Receptors situated downwind of these predominant wind directions should therefore be taken into consideration for any operations that have the potential to produce dust or pollutants.

The majority of observed wind speeds lie between 5 and 10 km/h and 10 to 20 km/h, suggesting generally gentle wind conditions all year round. While wind speeds above 30 km/h are uncommon, those over 20 km/h are less common. The prevalence of moderate wind speeds indicates that under normal circumstances, airborne dust dispersion is likely to occur, especially during the dry winter months when soil moisture levels are low as well as vegetation cover is diminished. However, the frequency of extreme dust formation and transport episodes may be decreased due to the comparatively rare occurrence of high wind speed events.

The wind regime is a crucial factor for the planned mining activity from the standpoint of environmental management. The movement of dust, vehicle emissions, and other airborne pollutants produced by mining operations may be affected by dominant winds from the NNE, NE, as well as ESE sectors. To minimize effects on nearby agricultural properties, adjacent land users, and sensitive environmental receptors, efficient dust suppression measures such as watering haul roads, managing exposed surfaces, and gradually rehabilitating disturbed areas will be required. Along the mine's life, environmental monitoring programs and mitigation strategies should be designed with the wind characteristics of the area in mind.

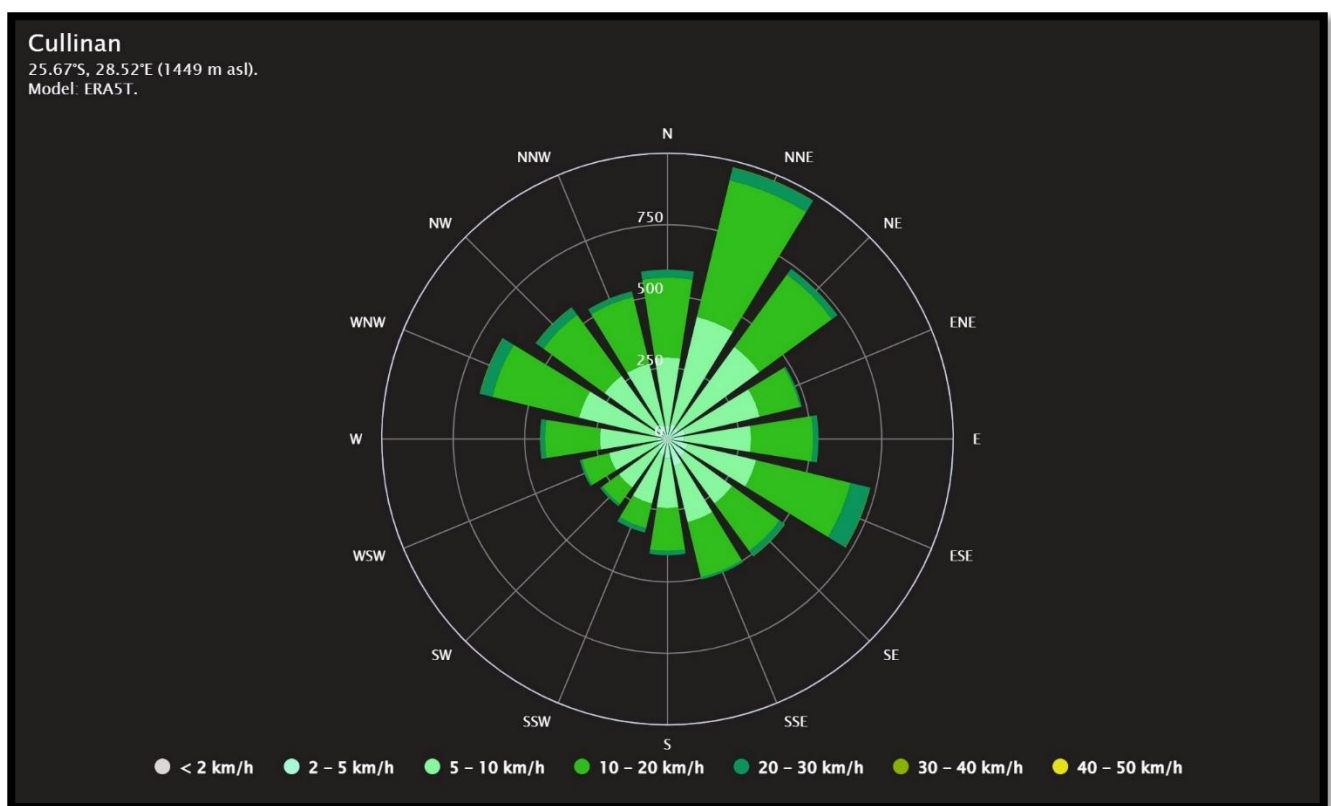


Figure 7: Wind Rose for Cullinan in Gauteng (<https://www.meteoblue.com>)

11.1.1.4 Topography

The geography of the TSMG mining right area appears to be mostly flat to gently undulating based on the aerial images; there are no noticeable ridges, steep slopes, or notable elevation variations throughout the site. The area is typical of the comparatively muted topography found in parts of the Highveld region, where wide, gently sloping slopes predominate. A river corridor that occupies a slightly lower-lying area of the landscape defines the mining right's western boundary. The riparian vegetation along the stream is denser than in the nearby grassland areas, which is indicative of this.

Surface drainage seems to flow in the direction of this river system, suggesting that the river is probably the main drainage feature in the nearby area and the local geographical low. Shallow depressions where surface water naturally collects are further suggested by the existence of many ponds or minor dams both inside and outside the site.

Open grassland with a comparatively consistent surface profile makes up most of the mining right area's eastern and central regions. Large, continuous cultivation blocks, which usually occur on ground with little slope and favourable topographical conditions, can also be seen in the agricultural fields that surround the site. The notion of a relatively flat environment is further supported by the access roads that currently traverse the property, which seem to follow easy grades and do not require extensive cut-and-fill earthworks.

The comparatively level terrain is beneficial from a mining standpoint since it will probably lessen the need for site preparation, make it easier for vehicles to move around, and simplify stormwater management infrastructure. Stormwater management techniques, however, will be necessary to avoid erosion, sediment transfer, and possible effects on the nearby river and related aquatic habitats due to the mild slope towards the western drainage line. The location can be characterized as a low-relief landscape with localized depressions connected to wetland features and dams, as well as slight westward drainage into the river system.

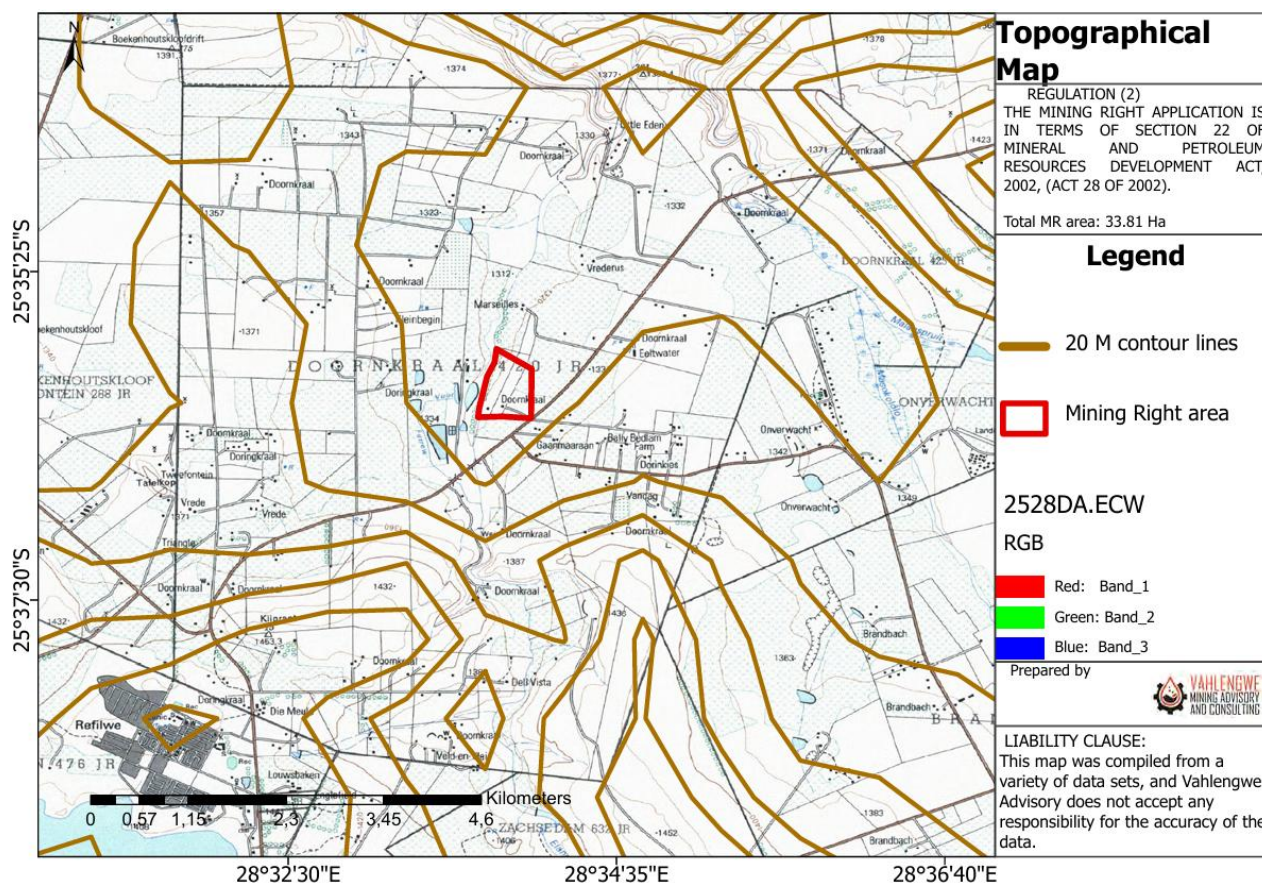


Figure 8: Topographical map of the MR in Cullinan

11.1.1.5 Regional Geology

The Wilge River Formation, which serves as the primary host rock and underlies most of the proposed mining right area, dominates the geological setting. Within this formation, there are several irregularly shaped diabase intrusions, especially in the eastern and central regions, which suggest emplacement along underlying zones of structural weakness. There are further geological units to the northwest, east, and south, which show a geologically varied environment with unique lithological connections.

The region is structurally complicated, with many faults and fractures that primarily trend northwest–southeast, northeast–southwest, and north–south. These intersecting structural elements suggest several stages of tectonic deformation and are probably going to have an impact on slope stability, groundwater migration, and the properties of rock masses. Measurements of bedding show generally mild to moderate dips, however locally steeper orientations are found next to important structural elements.

The Wilge River Formation makes up most of the proposed mining right area, which is near documented fault zones and diabase intrusions. Therefore, differences in rock capability, the existence of structurally weakened zones, and possible groundwater channels connected to cracks should all be taken into consideration during mining operations. In general, geology depicts a relatively complex

environment that will necessitate in-depth geological and geotechnical studies to enable successful environmental management, safe mine design, and successful resource extraction.

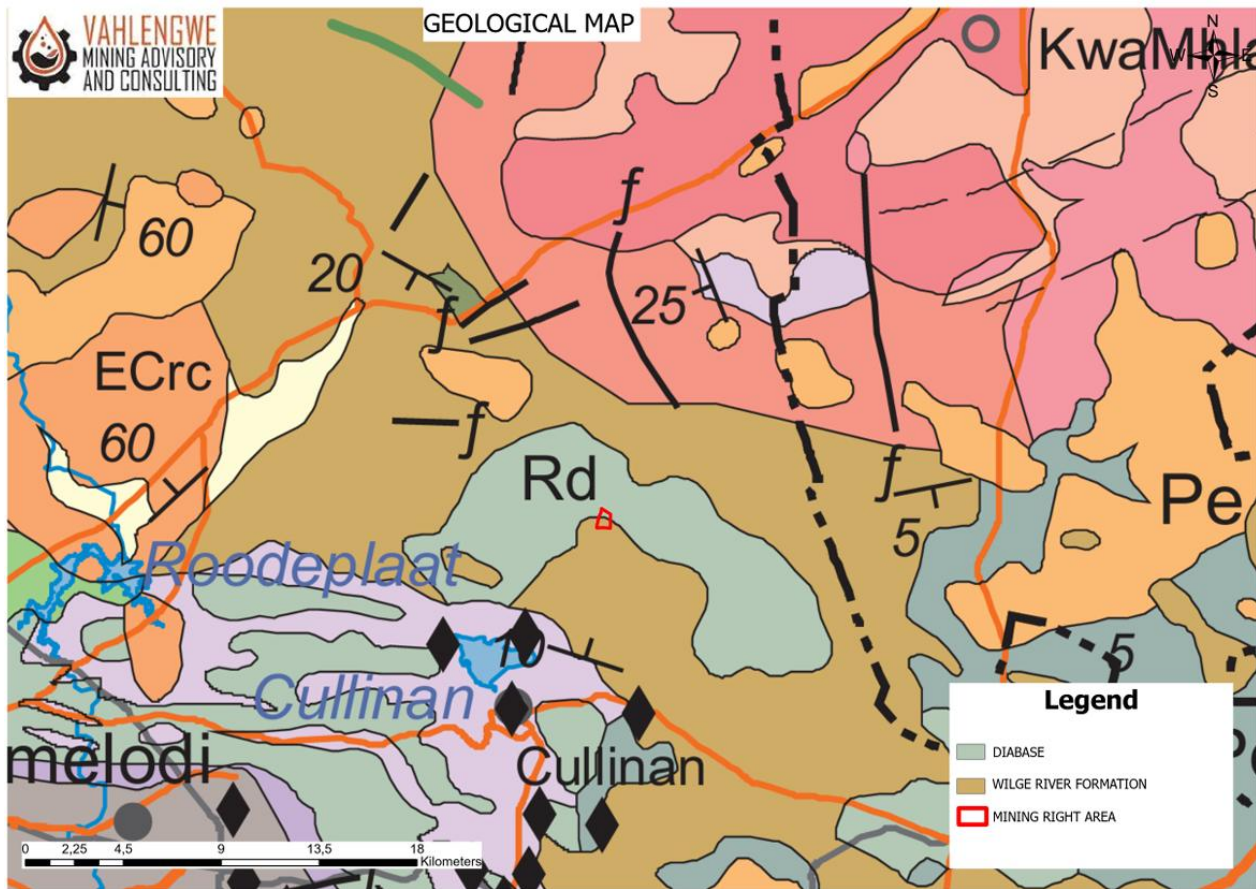


Figure 9: Geological map of the MR in Cullinan

• Hydrology Analysis

Surface water resources are found close and into the proposed mining right area because it is located next to a river that flows north-south along its western boundary. The river is a part of the regional drainage network and is a sensitive hydrologic feature that may be vulnerable to changes in runoff, erosion, sedimentation, as well as water quality if it is insufficiently protected during mining activities, even though there are no mapped natural wetlands within the mining right area itself. To the west and southwest of the proposed mining right area are a number of wetlands listed by the NFEPA, including both natural and manmade wetlands. These wetlands offer significant ecological services such flood attenuation, water storage, groundwater recharge, and habitat provision. They also seem to be hydrologically connected to the nearby river system. The risk of direct effects is decreased when wetlands are absent from the mining footprint, but indirect effects through changed drainage patterns or sediment transport are still a possibility.

The Environmental Management Programme (EMPr) and mine design should include suitable mitigation measures due to the river's vicinity and the nearby wetlands. These should include keeping sufficient buffer zones along the river, controlling erosion and silt, controlling runoff to avoid pollution, and keeping an eye on the quality of surface water throughout the course of the project. Potential effects on the nearby hydrological environment can be successfully reduced by putting these precautions into practice.

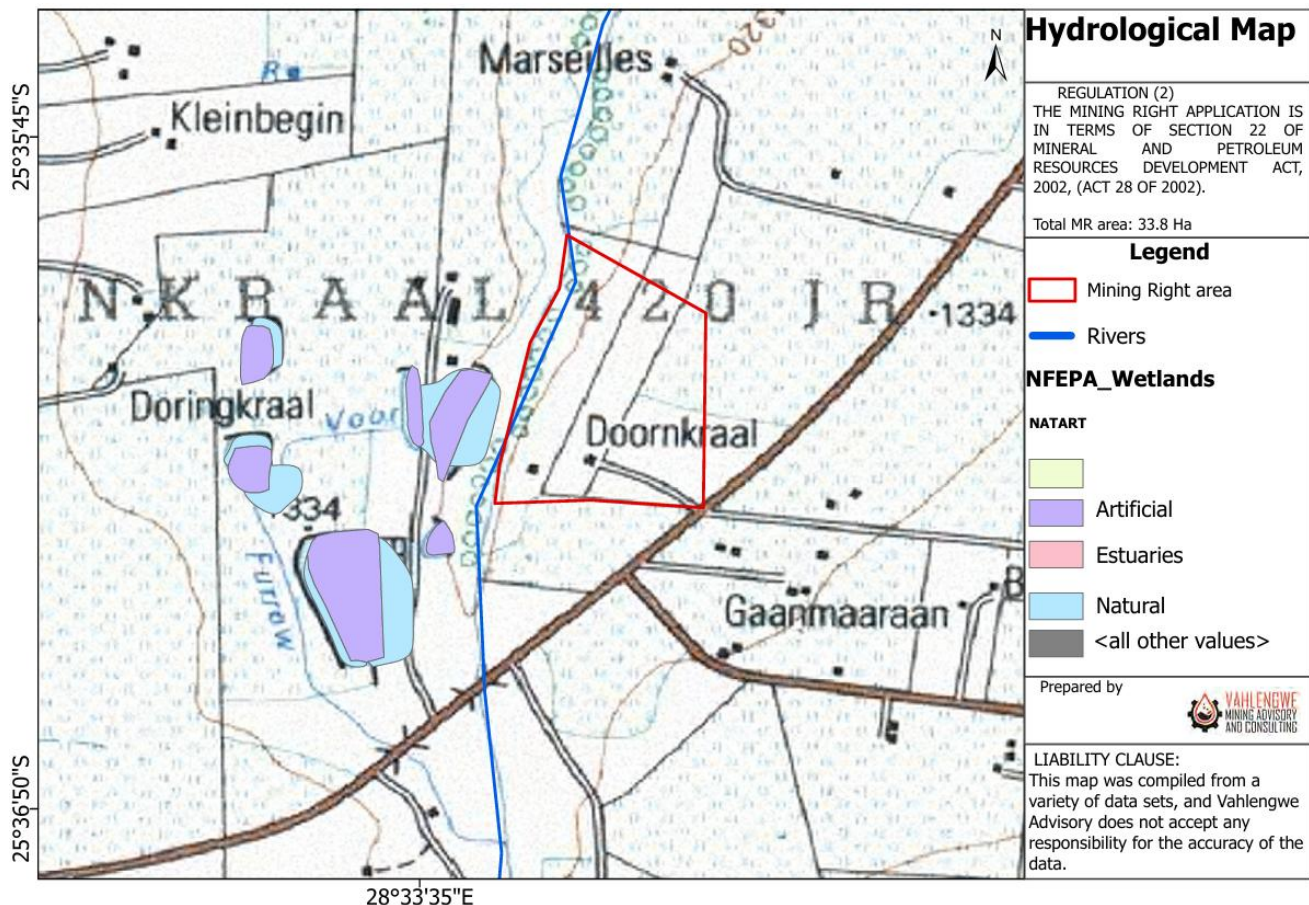


Figure 10: Hydrological Map shows different types of wetlands within or around the MR area

Biodiversity:

➤ Biomes

The light purple tint on the map indicates that the proposed mining right area is completely inside the Savanna biome. The suggested activities are limited to a single biome type because the mining footprint does not overlap with any other biome.

To the south of the planned mining region is a grassland biome, which is depicted in light green. The Grassland biome does not cross the mining right area, although being very close to the site; the two biome types are clearly distinguished from one another. The proposed mining footprint is surrounded by no other biomes.

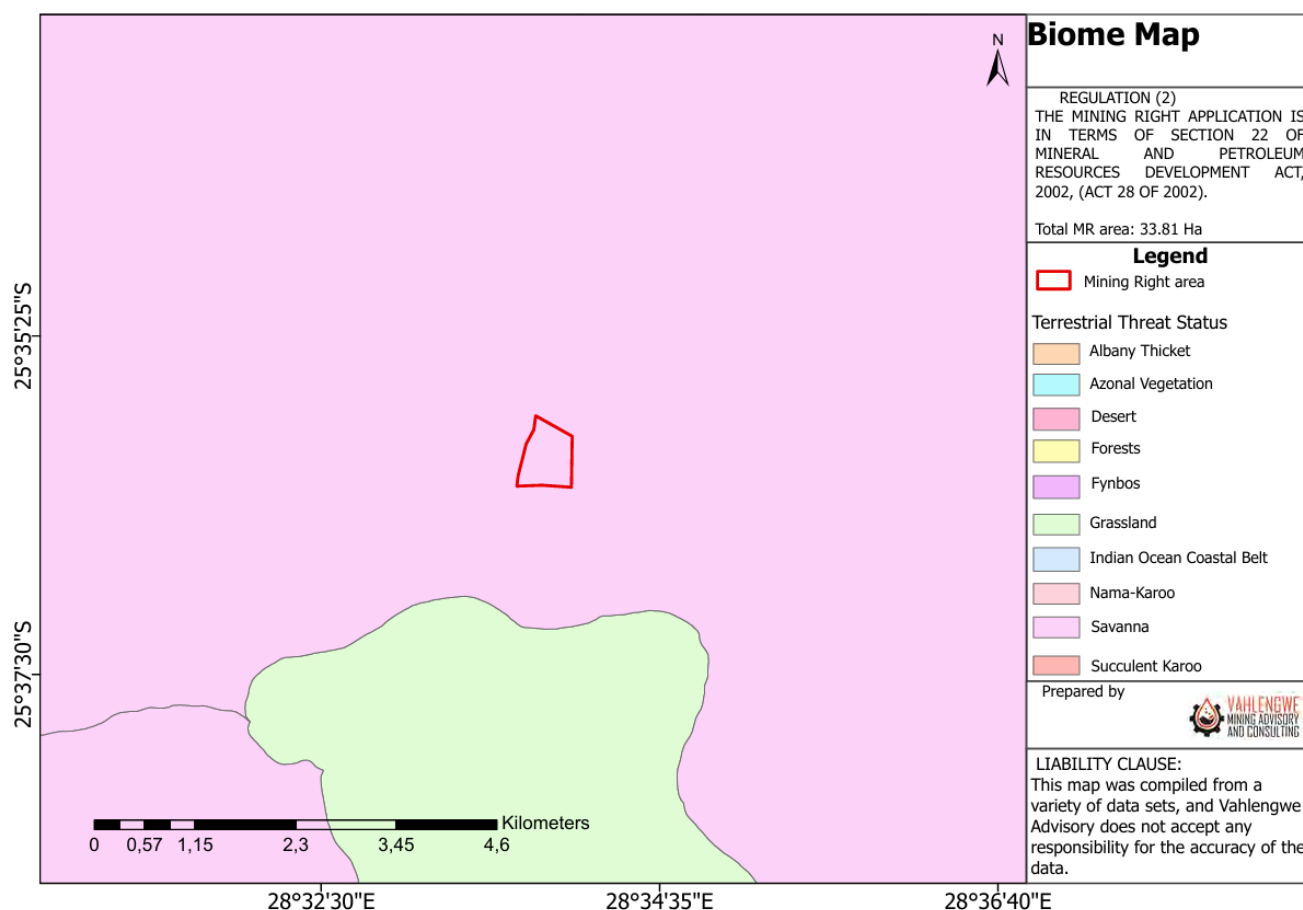


Figure 11: Biomes show different types of biomes within or around the MR area

➤ Bioregions Analysis

The Dry Highveld Grassland Bioregion completely encompasses the proposed MR area; no other bioregions connect or occur nearby. This suggests that the highveld grassland vegetation and related terrestrial ecosystems dominate the project area's comparatively homogeneous natural environment.

Numerous plant and animal species that are suited to semi-arid grassland habitats can be found in the Dry Highveld Grassland Bioregion, which also supports a wide range of native grass species. Prior to development, site-specific ecological features, such as sensitive vegetation, protected species, or ecological corridors, should be confirmed through thorough field studies, even when the map shows that the mining right area lies within a single bioregion.

Environmental management should concentrate on minimizing vegetation clearing, avoiding fragmentation of habitat, invasive alien plant species, and implementing progressive rehabilitation using native grassland species because the proposed mining operations will take place entirely within the Dry Highveld Grassland Bioregion. These actions will aid in the site's restoration after mining operations and preserve natural functioning.

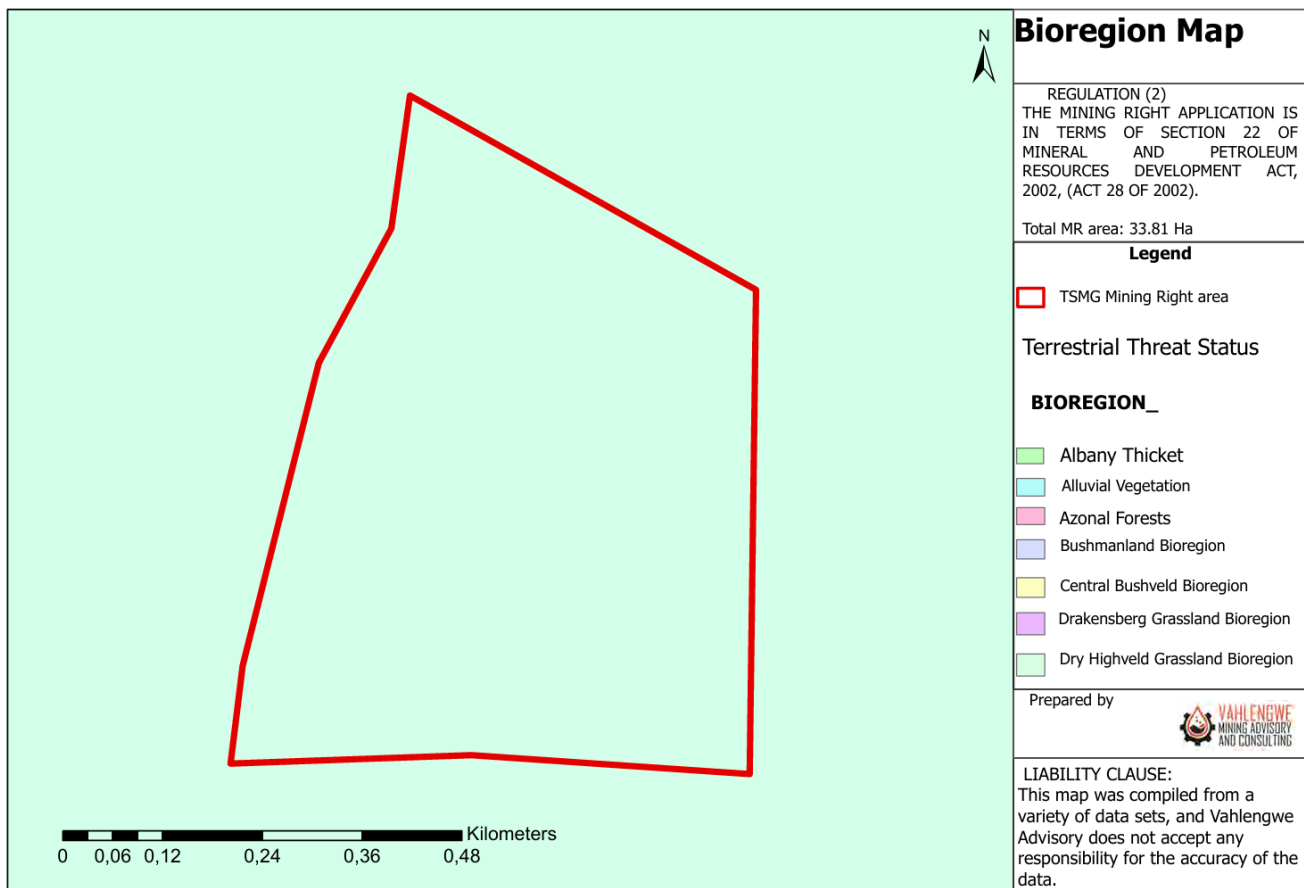


Figure 12: Different types of Bioregions within or around the MR area

➤ Vegetation Map

The dark green shading on the map indicates that the proposed mining right area is completely contained within the Central Sandy Bushveld vegetation type. The planned mining operations are limited to a single vegetation unit since there is no overlap between the mining footprint and any other mapped plant type.

There are two other types of vegetation in the vicinity. The proposed mining region is just south of Rand Highveld Grassland (shown in blue), whereas Marikana Thornveld (shown in orange) lies further to the southwest. Despite being present in the larger environment surrounding the site, neither of these vegetation types crosses the proposed mining right area. The map indicates that the mining footprint is positioned within the Central Sandy Bushveld vegetation unit and is separated from adjacent vegetation types.

From an ecological standpoint, the map verifies that the Central Sandy Bushveld vegetation type completely encompasses the proposed MR area. This vegetation area, which is typical of the Bushveld region, is home to a variety of grassland elements and woody species that have adapted to sandy soils. The lack of overlap with the nearby Marikana Thornveld and Rand Highveld Grassland vegetation

types suggests that the projected construction won't have an immediate impact on these nearby vegetation units.

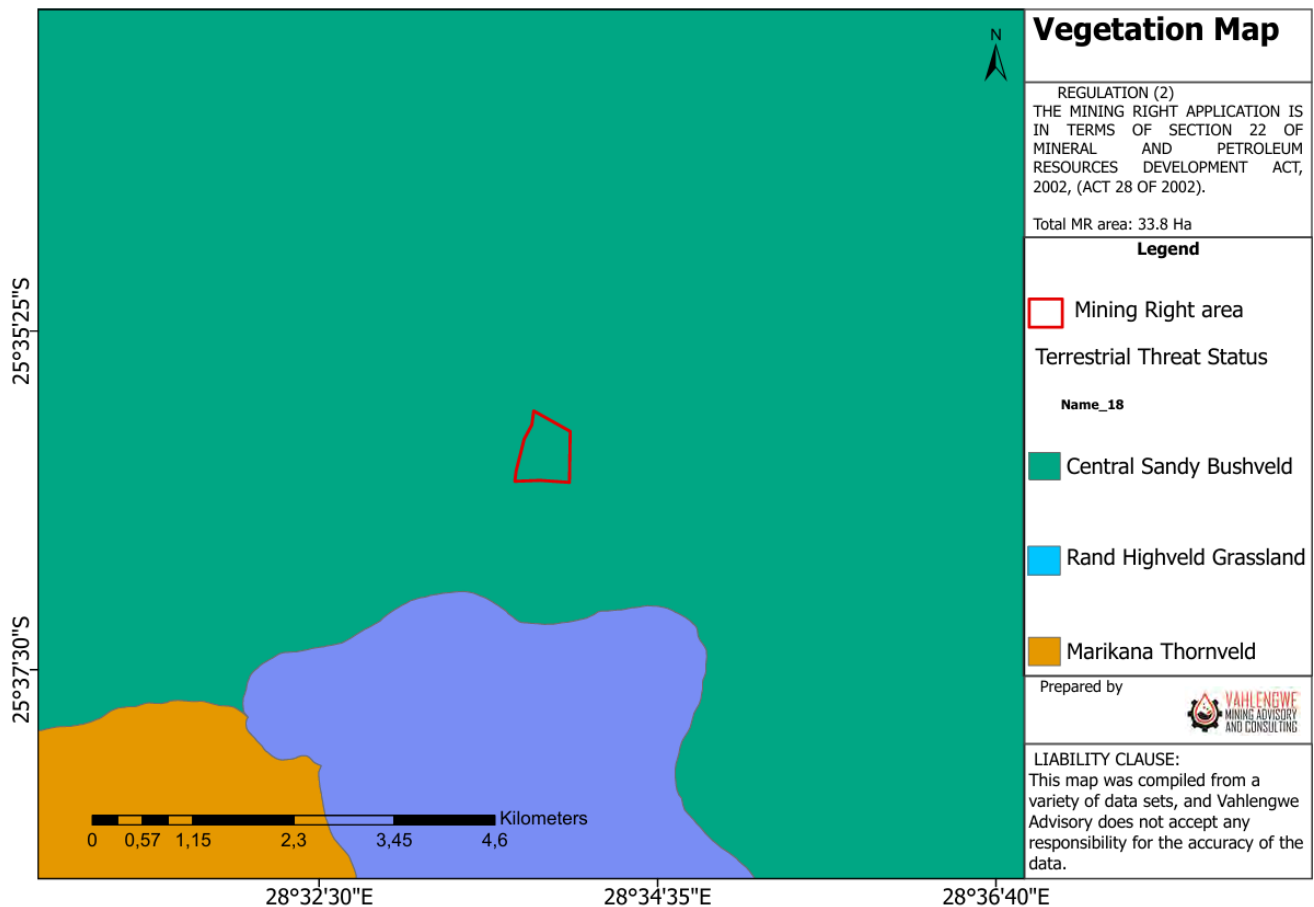


Figure 13: Vegetation Map shows different types of floras within or around the MR area

➤ Conservation Plan

The red polygon on the map represents the proposed MR application area, which is inside a Vulnerable Threatened ecosystem. This implies that the planned mining operations would occur in an ecosystem that has been found to have a moderate degree of ecological sensitivity, making it vulnerable to additional degradation if improperly managed.

To the south of the mining right application area is the Endangered ecosystem, which is depicted in light green. The proposed mining region and this protected habitat do not directly overlap, according to the map. Rather, a section of the fragile environment divides the two areas, suggesting that the mining right application area is still outside the boundaries of the endangered ecosystem.

Additionally, within the boundaries of the given map, no Critically Endangered or Least Threatened habitats within or close to the mining right application region. As a result, the application area is limited to the classification of vulnerable ecosystems.

Overall, the map shows that the proposed Mining Right application region is entirely located within a vulnerable ecosystem rather than encroaching on the endangered habitat. Therefore, the ecological sensitivity of the fragile ecosystem should be taken into account during environmental planning, impact assessment, and the implementation of suitable mitigation measures, even though direct impacts on the endangered ecosystem are not expected based on the mapped limits.

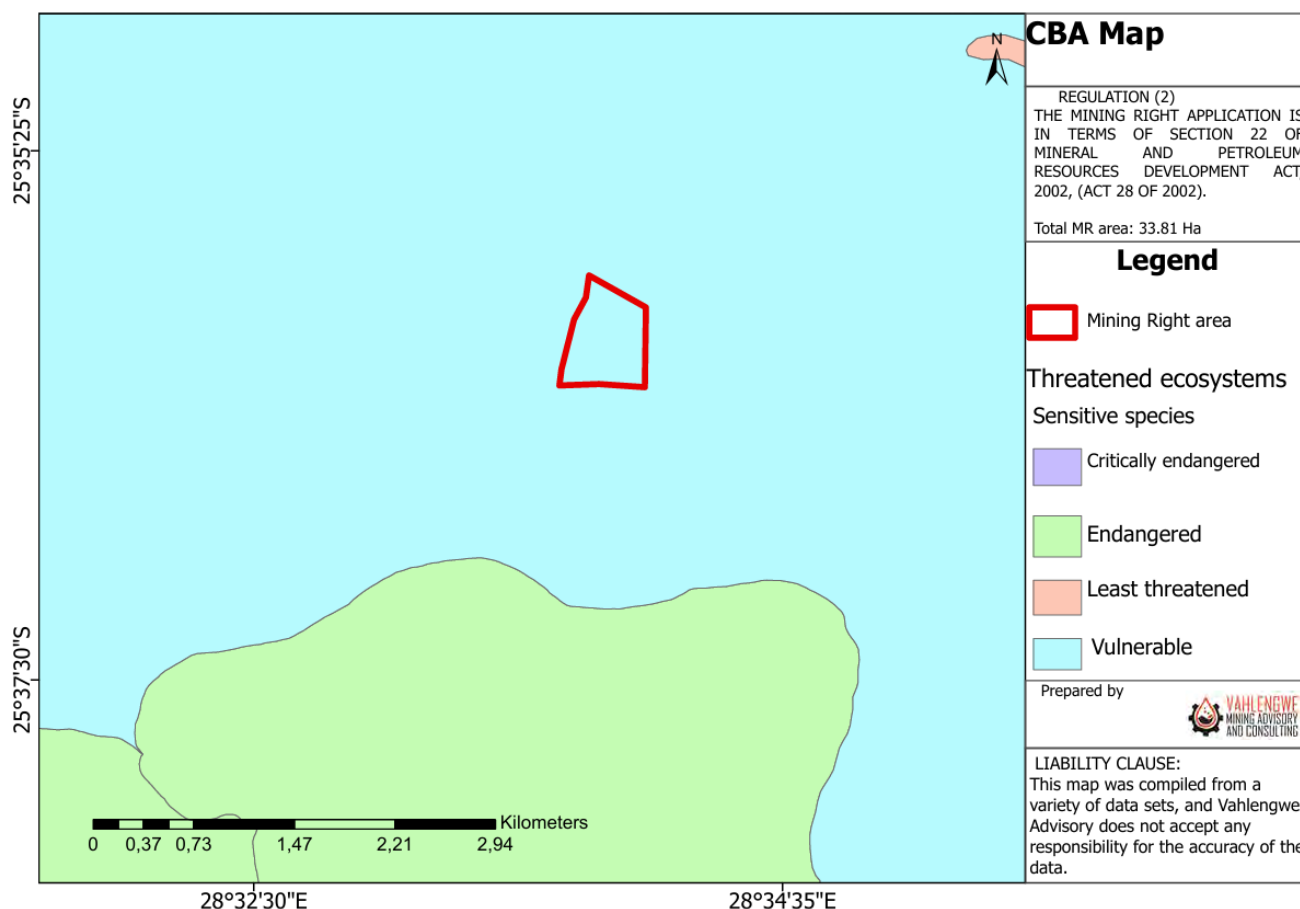


Figure 14: Sensitive areas within and around the proposed site

In this case, when mining starts operating within vulnerable sensitivity, that will be maintained by securely controlled, progressive and concurrent rehabilitation and examining the executed mitigation in the area. The importance on reducing ecological damage and confirming long-term environmental sustainability.

11.1.2 Socio-Economic Status

The planned MR area is situated close to Cullinan, Gauteng, northeast of a township in the City of Tshwane Metropolitan Municipality. A combination of agricultural terrain, rural smallholdings, tourist attractions, and past mining operations connected to the Cullinan Diamond Mine define the

surrounding environment. Refilwe was first built to house miners and is now strongly associated with the mining and agriculture industries.

Mining, agriculture, tourism, construction, retail, and government services are the main drivers of the local economy. Many locals also commute to adjacent job centres. Despite these economic endeavours, unemployment, especially among young people remains a problem, forcing some households to rely on social grants and unofficial trading. Basic social infrastructure, such as schools, medical facilities, and business services, serves the area, while regional roads excellent access to Cullinan, Pretoria, and neighboring municipalities.

The proposed MR region is located in an area that is primarily agricultural and outside of Refilwe's densely populated residential sections. Cultivated fields, farmsteads, and sporadic rural homes make up the surrounding area; the closest residential village is roughly two to three kilometres to the southwest. Given the region's long history of mining and reliance on primary industries, the planned mining project has the potential to boost local economic activity, support local businesses, and create jobs as long as the social and environmental effects are properly managed.

Demographics and Population Statistics

The table shows the racial population breakdown for the City of Tshwane Metropolitan Municipality based on census data from It shows that Black Africans make up 3,343,199 (82.8%) of the municipality's total population. This is in line with the general population trends seen throughout Gauteng and South Africa and represents the municipality's predominant demographic makeup. At 541,114 (13.4%) of the overall population, the White population is the second largest racial group. With 72,007 individuals (1.8%) and 69,097 individuals (1.7%), respectively, the Coloured and Indian/Asian demographic groupings make up comparatively modest percentages. With 12,487 individuals (0.3%), those categorized as Other comprise the smallest percentage of the population.

The population of the City of Tshwane is varied overall, despite the fact that Black Africans make up the majority. This demographic makeup has significant effects on employment programs, service delivery, municipal planning, and stakeholder engagement. The needs and characteristics of the predominately Black African communities should be the primary focus of community consultation and socio-economic development initiatives for projects within the municipality, such as the proposed MR

area near Refilwe, while making sure that all population groups are included in stakeholder engagement processes.

Table 7: Population profile of City of Tshwane (Source: Stats SA 2022 Census)

Name	Frequency	%
BLACK AFRICAN	3 343 199	82,8%
COLOURED	72 007	1,8%
INDIAN/ASIAN	69 097	1,7%
WHITE	541 114	13,4%
OTHER	12 487	0,3%

Figure 15's age breakdown illustrates the predominant gender in this region, which is female. Women's empowerment in the mining sector will be balanced by the project's operation. The City of Tshwane Metropolitan Municipality's population distribution by age and sex is depicted in the population pyramid. The distribution shows that the population is rather young, with the highest percentages of males and females in the 20–39 age range. The greatest demographic groups are those between the ages of 30 and 34 and 35 and 39, which suggest a sizable working-age population that supports the municipality's economy and labour force.

Although there are somewhat more females than males in the later age groups (60 years and above), the proportion of males and females is typically equal across most age groups. Higher life expectancy for women is consistent with this tendency. A sizable share of the population is in the younger age groups (0–19 years old), which suggests that both population growth and the demand for public services like housing, healthcare, and education will continue.

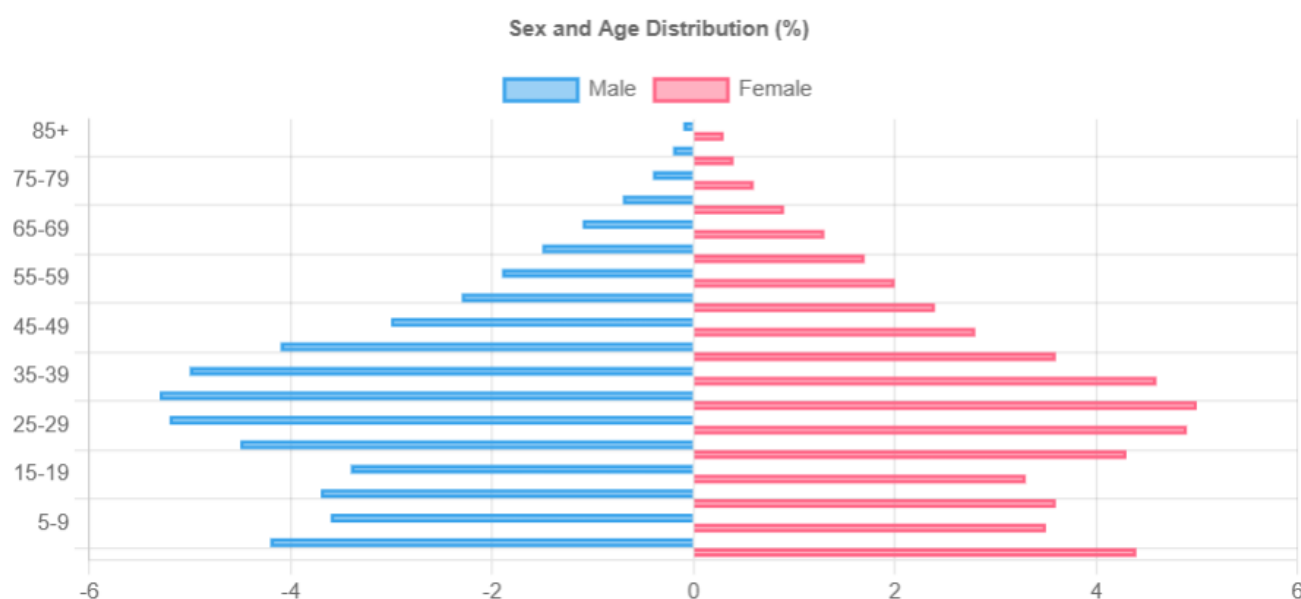


Figure 15: Sex and Age Distribution of the City of Tshwane (Source: Stats SA 2022 Census)

The graph displays the percentage of people in the City of Tshwane Metropolitan Municipality between the ages of 5 and 24 who attend school. About 72% of people in this age range are enrolled in school, whilst 28% are not. This shows that most residents of school and tertiary age engage in formal education, indicating comparatively strong access to educational options within the municipality. The high rate of school attendance emphasizes the value of educational facilities in assisting the municipality's expanding youth population and encourages further investment in human capital development. Nonetheless, the percentage of people who do not attend educational institutions is still noteworthy and can be linked to things like early school dropout, financial limitations, work, or other socioeconomic difficulties.

Overall, the results show that young people in the City of Tshwane have a comparatively high rate of educational involvement. This group offers chances for job programs, learnerships, apprenticeships, and skill development that could improve local capacity and support long-term socioeconomic development in the planned MR area near Refilwe.

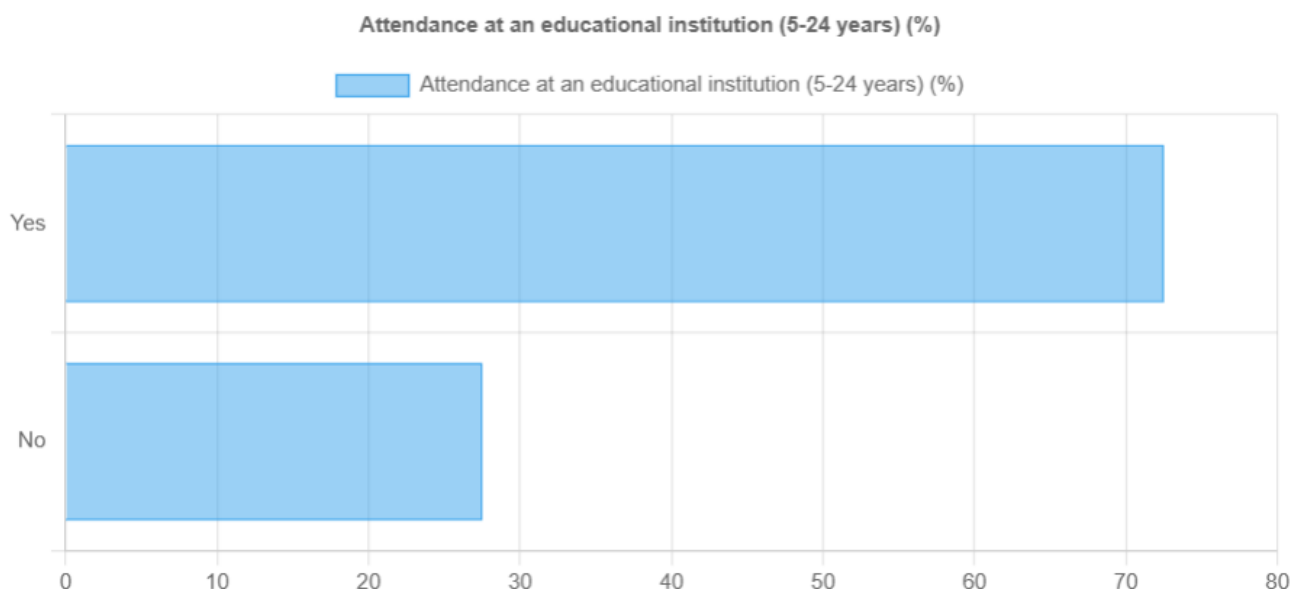


Figure 16: Education level at the City of Tshwane (Source: Stats SA 2022 Census)

The graph shows how many homes in the City of Tshwane Metropolitan Municipality have access to piped water. Most citizens benefit from a dependable and practical water supply, as evidenced by the fact that 71% of families have access to piped (tap) water within the home. About 4% of families use community standpipes, and an additional 20% of households get piped water from within their yard. The fact that only roughly 5% of households lack piped water indicates that the municipality as a whole has a good level of access to basic water services. Households without direct access, however, are nonetheless susceptible to water insecurity and may face difficulties with everyday household tasks, sanitation, and health.

Over 90% of families have access to piped water either inside their homes or on their property, indicating that the City of Tshwane has a well-developed water delivery network overall. This level of service provision offers a favourable basis for future development and community well-being in the proposed MR area in Refilwe. However, in order to avoid negative effects on nearby populations and agricultural users, any mining operations should guarantee the preservation of local water supplies and current water infrastructure.

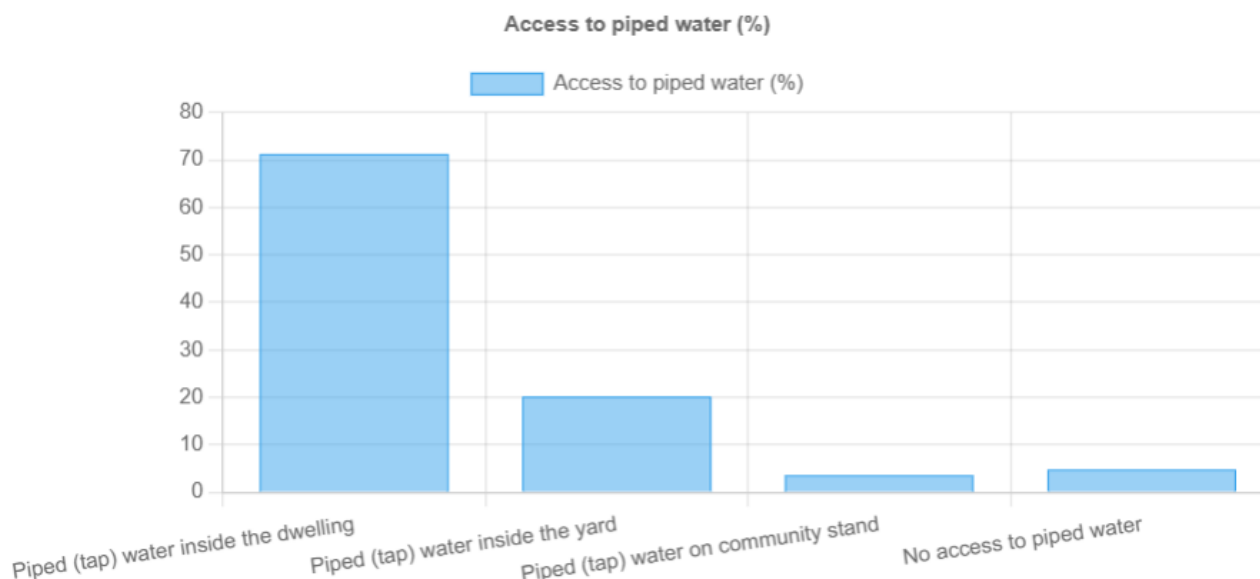


Figure 17: Sources of Water at the City of Tshwane (Source: Stats SA 2022 Census)

11.1.3 Description of the Environmental land uses

(Show all environmental and current land use features)

The surrounding environment of the proposed mining right application area is characterised by a diverse mix of agricultural, residential, natural, and mining-related land uses. The site itself is located within a predominantly rural landscape where agricultural activities are the dominant land use. Numerous cultivated fields, centre-pivot irrigation systems, and farmsteads are evident to the north, northeast, and northwest of the proposed mining area, indicating active crop production and commercial farming.

Natural vegetation and open undeveloped land occupy a substantial portion of the landscape, particularly to the south and southeast of the application area. These areas are associated with drainage lines and natural habitat that contribute to local ecological functioning. A drainage feature is visible immediately west of the proposed mining area, flowing generally from north to south, and forms part of the local surface water network. This watercourse represents an environmentally sensitive feature that should be protected during any future mining activities through the implementation of appropriate buffer zones and stormwater management measures.

Residential land uses occur predominantly to the southwest of the proposed site, where the settlement of Refilwe forms the nearest urbanised area. Scattered rural homesteads and agricultural residences are also present within the surrounding farming landscape, although the immediate vicinity of the application area remains sparsely developed.

Mining-related land uses are evident to the east and southwest of the proposed site. An active or historical open-pit mining operation is visible to the east, while a large tailings storage facility is located

southwest of Refilwe. These features indicate that the broader area has an established mining history and that mining forms an important component of the regional land-use pattern.

Transportation infrastructure consists primarily of regional roads and local farm roads that provide access to surrounding farms and settlements. The R451 and R460 regional roads are located within the broader study area and facilitate connectivity between agricultural properties, residential areas, and existing mining operations.

Overall, the proposed mining right application area is situated within a rural agricultural landscape that contains environmentally sensitive drainage features, natural vegetation, nearby residential settlements, and existing mining activities. These surrounding land uses should be carefully considered during the environmental assessment to ensure that potential impacts on water resources, ecological habitats, agricultural activities, and neighbouring communities are appropriately managed through mitigation measures.

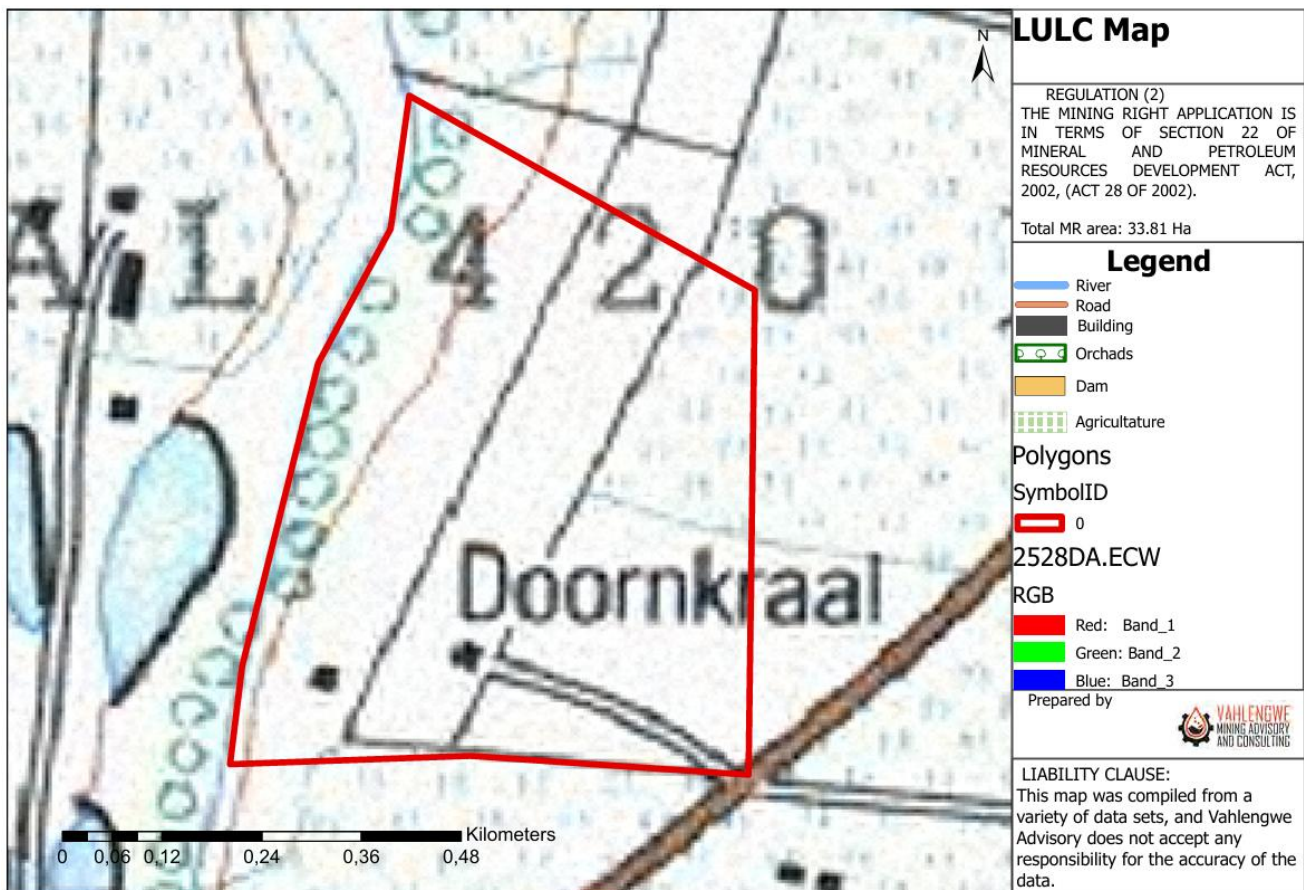


Figure 18: Land Use and Land Cover map shows the terrain features on the proposed MR landscape

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

The proposed mining right application area is located in a region that is primarily agricultural, with farmed fields and sporadic rural infrastructure. With no significant permanent structures or industrial

facilities situated inside the application boundaries, the property itself seems to be mostly undeveloped. Crop production supported by centre-pivot irrigation systems is one of the active agricultural uses of the land surrounding the site.

The planned mining area's western edge is directly next to a drainage line. This stream is a component of the local surface water drainage system and typically flows from north to south. It is an environmentally sensitive area that may sustain riparian vegetation and related biodiversity since it is a naturally occurring hydrological feature. To reduce the possible effects of mining operations, suitable buffer zones should be kept around the drainage line.

The surrounding area is made up of a patchwork of open grassland and farmed land, with natural vegetation found in and around the drainage line. In addition to offering biological connectedness, these natural spaces might act as habitat for nearby plants and animals. Therefore, mining-related vegetation clearing should be restricted to the bare minimum of space needed for activities. A network of local gravel roads and existing farm tracks allow access to several rural properties and farmsteads in the surrounding area. Depending on the expected traffic volumes related to mining operations, these roads may need to be upgraded to enable access to the planned mining region. According to the available images, no significant public infrastructure such as transmission power lines, railroad lines, pipelines, or major water supply infrastructure is visible inside the application area. Similarly, the adjacent site limit does not contain any hospitals, schools, or other public service institutions.

Agricultural land, natural vegetation, and a nearby drainage line are the site's main environmental features. The infrastructure that is already in place is mainly made up of farm access roads and sporadic agricultural facilities. To make sure that mining operations are planned and managed in a way that minimizes impacts on surface water resources, biodiversity, and nearby agricultural land, these environmental factors should be taken into account throughout the thorough environmental assessment.

13 Identified impacts and risks, including their nature, significance, consequence, extent, duration, probability, and degree of impact.

Table 8: During the site establishment phase, the following project activities will take place on site:

Project Phase	Associated Activities	Potential Impacts
Construction Phase	Site clearance (for infrastructure);	Visual
	Establishment of infrastructure (temporary site offices and portable ablution facilities).	Air Quality/Dust Noise
	Removal of surface vegetation clearance.	Topography

Operational Phase (Extraction of the mining)	To access the mine for the valuable material.	Vegetation
	Surface mining within the project area	Animal Life
	Mine Waste Management (handling overburden and other waste materials).	Land use and soil capability
	Excavation, Monitoring, and Reporting.	Surface water Quality
Decommissioning and final rehabilitation	Final rehabilitation of the overall area.	Groundwater Quality Socio-economic Health and safety

Significant positive, negative, and cumulative effects on the environment are linked to different stages of mining-related activities, including site establishment, mining operation, and concurrent restoration. The following discusses the possible effects for each environmental characteristic or aspect:

➤ **Visual**

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

Visual Impact		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighbouring, Local, Regional, International)	Neighbouring	Neighbouring
Duration (Short term, medium term, long term, Permanent)	Long term	Permanent
Magnitude (Major, Moderate, Minor)	Major	Minor
Probability (Definite, Probable, Likely, Unlikely)	Definite	Definite
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Irreversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
• Implementation of the operating time schedule management measures. • Rehabilitation and backfilling • Reforestation and afforestation		

- Maintenance and upkeep

➤ Dust

Dust may be generated during the operational process on-site.

AIR QUALITY/DUST IMPACT		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighbouring, Local, Regional, International)	Neighbouring	Region
Duration (Short term, medium term, long term, Permanent)	Long-term	Short-term
Magnitude (Major, Moderate, Minor)	Major	Minor
Probability (Definite, Probable, Likely, Unlikely)	Definite	Likely
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
- Emission Controls: Use of low-sulfur fuels, catalytic converters on vehicles, and improved conventional mechanical and hydraulic mining techniques. - Dust control measures: apply dust suppression should be implemented to reduce the impact of dust generation during the construction phase.		

➤ Topography

The removal of the proposed material will result in a disturbance of the original topography of the area.

GRADIENT IMPACT		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighboring, Local, Regional, International)	Site	Site

Duration (Short term, medium term, long term, Permanent)	Permanent	Long-term
Magnitude (Major, Moderate, Minor)	Major	Moderate +
Probability (Definite, Probable, Likely, Unlikely)	Definite	Probable
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Irreversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures: • Operation sites must be robustly constructed nor built to control the movement of personnel and vehicles, especially activities in steep slope should be stable to prevent risks. • Reforestation erosion control measures, such as the runoff berms, must be implemented to reduce flow velocity should be implemented around the operation areas.		

➤ Heritage Resources

IMPACTS ON HERITAGE RESOURCES		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighboring, Local, Regional, International)	Site	Site
Duration (Short term, medium term, long term, Permanent)	Permanent	Permanent
Magnitude (Major, Moderate, Minor)	Moderate +	Moderate +
Probability (Definite, Probable, Likely, Unlikely)	Likely	Likely
Significance Rating (Negligible, Low, Moderate, High)	Low	Low
Reversibility: (Reversible or Irreversible)	No	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures: ➤ The company must survey the area before the activity starts. ➤ Relevant authorities will be notified should the heritage resources be discovered. ➤ Area must be clearly demarcated to control the movement of personnel.		

➤ Noise

Noise may be generated from the operation.

NOISE IMPACTS		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighboring, Local, Regional, International)	Site	Site
Duration (Short term, medium term, long term, Permanent)	Short term	Short term
Magnitude (Major, Moderate, Minor)	Major	Minor
Probability (Definite, Probable, Likely, Unlikely)	Definite	Likely
Significance Rating (Negligible, Low, Moderate, High)	High	Negligible
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures: - Schedule restrictions: Limit noisy activities during sensitive hours. - Noise monitoring: Regularly monitor noise levels.		

➤ Traffic

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

TRAFFIC IMPACTS		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighbouring, Local, Regional, International)	Site	Site
Duration (Short term, medium term, long term, Permanent)	Short term	Short term
Magnitude (Major, Moderate, Minor)	Minor	Minor
Probability (Definite, Probable, Likely, Unlikely)	Likely	Likely
Significance Rating (Negligible, Low, Moderate, High)	Negligible	Negligible
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		

- Implement the traffic control and management measures.

➤ Flora and Fauna

The removal of the vegetation, which could result in soil erosion and topsoil loss, is made possible by the concomitant site establishment activities to access the MR area. The MR area is still in a natural condition.

IMPACTS ON FLORA AND FAUNA		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighboring, Local, Regional, International)	Site	Site
Duration (Short term, medium term, long term, Permanent)	Long term	Medium term
Magnitude (Major, Moderate, Minor)	Major	Moderate
Probability (Definite, Probable, Likely, Unlikely)	Definite	Probable
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures: - Limit vegetation clearing to minimize habitat destruction. - Develop plans to manage and maintain habitats.		

➤ Soils and Land Capability

The soil and land capability of the area will be disturbed by mining right activities. A change in soil capability will consequently affect the end land use if not properly mitigated. Temporary storage of hazardous products may cause soil pollution through hydrocarbon spillages.

IMPACTS ON SOILS AND LAND CAPABILITY		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (Site, Neighbouring, Local, Regional, International)	Site	Site

Duration (Short term, medium term, long term, Permanent)	Long term	Long term
Magnitude (Major, Moderate, Minor)	Major	Moderate +
Probability (Definite, Probable, Likely, Unlikely)	Likely	Likely
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures: • Proper management and clean-up of the hydrocarbon spills to minimize soil contamination. • Implementation of proper management measures when removing the general waste to ensure that the soil quality is sustained for other alternative land uses. • Run on/run-off control by implementing measures to prevent stormwater contamination.		

➤ Surface and Groundwater resources

The mining operations may not lessen the present effect on the water resource because there is a water resource nearby the project area.

IMPACTS ON SURFACE WATER RESOURCES		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighbouring, Local, Regional, International)	Regional	Regional
Duration (Short term, medium term, long term, Permanent)	Long term	Permanent
Magnitude (Major, Moderate, Minor)	Major	Moderate
Probability (Definite, Probable, Likely, Unlikely)	Definite	Probable
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Irreversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		

- Implementation of hydrocarbons spillage management and clean-up to minimize soil contamination that could also lead to surface water pollution.
- Implementation of temporary erosion control measures, such as the runoff berms, to reduce flow velocity.
- Clearance of vegetation must be limited as far as possible.

➤ GROUNDWATER RESOURCES

During wet seasons, seepage from mining operations contaminates groundwater, and the spread of hydrocarbons will be tracked and stopped. To restore the stability and restoration of the land, rehabilitation operations will be taken into consideration. In post-mining operations, it is anticipated that the general groundwater quality will stay pure.

IMPACTS ON GROUNDWATER RESOURCES		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Negative
Extent (Site, Neighboring, Local, Regional, International)	Regional	Regional
Duration (Short term, medium term, long term, Permanent)	Long term	Permanent
Magnitude (Major, Moderate, Minor)	Major	Moderate +
Probability (Definite, Probable, Likely, Unlikely)	Definite	Probable
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
- Groundwater monitoring should be implemented throughout the lifecycle of the project to track water levels and quality. - Monitoring data should be analysed regularly by a qualified hydrogeologist to detect any emerging risks early.		

➤ SOCIO-ECONOMIC IMPACTS

Although it would be limited in scope and duration, this project activity would have a favourable impact on employment as well as the socioeconomic regime. Opportunities for employment will be found both directly within a project and indirectly through the purchase of local products and services. Therefore, the possible job opportunities will enhance livelihoods and reduce poverty in the residing community.

SOCIO-ECONOMIC IMPACTS		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Positive	Positive
Extent (Site, neighbouring, Local, Regional, International)	Local	Local
Duration (Short term, medium term, long term, Permanent)	Long term	Long term
Magnitude (Major, Moderate, Minor)	Moderate +	Moderate +
Probability (Definite, Probable, Likely, Unlikely)	Probable	Probable
Significance Rating (Negligible, Low, Moderate, High)	Medium	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures: • The creation of employment, business opportunities and training. • Skills transfer and enhancement to workers. • Improved economic development.		

➤ Safety

The proposed project will have safety and security benefits for the adjacent communities from the mining area.

SAFETY IMPACTS		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighboring, Local, Regional, International)	Local	Local
Duration (Short term, medium term, long term, Permanent)	Long term	Short term

Magnitude (Major, Moderate, Minor)	Minor	Moderate
Probability (Definite, Probable, Likely, Unlikely)	Likely	Probable
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Mitigation Measures:		
➤ Institutionalize Safety Protocols ➤ Community and Stakeholder Engagement ➤ Design for Safety ➤ Policy and Regulatory Support ➤ Emergency Preparedness		

• Health

The proposed project is linked to the production of dust that comprises toxic compounds and fine particulate matter, which could cause respiratory illnesses in the workers. Mining operations may have a detrimental effect on the nearby towns, particularly during wind seasons.

IMPACTS ON HEALTH		
	Impact rating without mitigation	Impact rating with mitigation
Impact Status: (positive or negative)	Negative	Positive
Extent (Site, Neighboring, Local, Regional, International)	Regional	Regional
Duration (Short term, medium term, long term, Permanent)	Long term	Short term
Magnitude (Major, Moderate, Minor)	Minor	Moderate
Probability (Definite, Probable, Likely, Unlikely)	Definite	Probable
Significance Rating (Negligible, Low, Moderate, High)	High	Low
Reversibility: (Reversible or Irreversible)	Reversible	
Irreplaceable loss of resources: (Yes or No)	No	
Impact Status: (positive or negative)	Negative	
Mitigation Measures:		
• Provision of appropriate PPE for workers to prevent and minimize impacts on their health. • Dust suppression techniques should be used to limit the amount of dust created.		

- Implementation of dust fallout monitoring.
- Make provision of the complaints register at an accessible point on site for the community.
- Regular medical check-ups for workers.

13.1.1.1 Rehabilitation and Closure Phase

The final phase of the mining lifecycle involves the rehabilitation and closure of the mining operation following the extraction of the targeted minerals. This phase aims to ensure the safe closure of the site, minimise environmental impacts, and restore the land for potential future use. Hazardous materials, including fuels and lubricants, are removed and disposed of in accordance with applicable environmental legislation.

Concurrent rehabilitation includes backfilling and reshaping the land to a stable profile, replacing stockpiled topsoil, and re-establishing indigenous vegetation to promote ecological recovery and reduce erosion. Where necessary, erosion control measures such as gabions and silt barriers are installed to stabilise disturbed areas. Environmental monitoring continues during and after closure to assess vegetation establishment, water quality, air quality, and overall site stability. The effectiveness of rehabilitation measures is evaluated to ensure that environmental objectives have been achieved.

The mining right holder must submit closure reports to the DMPR, demonstrating compliance with the approved EMPr and confirming that adequate financial provision has been made for rehabilitation and closure. Consultation with relevant stakeholders may also be undertaken to address any outstanding concerns. Once all environmental, legal, and social obligations have been satisfied, the DMPR may issue a closure certificate, formally releasing the mining right holder from further liability and confirming that the site is suitable for future land use or natural ecological recovery.

14 Methodology used in determining and ranking the nature, significance, consequences, extent, duration, and probability of potential environmental impacts and risks:

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

Criteria to Consider when Determining the Severity of Impacts:

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

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

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

Table 9: Environmental impact assessment criteria

Extent of Impact:		
Site	The impacted area will only extend as far as the activity being conducted, e.g., the activity footprint.	1
Neighbouring	Impact occurs within a 5km radius of the site.	2
Local	Impact occurs within a 20km radius of the site.	3
Regional	Impact occurs within a 100km radius of the site.	4
National	Impact occurs within South Africa.	5
Duration of Impact:		
Short-term	The impact will either disappear with mitigation or will be mitigated through the natural processes in shorter time span.	2
Medium-term	The impact will last up to the end of the project phases, where after it will be negated. The impact will cease within 5 years if the activity is stopped.	3
Long-term	The impact will last for the entire operational phase and after the operational life of the operation but will be mitigated by direct human action or by natural processes thereafter.	4
Permanent	Intervention will not occur in such a way or in such a time span. that the impact can be considered transient.	5
Probability of the Occurrence of the impact:		
Unlikely	The possibility of the impact materializing is exceptionally low either. because of design or historic experience.	1
Likely	The possibility of the impact materializing will occur to the extent that provision must be made thereof.	2
Probable	There is a distinct possibility that the impact will occur.	4
Definite	The impact will occur regardless of any prevention measures.	5

Magnitude of the impacts:		
Minor	The impact alters the affected environment in such a way that the natural processes are not affected.	2
Moderate	The affected environment is altered; however, the functions and processes continue in a modified way.	6
Major	Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.	8
Significance of the impact: Sum (Duration, Extent, Magnitude) x Probability		
Negligible	The impact is non-existent or unsubstantial, is of no or little importance to any stakeholder, and can be ignored.	< 20
Low	The impact is limited in extent, with low to medium intensity, and whatever the probability of the occurrence may be, the impact will not have a material effect on the decision and is likely to require management intervention with increased costs.	< 40
Moderate	The impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.	< 60
High	The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation	> 60

The planned mining right is expected to be in operation for thirty (30) years. In that period, there is a chance that mining operations will have an impact on the environment, these effects are anticipated to be minimal to moderate and can be successfully controlled by putting the matching mitigation strategies in place. Based on experience from progressive mining operations and mitigation, the probability and importance of such repercussions be evaluated. No modifications to the suggested project structure are thought to be required because the highlighted consequences can be prevented, reduced, or effectively controlled. When it comes to the operations carried out and their possible effects on the environment, the operational period is different from the building phase. Environmental management strategies will be used during mining to reduce disruption to nearby ecosystems, water supplies, soils, as well as air quality.

To lessen the mine's total environmental impact, progressive rehabilitation will be carried out over its lifetime. This will entail replenishing stockpiled topsoil, reestablishing native flora appropriate for the local grassland ecosystem, and stabilizing and recontouring mined-out regions to create stable landforms. In order to manage runoff and stop erosion and sedimentation of adjacent watercourses, surface water drainage systems will be built or maintained.

Temporary infrastructure such as haul roads, stockpiles, and laydown sites will be removed, and affected areas will be restored. Waste items shall be removed or disposed of at approved facilities, and any contaminated areas will be cleaned up in compliance with the relevant environmental laws. In order to minimize safety risks, lessen aesthetic effects, and get the site ready for its intended post-mining land use, obsolete infrastructure will be carefully disassembled and removed.

Table 10: Impacts and risks identified

Environmental Aspects	Potential Impacts	Rating Before Mitigation				Significance (pre-mitigation)	Management and mitigation measures	Rating after mitigation				Significance (post-mitigation)
		E	I	D	P			E	I	D	P	
Soils and Land Capability	-Soil contamination due to the hydrocarbons -Soil compaction due to the operating equipment. -Degraded land due.	1	4	4	4	36	-Bioremediation of contaminated soil. -Remediated sites and re-establishment of species of ecological importance.	1	3	2	3	18
Topography	-The alteration of the topography from its natural state by mining right activities.	1	4	4	4	36	-Improved land capability for other uses. -Improved soil properties and the potential for the host communities to benefit from shared land management responsibilities	1	3	3	3	21
Vegetation	-Loss of biodiversity -Loss of Habitat Alien species invasion	1	4	3	4	32	-Removal of vegetation must be undertaken in a phased approach to limit the number of plain areas at a time.	1	1	3	3	15

							-Implementing the alien invasive vegetation management plan.					
Animal life	-Loss of animal life and disruption to animal activities. -Loss of habitat -Animal migration	1	2	4	4	28	-Re-establishment of new migration corridors and access to nesting and refuge areas. -Replaced animal habitat.	1	2	3	3	18
Surface Water	Contaminating local surface water resources	3	4	3	4	40	-To apply plumes to protect against water pollution -Restored natural surface water drainage.	3	1	3	3	21
Ground water	Groundwater contamination due to toxic elements from possible seepage of hydrocarbons from the operation.	4	4	4	3	36	Improved groundwater quality post the decommission operations, as the source of contamination will be removed	1	1	3	2	10
Air Quality/ Dust	Dust generation by vehicle movement during the operational phase.	4	3	2	4	32	No further generation of dust post the decommissioning activities	4	2	2	1	8

Noise	Noise nuisance will be created by vehicle movement and during the excavation, loading, and haulage of materials	2	3	3	4	32	No further noise generation post the decommissioning activities	2	2	2	3	15
Cultural Heritage	Impacts on cultural and heritage resources, if any exist.	1	2	3	3	18	Inform SAHRA. Cease the operation concurrently. Maintain 50M buffer.	1	1	1	1	3
Visual	-The operation activities may change the visual character of the property through mining right activities. -There will be a visual nuisance of the operating equipment and vehicles.	1	3	3	4	28	Improved environmental aesthetic after rehabilitating the mined land.	1	2	2	2	8
Socio-economic	-Influx of job seekers. -Over-expectations on job creation, which may lead to violent marches. -Conflict between the host community members and the employed personnel	3	3	2	3	24	The creation of employment and business opportunities and training. -Skills transfer and enhancement to workers. -Improved economic development.	4	1	1	2	12

	from areas outside the host community.											
Safety	-Occupational injuries. -Equipment theft and property vandalism.	2	2	3	3	21	Removal of the safety threats posed by the mining right activities.	1	1	1	3	9
Health	Health impact due to dust inhalation	3	3	2	3	18	Reforestation and Afforestation	1	2	2	3	15
Waste Generation	-Waste nuisance and littering -Generation of hazardous waste due to hydrocarbon storage	1	3	2	3	18	Decommissioning and removal of the waste	1	2	1	2	8
Traffic impacts	-Traffic due to moving vehicles and transportation trucks in and out of the site.	3	3	2	2	16	Erecting road signs within the site.	1	1	2	2	8

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

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

The impacts assessment has highlighted the project's potential risks as well as important management and control strategies. It is believed that there are opportunities to greatly improve and raise the current and ongoing repercussions by carrying out a well-planned and effective decommissioning as well as rehabilitation of the mined regions. The following table describes the project's linked positive and negative impacts:

Table 11: Summary of positive and negative impacts of the proposed activity.

Impact	Pre-Mitigation	Operation	Decommission	Post-Decommission	Pre-Mitigation	Operation	Decommission	Post-Decommission
Positive (+)	Medium	-Employment opportunities	-More jobs	-Less jobs	Medium	-Improved health and safety for the locals -Improved topography	-Availability of land use. -Improved groundwater quality. -Improved health safety of the locals. -Improved soil quality.	-Improved soils and land capability -Land reservation for other land uses -Vegetation regeneration - Improved biodiversity and ecological processes -Improvised visibility and environmental beauty -Improved soils and land capability -Improved water quality on surface and groundwater resources -Disturbance to the surface water drainage system

Positive (+)	Low	-Job security and skills development.	-Job opportunities and skills development. -Improved soils and land capability. -Land reservation for other land uses.		Low	-Improved visibility and environmental beauty. -Improved soils and land capability. -Employment opportunities and socio-economic empowerment	-Improved surface water drainage and water quality. -Improved health and safety.	
Negative (-)	Medium	-Visual nuisance to moving equipment and vehicles.	-Visual nuisance to moving equipment and vehicles.	-Job insecurities	Low		-Alien vegetation species invasion. -Soil erosion.	-Habitat disturbance. -Vegetation disturbances due to vegetation.

16.1 Motivation where no alternative sites were considered.

Since the project is resource-specific and can only be carried out where the designated mineral resource resides, no other locations were taken into consideration for the proposed MR. The chosen location is the only one that is both technically and financially feasible for the planned mining operation because it has the identified mineral resource.

Given the fixed location of the mineral resource and the site's suitability from operational, environmental, and logistical perspectives, there are no feasible alternative sites that would achieve the objectives of the proposed mining project. Consequently, no alternative site assessment was undertaken.

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

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

The suggested site design was chosen to maximize operational effectiveness while reducing negative effects on the environment and society. In order to minimize the possibility of disturbing ecological resources, the layout has been developed to avoid sensitive ecological elements like drainage lines along with areas of natural vegetation as much as is practical. To reduce the need for further land clearance and infrastructure development, the design incorporates existing access roads along with adjacent infrastructure.

The suggested site design was chosen to maximize operational effectiveness while reducing negative effects on the environment and society. In order to minimize the possibility of disturbing ecological resources, the layout has been developed to avoid sensitive ecological elements like drainage lines along with areas of natural vegetation as much as is practical. To reduce the need for further land clearance and infrastructure development, the design incorporates existing access roads along with adjacent infrastructure.

The surrounding land uses, such as neighbouring farmsteads and agricultural operations, are also taken into account in the layout. The site's topography has been used to support stable mining conditions and efficient surface water management, while appropriate separation distances have been maintained whenever practical to minimize potential consequences associated with mining activities.

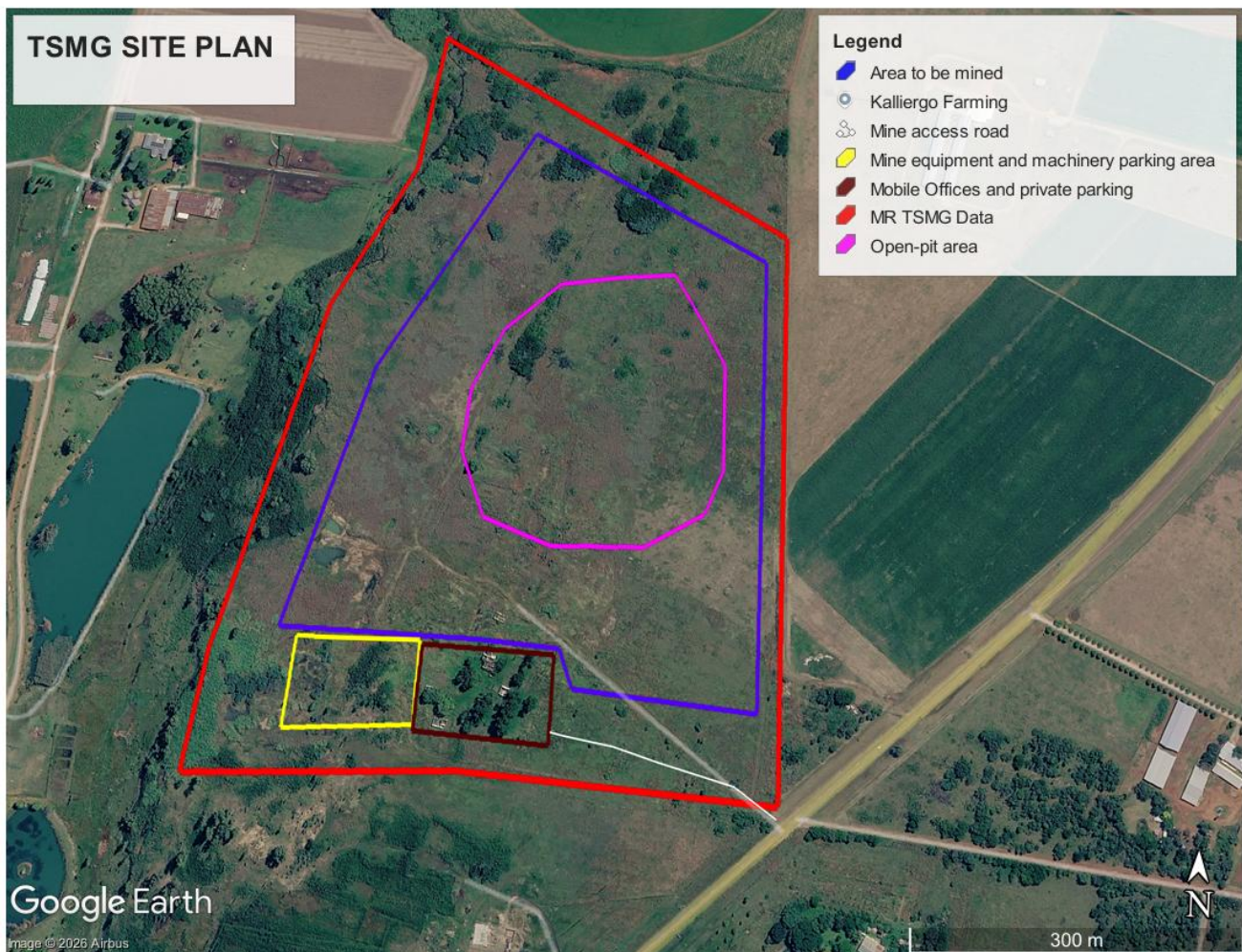


Figure 19: Site plan showing the proposed equipment and facilities on-site

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

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

The SR Phase's goal is to investigate the possible environmental effects of the project's actions, both good and bad effects. To determine how important an impact might be to the receiving environment, the possible effects are measured. The SR process's goals were to:

- ✓ Make sure the decision-making process considers the project's possible biophysical and socioeconomic effects.
- ✓ Make sure that the project's activities don't significantly harm the environment by offering mitigation and management strategies that will prevent or lessen those effects.
- ✓ Ensure that I&APs are informed about the planned project and the public involvement process.

- ✓ Make sure I&APs have a chance to voice their concerns and offer a procedure that will help authorities make an educated choice, particularly regarding their duty to consider social and environmental factors.

The proposed project's overall impact on the activities to be carried out was evaluated using the SR procedure. To make a wise decision about the consideration and execution of the mitigation measures of the impacts caused by the planned activity, an assessment was carried out to ascertain the sensitivity of the proposed region. Two criteria consequence and significance were used to rank the risks. Impacts were rated as a potential risk, an uncertain risk, or a significant risk based on the significance criterion.

Table 12: Significant Risks Rating System

Rating	Significant Risks	Description
3	Potential	• The extent is national to international, • The duration is long term to permanent, • The magnitude will be high and above the acceptable standard, • Requires extensive intervention to mitigate the impacts.
2	Uncertain	• The extent is local to regional, • The duration is medium to long term, • The magnitude is above the acceptable standard, and • The environmental impacts are uncertain and may require some interventions to limit the impacts in future.
1	Insignificant	• The extent is site specific, • The duration is temporary, • The magnitude is within the acceptable standard, and • The environmental is ecologically and physically stable and no further interventions will be required in future.

Given the nature of the expected project life, the chance of recurrence has been categorized within the context of appropriate time periods and frequency. The likelihood and severity levels for the many repercussions that make up the risk rating determination are listed in the following table:

Table 13: Severity of the consequence rating system

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

Table 14: Likelihood of the consequence rating system

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

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

Table 15: Description of risk classifications

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

Risk Analysis Matrix

To achieve the project rehabilitation objectives and goals, which are connected to an operation that is socially and environmentally responsible, the risk controls are linked to the degree of risk and the chance for risk reduction. These specifications are included in the standards for impact assessments and regulatory duties. The risk levels for the different consequence and likelihood combinations are summarized in the table below, along with the qualitative risk matrix that was employed.

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

Figure 20: Risk Analysis Matrix

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

Table 16: Mining operation phases for the proposed mining right.

Preconstruction	Construction	Decommissioning	Rehabilitation
Vegetation clearance for the establishment of infrastructure: ➤ Temporary site office ➤ Portable ablution facility ➤ Bunded area for diesel tank storage ➤ Parking bay ➤ Security offices ➤ Construction of roads on site.	Extraction of material: aggregate, concrete sand (silica), building sand (silica), foundry (silica), glass sand (silica), sand (general), silcrete (silica), silica sand (silica), crusher (silica), filing sand, metallurgical (silica), diamond (general), and sand manufactured from the hard rock minerals. On-site processing plant minerals Demarcating a waste sorting area. Waste removal and handling from different points within the project sites.	Temporary offices and ablution facilities will be traded in to the manufacturers. Bunded area will be demolished and aggregate will be disposed to a registered landfill site.	➤ Rehabilitation of roads. ➤ Rehabilitation of open pits: ➤ Reprofilling pits. ➤ Topsoil profiling.

Criteria

Very Low= VL

Low= L

Medium= M

High= H

Extreme= E

Table 17: Identified and assessed the impacts and risks the activity will impose on the preferred site

ASPECT	IMPACT	MITIGATION MEASURES	C	L	R
Vegetation	Disturbed site and species of ecological importance.	Rehabilitate the disturbed soil and vegetation in a phased approach.	Pre-mitigation		
	Disturbed vegetation cover.		4	5	E
	Loss of indigenous vegetation and biodiversity.		Post-mitigation		
	Invasion of the alien vegetation species.	Implementation of the alien invasive species management plan.	1	3	L
Animal Life	Disrupted the animal life and activities due to the existence of the mining right activities.	Conduct environmental awareness and training about the animal life to workers and visitors.	Pre-mitigation		
	Disruption of animal life due to the ongoing operations.	Restrictions on the killing of animals on-site.	5	4	E
	Displaced animal habitat.	Cautious implementation of the mining operation waste management measure.	Post-mitigation		
Soils and Land Capability	Soil erosion, loss of soil nutrients, and changes in soil properties.	Temporary erosion control measures. Implementation of the Bioremediation	Pre-mitigation		
	Soil compaction.	Regular road maintenance.	4	5	E
	Soil contamination due to oil spillages.	Vehicle movement should be restricted to designated areas and access roads.	Post-mitigation		
	Land is incapable because of mining operation.	A cleanup of any hydrocarbon spills.	1	1	L
Surface water	Exposed toxic elements may react with rainwater.	Remedy the effects of alteration to natural drainage lines.	Pre-mitigation		
	•Disrupted natural drainage and runoff.	Implementing the hydrocarbon spillage management plan.	5	5	E
	•Sedimentation and siltation of water courses.	Implement the erosion control measures.	Post-mitigation		

	Degradation of surface water quality.	Management measures and removal of the source of toxic elements.	2	3	M
Groundwater	Degradation of groundwater quality due to contamination by the seepage of toxic elements from the mining operation, like hydrocarbons from the oil spills.	Remediate using commercially available emergency cleanup kits.	Pre-mitigation		
		Regular maintenance and servicing of equipment.	3	4	E
		Management measures and removal of the source of toxic elements	Post-mitigation		
Noise	•Increase in ambient noise levels during the operational phase;	Limiting the site establishment activities working hours to daylight hours (07h00 to 17h00) and not undertaking such activities at all on Sundays and public holidays.	Pre-mitigation		
		No operation will be undertaken on Sundays (only maintenance) and public holidays.	2	1	VL
		Implement noise monitoring.	Post-mitigation		
		Ensure noise emissions are minimised by regularly servicing all vehicles and placing silencers on their engines.	1	1	VL
Air Quality/Dust	Possible dust generation because of vehicle movements during the operations. Health impacts on animals and people.	Implementation of dust control measures such as dust suppression and dust fall-out monitoring.	Pre-mitigation		
		Enforcing the speed limits to reduce dust created by moving vehicles;	3	4	H
			Post-mitigation		
Visual	Visual disturbance due to site operations.	Use of barricade fence covers where possible to minimise the visual impact.	2	1	L
	Dust generation.	Implementation of the dust management measures.	Pre-mitigation		
	Disrupted environmental aesthetic due to the presence of the mining operation.		5	3	H
Socio-economic	Employment opportunities.	Establish targets for employment and training. development initiatives. Effective implementation of training and skills	Pre-mitigation		
	Knowledge and skills transfer Empowerment of the local businesses.	Prioritizing the sourcing of available skills from the host community.	3	3	M
		Transparency with the community members about the availability of employment opportunities. Community engagement.	Post-mitigation		
			1	1	VL

Cultural and Heritage Resources	This will be physically assessed to ensure heritage resources on the site.	Conduct an identification of all possible sites of archaeological value. Reporting of any heritage resources encountered to the relevant authorities.	Pre-mitigation		
		Identified sites must be demarcated as no-go areas.	1	1	VL
			Post-mitigation		
Waste	Generation of various types of waste.	Classification and separation of the waste.	Pre-mitigation		
	Environmental pollution, including soil and water resources contamination.	Prohibition of uncontrolled disposal of waste on site.	4	4	H
			Post-mitigation		
			3	3	M
Safety	Occupational Health and Safety injuries.	Ensure that there is controlled access to the site. All project infrastructure should be placed in a secure area. Operational sites must be demarcated.	Pre-mitigation		
		Consult with the local police branch to establish standard operating procedures for the control and/or removal of loiterers.	4	3	H
		Safety signs and barricades must be placed around the operation site.	Post-mitigation		
Health	The dust potentially contains hazardous substances and particulate matter, which can be inhaled, causing respiratory diseases.	Make available, maintain, and effectively implement a grievance/complaint register.	Pre-mitigation		
		Provision of appropriate personal protective equipment (PPE).	4	4	E
		Placing of safety signs around the operation area.			
		Induction should be conducted for all employees or subcontractors entering the site to ensure awareness of the developed health and safety plan;			
		Daily inspections and observations of on-site activities shall be conducted;	Post-mitigation		
		All incidents to be reported, recorded, investigated, and mitigated.	1	1	VL
		Provided adequate first aid services on site; and			
		Promote ongoing health and safety awareness campaigns.			
Traffic	Addition of traffic to the existing local traffic	Management and maintenance of the sections of existing road surfaces that have been impacted by the vehicle movement.	Pre-mitigation		
	Impacts on the surface quality of the road impacted resulting from vehicle movement	Existing road surfaces must be utilised and maintained within baseline levels.	3	2	M
			Post-mitigation		
			1	1	VL

Topography	Mining activities occur for the extraction of the aggregates may alter the man-made topography to its natural state.	Temporary erosion control measures, such as the runoff berms, must be implemented to reduce flow velocity should be implemented around the operation areas.	Pre-mitigation		
			4	4	H
			Post-mitigation		
			1	1	VL

Table 18: Summary of the PPP followed.

Activity	Details
Distribution of the BID and the I&AP registration form	A Background Information Document (BID), including and I&AP registration form, was distributed to various stakeholders, including the I&APs, via email on 27 th of July 2026.
Placing of a newspaper advertisement	A newspaper advertisement was published in the Citizens national newspaper on 27 th of July 2026.
Putting up site notices	Site notices around placed around the site, adjacent communities and library.
Public Participation Meeting	A public meeting consultation with the Interested and Affected parties was conducted on 25 th of August 2026 to discuss about potential impacts outlined in the scoping report.
Announcement of Environmental Impact Report	The draft report was made available through the Vahlegwe Mining and Advisory Consulting website (www.vahlegweadvisory.co.za).

Table 19: Assessment of the potentially significant impact and risk.

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
-Vegetation clearance to access the mining right activities. -Waste removal from within the project sites.	-Disturbed sites and species of ecological importance. -Disturbed vegetation cover. -Disturbed sites and species of ecological importance. -Loss of indigenous vegetation and biodiversity. -Invasion of the alien vegetation species.	Vegetation (flora)	Operational and decommissioning	Low (-)	-Removal of vegetation in a phased approach. -Implementation of the alien invasive vegetation species management plan.	Medium (+)
	-Disrupted the animal life and activities due to the	Animal life (fauna)	Operational and decommissioning	Medium (-)	-Conduct environmental awareness and training about animal life on site.	Low (+)

	existence of the mining right activities. -Disruption of animal life due to the ongoing operations. -Displaced animal habitat.				-Restrictions on the killing of animals on-site. -Cautious implementation of the waste management measure.	
	-Soil erosion, loss of soil nutrients, and changes in soil properties. -Soil compaction. -Soil contamination due to oil spillages. -Land incapable of other uses due to the existence of the mine material.	Soil and land capability	Operational and decommissioning	Medium (-)	-Temporary erosion control measures. -Vehicle movement should be restricted to designated areas and access roads. -A cleanup of any hydrocarbon spills. -Implementation of the Bioremediation. -Fuel storage areas on concrete and bunded surfaces.	Medium (+)

-Waste handling (Stockpiling, haulage, and transportation).	-Exposed toxic elements may react with rainwater. -Disrupted natural drainage and runoff.	Surface water resources	Operational and Decommissioning	Low (-)	-Implementation of temporary erosion control measures. -Management measures and removal of the source of toxic elements.	Low (+)
	-Increase in ambient noise levels during the project activities.	Noise pollution	Operational and Decommissioning	Negligible	-Limiting the site activities working hours to daylight hours (07h00 to 17h00) and not undertaking such activities at all on Sundays and public holidays. -No operation will be performed on Sundays (only maintenance) and public holidays. -Implement noise monitoring. -Ensure noise emissions are minimised by regularly	Negligible

					servicing all vehicles and placing silencers on their engines.	
-Material will be taken on-site and transported to the processing plant site for the crushing and screening process.	-Mining operation will alter the topography from its own natural state.	Topography	Operational and Decommissioning	Low (-)	-Temporary erosion control measures, such as the runoff berms, must be implemented to reduce flow velocity around the operation areas. -Conducting concurrent rehabilitation in all disturbed areas.	Negligible
	Possible dust generation in some areas during the operational phase -Detrimental effects on plants. -Health impacts on animals and people.	Air Quality/Dust generation	Operational and Decommissioning	Negligible	-Implementation of dust control measures such as dust suppression and dust fall-out monitoring. -Enforcing the speed limits to reduce dust created by moving vehicles	Negligible

	-Visual disturbance due to site operations. -Dust generation. -Disrupted environmental aesthetic due to the presence of the mining operation.	Visual and Environmental Aesthetics	Operational and Decommissioning	Medium (-)	-Use of barricade fence covers where possible to minimise the visual impact. -Implementation of the dust management measures -Removal of the hazardous waste material.	Medium (+)
	-Degradation of groundwater quality due to contamination by the seepage of toxic elements from the mining operation and hydrocarbons from the oil spills.	Groundwater quality	Operational and Decommissioning	Low (-)	-Remediate using commercially available emergency cleanup kits. -Regular maintenance and servicing of equipment. -Management measures and removal of the source of toxic elements.	Low (+)
	-Sedimentation and siltation of water courses -Alteration of natural drainage patterns	Surface water quality	Operational and Decommissioning	Low (-)	-Remedy the possible effects of alteration to natural drainage lines.	Low (+)

	-Contamination of water resources -Degradation of surface water quality				-Implementing the hydrocarbon spillage management plan, -Implement the erosion control measures. -Management measures and removal of the source of toxic elements.	
	-Occupational safety and health for injuries	Safety	Operational and Decommissioning	Low (-)	-Ensure that there is controlled access to the site. -Consult with the local police branch to establish standard operating procedures for the control. -Safety signs and barricades must be placed around the operation site.	Low (+)

					-All project infrastructure should be placed in a secure area. -Operational sites must be demarcated.	
-Waste handling (transportation and stockpiling).	-The dust potentially contains hazardous substances and particulate matter, which can be inhaled, causing respiratory diseases.	Health	Operational and Decommissioning	Low (-)	-Removal of vegetation in a phased approach. -Make available, maintain, and effectively implement a grievance/complaint register. -Provision of appropriate personal protective equipment (PPE). -Placing of safety signs around the operation area. -Induction should be conducted for all employees or subcontractors entering the	Low (+)

				site to ensure awareness of the developed health and safety plan. -Daily inspections and observations of on-site activities shall be conducted. -All incidents to be reported, recorded, investigated, and mitigated. -Safety signs to be provided in areas considered as high-risk areas. -Provided adequate first aid services on site; and -Promote ongoing health and safety awareness campaigns.	
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	-Employment opportunities. -Knowledge and skills transfer. -Empowerment of the local businesses.	Socio-economic	Operational, and Decommissioning	Low (+)	-Establish targets for employment and training. -Effective implementation of training and skills development initiatives. -Prioritizing the sourcing of available skills from the host community. -Transparency with the community members about the availability of employment opportunities. - Community engagement. -Ensure that goods and services are procured from within the local area as far as possible.	Negligible +
-Waste handling, Decommissioning and	-Degradation of culturally significant heritage resources.	Heritage resources	Operational and Decommissioning	Negligible	-Conduct an identification of all possible sites of archaeological value.	Negligible

rehabilitating the infrastructure overall area.					-Identified sites must be clearly demarcated as no-go areas.	
	- Addition of traffic to the existing local traffic. -Impacts on the surface quality of the road impacted resulting from vehicle movement	Traffic	Operational and Decommissioning	Negligible	-Vehicles and trucks will access the site via existing roads. -Existing road surfaces must be utilised and maintained within baseline levels.	Negligible
	-Soil contamination -Contamination of water resources -Impacts on human health	Waste generation	Operational, and Decommissioning	Negligible	-Promoting the reduction, re-use, or recycle of waste where prevention is not possible; -Disposal of waste to local waste disposal sites; -Littering should be strictly prohibited; and	Negligible

					-Implement a waste classification and separation system.	
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19 Assessment of each identified potentially significant impact and risk

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

The Department of Forestry, Fisheries, and the Environment (DFFE) accessible via the internet Environmental Screening Tool produced a Screening Report for an Environmental Authorization (Appendix). The environmental sensitivities at the location where the planned activities are to be carried out were summarized as follows. As a result, all related activities, including decommissioning and rehabilitation, were carried out in a location free of sensitivities.

Table 20: Environmental Sensitivity of the proposed area

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

Screening tool has been developed to illustrate the sensitivity of ecosystem diversity of the proposed area. This aids to determine the specialist studies based on very high sensitivity and high sensitivity because they depend on the type of critical biodiversity category in the next phase.

19.1 Proposed impact management objectives and outcomes for inclusion in the Environmental Management Programme (EMPr), based on the impact assessment and, where applicable, specialist recommendations, including measures to be incorporated as conditions of Environmental Authorisation.

The Environmental Management Programme (EMPr) aims to prevent, minimise, and manage environmental impacts associated with the proposed mining activities while ensuring environmental sustainability, legal compliance, and socio-economic benefits. Based on the environmental assessment and specialist recommendations, the following impact management objectives and outcomes are proposed for inclusion in the EMPr and as conditions of Environmental Authorisation:

- **Land rehabilitation:** Minimise land degradation through progressive rehabilitation, including recontouring, topsoil replacement, and revegetation with indigenous species to restore land capability.
- **Biodiversity conservation:** Protect sensitive habitats and species by maintaining buffer zones, avoiding disturbance of environmentally sensitive areas, and implementing ecological monitoring programmes.
- **Water resource protection:** Prevent contamination of surface and groundwater through effective stormwater, erosion, and waste management, supported by routine water quality monitoring.
- **Air quality and noise management:** Minimise dust emissions through water suppression and speed control and reduce noise through equipment maintenance and restrict activities to daytime hours where practicable.
- **Health and safety:** Protect workers and surrounding communities by implementing appropriate safety measures, including access control, warning signage, fencing, and emergency response procedures.
- **Traffic management:** Maintain safe access roads, manage construction and operational traffic, and minimise road deterioration and public safety risks.
- **Waste management:** Ensure all waste is appropriately reduced, reused, recycled, or disposed of at licensed facilities in accordance with legislative requirements.
- **Visual management:** Reduce visual impacts through appropriate site layout, screening where necessary, and progressive rehabilitation of disturbed areas.
- **Heritage resource protection:** Protect archaeological and cultural heritage resources through pre-construction assessments and implementation of chance-find procedures.
- **Socio-economic development:** Maximise local employment and procurement opportunities, maintain stakeholder engagement, and promote sustainable community development throughout the project lifecycle.

19.2 The following Specialist Impact Assessments will be undertaken as part of the Full EIA Phase:

- Groundwater Impact Assessment;
- Surface Water Impact Assessment;
- Land Use, Land Capability and Soil Impact Assessment;
- Fauna Impact Assessment;

- Flora Impact Assessment;
- Wetland Delineation and Impact Assessment;
- Aquatic Ecology Impact Assessment;
- Hydrogeology Impact Assessment
- Air Quality Impact Assessment;
- Noise Impact Assessment;
- Heritage Impact Assessment;
- Social Impact Assessment;
- Geochemical Assessment;
- Rehabilitation assessment; and
- Closure (Financial Provisioning).

20 Aspects for inclusion as conditions of Authorization.

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

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

- Maintain a buffer of 100 m from sensitive areas.
- Maintain a minimum 50 m (preferably 1000 m) buffer from any infrastructure.
- Landowners and land occupiers should be engaged (reconsulted) at least 1 month before any site activities are undertaken.
- Comply with the principles of NEMA.
- Conduct waste management activities sustainably to protect the natural environmental resources.
- Implement concurrent rehabilitation to minimize the impact of the project activities and the period required to complete the rehabilitation process.

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

(Which relate to the assessment and mitigation measures proposed)

The impact assessment assumes that all proposed mitigation measures will be effectively implemented throughout the project lifecycle and that compliance with applicable environmental legislation will be maintained. It further assumes that, with appropriate environmental management, significant impacts on water resources, biodiversity, and surrounding ecosystems will be avoided, and that there will be continued demand for the proposed sand and gravel resource.

Key uncertainties relate to the potential long-term effects of mining on local hydrology, particularly during extreme rainfall events, as well as the response of biodiversity to habitat disturbance and

operational activities. In addition, the cumulative impacts of the proposed mining operation in combination with existing or future developments in the area have not been fully assessed.

The assessment is limited by the availability of site-specific baseline ecological and hydrological data, the absence of long-term monitoring records, and limited stakeholder information on resource use and land access. These uncertainties should be addressed through ongoing environmental monitoring, adaptive management, and continued stakeholder engagement throughout the operational phase.

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

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

To preserve the environment and minimize the project's effects, the applicant is dedicated to carrying out the mining operations in a sustainable manner and adhering to the relevant environmental laws. Consequently, the candidate will make sure that:

If the suggested mitigation is put into practice, the project's activities have remarkably little environmental impact.

The effects of the project's actions can be appropriately avoided, reduced, or managed with the right care and attention. These can be undone by carrying out the proper rehabilitation operations; and the area will be decommissioned and rehabilitated to improve its ecological potential and make it more suitable for other land uses.

22.2 Period for which Environmental Authorization is required.

For a maximum of thirty years and subject to a thirty-year renewal, authorization is needed for mining right activities.

22.3 Undertaking

Verify that the undertaking needed to fulfil this section's requirements is included at the conclusion of the Environmental Management Programme Report (EMPr) and applies to both the Scoping Report.

The undertaking is given at the conclusion of the EMPr.

22.4 Financial Provision

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

A financial provision will be calculated using calculation of the quantum for the mining programme, for rehabilitation activities during the full EIA assessment.

CALCULATION OF THE QUANTUM							10138 PR Aug-26
Applicant: Evaluators:		TSMG Pty Ltd Vahlengwe Mining Advisory and Consulting			Ref No.: Date:		
No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	1	16,42	1	1	16,42
2 (A)	Demolition of steel buildings and structures	m2	0	226,67	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	1	336,98	1	1	336,98
3	Rehabilitation of access roads	m2	2	40,92	1	1	81,84
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	397,16	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	216,63	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	457,33	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	20	232756,9	0,4	1	1862055,2
7	Sealing of shafts adits and inclines	m3	0	122,76	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	159824,8	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	2	199058,9	1	1	398117,8
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	1	578161,4	0,51	1	294862,314
9	Rehabilitation of subsided areas	ha	0	133829,2	1	1	0
10	General surface rehabilitation	ha	6	126608,2	1	1	759649,2
11	River diversions	ha	0	126608,2	1	1	0
12	Fencing	m	0	144,42	1	1	0
13	Water management	ha	2	48140	0,17	1	16367,6
14	2 to 3 years of maintenance and aftercare	ha			1	1	0
15 (A)	Specialist study	Sum				1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							3331487,354
1	Preliminary and General		399778,4825	weighting factor 2 1,05			419767,4066
2	Contingencies		333148,7354				333148,7354
Subtotal 2							4084403,50
VAT (15%)							571816,49
Grand Total							

Figure 21: Calculation of the Quantum for the mining right rehabilitation provision

22.5 Explain how the aforesaid amount was derived.

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

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

The calculation includes annual rehabilitation, final closure, decommissioning, post-closure monitoring, water management, biodiversity rehabilitation, soil replacement, alien invasive control, infrastructure removal, pollution remediation and latent/residual environmental risks. The amount is provided for in the Mining Work Programme (MWP) and financial model and will be reviewed annually.

CHAPTER 2: ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

23 Specific Information required by the Competent Authority.

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

- **Mitigation Measures**

Measures to stop, mitigate, or address significant environmental impacts.

Clear commitments to rehabilitate as well as restore affected areas.

- **Tracking and Reporting**

Systems for tracking environmental effects during construction, operation, decommissioning, and restoration.

Regular reporting practices to authorities and stakeholders.

- **Duties and Positions**

Identifying the people responsible for implementing mitigation strategies. Clearly defined accountability structures for following environmental laws.

- **Involvement of the Public**

Considering concerns raised by interested parties during consultation.

Protocols for ongoing communication with affected communities.

Enforcement and Auditing.

Independent compliance auditing protocols.

Corrective action will be taken if failure to comply is discovered.

- **Closure & Rehabilitation Plans**

Decommissioning and rehabilitating activity plans.

Long-term land as well as ecosystem rehabilitation techniques.

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

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

The consultation's goal is to engage and notify the I&APs and provide them with enough time to voice any possible issues. A public participation process was initiated with the intention of

consulting with the I&APs, including the landowners and the nearby communities. The final SR and EMPr that are submitted to the DMPR for decision-making will include a CRR.

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

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

Studies for assessment will be conducted in the EIA phase.

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

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

In accordance with Section 24(4)(b)(i) of the National Environmental Management Act (NEMA), the Environmental Assessment Practitioner (EAP) managing this application confirms that a thorough investigation into potential alternative sites and development layouts was undertaken. Based on this investigation, it was determined that no reasonable or feasible alternatives exist for the proposed activity.

25 Environmental Management Programme

In accordance with the National Environmental Management Act (Act 107 of 1998) and related Environmental Impact Assessment (EIA) Regulations 2014, mining operations are planned to minimize environmental disturbance in a sustainable manner. This EMPr is a crucial component of the environmental authorization process, describes the management strategies needed to stop, lessen, and track possible environmental effects over the course of the project. It demonstrates the applicant's dedication to environmental stewardship, sustainable resource use, and adherence to relevant laws.

Every part of mining operations in phases, will be rehabilitated for future land uses, and environmental management is an essential part of this process. Effective erosion management strategies, buffer zones around bodies of water, and gradual rehabilitation of mined sites are all required of MR holders. Monitoring procedures are set up to measure effects on nearby ecosystems, and water consumption is managed to avoid pollution and over-extraction. To safeguard miners and prevent operations from endangering neighbouring communities, the mining right also necessitates strict adherence to health and safety regulations under the Mine Health and Safety Act. In terms of extraction, environmental stewardship, and regulatory framework compliance, the working approach functions responsibly overall.

25.1 Details of the EAP

(Confirm that the requirement for the provision of the details and expertise of the EAP is already included in PART A, section 2 herein as required).

This has already been covered chapter 1. Refer to Chapter 1 of this document.

25.2 Description of the Aspects of the Activity

(Confirm that the requirement to describe the aspects of the activity that are covered by the environmental management programme is already included in PART A, section (5) herein as required).

This has already been covered. Refer to Chapter 1 of this document.

25.3 Composite Map

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

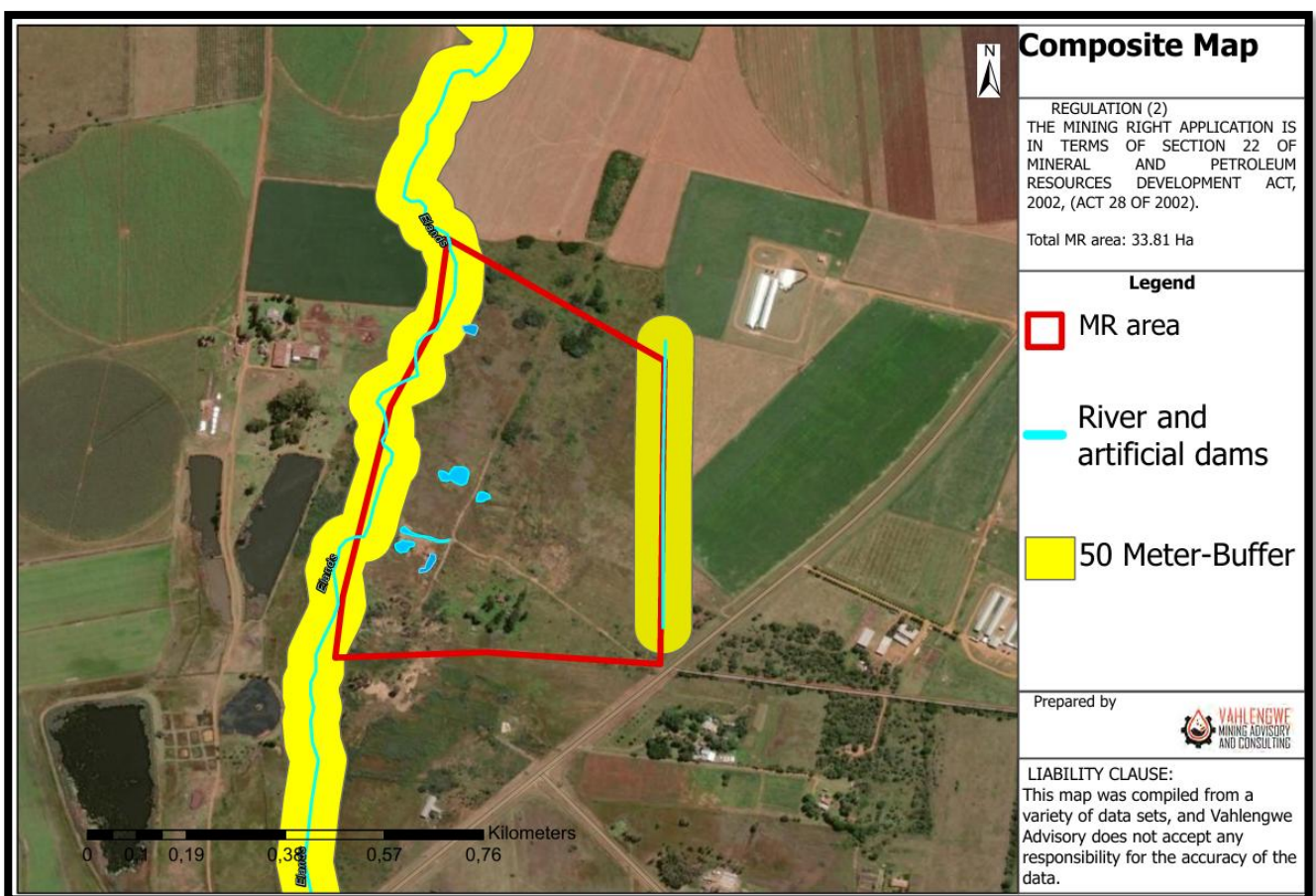


Figure 22: Composite map depicting buffer zones demarcated around water courses

The environment depends on water bodies. To stop the deterioration of environmental amenities, it is crucial to maintain a clean environment. The distance from watercourses is maintained using buffers (Figure 25). The mining operation will guarantee that water quality is unaffected by upholding a 100–150-meter buffer zone of the human made dams but will be used in mining operation. Some dams were built to collect rainwater build-up that has been seen on top of the waste

management licensing area. Nevertheless, these bodies of water were not present during the field visit, suggesting that they are seasonal.

- **Safety and Access Control:** To prevent employees and the public from being exposed to dangerous locations, safety precautions like fence, signage, and restricted access zones will be implemented.
- **Heritage Protection:** Archaeological rules will be followed to safeguard any recognized heritage resources.

26 Environmental Awareness Plan and Training

A comprehensive EMPR include training and environmental awareness. The training's main goal is to make sure that all site employees are aware of their responsibilities and requirements regarding the authorizations, mining right, approved EMPR, and environmental protection.

Both the contractor and the applicant must guarantee that all pertinent staff members are qualified to do their jobs in an ecologically responsible and compliant manner and that they are able to adhere to the applicable environmental regulations.

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

Before starting site visits, an orientation session for all on-site staff should promote environmental awareness. Additionally, employees should be made aware of environmental issues related to their jobs at the workplace. Courses must be taught by appropriately qualified instructors in a language and medium that they can comprehend. The following will be covered in the environmental awareness training program:

➤ OHS (Occupational Health and Safety) induction

Prior to site access, environmental awareness training will be conducted in "Toolbox talk" sessions with a focus on the following particular aspects:

- A recognized garbage company collects and disposes of rubbish.
- Environmentally sensitive receptors.
- Red/Orange list species identification, preservation status and significance, biology, habitat needs, and EMPR and environmental authorization management criteria.

25 Undertakings

The EAP herewith confirms;

- the correctness of the information provided in the reports.
- the inclusion of comments and inputs from stakeholders and I&APs.
- the inclusion of inputs and recommendations from the specialist reports, where relevant; and

- that the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.

Signature of the Candidate Environmental Assessment Practitioner:



Company: Vahlegwe Mining Advisory and Consulting

Date: 10 September 2026

Signature of the Professional Environmental Assessment Practitioner:



Company: Vahlegwe Mining Advisory and Consulting

Date: 10 September 2026

Appendix 1:

CV of the EAPs

SUNDAY MISHACK MABASO

12 Thaxted Ave Mulbarton 2190 · Tel ; 011 432 0062 Cel: 074 569 7312 & 082 461 4251
Email - sunday@vahlengweadvisory.co.za · LinkedIn Profile - Sunday Mabaso · X @SundayMabaso

BIOGRAPHY

Mr. Sunday Mabaso is the founder and CEO of Vahlengwe Mining Advisory and Consulting established in April 2021 to provide a broad range of services in the mining industry ranging from application of mineral rights, environmental and waste management, water use licensing, community engagements to compliance monitoring in terms of the MPRDA, MHSA, NEMA, NWA amongst other legislation governing the mining industry. He's got over 30 years mining experience including 20 years (2000 – 2021) with the Department of Mineral Resources and Energy (DMRE) where he served his last seven years as Regional Manager (3 years in Northern Cape and 4 years in Gauteng) before his resignation to advance his career in business. His areas of expertise include Environmental Management, Mining Legislation, Mine Economics, and Social and Labour Plans and community engagements. He contributed to various strategic committees, task teams in the South African Mining industry including "Mining Phakisa" in 2015, the development of the "South Africa's Exploration Implementation Plan" published by Minister of Mineral Resources and Energy in 2022.

He started his mining career in 1994 where he proceeded to attain a National Diploma in Mine Surveying and a National Higher Diploma in Mineral Resource Management from Technikon Witwatersrand in 1999 and 2000 respectively, a Graduate Diploma (GDE) in Mining Engineering from University of Witwatersrand in 2009 and a Master of Business Administration (MBA) from Milpark Business School in 2021. Sunday also completed a Post Graduate Certificate in Climate Change and Energy Law from University of the Witwatersrand in 2021, a Certificate in Energy Efficiency and Sustainability from the University of Cape Town (UCT) in 2022 and Certificate in Mine Closure and Land Rehabilitation from University of Pretoria (UP) in 2022.

Sunday is a registered member of the Institute of Directors of South Africa (IoDSA), the Southern Institute of Mining and Metallurgy (SAIMM) and is an Environmental Assessment Practitioner registered with EAPASA, also a member of the International Association of Impact Assessment South Africa (IAIASa). A committee member of the Environmental, Social and Governance (SAMESG) working group of the SAMCODES Standard Committee (SSC) responsible for developing the South African Mineral Reporting Codes. He has authored opinion and journal articles about South African mining legislation with interests focused on social and

environmental impacts on mine communities affected by mining operations, past and present. Some of his articles are published in academic journals and books internationally.

ACADEMIC JOURNAL PUBLICATIONS

Mabaso SM. (2025) The impact of gold mine closures and future planning for sustainable development in the Witwatersrand Goldfields: Mine Closure Conference 2025, 19-20 February 2025, The Southern Institute of Mining and Metallurgy: ISBN 9781-1-7764673-8-9

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

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

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

PROFESSIONAL AFFILIATIONS

- The Southern Institute of Mining and Metallurgy (SAIMM) No 709244
- EAPASA: Environmental Assessment Practitioner (EAP) No 2022/4485
- International Association of Impact Assessment South Africa (IAIAsa) No 7442
- Institute of Directors in South Africa (M.Inst.D, 69334063)
- Land Rehabilitation Society of Southern Africa (LaRSSA)
- International Society for Development and Sustainability (ISDS)

COMMITTEES

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

EXPERIENCE

01 MAY 2021 – DATE

FOUNDER AND PRINCIPAL CONSULTANT: VAHLENGWE MINING ADVISORY AND CONSULTING
CORE SERVICES

- MPRDA and NEMA
- Mining Charter
- Environmental, Social and Governance - ESG
- Mine Closure and Rehabilitation
- Waste Management
- Community engagements
- Compliance Inspections

- Assistance to junior and small-scale miners

01 AUGUST 2014 – 30 APRIL 2021

REGIONAL MANAGER, DEPARTMENT OF MINERAL RESOURCES AND ENERGY

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

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

01 APRIL 2007 – 31 JULY 2014

DEPUTY DIRECTOR: MINE ECONOMICS, DEPARTMENT OF MINERAL RESOURCES

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

01 DECEMBER 2000 – 31 MARCH 2007

INSPECTOR OF MINES, DEPARTMENT OF MINERALS AND ENERGY

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

25 JANUARY 2000 – 30 NOVEMBER 2000

SENIOR MINE SURVEYOR AND JUNIOR MINE PLANNER, TAVISTOCK COLLIERIES

05 AUGUST 1994 – 31 DECEMBER 2000

LEARNER OFFICIAL AND BURSAR, TAVISTOCK COLLIERIES

EDUCATION

JUNE 2022 TO NOVEMBER 2022

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

- Closure Design
- Regional Planning considerations and operational mitigation
- Land preparation and soil management
- Land cover/surface stabilization-economic value
- Maintenance and land management systems
- Identifying closure planning challenges and problem areas
- Mine closure planning consideration

- Closure documents required Baseline environment and closure risks
- Closure success criteria and rehabilitation monitoring
- Financial provisioning and social planning

OCTOBER 2021 TO DECEMBER 2021

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

- Energy-importance, Strategy and Challenges
- Energy Metrics, Economics and Efficiency
- Energy-efficient and Sustainable Buildings
- Energy-efficiency management and technologies in buildings
- Energy-efficiency management and technologies in industrial sector
- Energy auditing
- Energy Measurement Verification and Management Systems

MARCH 2021 TO JULY 2021

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

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

FEBRUARY 2018 TO JULY 2021

MASTER OF BUSINESS ADMINISTRATION, MILPARK BUSINESS SCHOOL

- Advanced Business Research Methodology
- Business Ethics and Corporate Governance
- Business in Emerging Markets
- Business Report Writing, Quantitative Analysis and Presentation Skills
- Dissertation
- General Management Environment
- Global Trade (Macro-economic – BRICS – Developing Markets)
- Integrated Business Strategy
- Leadership and Change Management
- Management Accounting and Finance (part 1)
- Management Accounting and Finance (part 2)
- Marketing and Sales Management
- Operations and Technology Management
- People Management
- Social Responsibility and Environmental Management

OCTOBER 2014 TO JANUARY 2015

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

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

MARCH 2006 TO NOVEMBER 2008

GRADUATE DIPLOMA IN MINING ENGINEERING, UNIVERSITY OF WITWATERSRAND

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

JULY 1999 TO JULY 2000

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

- Mineral Engineering Management IV
- Mine Survey IV
- Mine Planning IV
- Mine Valuation IV
- Experiential Training

JULY 1996 TO MAY 1999

NATIONAL DIPLOMA, MINE SURVEYING, TECHNIKON WITWATERSRAND

SKILLS

- In-depth understanding of mine planning, valuation and mining economic value chain,
- Good communication skills
- Conflict resolution

- In-depth understanding of the regulatory and compliance regime in the mining industry
- Good decision making
- Ability to work under pressure.
- Time management
- Good Leadership and management

PERSONAL INFORMATION

I'm a male South African Tsonga speaking citizen, born on 29 November 1976 in Bushbuckridge, Mpumalanga Province where I started my primary schooling at Mpikaniso Primary school in 1983 and matriculated at Orhovelani High School in 1993. I'm currently married with four children and have been residing in Mulbarton, Johannesburg South since June 2017.

PERSONAL HOBBIES

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

REFERENCES

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

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

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

**Environmental Assessment
Practitioners Association
of South Africa**



Registration No. 2022/4485

Herewith certifies that
SUNDAY MISHACK MABASO
is registered as an

Environmental Assessment Practitioner

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

Effective: 01 April 2026

Expires: 31 March 2027

Chairperson

Registrar



Curriculum Vitae
of
Nqasha Lusizo

RESIDENTIAL ADDRESS AND CONTACT DETAILS

103 Great Britain, Turffontein, Johannesburg 2080

0725046088/ 0639688778

nqashalusizo@gmail.com

PERSONAL DETAILS

Driver's License: code 10

Professional Affiliation: EAPASA and SAIMM candidate, and SACNASP in progress

PROFESSIONAL SKILLS

I am a dedicated geoscientist in Environmental Management/Science with extensive experience in GIS and Remote Sensing (RS) techniques, Environmental Health and Safety (EHS), and Environmental Impact Assessments (EIAs), as well as 1 year and 10 months of experience in Environmental Consulting, specializing with EIA and GIS survey and analysis. I am a highly skilled professional in using RS and GIS methods to monitor, map, and analyze environmental trends. I apply RS programming techniques to evaluate land use and land change (LULC), monitor ecological dynamics and Earth system interactions, and assess natural resource management strategies and sustainable development using RS models. I possess a strong understanding of environmental science and sustainability and excel at leveraging spatial data analysis to support *in-situ* strategic decision-making. With a proven record of implementing innovative solutions for environmental challenges, promoting sustainable practices, and remediating ecological impacts for a clean environment through the integration of contemporary technology and comprehensive management strategies in conserving biodiversity expansion.

AREAS OF SPECIALIZATION

- Geographic Information System (GIS) and Remote Sensing (RS) analyst in Environmental Change and Policy- Disaster management.
- GIS and RS applications in biodiversity conservation and changes.
- Environmental Impact Assessment (EIA) reports and Environmental Audits.
- Environmental Specialist in Mining Impacts and Rehabilitation in Tailings Storage Facilities (TSFs), Water and Waste Management.
- Environmental Health & Safety (EH&S), knowledgeable in NEMA and MPRDA legislation.

SKILLS

- | | |
|---|---|
| • Environmental Impact Assessment (EIA) | • Geographic Information Systems (GIS) |
| • Environmental Management | • Remote Sensing (RS) Techniques |
| • Field Water and Soil Sampling | • Geospatial programming integrating Machine Learning (GEE) |
| • Scientific Writing | • Geospatial Visualization |
| • Communication | • Remote Sensing Image Processing |
| • Proofreading EIAs | • Microsoft Office Package |
| • NRF reviewer and Student co-supervision | • Database Management Systems and Statistical analysis |

EDUCATION

University of The Witwatersrand - Gauteng Province | Master of Science in Geography |2024 – 2026

- Dissertation in Geography (Environmental Science), GIS, and Remote Sensing.

- Environmental Management in Mining Impact (water quality assessment) and Rehabilitation.

University of The Witwatersrand - Gauteng Province | Bachelor of Arts Honours in Geography |2023

- Environmental management in waste management, GIS and Remote Sensing.

Walter Sisulu University - Eastern Cape Province | Bachelor of Arts | 2022

- Geography (Environment Management, GIS, and Remote Sensing).

Daluhlanga Senior Secondary School - Eastern Cape Province | Matric - 2018

- NSC - Grade 12

WORK EXPERIENCE

Currently working as a Senior GIS AND EIA Consultant - September 2024- present

Vahlengwe Mining Advisory and Consulting – Gauteng Province – 1 year and 10 months of experience

- Mineral Rights applications (Prospecting and Mining Rights) EA and PWP/MWP documents.
- Applying GIS skills to create maps (Regulation 4.2, 2.2, Locality, and all other environmental survey maps) and RS models and produce thematic maps using Google Earth Pro, ArcGIS Pro, QGIS, and ERDAS software.
- Non-invasive activities for mining and environmental surveys.
- Compiling Environmental reports like Basic Assessment Reports, Scoping Reports, and Environmental Impact Assessment Reports.
- Using GIS and RS to create maps and Critical Biodiversity Areas maps for sensitive biodiversity, confirming environmental impacts for decision-making processes.
- Applied analytical practices and evaluation techniques in EIA to assess the potential consequences of proposed projects on the environment.
- Conducted field surveys and site visits to gather primary data and verify the findings, enhancing the accuracy and reliability of assessments.
- Environmental Audits in Mines for Environmental Compliance.
- Reviewing all EIA reports in the office and specialist studies from the specialists.

Waste Wizard Manager|2025

Wits H2O Laboratory - University of Witwatersrand – Gauteng Province – 11 months of experience

- Arrange waste collection with the designated company.
- Ensuring all dirty chemical water test kits were disposed of, performing proper analysis to prevent pollution, and discarding all the waste after water tests or analysis.
- Make sure we have the correct number of waste bins and bags for general and hazardous waste.
- Ensure proper waste bottles are available and used correctly for chemical disposal.
- Coordinate with the Chemical Commander to ensure safe disposal of hazardous materials and outdated chemicals.

CONFERENCE PRESENTATIONS ATTENDED

- Mine Closure and Rehabilitation Conference and workshop – July at Indaba Hotel 2026
- South African Institute of Mining and Metallurgy (SAIMM) – April at Indaba Hotel 2026
- International Institute of Environmental Science (IIES) Conference – April at Witwatersrand – 2025
- Network for Industrial Contaminated Land in Africa (NICOLA) Conference – October in Durban – 2024.

ENVIRONMENTAL PRACTICALS | 02/2023 to 05/2023

University of The Witwatersrand - Gauteng Province

- Conducted water parameter testing on water samples to assess water quality and find potential environmental challenges.
- Generated reports summarizing findings from water parameter testing, GIS mapping, and EIA evaluations to communicate effectively with stakeholders.
- Collaborated with interdisciplinary teams to analyze and interpret data, ensuring a comprehensive understanding of environmental challenges and potential solutions.
- Analyse statistical analysis techniques to analyze large datasets, offering valuable insights into trends and patterns related to water quality and environmental impact.
- Development strategies for mitigating environmental risks and promoting sustainability in water management practices, incorporating findings from research and analysis.

GIS INTERIM LECTURER | 04/2023 to 11/2023

Walter Sisulu University - Eastern Cape Province

- Managed GIS databases for environmental management (preservation) through regular maintenance and quality changes.
- Developed practice applications to fit workflow efficiency and accuracy in data processing.
- Conducted comprehensive spatial data analysis to identify patterns and trends, helping in strategic planning and resource allocation.
- Provided technical ability and training to students, empowering them to use tools effectively in their roles.
- Using programming (GEE) to enhance spatial data (dynamic environmental changes) differences and analysis, helping stakeholders in formal decision-making.

REFERENCES

Available upon request

**Environmental Assessment
Practitioners Association
of South Africa**



Registration No. 2024/9364

Herewith certifies that

LUSIZO NQASHA

is registered as an

Candidate Environmental Assessment Practitioner

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

Effective: 01 April 2026

Expires: 31 March 2027

Chairperson

Registrar



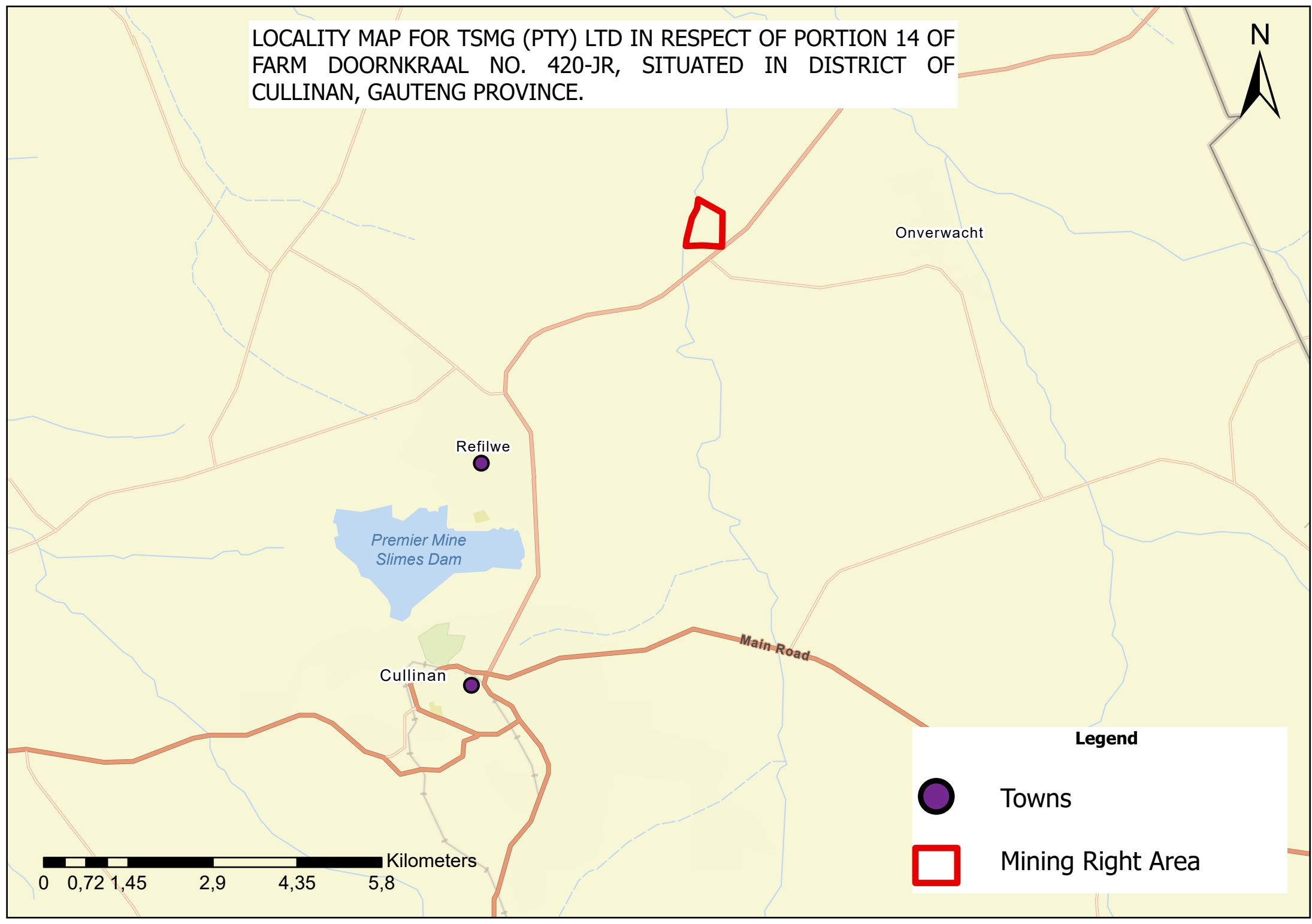
Appendix 2: Maps

A Locality and Regulation 2.2

B Land Use Map

C Site Plan Map

LOCALITY MAP FOR TSMG (PTY) LTD IN RESPECT OF PORTION 14 OF FARM DOORNKRAAL NO. 420-JR, SITUATED IN DISTRICT OF CULLINAN, GAUTENG PROVINCE.



Onverwacht

Refilwe

Premier Mine
Slimes Dam

Cullinan

Main Road

0 0,72 1,45 2,9 4,35 5,8 Kilometers

Legend



Towns



Mining Right Area

THE FIGURES A, B, C, D, E, F, G, & H REPRESENT THE APPLICATION OF THE MINING RIGHT (GP 30/5/1/2/2/10138 MR) SITUATED ON PORTION 14 OF FARM DOORKRAAL 420 JR, SITUATED, WITHIN THE MAGISTERIAL DISTRICT OF CULLINAN, PRETORIA, GAUTENG PROVINCE.



TSMG (Pty) Ltd

REGULATION (2)
THE MINING RIGHT APPLICATION IS IN TERMS OF SECTION 22 OF MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, (28 OF 2002).

Total MR area: 33.81 Ha

Legend

● Points Location

□ MR area

Plan Approval
Applicant
Signature:.....
Date:.....

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

Regional Manager
Signature:.....
Date:.....

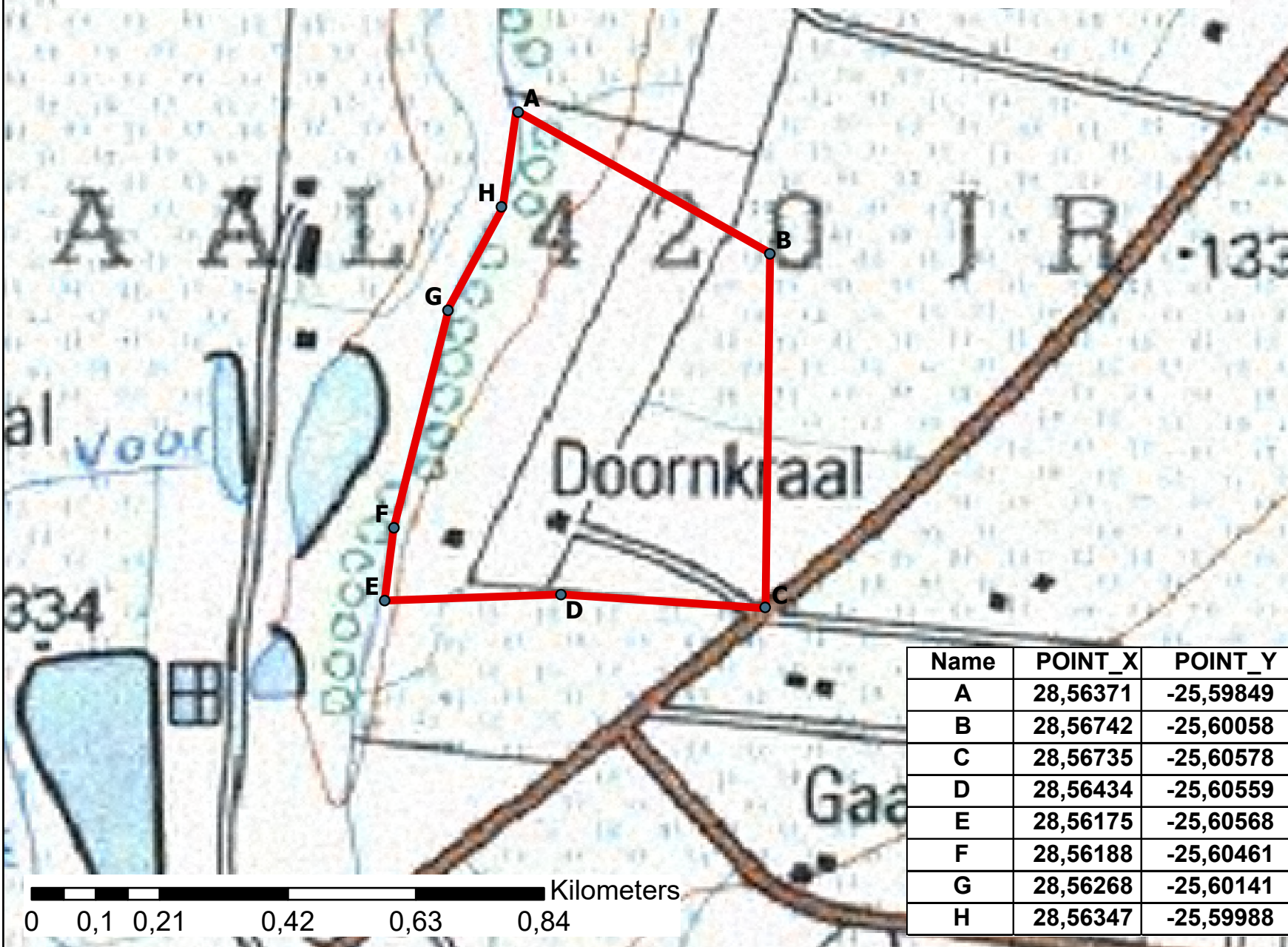
Prepared by:

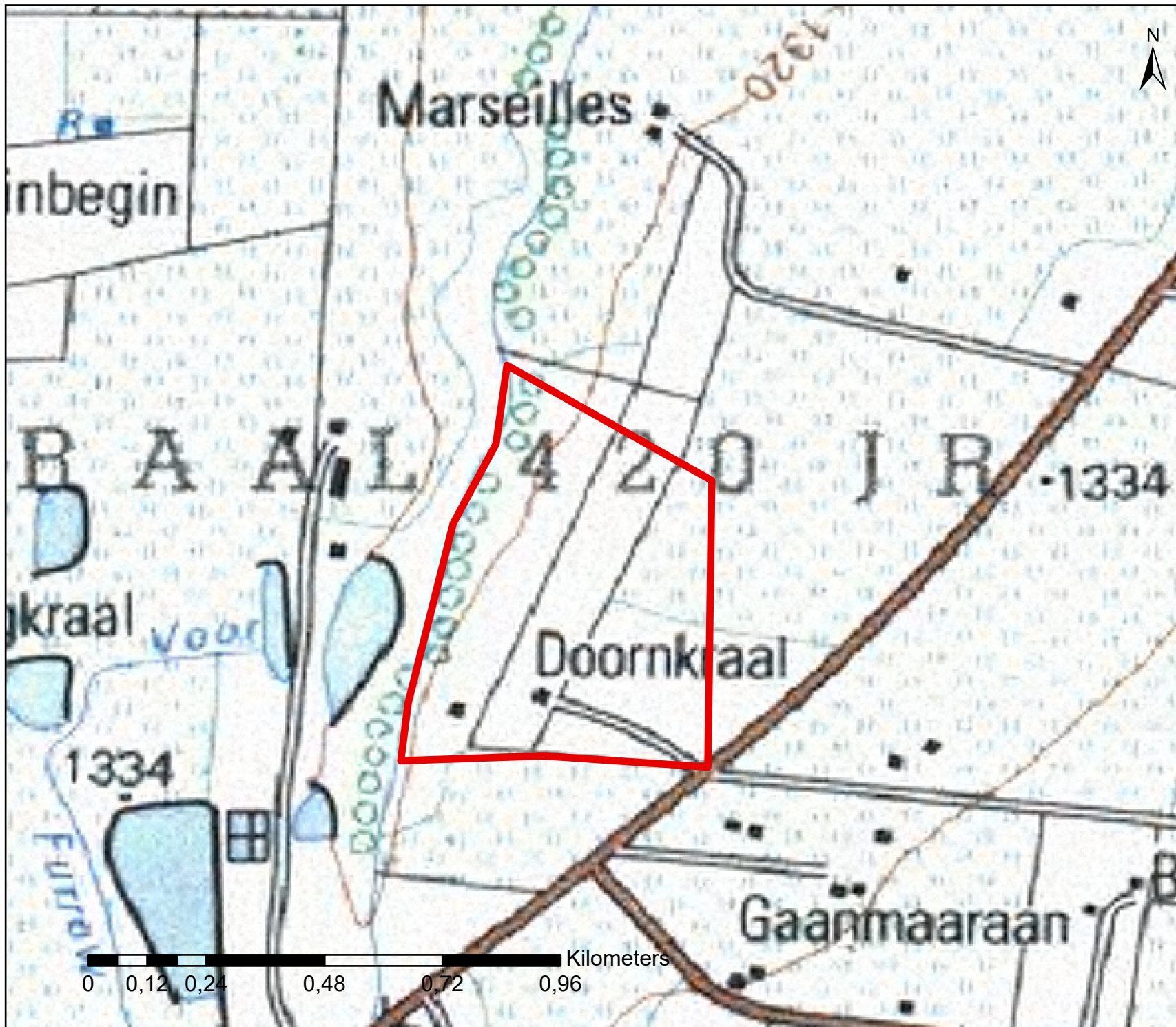


LIABILITY CLAUSE:

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

Coordinate System: WGS 84





LULC Map

REGULATION (2)
THE MINING RIGHT APPLICATION IS
IN TERMS OF SECTION 22 OF
MINERAL AND PETROLEUM
RESOURCES DEVELOPMENT ACT,
2002, (ACT 28 OF 2002).

Total MR area: 33.81 Ha

Legend

- Road
- Building
- Orchads
- Dam
- Agriculture
- Mining Right area

2528DA.ECW

RGB

- Red: Band_1
- Green: Band_2
- Blue: Band_3

Prepared by



LIABILITY CLAUSE:

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

TSMG SITE PLAN

Legend

-  Area to be mined
-  Kalliergo Farming
-  Mine access road
-  Mine equipment and machinery parking area
-  Mobile Offices and private parking
-  MR TSMG Data
-  Open-pit area

Google Earth

Image © 2026 Airbus

300 m



Appendix 3: Public Participation Process

A Proof of newspaper advert

B Site Notice Report

**C Background Information Document and Interested and Affected
Parties Registration Form**

Legals

Legals@citizen.co.za

THIRTY EIGHT) square metres which has been lost or destroyed. All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds: South Gauteng at Johannesburg, DEEDS OFFICE INFORMATION SECTION, JOHANNESBURG DEEDS OFFICE, 28 HARRISON STREET, MARSHALLTOWN, JOHANNESBURG, within two (2) weeks from the date of the publication of this notice. Dated at ~ this day of 2026. WESLEY BYRON-LEE HASSEN Applicant: WESLEY BYRON-LEE HASSEN Address: C/O Botha Coetzee Mapekula Inc Unit 5 Willow View Office Park 653 Van Hoof Street Willowbrook Rodepoort Docex 32, Rodepoort, Tel: 011-763 2177 Facsimile: 011-763 4432 Email: kimesha@bcminc.co.za (Ref: KG/H184) AC012242

T58516/2013 GAOLAOLWE MG
Notice is hereby given in terms of Regulation 68 of the Deeds Registries Act, 1937, of the intention to apply for the issue of a certified copy of Deed of Transfer No. T58516/2013 passed by CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY in favour of the late KESIMOLOTSE MARIA GAOLAOLWE, IDENTITY NUMBER 240711 0222 085, Widowed, in respect of certain ERF 2368 KANANA PARK EXTENSION 2 TOWNSHIP, REGISTRATION DIVISION I.Q. PROVINCE OF GAUTENG which has been lost or destroyed. All interest persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds North Gauteng at DEEDS OFFICE INFORMATION SECTION, 600 LILIAN NGOYI STREET, PRETORIA CENTRAL, PRETORIA within Two (2) Weeks from the date of the publication of this Notice. Dated at JOHANNESBURG on this the day of JULY 2026. NTOMBI PRINCESS KATYANA

(REPRESENTATIVE) E/LATE KESIMOLOTSE MARIA GAOLAOLWE ADDRESS: MUTHAPHULI ATTORNEYS Suite 302, 3rd Floor Renaissance Centre 16-20 New South Street, Ghandi Square Marshalltown, Johannesburg 2001 EMAIL: muthaphulir@gmail.com CONTACT NUMBER: 010 745 7986

—KP136927

T62864/1995
ANTONIO ARMINDO GONCALVES & ANA CELIA GOUVEIA GONCALVES
LOST OR DESTROYED DEED Notice is hereby given in terms of regulation 68 of the Deeds Registries Act, 1937, of the intention to apply for the issue of a certified copy of Deed of Transfer T62864/1995 passed by HARPAM PROPERTIES CC CK 89/23210/23 in favour of ANTONIO ARMINDO GONCALVES Identity Number 651016 5076 086 and ANA CELIA GOUVEIA GONCALVES Identity Number 700924 0075 08 9 Married in community of property to each other in respect of PORTION 24 OF ERF 1755 SUNWARD PARK EXTENSION 4 TOWNSHIP, REGISTRATION DIVISION IR, THE PROVINCE OF GAUTENG IN EXTENT 756 (SEVEN HUNDRED AND FIFTY SIX) SQUARE METRES HELD BY DEED OF TRANSFER T62864/1995 which has been lost or destroyed. All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds: South Gauteng at Johannesburg, 28 Harrison Street, Marshalltown, Johannesburg, 2107 within two weeks from the date of the publication of this notice. ANTONIO ARMINDO GONCALVES ANA CELIA GOUVEIA GONCALVES Burmeister Attorneys Inc Unit 5, Montana Forum Tecomaria Street Montana 0150 Tel: +27125486460 Email: info@burlaw.co.za TB001546

T66446/1987 HEUGHAN G
Notice is hereby given in terms of Regulation 68 of the Deeds Registries Act 47, 1937, of the intention to apply for the issue of a certified copy of Deed of Transfer number T66446/1987. Passed by: ANTHONY WILLIAM GILL Identity Number 5308175164104 Married out of community of property In favour of: GLYNIS HEUGHAN Identity number 4909220102006 Unmarried In respect of certain: ERF 984 JUKSKEIPARK EXTENSION 5 TOWNSHIP REGISTRATION DIVISION I.Q. TRANSVAAL which has been lost or destroyed. All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds North Gauteng at Pretoria The National Department of Agriculture, Land Reform and Rural Development (DALRRD), 610 Lilian Ngoyi Street, Pretoria Central, 0002 within two weeks from the date of the publication of this notice. Dated at Sandton on this 23 day of JULY 2026. Applicant: JUSTIN VUSUMUZI NDLOVU Address: Corner 5th Street and Norwich Close, Block B, 1st Floor, Sandton Email: justin@denoon.co.za; robyn@denoon.co.za Contact number: 011 666 9600 LV031436

T69871/2003 PEREIRA A N & N
LOST OR DESTROYED DEED Notice is hereby given in terms of regulation 68 of the Deeds Registries Act, 1937, of the intention to apply for the issue of a certified copy of T69871/2003 passed by ESTELLE BRIDER (BORN SENEKAL), Identity Number 730515 0037 089, Married out of community of property, in favour of ANGELINO NORBERTO PEREIRA, Identity Number 720916 5165 085 AND NELITA PEREIRA, Identity Number 740720 0175 081, Married in community of property to each other in respect of certain ERF 1596 GEDULD EXTENSION TOWNSHIP, REGISTRATION DIVISION I.R., THE PROVINCE OF GAUTENG, which has been lost or destroyed. All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds: South Gauteng at Johannesburg, 28 Harrison Street, Marshalltown, Johannesburg, 2107 within two weeks from the date of the publication of this notice. DOMINIC MICHAEL CARTER-JACKSON Burmeister Attorneys Inc Unit 5, Montana Forum Tecomaria Street Montana 0150 Tel: +27125486460 Email: info@burlaw.co.za TB001547

which has been lost or destroyed. All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the REGISTRAR OF DEEDS: SOUTH GAUTENG at JOHANNESBURG, DEEDS OFFICE INFORMATION SECTION, 28 HARRISON STREET, MARSHALLTOWN, JOHANNESBURG within two weeks from the date of the publication of this notice. Dated at Springs this day of 2026. Applicant Applicant ANGELINO NORBERTO PEREIRA NELITA PEREIRA Address: C/o Ivan Davies Theunissen Attorneys 70 SIXTY STREET, SPRINGS NEW, SPRINGS (REF: Magda/MAT17177) Email: magda@idt.co.za Contact number: (011) 812 1050 LD023166

T72621/2006 ELEANOR IRELAND
LOST OR DESTROYED DEED Notice is hereby given in terms of regulation 68 of the Deeds Registries Act, 1937, of the intention to apply for the issue of a certified copy of Deed of Transfer T72621/2006 passed by THE EXECUTRIX IN THE ESTATE OF THE LATE GWENDOLINE VIOLET COWIE NO. 1067/2006 in favour of ELEANOR IRELAND IDENTITY NUMBER 451106 0014 08 3 MARRIED OUT OF COMMUNITY OF PROPERTY in respect of ERF 253 DUNVEGAN TOWNSHIP REGISTRATION DIVISION I.R., THE PROVINCE OF GAUTENG MEASURING 1 240 (ONE THOUSAND TWO HUNDRED AND FORTY) SQUARE METRES HELD BY DEED OF TRANSFER T72621/2006 which has been lost or destroyed. All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds: South Gauteng at Johannesburg, 28 Harrison Street, Marshalltown, Johannesburg, 2107 within two weeks from the date of the publication of this notice. DOMINIC MICHAEL CARTER-JACKSON Burmeister Attorneys Inc Unit 5, Montana Forum Tecomaria Street Montana 0150 Tel: +27125486460 Email: info@burlaw.co.za TB001547

T801/2003 SWART L
Notice is hereby given in terms of Regulation 68 of the Deeds Registries Act 1937, of the intention to apply for the issue of a certified copy of Deed of

Transfer T801/2003 Passed by: DIE EKSEKUTEUR in die boedel wyle TILLY DU TOIT Nr. 2939/2002 In favor of: LIESEL SWART Identiteitsnommer: 780222 0049 086 Getroud buite gemeenskap van goedere In respect of certain: ERF 270 SENEKAL, DISTRIK VRYSTAAT which has been lost or destroyed. All persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds at Bloemfontein within two weeks after the date of the publication of this notice. Dated at CLARENS on 20 JULY 2026. APPLICANT: JC DE CLERK ATTORNEYS 28 MAIN STREET CLARENS 9707 Tel: (058) 256 1807 E-mail address: maretha@jdc.co.za. KP136934

Ti62110/2004 HADEBE LJ
Notice is hereby given in terms of Regulation 68 of the Deeds Registries Act, 1937, of the intention to apply for the issue of a certified copy of Deed of Transfer No. TL62110/2004 passed by PIET PHOLOGOLO RANTU, IDENTITY NUMBER 491202 5402 084 and LEPHEPE EVODIA RANTU, IDENTITY NUMBER 520501 0693 083, married in community of property to each other, in favour of the late LESIBA JOHANNES HADEBE, IDENTITY NUMBER 461115 5215 080, unmarried, in respect of certain ERF 16898 KAGISO EXTENSION 12 TOWNSHIP, REGISTRATION DIVISION I.Q. PROVINCE OF GAUTENG which has been lost or destroyed. All interest persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds at DEEDS OFFICE INFORMATION SECTION, 28 HARRISON STREET, BUILDING FLOOR 6-10, MARSHALL TOWN, JOHANNESBURG within Two (2) Weeks from the date of the publication of this Notice. Dated at JOHANNESBURG on this the day of MARCH 2026. NOMVULA MARTHA NTLANGANE (REPRESENTATIVE)-E/LATE LESIBA JOHANNES HADEBE ADDRESS: MUTHAPHULI ATTORNEYS Suite 302, 3rd Floor Renaissance Centre 16-20 New South Street, Ghandi Square Marshalltown, Johannesburg 2001 EMAIL: muthaphulir@gmail.com CONTACT NUMBER: 010 745 7986. KP136870

TG318/1979BP ERF 3927 MABOPANE UNIT B TOWNSHIP LOST OR DESTROYED DEED
Notice in terms of Regulation 68 of the Regulations made under the Deeds Registries Act 47 of 1937 Notice is hereby given in terms of the provisions of Regulation 68 of the Regulations made under the Deeds Registries Act 47 of 1937 that it is the intention to apply for the issue of a certified copy of: Deed of Transfer No.: TG318/1979BP Registered Owner: MANTWA CALORINA PETE IDENTITY NUMBER 371028 0289 08 4 UNMARRIED In respect of: ERF 3927 MABOPANE UNIT B TOWNSHIP REGISTRATION DIVISION J.R: PROVINCE OF GAUTENG MEASURING 406 (FOUR HUNDRED AND SIX) Square metres Which has been lost or destroyed. All persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds at Pretoria within two (2) weeks after the date of the first publication of this notice. Dated at Pretoria on the 21st day JULY 2026 MOCHE ATTORNEYS INC. 37 CNR. DR. VAN DER MERWE & ROOIBOS STREET MONTANA TEL: (012) 567 6062. Email: mocheatt@telkomsa.net AC012237

73A VERLORE DOKUMENTE
T10064/2009 HENDRIK FREDERIK STEENKAMP VERLORE OF VERNIETIGDE TITELBEWYS
Hiervoor word kennis gegee dat kragtens die bepaling van Regulasie 68 van die Registrasie van Aktes Wet, 1937, dit die voorneme is om aansoek te doen om 'n geresertifiseerde afskrif van TRANSPORTAKTE T10064/2009 gepasseer deur ANDRIES JOHANNES OELOFSE Identiteitsnommer 40081750360085 en HESTER ELIZABETH OELOFSE Identiteitsnommer 4308190026081 Getroud binne gemeenskap van goedere met mekaar ten gunste van HENDRIK FREDERIK STEENKAMP Identiteitsnommer 6312285152081 en JOEY STEENKAMP Identiteitsnommer 6606190014082 Getroud binne gemeenskap van goedere met mekaar ten aansien van sekere

PLOT 55 ROODEWAL KLEINPLASE DISTRIK BLOEMFONTEIN PROVINSIE VRYSTAAT GROOT 4,2827 (VIER KOMMA TWEE AGT TWEE SEWE) Hektaar wat verlore geraak het of vernietig is. Alle persone wat teen die uitreiking van sodanige afskrif beswaar het, word hierby versoek om dit skriftelik in te dien by die Registrateur van Aktes te BLOEMFONTEIN binne twee weke ná datum van publikasie van hierdie kennisgewing. Gedateer te BLOEMFONTEIN op 23 Julie 2026 Aansoeker:Fourie Prokureurs, ARINA MERRY LPCM - 58588 Address: 123 Pres Reitzlaan, Westdene, Bfn 9300 Epos adres: talita@fourielaw.co.za Foonnommer: 0514475093 TB001540

MUNICIPAL NOTICE

78 AMENDMENT SCHEMES

Erf 378 Eldoraigne NOTICE OF AN APPLICATION FOR THE REZONING AND THE REMOVAL OF THE RESTRICTIVE CONDITIONS IN THE TITLE DEED IN TERMS OF SECTION 16(1) AND 16(2) OF THE CITY OF TSHWANE LAND USE MANAGEMENT BY-LAW, 2016 (AMENDED 2024)
We, IF Property Solutions (Pty) Ltd (2024/472736/07) being the authorised agent of the owner of Erf 378 Eldoraigne, hereby give notice in terms of Section 16(1) (f) of the City of Tshwane Land Use Management By-Law, 2016 (Amended 2024), that we have applied to the City of Tshwane for the Rezoning and simultaneous Removal of Restrictive conditions contained in the Title Deed in terms of Section 16(1) and 16(2) of the Tshwane Land Use Management By-Law, 2016 (Amended 2024) of the above-mentioned property. The property is situated at: 1 Edward Street, Eldoraigne The application is for the Removal of the following conditions: Conditions 3(b), (c), (d), (e), (f), (g), (h), (j), (k), (l)(i-ii), (m), (n) and 4(i) ii), in Title Deed T66942/2023. The proposed Rezoning application is from: Residential 1 to Residential 2 The intension of the applicant is to: Increase the density of the residential dwelling units to 6 units. Any objection(s) and/or comment(s), including the grounds for such objection(s) and/or comment(s) with full contact details and submitted in the prescribed form, without which the municipality cannot correspond with the person or body submitting the objection(s) and/or comment(s), shall be lodged with, or made in writing to: The Group Head, Economic Development and Spatial Planning, City of Tshwane, PO Box 3242, Pretoria, 0001 or to cityp_registration@tshwane.gov.za from 20 July 2026 until 17 August 2026 Full particulars and plans (if any) may be inspected during normal office hours at the municipal offices as set out below, for the period indicated above. Should the municipal offices be closed or in the case of any other eventualities the land development application cannot be perused at the offices of the municipality, a copy can be requested from the applicant, at the following contact details: info@ifpropertiesolutions.co.za. For purposes of obtaining a copy of the application, it must be noted that the interested and affected party must provide the municipality and the applicant with an e-mail address or other means by which to provide the said copy electronically. No part of the documents provided by the municipality or the applicant, may be copied, reproduced or in any form published or used in a manner that will infringe on intellectual property rights of the applicant. Should any interested or affected party not take any steps to view and/or obtain a copy of the land development application, the failure by an interested and affected party to obtain a copy of an application shall not be regarded as grounds to prohibit the processing and consideration of the application. Please note the requirements for comments and objections contained in the City of Tshwane Land Use Management By-Law, 2016 (Amended 2024) in terms of

Schedule 25 and form COT: F /31 for purposes of consideration thereof. The prescribed form to be completed by the objectors can be obtained from the applicant at t i n f o@ifpropertiesolutions.co.za or cityp_registration@tshwane.gov.za Address of municipal offices: City of Tshwane, Room E10, cnr Basden Ave & Rabie Str, Die Hoewes. Address of Applicant: E - m a i l : i n f o@ifpropertiesolutions.co.za Postal Address: 477B Sappers Contour, Lynnwood X1 Telephone: 083 704 4566 Dates on which notice will be published: 20 July 2026 and 27 July 2026 Closing date for any objections and/or comments: 17 August 2026 Reference: Items 52004 & 52061 AC011942

80 GENERAL

PORTIONS 34, 35, 72 & 73 OF FARM KLIPFONTEIN NO. 268-JR NOTICE OF WATER USE LICENCE APPLICATION RAUMIX ROSSLYN QUARRY LOCATED ON PORTIONS 34, 35, 72 & 73 OF FARM KLIPFONTEIN NO. 268-JR, CITY OF TSHWANE METROPOLITAN MUNICIPALITY
Notice is hereby given for a Water Use Licence Application (WULA) in terms of the National Water Act, 1998 (Act 36 of 1998) (NWA) to the Department of Water and Sanitation made by Canyon Rock (Pty) Ltd (The Applicant and landowner) for the following activity: Project Name: RAUMIX ROSSLYN QUARRY (WU48672) Locality: Rosslyn Quarry (the 'Quarry' / the 'Mine') is located in the Gauteng Province, on the northern outskirts of the City of Tshwane, north-east of Rosslyn industrial area, between Ga-Rankuwa and Soshanguve, in quaternary catchment A29K in the Limpopo-Olifants Water Management Area (LOMA Authorisation Office). The Quarry is situated on Portions 34, 35, 72 & 73 of Farm Klipfontein No. 268-JR. Details of the mine: Sand and aggregate rock has been mined at Rosslyn Quarry since the 1970's. The Quarry is owned and operated by Raumix Aggregates (Pty) Ltd since about 2012 (Converted Mining Right (GP/172)MRC). The mine makes use of conventional drilling and blasting techniques; and the mining right area is 58,5 ha in extent. There are no major water resources within its vicinity, and water is mostly used for wash-bay, ablation /domestic purposes, and dust suppression. No water is used for processing/washing of sand. APPLICATION PROCEDURES: The following water uses are applied for in terms of the NWA: 'Section 21(a) of the NWA: Abstraction of water (Boreholes; Quarry pit) 'Section 21(g) of the NWA: Disposing of waste in a manner that may impact a water resource (septic tanks, dust suppression, stockpiles) 'Section 21(j) of the NWA: Removing, discharging, disposing water found underground if it is necessary for the efficient continuation of an activity or for the safety of people (Quarry pit dewatering) ACCESS INFORMATION: Interested and Affected Parties (I&APs) are hereby notified of the application and are requested to register and comment on the water use related activities within 60 days from publication of this notice, which is 25 September 2026. More information can be obtained by sending a request to Marchelle Terblanche from INDEX on (c) 082 804 2945 or email at marchelle.terblanche@hotmail.com AC012201

The Citizen
Want to advertise **deceased estates?**
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010 976 4216
legals@citizen.co.za

TSMG (PTY) LTD

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY AND COMMENT ON THE DRAFT SCOPING REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT.

NOTICE OF ENVIRONMENTAL AUTHORISATION FOR THE MINING RIGHT APPLICATION FOR AGGREGATE, CONCRETE SAND (SILICA), BUILDING SAND (SILICA), FOUNDRY (SILICA), GLASS SAND (SILICA), SAND (GENERAL), SILCRETE (SILICA), SILICA SAND (SILICA), CRUSHER (SILICA), FILING SAND, METALLURGICAL (SILICA), DIAMOND (GENERAL), AND SAND MANUFACTURED FROM THE HARD ROCK MINERALS IN RESPECT OF PORTION 4 OF THE DOORNKRAAL 420 JR, IN THE MAGISTERIAL DISTRICT OF CULLINAN, GAUTENG PROVINCE.

DMPR REFERENCE NO: GP 30/5/1/2/2/10138 MR

Notice is hereby given in the intent to conduct an environmental authorization process for an application of a mining right of aggregate, concrete sand (silica), building sand (silica), foundry (silica), glass sand (silica), sand (general), silcrete (silica), silica sand (silica), crusher (silica), filing sand, metallurgical (silica), diamond (general) and sand manufactured from the hard rock minerals. TSMG (Pty) Ltd in terms of the National Environmental Management Act (NEMA) (Act 107 of 1998) as amended and the Environmental Impact Assessment (EIA) Regulations, 2014. Notification is hereby given to all Interested and Affected Parties (I&APs) in terms of Sections 39 to 44 of GNR 982. The EIA process would be undertaken in terms of these guidelines and be submitted to the competent authority, the Department of Mineral and Petroleum Resources (DMPR).

THE ABOVE ACTIVITIES TRIGGERED:

- GN R 984 (Listing Notice No. 2 (as amended)): 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 (Act 28 of 2002), 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.
- GNR 984 Listing Notice 2, Activity 15
- GNR 921 Activity 10 under category B
- GNR 921 Activity 11 under category B

SITE LOCATION

The mining right area is located in various portions of the following farms: in respect of Portion 4 of the Doornkraal 420 JR, in the magisterial district of Cullinan, Gauteng Province.

PUBLIC MEETING:

Public meeting will be held to facilitate discussions on the Draft Scoping report and EMPr to record direct comments and inputs from the Interested and Affected Parties (I&APs), therefore you are requested to register your names as I&APs within 15 days, thus, on/before **12th of August 2026**. You are further requested to submit your comments within 30 days from the date this notice was published. Take note that your comments must be submitted on or before **27th of August 2026**, to the details below:

Contact Details of the EAP

Consultant : Vahlengwe Mining Advisory and Consulting
Contact person : Sunday Mabaso
Postal address : 238 Vorster Ave, Glenvista Extension 3, Johannesburg South, 2058
Contact : +27 11 432 0062 / 074 569 7312
E-mail : info@vahlengweadvisory.co.za

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SITE NOTICE REPORT

Scoping report for an application for mining right, in respect of portion 4 of the Farm Doornkraal 420 JR, located in the Magisterial District of Cullinan, Gauteng Province.

Site notice A was placed at the gate of the proposed site.



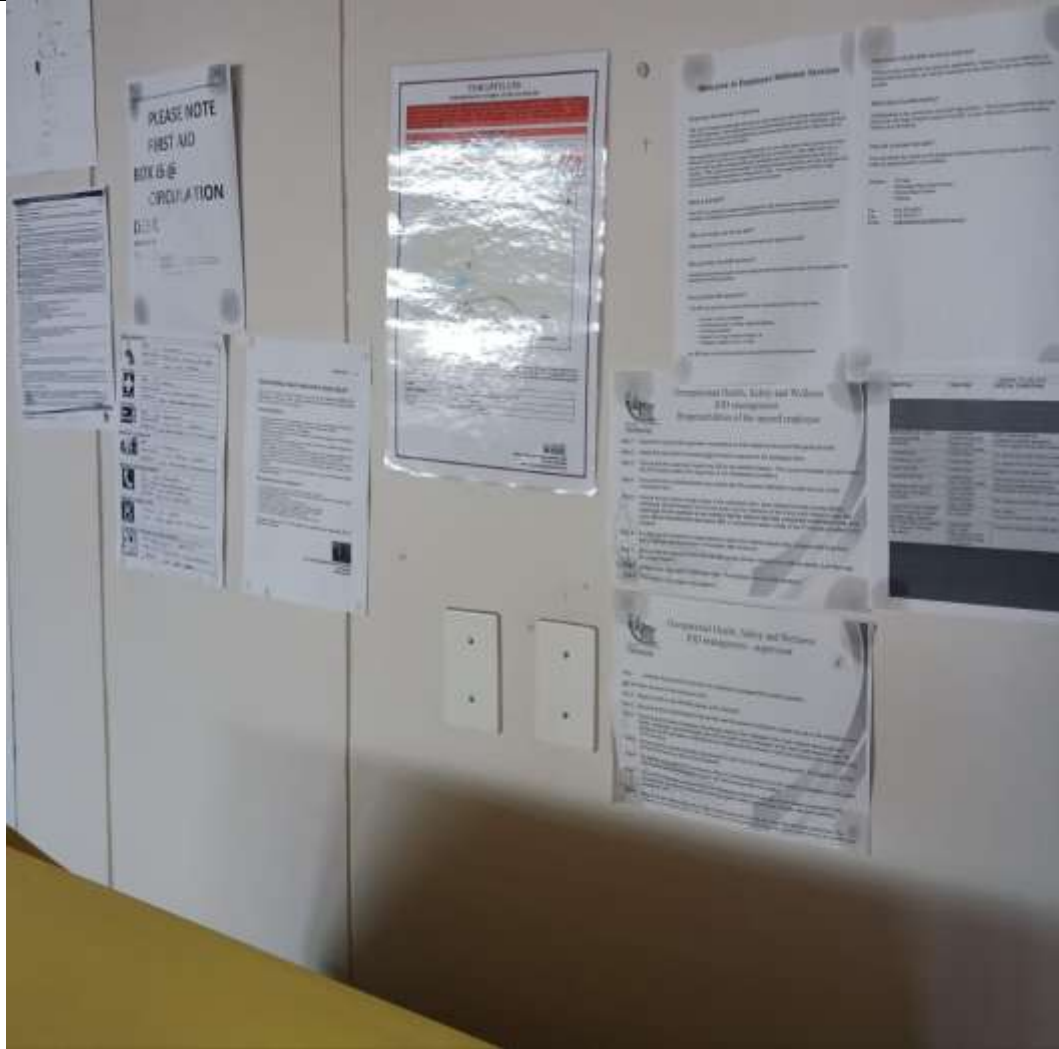
Site notice B was placed at the fence of correctional services in Thabazimbi community.



Site notice C was placed at the shell filling station and Fourways crossing.



Site notice D was
placed outside
municipal offices



Site notice E was placed at the entrance of the computer laboratory



Public
Participation
meeting and
meaningful
engagement



Final SCOPING and EMPR
TSMG (PTY) LTD
GP 30/5/1/2/2/10138 MR



The invitation below was sent to the I&Ps around the community on the 19th of August 2026, which was before the PP meeting facilitated by VahleNgwe

Final SCOPING and EMPR
TSMG (PTY) LTD
GP 30/5/1/2/2/10138 MR



238 Voster Ave, Glenvista Ext 3
Johannesburg South, 2058
+27 11 432 0062 | +27 74 569 7312
info@vahlengweadvisory.co.za

PUBLIC PARTICIPATION MEETING NOTICE FOR TSMG Mining Right Application

Community members and interested and affected parties are hereby invited to attend a Public Participation Meeting regarding the proposed TSMG Mining Right Application.

Date: 25 August 2026

Time: 11:00 AM

Venue: Hall at Portion 45 of the Farm Kaalfontein

The purpose of the meeting is to provide information on the proposed mining right application and to offer an opportunity for stakeholders and community members to raise questions and provide comments.

All community members are encouraged to attend and participate.

Refreshments and beverages will be provided.

Kind regards

A handwritten signature in black ink, appearing to read 'Sunday Mabaso'.

Sunday M. Mabaso

Professional EAP: Vahlengwe Mining Advisory and Consulting

**BACKGROUND INFORMATION DOCUMENT FOR THE
ENVIRONMENTAL AUTHORIZATION: MINING RIGHT (SCOPING
REPORT) APPLICATION.**

ENVIRONMENTAL AUTHORISATION FOR MINING RIGHT APPLICATION FOR AGGREGATE, CONCRETE SAND (SILICA), BUILDING SAND (SILICA), FOUNDRY (SILICA), GLASS SAND (SILICA), SAND (GENERAL), SILCRETE (SILICA), SILICA SAND (SILICA), CRUSHER SAND (SILICA), FILING SAND, METALLURGICAL (SILICA), DIAMOND (GENERAL), AND SAND MANUFACTURED, IN RESPECT OF PORTION 4 OF THE FARM DOORKRAAL 420 JR, IN THE MAGISTERIAL DISTRICT OF CULLINAN, GAUTENG PROVINCE.

DMRE REFERENCE NO: GP 30/5/1/2/2/10138 MR

PURPOSE OF THIS DOCUMENT

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

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

APPOINTMENT OF ENVIRONMENTAL ASSESSMENT PRACTITIONERS

Vahlegwe Mining Advisory and Consulting (VMAC), as an Environmental Assessment Practitioner (EAP), will conduct the Environmental Authorization process for the mining right (Scoping Report) application.

PROJECT LOCATION

The proposed mining right is located in the northern part of Cullinan and approximately 8.57 km, in respect of portion 4 of the Farm Doornkraal 420 JR, within the Magisterial District of Cullinan, Gauteng. This area covers an extent of 33.81 ha.

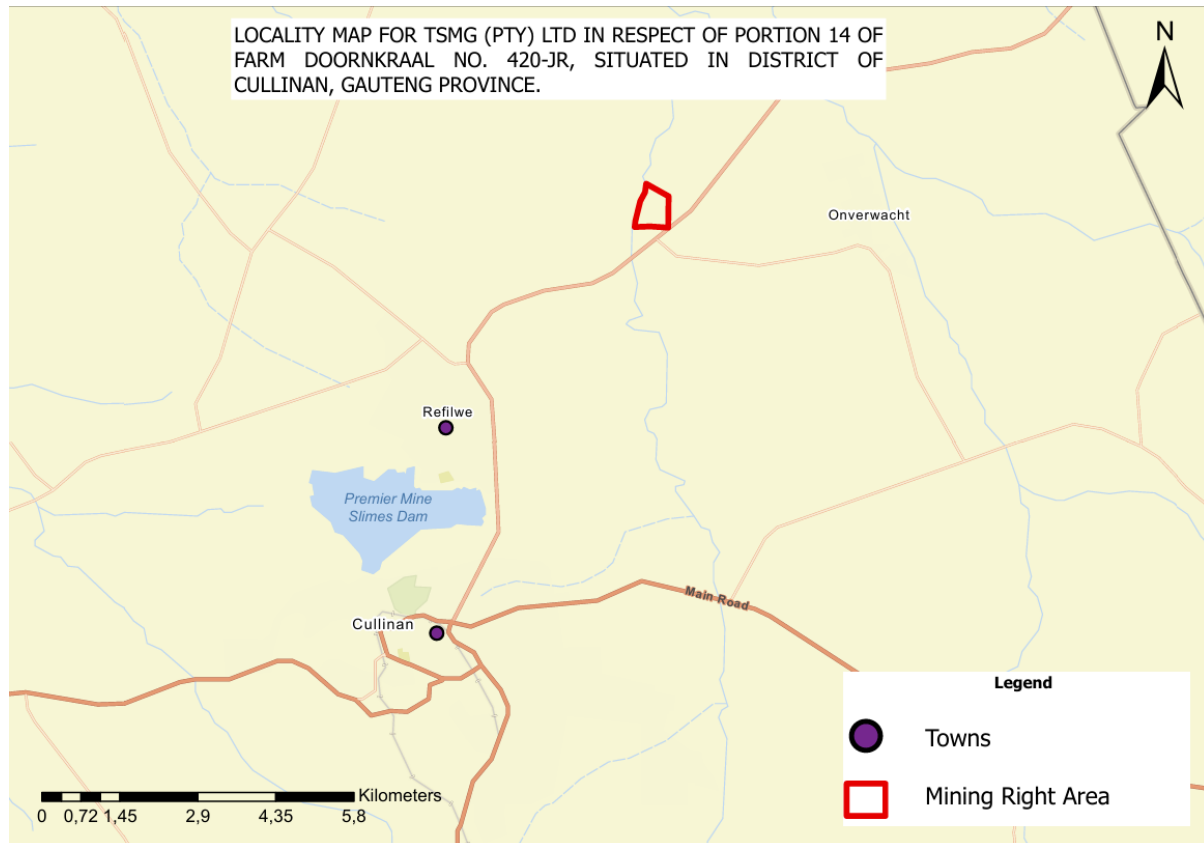


Figure 1: Locality map of the proposed mining right area in Cullinan

PROJECT DESCRIPTION

TSMG (Pty) Ltd proposes to undertake the mining right activities in respect of portion 4 of the Farm Doornkraal 420 JR, located in the Magisterial District of Cullinan, Gauteng. This area covers an extent of 33.81 ha. The project entails the proposed mining right application for the mining of aggregate, silica sand, building sand, crusher sand, silcrete, foundry sand, glass sand, diamonds (general), and other associated hard rock minerals. Vahlegwe Mining Advisory and Consulting (Pty) Ltd compiles the mining right (scoping report) and environmental management program report (EMPR) for the mining of mineral excavations and facilitates the public participation process (PPP).

PUBLIC PARTICIPATION PROCESS.

The public consultation process aims to enable landowners, lawful occupiers, directly affected individuals, and/or other Interested and Affected Parties (I&APs) to raise any issues, concerns, and/or comments regarding the mining activities. A proof of consultation report will be developed and submitted to the Department of Mineral and Petroleum Resources (DMPR). The

proposed project requires an environmental impact assessment process in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) (as amended).

The following steps will be followed while conducting public participation.

- Issuing of notification of this project to:
 - Owners and occupiers of the farms, as well as those adjacent to the site
 - Municipal Councillor
 - The municipality and any organ of state having jurisdiction
- Placing an advert in a local newspaper.
- Placing a notice on the site and surrounding areas.
- Meetings with landowners and key I&APs, as required.
- Public review of the draft environmental impact assessment and environmental management program.

PUBLIC INVOLVEMENT

Public involvement is an essential component of the process. It addresses the right of interested and affected parties (I&APs) to be informed of the proposed activities. All I&APs are invited to submit their inputs, concerns, and comments regarding the proposed mining right activities to TSMG (Pty) Ltd via email, registered post, or telephonically. The I&APS form is made available below for you to fill in your personal details and comments. Kindly do so and submit it back to us.

HOW TO OBTAIN FURTHER INFORMATION.

Registering as I&APs will ensure that you are placed on a database to be informed of any progress regarding the project. You can do so by filling in the form below and returning it to the relevant person listed below.

We encourage the I&APs to review the information presented in this Background Information Document (BID) and to register as an I&AP on the attached respondent sheet and return it to us.

PUBLIC CONSULTATION CONTACTS:

Name : Sunday Mabaso
Postal address : 238 Vorster Ave, Glenvista Ext 3, Glenvista, 2058
Contact : +27 11 432 0062/ 074 569 7312
E-mail : info@vahleNgweadvisory.co.za

APPLICANT CONTACTS

Name : Riaan Raymond Timm
Postal Address : PO Box 177 Rayton Pretoria Gauteng
Tel : +27 71 345 8145
E-mail : riaantimm@yahoo.com

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Interested & Affected Party Registration Form

Project Reference No: GP 30/5/1/2/2/10138 MR

Name and Surname	
Physical Address	
Contact Details	Telephone No.: Fax No.: Cell No.: E-mail Address:
<i>Please indicate any issues, comments, and concerns regarding the proposed project.</i>	
<i>Please indicate in which aspects you would require more information.</i>	
<i>Please indicate any I&APs whom you think should be contacted.</i>	
To be registered as an I&AP for this project, mail or e-mail the completed registration form to: Sunday M Mabaso Postal address: 238 Vorster Ave, Glenvista Ext 3, Glenvista, 2058 Contact: +27 11 432 0062 / 074 569 7312 E-mail: info@vahlengweadvisory.co.za	

TSMG (PTY) LTD

PUBLIC PARTICIPATION MEETING

DMPR Ref Number: GP 30/5/1/2/3/2/1/10138 MR

CULLINAN DISTRICT MUNICIPALITY IN GAUTENG

25TH OF AUGUST 2026



AGENDA

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

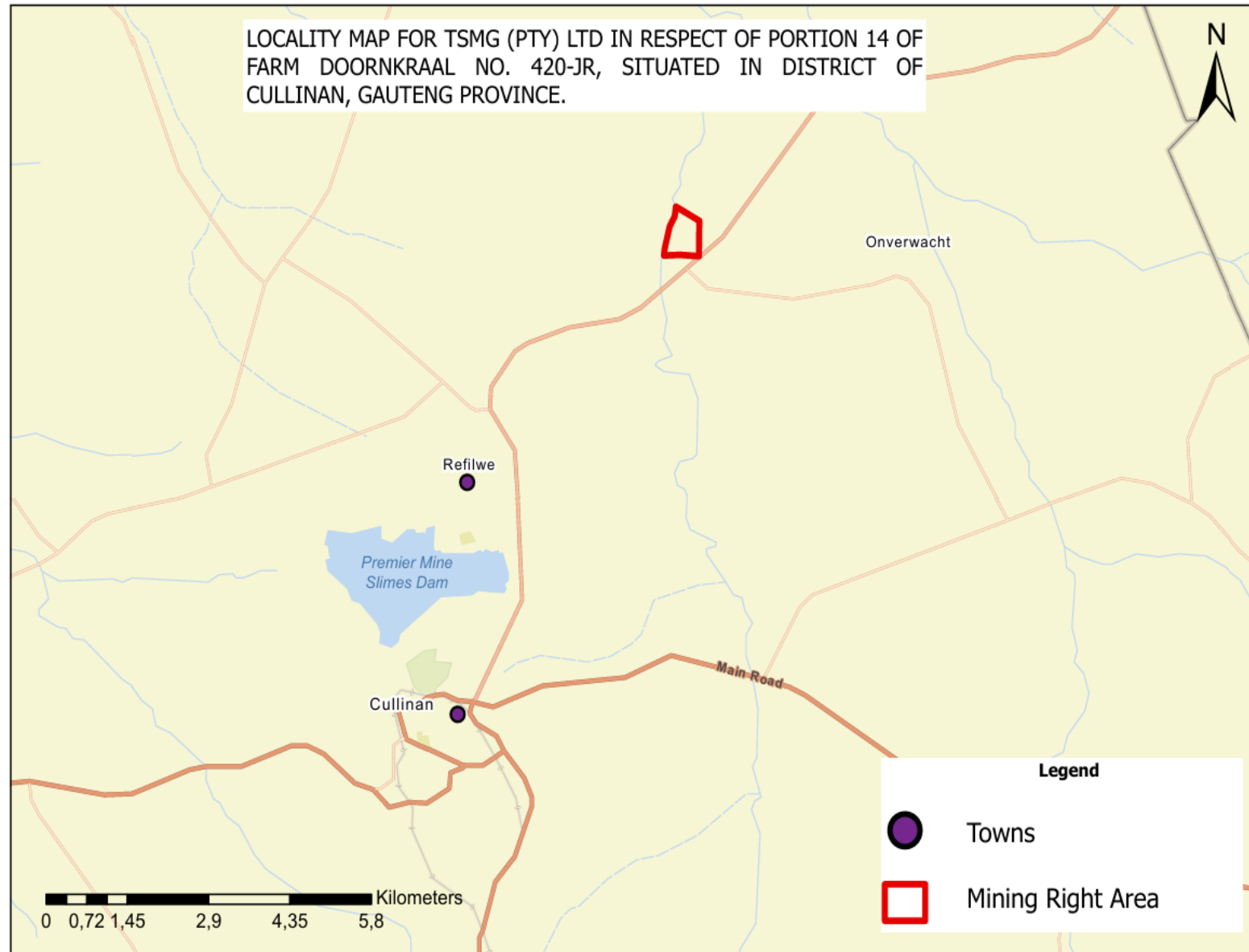
PROJECT TEAM

- Lusizo Nqasha (Candidate EAP)
- Rirhandzu Mabaso
- Qaqamba Meyi
- Lufuno Nefale

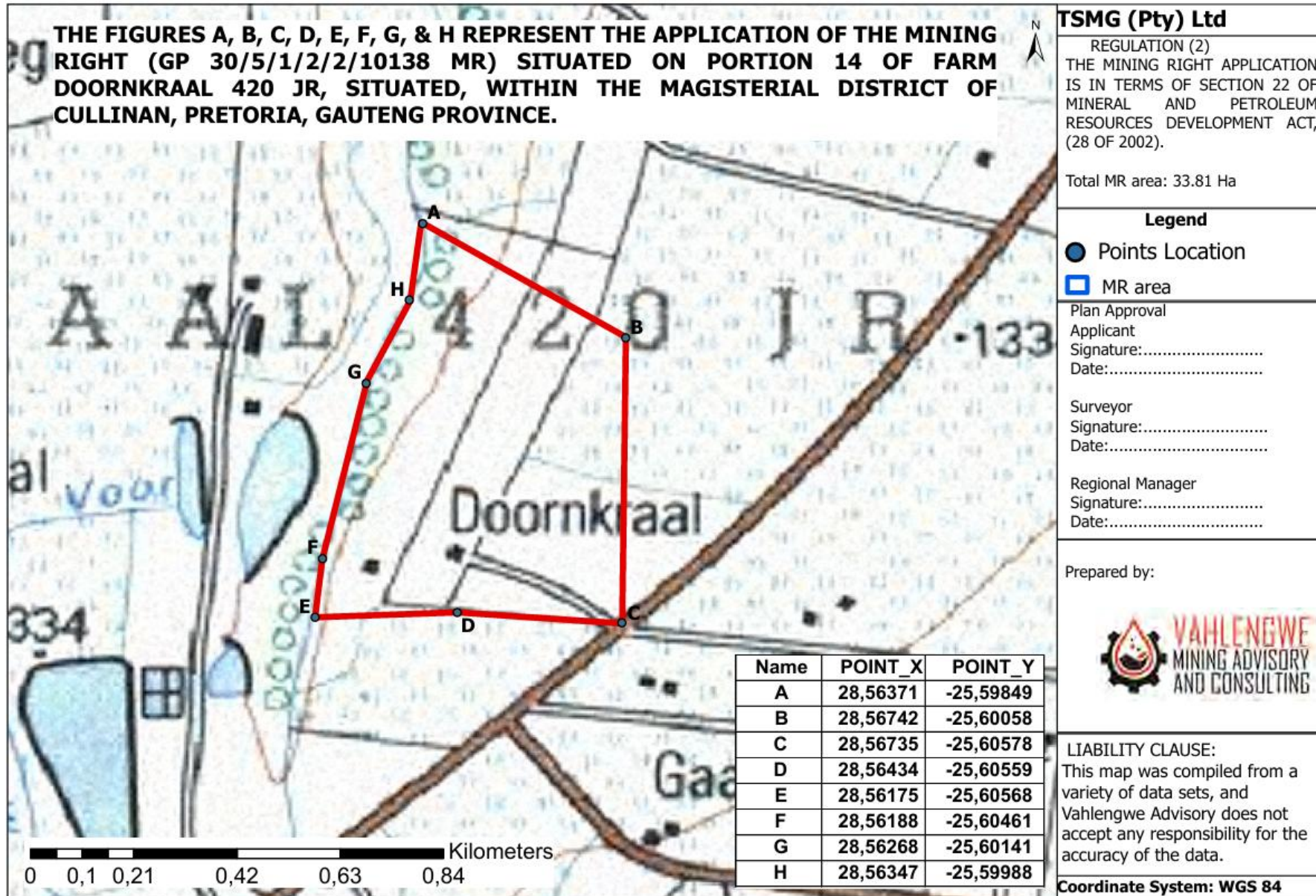
BACKGROUND

- TSMG (Pty) Ltd has lodged an application for Environmental Authorisation for Mining Right which triggers S&EIA, in terms of Section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (as amended) (MPRDA). The application area for the mining right covers approximately **33.81** ha.
- The Mining Right (MR) application was accepted, thus the Scoping Report process was initiated and is currently ongoing. The Scoping is being prepared for submission in terms of the Environmental Impact Assessment (EIA) Regulations.
- The MR area is in respect of Portion 4 of the Doornkraal 420 JR. The proposed MR area is located north of Cullinan, which is accessible using the existing R515 road, which passes southeast of the mining right application area from Cullinan via Refilwe to Kalliergo Farming.
- Minerals applied for include aggregate, concrete sand (silica), building sand (silica), foundry (silica), glass sand (silica), sand (general), silcrete (silica), silica sand (silica), crusher (silica), filing sand, metallurgical (silica), diamond (general), and sand minerals.

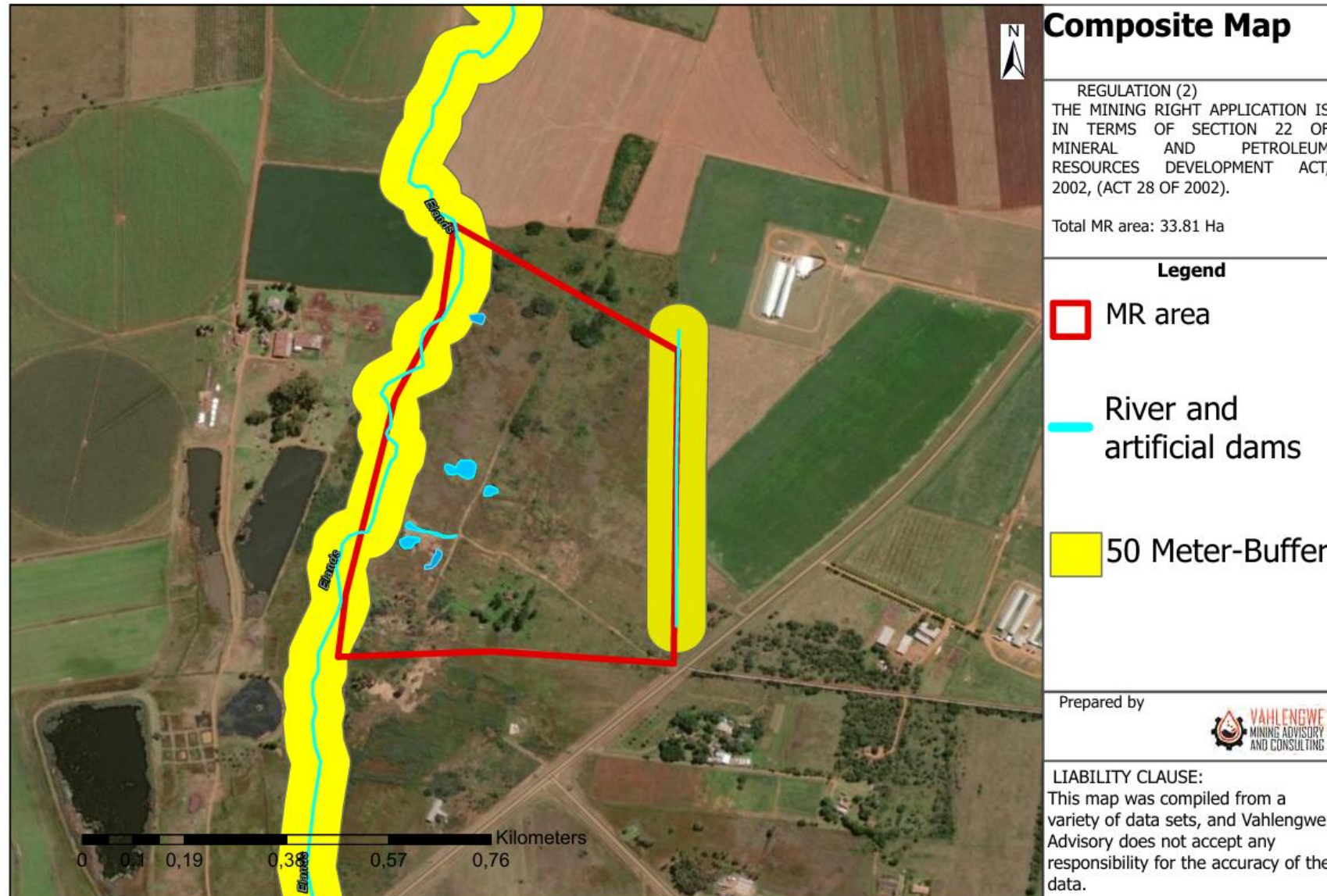
LOCALITY MAP FOR MR AREA



TOPOGRAPHICAL MAP FOR MR AREA



COMPOSITE AND AERIAL MAP



LEGAL REQUIREMENTS

- **Mining Right** is in terms of Section 22 of the Mineral and Petroleum Resources Development Act (MPRDA), Act No. 28 of 2002.
- This triggers activities in **Listing Notice 2**, governed by the **National Environmental Management Act (NEMA), Act No. 107 of 1998**
- **A Mining Right listed as activity 17 of Listing notice 2, of GN R984 as amended to 325 in 2017:**
 - 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.
- **A Mining Right listed as activity 19 of Listing notice 2, of GN R984 as amended to 325 in 2017:**
 - The removal and disposal of a mineral, which requires a permission in terms of section 20 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 permission.
- **Environmental Authorization (EA)**
 - Governed by the National Environmental Management Act (NEMA), Act No. 107 of 1998 regulation guiding all necessary steps to be followed.

PROJECT DESCRIPTION: ACTIVITIES

- Mining activities will involve groundbreaking (invasive) activities to extract the various minerals identified.
 - Site establishment – vegetation clearance
 - Installation of ablution facilities.
 - Construction of access roads where necessary.
 - Open-pit mining method.
 - Processing of the minerals to the plant within the MR area
 - Rehabilitation – reshaping, reprofiling and backfilling of the land, stabilizing and shaping slopes, restoring fertile soil, and afforestation to ensure safety, environmental recovery, and sustainable after-mining land use.

Open-pit mining method



PUBLIC PARTICIPATION PROCESS (PPP)

The purpose of the public consultation process is to meaningfully engage with landowners and lawful occupiers of the land and stakeholders, including the Interested and Affected Parties (I&APS), to raise any issues, concerns, and or comments regarding the proposed mining activities.

EIA: Subjected to a 30-day PPP, is governed by section 41 of NEMA.

All comments and concerns received will be recorded on a Comments and Response Report (CRR), which will be incorporated as an appendix in the Final EIR, and submitted to the Department of Mineral and Petroleum Resources (DMPR).

Public Participation period will end on the 28th of August for the public to send the any comments to Vahlengwe.

PPP FOLLOWED

- Distribution of the Background Information Document (BID), including a registration form, on **25th July 2026**;
- Site notices placed at the project site and at strategic conspicuous locations to the communities on the **25th July 2026**;
- Newspaper advertisement in Platinum Bushveld on the **27th July 2026** in the local newspaper;
- Draft Scoping Report (DSR) was made available from the **28th July 2026**,
- A public meeting with the community on the **25th of August 2026**, to engage with comments, concerns and inputs allowed until **28th August 2026**. An electronic copy of the DSR is available on the Vahlengwe website (www.vahlengweadvisory.co.za).

POTENTIAL IMPACTS AND EFFECTIVE MITIGATIONS

Environmental Aspects	Impact prior to project implementation	Impacts post project implementation	Effective Mitigation
Wetlands	Clean surface water flow	Increase in contamination and Affect natural water flow. Apply contamination plumes.	Monitor pollution plumes. Removing contaminants and placing plumes for the prevention of pollution. Apply 50 meter buffers.
Groundwater Resources	Clean groundwater flow	Pollution of groundwater quality	Removal of the source and prevention of contamination
Soils and Land Capability	Land is currently used for livestock and crop farming	Improved land capability for other use	Remedy through concurrent rehabilitation and monitoring, e.g., soil profiling of the mined land. Rehabilitation of previously disturbed landscapes.
Air Quality	Low background concentrations of gaseous pollutants, including nitrogen dioxide, sulphur dioxide, carbon monoxide, and ozone. Particulate matter. This is largely influenced by dry environmental conditions, exposed soil surfaces, and wind-driven dust entrainment. PM _{2.5} concentrations were consistently lower than PM ₁₀ , indicating that coarse particulates dominate the ambient air quality profile.	All air quality contaminants must monitored for recording.	Dust suppression measures should be implemented consistently, particularly on haul roads and exposed surfaces. Increased dust control should be applied during dry and windy conditions. Dust fallout monitoring should be conducted at site boundaries and at sensitive receptor locations.

Continue.....

Environmental Aspects	Impact prior to project implementation	Impacts Post project implementation	Effective Mitigation
Flora and Fauna	Biodiversity including species diversity (different species), and ecosystem diversity (various habitats)	Promotes biodiversity and ecosystem growth.	Concurrent rehabilitation and monitoring by reforestation and afforestation to trap soil and bring its fertility.
Noise, dust and Visual	The area is covered by grass and trees. Overall, a very good geographical landscape.	No noise and dust generation, and reshaped visual disturbance.	Control measures and monitoring (dust suppression and time monitoring).
Socio-Economic	High unemployment rate.	Mine closure and medium employment jobs	Creation of employment opportunities during mining operation to closure.
Traffic Assessment	Low traffic to high traffic congestion through the peak hours; increases in travelling time; big vehicle emissions	Reduced the traffic congestion. Allow smooth traffic flow Use lower emissions. Improved commuter experience.	Improve the road infrastructure (wide, traffic signal optimisation). Encourage the low speed for public transport. Implement staggered work hours. Promote cycling and walking.

The Specialist Impact Assessments triggering Full EIA Phase:

Groundwater
Impact
Assessment;

Surface Water
Impact
Assessment;

Land Use, Land
Capability and Soil
Impact
Assessment;

Fauna Impact
Assessment;

Flora Impact
Assessment;

Wetland
Delineation and
Impact
Assessment;

Aquatic Ecology
Impact
Assessment;

Hydrogeology
Impact Assessment

Air Quality Impact
Assessment;

Noise Impact
Assessment;

Heritage Impact
Assessment;

Social Impact
Assessment;

Geochemical
Assessment;

Blasting impacts
assessment;

Rehabilitation
assessment

CONCLUSION



Based on the critical systematic review, site visit and desktop, the current state of the MR area has positive impact assessments but during the MR operation might have negative impacts on the environment.



The significance of impacts identified in the assessment of environmental damages is minimal, although the impact will be high during the operation. Thus, effective mitigation and management measures provided by the specialists which will be conducted during EIA phase.

THANK YOU FOR YOUR TIME!

MEANINGFUL DISCUSSION.

ENVIRONMENTAL
ASSESSMENT PRACTITIONER

MINING RIGHT APPLICANT:

TSMG (PTY) LTD



011 432 0062 / 074 569 7312



info@vahlengweadvisory.co.za



www.vahlengweadvisory.co.za



238 Voster Ave, Glenvista Ext 3,
Johannesburg South, 2091



Appendix 4:

- a. Public Meeting Presentation**
- b. Attendance Register**
- c. Public Meeting Minutes**
- d. Comments and Response Report (CRR)**
- e. Database**
- f. Proof of consultation and responses**

TSMG (PTY) LTD

PUBLIC PARTICIPATION MEETING

DMPR Ref Number: GP 30/5/1/2/3/2/1/10138 MR

CULLINAN DISTRICT MUNICIPALITY IN GAUTENG

25TH OF AUGUST 2026



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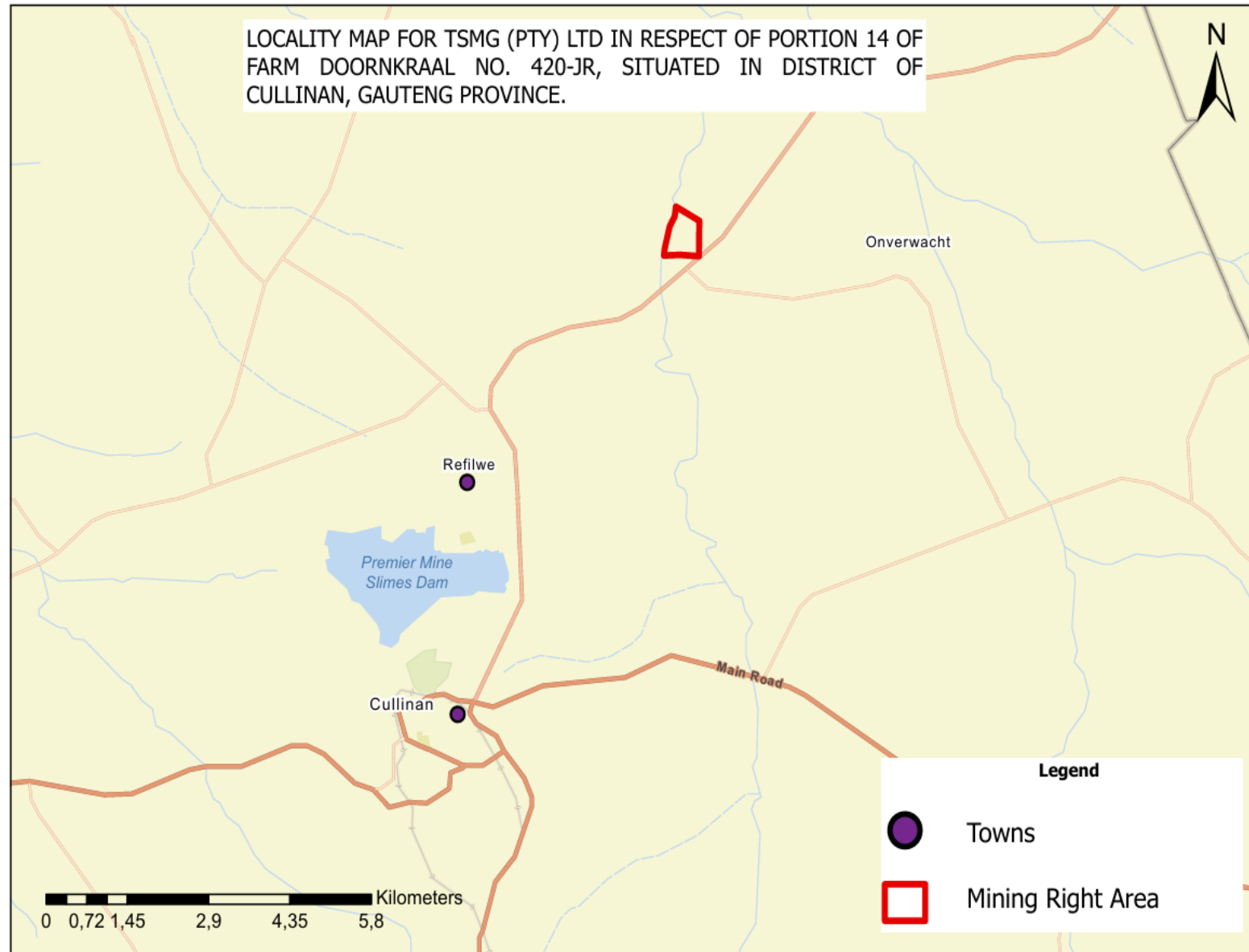
PROJECT TEAM

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- Rirhandzu Mabaso
- Qaqamba Meyi
- Lufuno Nefale

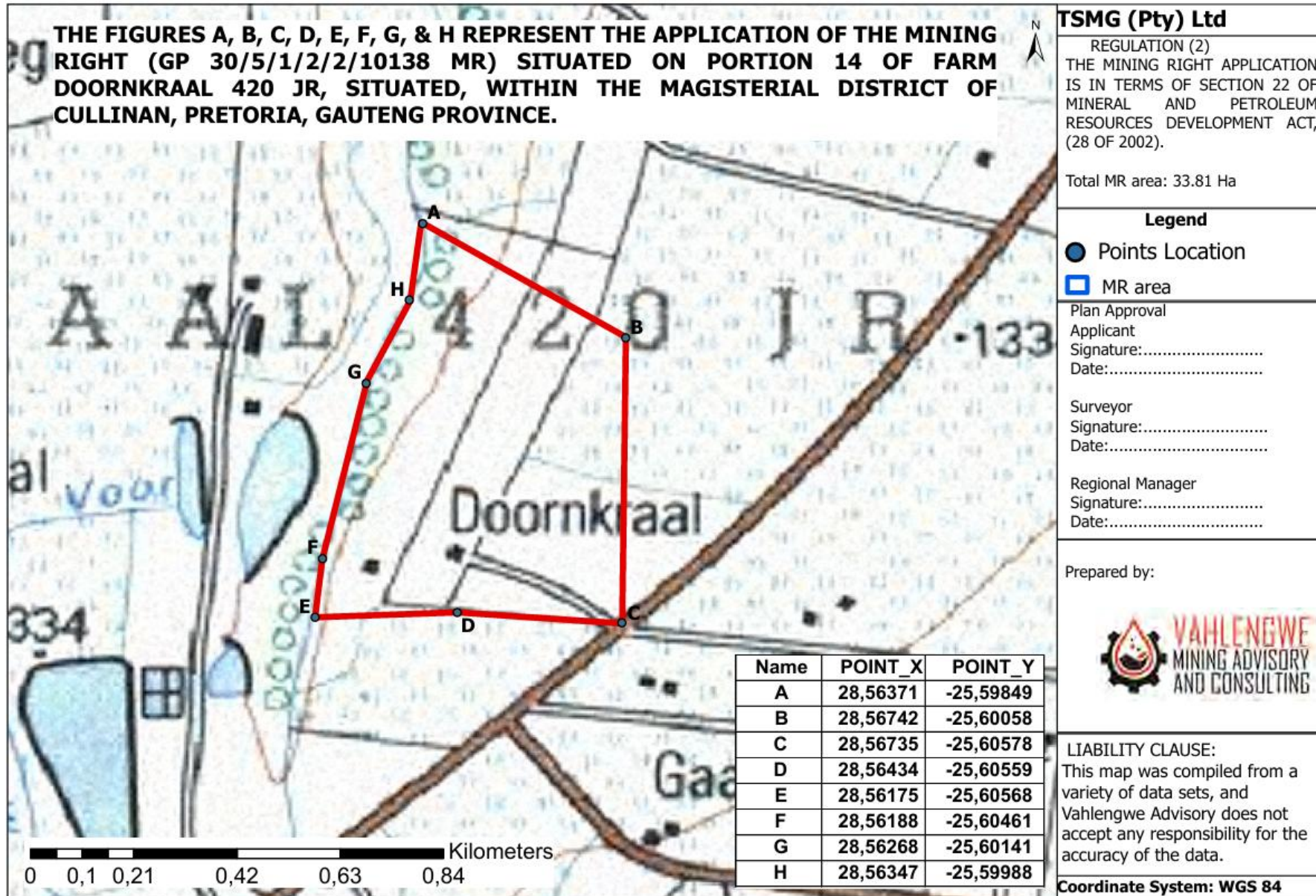
BACKGROUND

- TSMG (Pty) Ltd has lodged an application for Environmental Authorisation for Mining Right which triggers S&EIA, in terms of Section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (as amended) (MPRDA). The application area for the mining right covers approximately **33.81** ha.
- The Mining Right (MR) application was accepted, thus the Scoping Report process was initiated and is currently ongoing. The Scoping is being prepared for submission in terms of the Environmental Impact Assessment (EIA) Regulations.
- The MR area is in respect of Portion 4 of the Doornkraal 420 JR. The proposed MR area is located north of Cullinan, which is accessible using the existing R515 road, which passes southeast of the mining right application area from Cullinan via Refilwe to Kalliergo Farming.
- Minerals applied for include aggregate, concrete sand (silica), building sand (silica), foundry (silica), glass sand (silica), sand (general), silcrete (silica), silica sand (silica), crusher (silica), filing sand, metallurgical (silica), diamond (general), and sand minerals.

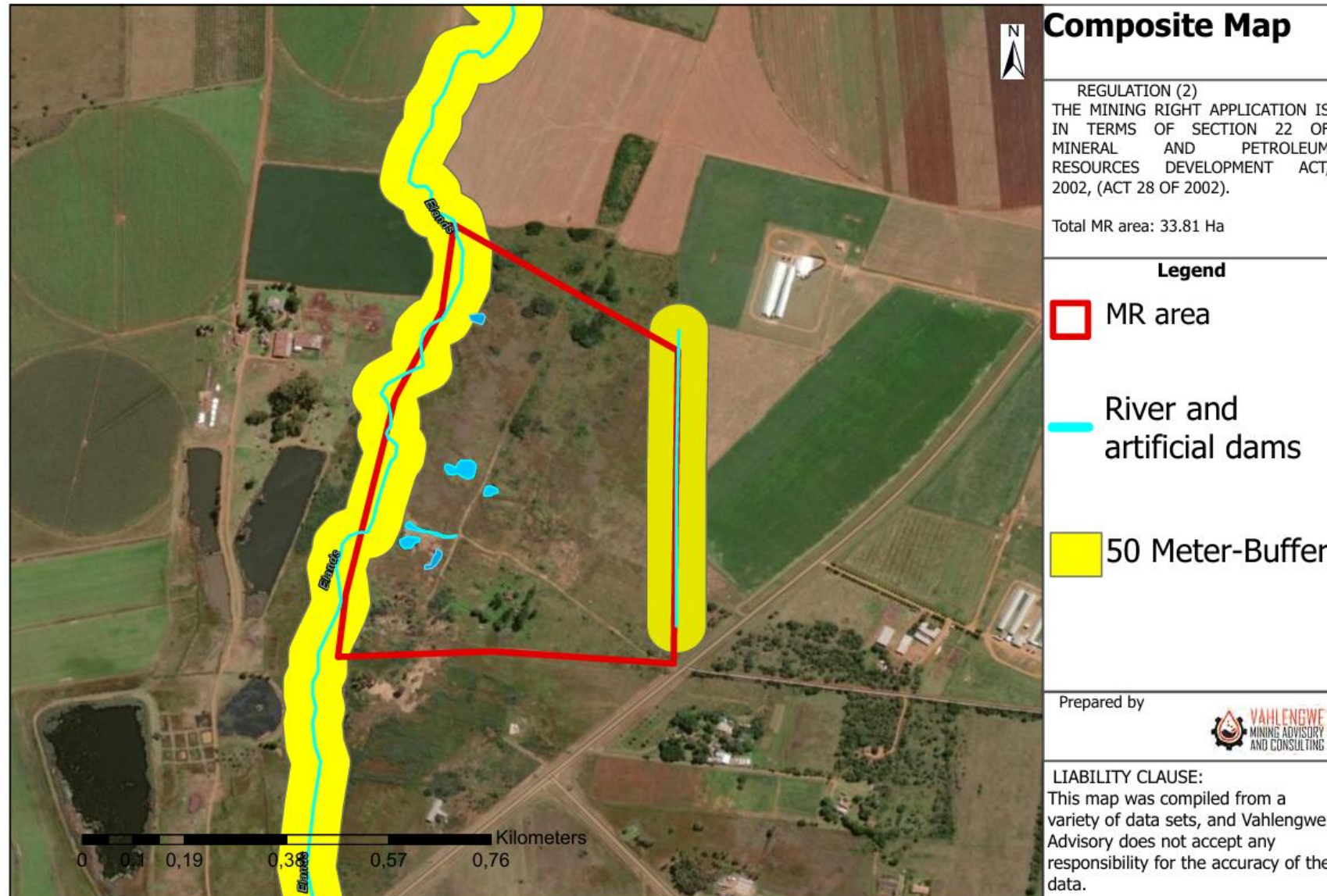
LOCALITY MAP FOR MR AREA



TOPOGRAPHICAL MAP FOR MR AREA



COMPOSITE AND AERIAL MAP



LEGAL REQUIREMENTS

- **Mining Right** is in terms of Section 22 of the Mineral and Petroleum Resources Development Act (MPRDA), Act No. 28 of 2002.
- This triggers activities in **Listing Notice 2**, governed by the **National Environmental Management Act (NEMA), Act No. 107 of 1998**
- **A Mining Right listed as activity 17 of Listing notice 2, of GN R984 as amended to 325 in 2017:**
 - 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.
- **A Mining Right listed as activity 19 of Listing notice 2, of GN R984 as amended to 325 in 2017:**
 - The removal and disposal of a mineral, which requires a permission in terms of section 20 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 permission.
- **Environmental Authorization (EA)**
 - Governed by the National Environmental Management Act (NEMA), Act No. 107 of 1998 regulation guiding all necessary steps to be followed.

PROJECT DESCRIPTION: ACTIVITIES

- Mining activities will involve groundbreaking (invasive) activities to extract the various minerals identified.
 - Site establishment – vegetation clearance
 - Installation of ablution facilities.
 - Construction of access roads where necessary.
 - Open-pit mining method.
 - Processing of the minerals to the plant within the MR area
 - Rehabilitation – reshaping, reprofiling and backfilling of the land, stabilizing and shaping slopes, restoring fertile soil, and afforestation to ensure safety, environmental recovery, and sustainable after-mining land use.

Open-pit mining method



PUBLIC PARTICIPATION PROCESS (PPP)

The purpose of the public consultation process is to meaningfully engage with landowners and lawful occupiers of the land and stakeholders, including the Interested and Affected Parties (I&APS), to raise any issues, concerns, and or comments regarding the proposed mining activities.

EIA: Subjected to a 30-day PPP, is governed by section 41 of NEMA.

All comments and concerns received will be recorded on a Comments and Response Report (CRR), which will be incorporated as an appendix in the Final EIR, and submitted to the Department of Mineral and Petroleum Resources (DMPR).

Public Participation period will end on the 28th of August for the public to send the any comments to Vahlengwe.

PPP FOLLOWED

- Distribution of the Background Information Document (BID), including a registration form, on **25th July 2026**;
- Site notices placed at the project site and at strategic conspicuous locations to the communities on the **25th July 2026**;
- Newspaper advertisement in Platinum Bushveld on the **27th July 2026** in the local newspaper;
- Draft Scoping Report (DSR) was made available from the **28th July 2026**,
- A public meeting with the community on the **25th of August 2026**, to engage with comments, concerns and inputs allowed until **28th August 2026**. An electronic copy of the DSR is available on the Vahlengwe website (www.vahlengweadvisory.co.za).

POTENTIAL IMPACTS AND EFFECTIVE MITIGATIONS

Environmental Aspects	Impact prior to project implementation	Impacts post project implementation	Effective Mitigation
Wetlands	Clean surface water flow	Increase in contamination and Affect natural water flow. Apply contamination plumes.	Monitor pollution plumes. Removing contaminants and placing plumes for the prevention of pollution. Apply 50 meter buffers.
Groundwater Resources	Clean groundwater flow	Pollution of groundwater quality	Removal of the source and prevention of contamination
Soils and Land Capability	Land is currently used for livestock and crop farming	Improved land capability for other use	Remedy through concurrent rehabilitation and monitoring, e.g., soil profiling of the mined land. Rehabilitation of previously disturbed landscapes.
Air Quality	Low background concentrations of gaseous pollutants, including nitrogen dioxide, sulphur dioxide, carbon monoxide, and ozone. Particulate matter. This is largely influenced by dry environmental conditions, exposed soil surfaces, and wind-driven dust entrainment. PM _{2.5} concentrations were consistently lower than PM ₁₀ , indicating that coarse particulates dominate the ambient air quality profile.	All air quality contaminants must monitored for recording.	Dust suppression measures should be implemented consistently, particularly on haul roads and exposed surfaces. Increased dust control should be applied during dry and windy conditions. Dust fallout monitoring should be conducted at site boundaries and at sensitive receptor locations.

Continue.....

Environmental Aspects	Impact prior to project implementation	Impacts Post project implementation	Effective Mitigation
Flora and Fauna	Biodiversity including species diversity (different species), and ecosystem diversity (various habitats)	Promotes biodiversity and ecosystem growth.	Concurrent rehabilitation and monitoring by reforestation and afforestation to trap soil and bring its fertility.
Noise, dust and Visual	The area is covered by grass and trees. Overall, a very good geographical landscape.	No noise and dust generation, and reshaped visual disturbance.	Control measures and monitoring (dust suppression and time monitoring).
Socio-Economic	High unemployment rate.	Mine closure and medium employment jobs	Creation of employment opportunities during mining operation to closure.
Traffic Assessment	Low traffic to high traffic congestion through the peak hours; increases in travelling time; big vehicle emissions	Reduced the traffic congestion. Allow smooth traffic flow Use lower emissions. Improved commuter experience.	Improve the road infrastructure (wide, traffic signal optimisation). Encourage the low speed for public transport. Implement staggered work hours. Promote cycling and walking.

The Specialist Impact Assessments triggering Full EIA Phase:

Groundwater
Impact
Assessment;

Surface Water
Impact
Assessment;

Land Use, Land
Capability and Soil
Impact
Assessment;

Fauna Impact
Assessment;

Flora Impact
Assessment;

Wetland
Delineation and
Impact
Assessment;

Aquatic Ecology
Impact
Assessment;

Hydrogeology
Impact Assessment

Air Quality Impact
Assessment;

Noise Impact
Assessment;

Heritage Impact
Assessment;

Social Impact
Assessment;

Geochemical
Assessment;

Blasting impacts
assessment;

Rehabilitation
assessment

CONCLUSION



Based on the critical systematic review, site visit and desktop, the current state of the MR area has positive impact assessments but during the MR operation might have negative impacts on the environment.



The significance of impacts identified in the assessment of environmental damages is minimal, although the impact will be high during the operation. Thus, effective mitigation and management measures provided by the specialists which will be conducted during EIA phase.

THANK YOU FOR YOUR TIME!

MEANINGFUL DISCUSSION.

ENVIRONMENTAL
ASSESSMENT PRACTITIONER

MINING RIGHT APPLICANT:

TSMG (PTY) LTD



011 432 0062 / 074 569 7312



info@vahlengweadvisory.co.za



www.vahlengweadvisory.co.za



238 Voster Ave, Glenvista Ext 3,
Johannesburg South, 2091



Scoping Report and EMPR
TSMG Public Participation

DMPR Ref No: GP 30/5/1/2/2/10138 MR



238 Vorster Ave, Glenvista, 2190
Tel: 011 432 0062

Email: info@vahlengweadvisory.co.za

ATTENDANCE REGISTER

Consultants:	Vahlengwe Mining Advisory and Consulting (Pty) Ltd
Date:	25 TH August 2026
Venue:	Hall at farm Kaalfontein
Purpose:	Public Participation Meeting

NAME	COMPANY	EMAIL	CONTACT NUMBER	SIGNATURE
QADAMBA MEYI	VAHLENGWE	qadamba@vahlengweadvisory.co.za	062 667 2136	
Lufuno		lufuno@vahlengweadvisory.co.za	0799592171	
NEFALE	vahlengwe			
Thom Beck,	IAP	thom@fts.co.za	082 565 9723	
Riphaad Timu	TSMG	riphaad@tsmg.co.za	0713456145	
Carl Schultz	Boucoyn Construction	HeSchultz@gmail.com	0624342054	

August 2026

Scoping Report and EMPR
TSMG Public Participation

DMPR Ref No: GP 30/5/1/2/2/10138 MR



238 Vorster Ave, Glenvista, 2190
Tel: 011 432 0062

Email: info@vahlengweadvisory.co.za

JITESH RAMJEE	GLNGL TECHNOLOGIES	director@glngl.com	082 457 9165	
LEONARD HERBST	AVARON STEEL	lhaavabonsteel@gmail.com	0604523308	
Rihondzu mabaso	vahlengwe	rhondzu@vahlengweadvisory.co.za	0614 916 4393	
Irene De Sousa	Rundquip	irone@sousa.igmail.com	0795359349	
Petros Tseko	CUI	petros.t@gmail.com	079 535 9349	
Timothy Yezweny	Waco country	ty@wacocountry.co.za	083 653 6332	
HAAS VORSTER	AKB	hhaasvorster@akb.co.za	082 557 5608	

LP 30/5/1/1/2/16664 PR



DMRE REF NO: LP 30/5/1/1/2/16664 PR

[illegible]

MINUTES FOR PUBLIC ENGAGEMENT MEETING

PUBLIC PARTICIPATION PROCESS OF AN APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR A MINING RIGHT FOR AGGREGATE, CONCRETE SAND (SILICA), BUILDING SAND (SILICA), FOUNDRY (SILICA), GLASS SAND (SILICA), SAND (GENERAL), SILCRETE (SILICA), SILICA SAND (SILICA), CRUSHER (SILICA), FILING SAND, METALLURGICAL (SILICA), DIAMOND (GENERAL), AND SAND MANUFACTURED FROM THE HARD ROCK MINERALS TO DISCUSS AND CONSULT DRAFT SCOPING REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT IN TERMS OF REGULATION 41-44 OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATION, 2014 (AS AMENDED) READ WITH THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) (AS AMENDED), IN RESPECT OF PORTION 4 OF THE DOORNKRAAL 420 JR, IN THE MAGISTERIAL DISTRICT OF CULLINAN, GAUTENG PROVINCE.

Date: 25 August 2026

Company: TSMG (Pty) Ltd, DMRE Ref No: GP 30/5/1/2/2/10138 MR

Venue: Hall at Portion 45 of the Farm Kaalfontein

Time: 10:55 AM

MEETING AGENDA

1. Opening and Introduction
2. Purpose of the meeting
3. Presentation: Scoping Report and EMPR
4. Discussions
5. Closure

1. OPENING AND INTRODUCTION

Mr. Lusizo Nqasha formally opened the meeting and welcomed all the community members who attended the meeting. He proceeded to introduce the project team and outline their respective roles in the meeting. Mr. Lusizo Nqasha explained that VahleNgwe Mining Advisory and Consulting is an independent Environmental Assessment Practitioner (EAP) appointed by TSMG (Pty) Ltd “the

applicant” in terms of regulation 12 of the Environmental Impact Assessment Regulation, 2014 to facilitate an application for an Environmental Authorisation for a Mining Right.

2. PURPOSE OF THE MEETING

Mr. Lusizo Nqasha explained that the purpose of the Public Participation Meeting was to present and have a meaningful engagement of the proposed project to Interested and Affected Parties (I&APs), present the nature of the proposed mining impacts, both positive and negative, and outline the anticipated environmental and socio-economic impacts. He further explained the applicable regulatory requirements and the mining right application processes. The meeting also served as a platform to engage meaningfully with I&APs to raise questions, concerns, comments, and recommendations regarding the project. All issues and inputs received during the meeting will be recorded, assessed, and incorporated as part of the Environmental Impact Assessment (EIA) process and the overall decision-making process.

3. PRESENTATION

Mr. Nqasha presented the background and the proposed project in details using the presentation. The presentation covered the location of the project area, relevant nor appropriate regulations, the nature of the proposed mining impacts; positive and negative, the status of the mining right application, and the fundamental parts of the project. He also outlined the anticipated project lifecycle and provided an overview of the environmental assessment process currently being undertaken in support of the application.

4. DISCUSSIONS (Q &A)

After the presentation ended, Mr Lusizo Nqasha further opened a discussion that progressed to an interactive session in which the I&APs and stakeholders were given an opportunity to ask questions, make comments, and express their opinions, concerns for incorporation in the proposed mining application. Several individuals raised various concerns and comments regarding the project which were then prescribed for incorporation into the final Scoping Report and EMPr.

NAME OF THE PARTICIPANT	COMMENTS/ISSUES	RESPONSES
Karol Schultz	Will the mine operate 24 hours a day, 7 days a week? The mining activities and machinery may disturb residents' sleep at night.	Mr Nqasha responded by saying the mine is not expected to operate on a continuous 24-hour basis. There will be no mining activities producing noise, but associated noise machineries are anticipated to occur during

		daytime working hours. Detailed specialist noise studies will be undertaken to assess the potential extent of noise impacts on surrounding communities and to identify appropriate mitigation measures. In addition, the mine is required by various legislations to manage its operations in a manner that minimises disturbance to nearby residents. For example, if activities begin at 06:00, operations may need to cease by approximately 16:00 or 17:00 to ensure that community members have adequate time to rest and are not disturbed during the night. As such, noise impacts on residents' sleep will be carefully assessed and managed through the recommended mitigation measures.
Dr Rajee	What if I work night shifts? If the mining activities affect residents who work at night and need to sleep during the day, how will this concern be addressed?	Mr Nqasha explained that mining activities are not expected to take place at night, and therefore, there will be no noise levels during nighttime hours. During the day, noise generated by machineries for mining operations is not anticipated to be excessive, as the mine will utilise both hydro-mining methods, which has low noise impacts against conventional mining methods and these concerns will be assessed as part of the specialist studies. The specialist assessments will evaluate the potential noise impacts on surrounding residents, including individuals who work night shifts and require rest during the day. Where necessary, appropriate mitigation measures will be recommended to

		minimise disturbances and protect the wellbeing of affected community members.
Karol Schultz	Will the mine be using underground water through boreholes, or will water be sourced from the stream that runs through the properties of community members?	Mr Nqasha stated that the mine intends to utilise rainy water collected and stored within artificial dams existing inside the mining area. These dams capture natural rainfall, and the current plan is to rely on this stored water rather than abstracting water from the stream that flows through neighbouring community properties. Mr Riaan Tim further elucidated that the Department of Mineral and Petroleum Resources (DMPR) require the applicant to apply for a Water Use Licence (WUL) for the proposed water-related activities. As part of this process, specialist studies and regulatory assessments will be undertaken to evaluate the mine's water requirements and the potential impacts on surface water and groundwater resources. Any necessary mitigation measures identified through these assessments will be implemented to ensure that water resources are managed responsibly and that impacts on surrounding landowners and communities are minimised. Nqasha added that WULA application will be lodged during the EIA phase which will require some information from the assessments.

Tom Beck	Regarding transportation, will the increase in traffic pose a risk to residents, livestock such as cattle and roaming goats, and other road users? Will there be a significant increase in traffic and associated safety risks for the community?	Mr Nqasha explained that a specialist traffic assessment will be conducted to evaluate the potential impacts of the proposed mining operation on traffic volumes, road safety, and surrounding road users. Based on current observations, the existing road network does not appear to be heavily congested, and the proposed mine is not expected to result in a significant increase in traffic-related risks to the community. It was further noted that the surrounding area has accommodated several sand mining operations for approximately 50 years, and local residents are therefore familiar with mining-related vehicle movements. However, traffic patterns may change as some vehicles could make use of the proposed mine's access routes due to their proximity to the tarred road. This may reduce the use of less suitable roads and potentially lessen vehicle damage associated with poor road conditions. The potential effects of increased traffic on residents, livestock such as cattle and goats, pedestrians, and other road users will be assessed as part of the specialist studies. Where risks are identified, appropriate mitigation measures will be recommended to improve road safety and
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		minimise impacts on the surrounding community.
Karol Schultz	What will happen with the animals on the mining area?	Mr Nqasha explained that the appropriate measures will be implemented to manage and protect livestock and other animals within or around the mining area. During the mining phase, the mine will ensure that the mining area is properly fenced and access is controlled to prevent animals from entering the operational area. Where livestock or other animals may be affected by mining activities, the mine will engage with the affected community members to address the matter. The Environmental Impact Assessment specialist studies will also assess potential impacts on animals and provide appropriate mitigation measures to minimise these impacts.

5. CLOSURE.

At 11:17, Mr Nqasha thanked the community members for their active participation and valuable contributions throughout the meeting. He further encouraged the community members to keep on sending comments, concerns to VMAC email for registration and will be incorporated into the CRR.



CRR: Final Scoping and
EMPR
TSMG (PTY) LTD
GP 30/5/1/2/2/10138 MR

TSMG (PTY) LTD

SCOPING AND EMPR: COMMENTS AND RESPONSE REPORT (CRR)

Names	Consultation Method	Date Comments received	Issues and/or comments raised	EAP Responses
BC Admin bcadmin@dfre.gov.za nmkhize@dfre.gov.za TFiko@dfre.gov.za	Email	2026/08/18	KKhomari@dfre.gov.za PMakitla@dfre.gov.za MNizwane@dfre.gov.za	
		2026/08/28	MNizwane@dfre.gov.za	
Babalwa Mbambalala Babalwa.Mbambalal@dalrrd.gov.za	Email		No response received yet	
enquiriesm@tshwane.gov.za customercare@tshwane.gov.za geoinfoservice@dalrrd.gov.za	Email		No response received yet	

Mondli.ngidi@dalrrd.gov.za Momelezi.Twantwa@dalrrd.gov.za Makoma.ramalepe@dalrrd.gov.za	Email		No response received yet	
SomyoS@dws.gov.za MdakaneP@dws.gov.za MhlangaN@dws.gov.za SekgobelaV@dws.gov.za NkalaT@dws.gov.za WULAINfo@dws.gov.za MavasaW@dws.gov.za CentralIP@dws.gov.za	Email	29/07/2026	Good day, On behalf of the Director-General, Dr Sean Phillips, this email serves to acknowledge receipt of your correspondence which will receive the necessary attention by the Department of Water and Sanitation (DWS). Good day, This email serves to acknowledge receipt of your email and its contents.	Response was attached after the letter from DWS

			Please note that the request will receive necessary attention by the department.	
Public meeting engagement				
Karol Schultz	Physical meeting	25 August 2026	Will the mine operate 24 hours a day, 7 days a week? The mining activities and machinery may disturb residents' sleep at night	Mr Nqasha responded by saying the mine is not expected to operate on a continuous 24-hour basis. There will be no mining activities producing noise, but associated noise machineries are anticipated to occur during daytime working hours. Detailed specialist noise studies will be undertaken to assess the potential extent of noise impacts on surrounding communities and to identify appropriate mitigation measures. In addition, the mine is required by various legislations to manage its operations in a manner that minimises disturbance to nearby residents. For example, if activities begin at 06:00, operations may need to cease by approximately 16:00 or 17:00 to ensure that community members have adequate time to rest and are not disturbed during the night. As such, noise impacts on residents' sleep will be carefully assessed and managed through the recommended mitigation measures.
Dr Rajee	Physical meeting	25 August 2026	What if I work a night shifts? If the mining activities affect residents who work at night and	Mr Nqasha explained that mining activities are not expected to take place at night, and therefore, there will be no noise levels during nighttime hours. During the day, noise generated by machineries

			need to sleep during the day, how will this concern be addressed?	for mining operations is not anticipated to be excessive, as the mine will utilise both hydro-mining methods, which has low noise impacts against conventional mining methods and these concerns will be assessed as part of the specialist studies. The specialist assessments will evaluate the potential noise impacts on surrounding residents, including individuals who work night shifts and require rest during the day. Where necessary, appropriate mitigation measures will be recommended to minimise disturbances and protect the wellbeing of affected community members. In addition, the mine will establish formal complaints register and grievance mechanism during the operational phase. That register will enable community members to write their concerns directly with mine management regarding noise or any other operational impacts. The mine will be expected to investigate and address reported concerns promptly and implement corrective measures immediately. Should issues remain unresolved, the matter may be escalated to the relevant competent authorities in accordance with the applicable legislative procedures.
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Karol Schultz	Physical meeting	25 August 2026	Will the mine be using underground water through boreholes, or will water be sourced from the stream that runs through the properties of community members?	Mr Nqasha stated that the mine intends to utilise rainy water collected and stored within artificial dams existing inside the mining area. These dams capture natural rainfall, and the current plan is to rely on this stored water rather than abstracting water from the stream that flows through neighbouring community properties. Mr Riaan Tim further elucidated that the Department of Mineral and Petroleum Resources (DMPR) require the applicant to apply for a Water Use Licence (WUL) for the proposed water-related activities. As part of this process, specialist studies and regulatory assessments will be undertaken to evaluate the mine's water requirements and the potential impacts on surface water and groundwater resources. Any necessary mitigation measures identified through these assessments will be implemented to ensure that water resources are managed responsibly and that impacts on surrounding landowners and communities are minimised. Nqasha added that WULA application will be lodged during the EIA phase which will require some information from the assessments.
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Tom Beck			Regarding transportation, will the increase in traffic pose a risk to residents, livestock such as cattle and roaming goats, and other road users? Will there be a significant increase in traffic and associated safety risks for the community?	Mr Nqasha explained that a specialist traffic assessment will be conducted to evaluate the potential impacts of the proposed mining operation on traffic volumes, road safety, and surrounding road users. Based on current observations, the existing road network does not appear to be heavily congested, and the proposed mine is not expected to result in a significant increase in traffic-related risks to the community. It was further noted that the surrounding area has accommodated several sand mining operations for approximately 50 years, and local residents are therefore familiar with mining-related vehicle movements. However, traffic patterns may change as some vehicles could make use of the proposed mine's access routes due to their proximity to the tarred road. This may reduce the use of less suitable roads and potentially lessen vehicle damage associated with poor road conditions. The potential effects of increased traffic on residents, livestock such as cattle and goats, pedestrians, and other road users will be assessed as part of the specialist studies. Where risks are identified, appropriate mitigation measures will be recommended to improve road safety and minimise impacts on the surrounding community.
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Karol Schultz			What will happen with the animals on the mining area?	Mr Nqasha stated that the animals currently found within the proposed mining area were introduced to the property by the applicant and are not naturally occurring wildlife populations that originated there. As a result, the applicant will remove or relocate these animals before mining operations commence. In addition, appropriate measures will be implemented to protect livestock and other animals that may be present within or around the mining area. During the operational phase, the mine will ensure that the site is properly fenced and that access is controlled to prevent animals from entering hazardous areas where mining activities are taking place. Should mining activities affect livestock belonging to community members, the mine will engage directly with affected landowners and residents to address any concerns and determine appropriate solutions. Furthermore, the Environmental Impact Assessment (EIA) specialist studies will evaluate the potential impacts of the proposed mining activities on animals and livestock and will recommend suitable mitigation measures to minimise any adverse effects.
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The Environmental Assessment Practitioner (EAP) held a meeting with the community and his team, which explained the application processes and discussed potential impacts on the environmental and economic amenities on the relevant villages affected by the mining right application. The detailed presentation helped clarify about the Mining Right (MR) application for the holistic and facilitated a community meeting where he would inform the community about the benefits of potential mining in the area. The meeting was meaningfully and informative, as explained and illustrated all the areas affected by the MR application. Overall, the community was highly supportive, questioning where necessary and ready to welcome mining in their area as part of community development. Since VMAC stated the PPP, there were no objections were raised and received during this period. The EAP further encouraged the community to send comments, concerns and questions to VMAC info for recording and consultation.

TSMG (PTY) LTD DATABASE			
STATE ORGANS			
NAME AND SURNAME	DEPARTMENT	CONTACT DETAILS	EMAIL ADDRESS
Enquiries	City of Tswane		Enquiriestm@tshwane.gov.za
Info	City of Tswane		geinfoservice@tshwane.gov.za
Customercare	City of Tswane		customercare@tshwane.gov.za
S Somyo	Department of water & Sanitation		SomyoS@dws.gov.za
P Mdakane	Department of water & Sanitation		MdakaneP@dws.gov.za
N Mhlanga	Department of water & Sanitation		MhlangaN@dws.gov.za
V Sekgobela	Department of water & Sanitation		SekgobelaV@dws.gov.za
T Nkala	Department of water & Sanitation		NkalaT@dws.gov.za
W Mavasa	Department of water & Sanitation		MavasaW@dws.gov.za
Info	Department of water & Sanitation		WULAINfo@dws.gov.za
Babalwa Mbambalala	Department of Agriculture, Land Reform & Rural development		Babalwa.Mbambalala@dalrrd.gov.za
Momelezi Twantwa	Department of Agriculture, Land Reform & Rural development		Momelezi.Twantwa@dalrrd.gov.za
Makoma Ramalepe	Department of Agriculture, Land Reform & Rural development		makoma.ramalepe@dalrrd.gov.za
Mondli ngidi	Department of Agriculture, Land Reform & Rural development		Mondli.ngidi@dalrrd.gov.za
Admin	Department of Forestry, Fisheries and Environment		bcadmin@dfre.gov.za
N Mkhize	Department of Forestry, Fisheries and Environment		nmkhize@dfre.gov.za
T fiko	Department of Forestry, Fisheries and Environment		tfiko@dfre.gov.za
INTERESTED AND AFFECTED PARTIES			
NAME AND SURNAME	ORGANIZATION/ COMMUNITY	CONTACT DETAILS	EMAIL ADDRESS

Qaqamba Meyi	Vahlengwe	27626672136	qaqamba@vahlengweadvisory.co.za
Lufuno Nefare	Vahlengwe	27799592171	lufuno@vahlengweadvivory.co.za
Thorn Bial	IAP	27825659393	thorn@frts.co.za
Riaan Timm	TSMG	27713456145	riaantimm@yahoo.com
Carl Schulz	Pavagon Construction	27824342054	Hcschulzs@gmail.com
Jitesh Ramjee	Gliner Technologies	27824579165	drjramjee@yahoo.com
Leonard Herbst	Avalon Steel	27604323308	ihavalonsteel@gmail.com
Rirhandzu Mabaso	Vahlengwe	27649164393	rhandzu@vahlengweadvisory.co.za
Ivone Dc Sousa	Randquip	27795359349	ivoncddesousa@gmail.com
Petros Tseko	Cli	27795359349	petrost@gmail.com
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Halso Vanter	ARB	27825575608	halso@arb.co.za
Lusizo Nqasha	Vahlengwe	27725046088	lusizo@vahlengweadvisory.co.za

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Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

From Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Date Tue 2026-07-28 11:36 AM

To BC Admin <bcadmin@dfpe.gov.za>

Cc nmkhize@dfpe.gov.za <nmkhize@dfpe.gov.za>; tfiko@dfpe.gov.za <tfiko@dfpe.gov.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; Sunday Mabaso <sunday@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>

 2 attachments (12 MB)

Draft Scoping_TSMG.pdf; MR TSMG Data.kml;

Good day,

I hope this email finds you well.

My name is Rirhandzu Precious Mabaso, and I am a Stakeholder Engagement Consultant Trainee at Vahlengwe Mining Advisory and Consulting, the independent environmental assessment practitioner appointed to facilitate the Environmental Impact Assessment (EIA) process for the Mining Right application on behalf of TSMG (Pty) Ltd.

In accordance with Section 24K of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), we hereby invite Department of Forestry, Fisheries and Environment (DFPE) to review and provide comments on the **Draft Scoping Report and Environmental Management Programme Report (EMPr)** for the proposed Mining Right application by TSMG (Pty) Ltd, **DMPR Reference No.: GP 30/5/1/2/2/10138 MR**, in respect of Portion 4 of the Farm Doornkraal 420 JR, situated in the Magisterial District of Cullinan, Gauteng Province.

Please find the following documents attached for your review:

- Draft Scoping Report and EMPr
- KML file indicating the project area.

We kindly request that any comments or inputs on the attached documents be submitted in writing within the prescribed review period. Your comments will be considered during the Environmental Impact Assessment process and incorporated into the final submission where applicable.

Should you require any additional information or clarification, please do not hesitate to contact us.

We appreciate your time and look forward to your valued comments.

Kind regards,

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From: Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Sent: Tuesday, 28 July 2026 12:17:49

To: Somyo Sakhumzi (DHQ) <SomyoS@dws.gov.za>; Mdakane Phumzile <MdakaneP@dws.gov.za>; Mhlanga Nomso <MhlangaN@dws.gov.za>; Sekgobela Vusimuzi Arnold <SekgobelaV@dws.gov.za>; Nkala Adv Thanduxolo <NkalaT@dwagovza.onmicrosoft.com>; WULAinfo <WULAinfo@dws.gov.za>; Mavasa Wisane (DHQ) <MavasaW@dws.gov.za>

Cc: sunday@vahlengweadvisory.co.za <sunday@vahlengweadvisory.co.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>

Subject: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

Some people who received this message don't often get email from rhandzu@vahlengweadvisory.co.za. [Learn why this is important](#)

Good day,

I hope this email finds you well.

My name is Rirhandzu Precious Mabaso, and I am a Stakeholder Engagement Consultant Trainee at Vahlengwe Mining Advisory and Consulting, the independent environmental assessment practitioner appointed to facilitate the Environmental Impact Assessment (EIA) process for the Mining Right application on behalf of TSMG (Pty) Ltd.

In accordance with Section 24K of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), we hereby invite Department of Water and Sanitation (DWS) to review and provide comments on the **Draft Scoping Report** and **Environmental Management Programme Report (EMPr)** for the proposed Mining Right application by TSMG (Pty) Ltd, **DMPR Reference No.: GP 30/5/1/2/2/10138 MR**, in respect of Portion 4 of the Farm Doornkraal 420 JR, situated in the Magisterial District of Cullinan, Gauteng Province.

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Kind regards,

Fw: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

From Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Date Thu 2026-07-30 12:27 PM

To Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>

Cc Sunday Mabaso <sunday@vahlengweadvisory.co.za>

Hi Lusizo,

I hope you are doing well.

Please find the email below from (DWS) for inclusion in the CRR and for record-keeping purposes.

Kind regards,

Email Disclaimer:

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From: Central Point <CentralP@dws.gov.za>

Sent: Wednesday, July 29, 2026 2:41 PM

To: Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Cc: Central Point <CentralP@dws.gov.za>

Subject: RE: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

Good day,

On behalf of the Director-General, Dr Sean Phillips, this email serves to acknowledge receipt of your correspondence which will receive the necessary attention by the Department of Water and Sanitation (DWS).

Kindest regards,

Central Point



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Re: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

From Mdakane Phumzile <MdakaneP@dws.gov.za>

Date Wed 2026-07-29 6:43 AM

To Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>; Somyo Sakhumzi (DHQ) <SomyoS@dws.gov.za>; Mhlanga Nomso <MhlangaN@dws.gov.za>; Sekgobela Vusimuzi Arnold <SekgobelaV@dws.gov.za>; Nkala Adv Thanduxolo <NkalaT@dwagovza.onmicrosoft.com>; WULAINfo <WULAINfo@dws.gov.za>; Mavasa Wisane (DHQ) <MavasaW@dws.gov.za>

Cc Sunday Mabaso <sunday@vahlengweadvisory.co.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>

Good day,

This email serves to acknowledge receipt of your email and its contents.

Please note that the request will receive necessary attention by the department.

Warm regards

Phumzile Mdakane (Ms)
Office of the Director-General
Tel: 012 336 6990
Email: MdakaneP@dws.gov.za

From: Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Sent: Tuesday, July 28, 2026 12:19:41 pm

To: Somyo Sakhumzi (DHQ) <SomyoS@dws.gov.za>; Mdakane Phumzile <MdakaneP@dws.gov.za>; Mhlanga Nomso <MhlangaN@dws.gov.za>; Sekgobela Vusimuzi Arnold <SekgobelaV@dws.gov.za>; Nkala Adv Thanduxolo <NkalaT@dwagovza.onmicrosoft.com>; WULAINfo <WULAINfo@dws.gov.za>; Mavasa Wisane (DHQ) <MavasaW@dws.gov.za>

Cc: sunday@vahlengweadvisory.co.za <sunday@vahlengweadvisory.co.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>

Subject: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

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Good day,

I hope this email finds you well.

My name is Rirhandzu Precious Mabaso, and I am a Stakeholder Engagement Consultant Trainee at Vahlengwe Mining Advisory and Consulting, the independent environmental

assessment practitioner appointed to facilitate the Environmental Impact Assessment (EIA) process for the Mining Right application on behalf of TSMG (Pty) Ltd.

In accordance with Section 24K of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), we hereby invite Department of Water and Sanitation (DWS) to review and provide comments on the **Draft Scoping Report and Environmental Management Programme Report (EMPr)** for the proposed Mining Right application by TSMG (Pty) Ltd, **DMPR Reference No.: GP 30/5/1/2/2/10138 MR**, in respect of Portion 4 of the Farm Doornkraal 420 JR, situated in the Magisterial District of Cullinan, Gauteng Province.

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INVITATION TO REVIEW AND COMMENT ON THE DRAFT SCOPING REPORT FOR THE PROPOSED MINING RIGHT FOR TSMG (Pty) Ltd

From Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Date Tue 2026-07-28 12:33 PM

To Enquiries@tshwane.gov.za <enquiries@tshwane.gov.za>; customercare@tshwane.gov.za <customercare@tshwane.gov.za>

Cc geinfoservice@tshwane.gov.za <geinfoservice@tshwane.gov.za>; Sunday Mabaso <sunday@vahlengweadvisory.co.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; info@vahlengweadvisory.co.za

 2 attachments (12 MB)

Draft Scoping_TSMG.pdf; MR TSMG Data.kml;

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From Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Date Tue 2026-07-28 12:57 PM

To Babalwa.Mbambalala@dalrrd.gov.za <Babalwa.Mbambalala@dalrrd.gov.za>; Mondli.ngidi@dalrrd.gov.za <Mondli.ngidi@dalrrd.gov.za>; Momelezi.Twantwa@dalrrd.gov.za <Momelezi.Twantwa@dalrrd.gov.za>; makoma.ramalepe@dalrrd.gov.za <makoma.ramalepe@dalrrd.gov.za>

Cc Sunday Mabaso <sunday@vahlengweadvisory.co.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>

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Date Tue 2026-07-28 12:33 PM

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Cc geoinfoservice@tshwane.gov.za <geoinfoservice@tshwane.gov.za>; Sunday Mabaso <sunday@vahlengweadvisory.co.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>

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Date Tue 2026-07-28 12:57 PM

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Cc Sunday Mabaso <sunday@vahlengweadvisory.co.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>

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Should you require any additional information or clarification, please do not hesitate to contact us.

We appreciate your time and look forward to your valued comments.

Kind regards,

- We acknowledge the requirement that all specialist assessments must be conducted in accordance with the relevant assessment protocols and minimum reporting requirements prescribed under the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.
- We confirm that comprehensive specialist studies, including but not limited to terrestrial biodiversity assessments (flora and fauna), will be undertaken during the **Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPr) Phase**, following the acceptance of the Scoping Report by the Department of Mineral and Petroleum Resources (DMPR).
- The specialist studies will assess environmental sensitivities, evaluate potential impacts on biodiversity and ecological features, and recommend appropriate avoidance, management, mitigation, and monitoring measures in accordance with the mitigation hierarchy.
- The outcomes of the specialist assessments will be incorporated into the Environmental Impact Assessment Report, which will demonstrate compliance with applicable assessment protocols and provide justification where any protocol requirements are not applicable.
- We further acknowledge the importance of protecting sensitive and highly localised habitats to support ecosystem persistence and national conservation targets. These considerations will be addressed in detail during the EIA phase, and project planning will seek to avoid and minimise impacts on environmentally sensitive areas wherever practicable.
- We note that all biodiversity-related Public Participation Process documentation and specialist reports requiring review by the Directorate: Biodiversity Conservation will be submitted to BCAdmin@dffe.gov.za for the attention of Mr. Seoka Lekota, as indicated in the correspondence.

We trust that the above response adequately addresses the comments received and confirms our commitment to ensuring that all biodiversity-related matters are fully assessed and considered during the forthcoming EIA phase.

Kind Regards



Sunday M Mabaso

Vahlengwe Mining Advisory and Consulting



238 Vorster Ave, Glenvista, 2190
Tel: 011 432 0062/ 0745697312
Email: info@vahlegweadvisory.co.za

01 September 2026

Att: Mr. Seoka Lekota

Control Biodiversity Officer Grade B: Biodiversity Conservation
Department of Forestry, Fisheries and the Environment
Environment House
473 Steve Biko Road
Private Bag X447
Pretoria, 0001

Tel: 012 399 9411

Email: BCAdmin@dffe.gov.za / pmakitla@dffe.gov.za

Response to Comments on the Draft Scoping Report in Support of the Environmental Authorisation Application for a Mining Right for the Extraction of Mining Aggregate, Concrete Sand (Silica), Building Sand (Silica), Foundry Sand (Silica), Glass Sand (Silica), General Sand, Silcrete (Silica), Silica Sand, Crusher Sand (Silica), Filling Sand, Metallurgical Silica, Diamond (General), and Sand Manufactured from Hard Rock Minerals on Portion 4 of the Farm Doornkraal 420 JR, within the Magisterial District of Cullinan, Gauteng Province

REFERENCE NUMBER: DMPR Ref No: GP 30/5/1/2/2/10138 MR

We, **Vahlegwe Mining Advisory and Consulting**, acknowledge receipt of the correspondence dated **28 August 2026** from the Mr. Seoka Lekota, Control Biodiversity Officer Grade B: Biodiversity Conservation, regarding comments provided on the Draft Scoping Report.

We appreciate the review undertaken by the Directorate: Biodiversity Conservation and note the comments and recommendations raised in relation to the proposed mining right application.

In response, we wish to place the following on record:

- The application process is presently at the **Scoping Phase**, the primary purpose of which is to establish the existing environmental conditions of the project area, identify potential environmental sensitivities, and determine the nature and extent of specialist studies required for the Environmental Impact Assessment process.
- The findings of the Scoping Phase assist the Environmental Assessment Practitioner (EAP) in understanding the environmental setting of the site and in identifying potential impacts associated with the proposed development. These findings further inform the Terms of Reference for specialist investigations to be undertaken.



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X 447, Pretoria, 0001, Environment House, 473 Steve Biko Road, Pretoria, Tel: +27 12 399 9000, Fax: +27 86 625 1042

Reference: GP 30/5/1/2/2/10138 MR

Enquiries: Ms. Portia Makitla/ Mr. Mthokozese Nsizwane

Telephone: 012 399 9411 E-mail: pmakitla@dffe.gov.za

Attn: Rhandzu Mabaso
Vahlengwe Mining Advisory and Consulting

Telephone Number: +27 11 432 0062

Email Address: Rhandzu@vahlengweadvisory.co.za

COMMENTS ON THE DRAFT SCOPING REPORT IN SUPPORT OF THE ENVIRONMENTAL AUTHORISATION APPLICATION FOR MINING RIGHT FOR MINING AGGREGATE, CONCRETE SAND (SILICA), BUILDING SAND (SILICA), FOUNDRY (SILICA), GLASS SAND (SILICA), SAND (GENERAL), SILCRETE (SILICA), SILICA SAND (SILICA), CRUSHER SAND (SILICA), FILING SAND, METALLURGICAL (SILICA), DIAMOND (GENERAL), AND SAND MANUFACTURED FROM THE HARD ROCK MINERALS, IN RESPECT OF PORTION 4 OF THE FARM DOORKRAAL 420 JR, IN THE MAGESTERIALDISTRICT OF CULLINAN, GAUTENG PROVINCE

The Directorate: Biodiversity Conservation has reviewed and evaluated the reports.

The following aspects must, however, be duly considered:

- All specialist assessments must be conducted in accordance with the procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, as amended.
- The specialist assessments must comply with the applicable assessment protocols, including, but not limited to, those relating to terrestrial biodiversity (flora and fauna). The Environmental Impact Assessment Report must clearly demonstrate compliance with the relevant protocols and provide justification where any protocol requirements are not applicable.
- To ensure the continued persistence of ecosystems and that national conservation targets are achieved, it is essential that impacts on sensitive and highly localised habitats are minimized or avoided altogether as per the mitigation hierarchy requirements.

All Public Participation Process documents related to Biodiversity EIA for review and queries should be submitted to the Directorate: Biodiversity Conservation at Email; BCAdmin@dffe.gov.za for the attention of Mr. Seoka Lekota.

Yours faithfully

Mr. Seoka Lekota
Control Biodiversity Officer Grade B: Biodiversity Conservation
Department of Forestry, Fisheries & the Environment
Date: 28/08/2026



Batho pele- putting people first.

Please find the following documents attached for your review:

- Draft Scoping Report and EMPr
- KML file indicating the project area.

We kindly request that any comments or inputs on the attached documents be submitted in writing within the prescribed review period. Your comments will be considered during the Environmental Impact Assessment process and incorporated into the final submission where applicable.

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Kind regards,



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RE: Department of Forestry Fisheries and the Environment Directorate: Biodiversity Conservation hereby acknowledge receipt of the invitation on the 28th of July 2026 for review and comment on the project mentioned in the subject line.

Kindly note that the project has been allocated to Ms P Makitla and Mr Mthokozese Nsizwane (Copied in this email).

Note, all Public Participation Process documents related to Biodiversity EIA review and Biodiversity EIA queries must be submitted to the Directorate: Biodiversity Conservation by email: BCAdmin@dfpe.gov.za for attention of Mr Seoka Lekota.

Regards,
Ms Khuliso Khomari

Directorate: Biodiversity Conservation
Sub-Directorate: Policy Development Mainstreaming EIA
Email: KKhomari@dfpe.gov.za
Cell: 076 741 6937
Website: www.environment.gov.za
National Department of Forestry, Fisheries and the Environment
Environment House, 473 Steve Biko, Arcadia, Pretoria, 0083



forestry, fisheries
& the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

From: Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>
Sent: Tuesday, July 28, 2026 11:36 AM
To: BC Admin <bcadmin@dfpe.gov.za>
Cc: nmkhize@dfpe.gov.za; Tabisa Fiko <TFiko@dfpe.gov.za>; Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>; Sunday Mabaso <sunday@vahlengweadvisory.co.za>; info <info@vahlengweadvisory.co.za>
Subject: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

Good day,

I hope this email finds you well.

My name is Rirhandzu Precious Mabaso, and I am a Stakeholder Engagement Consultant Trainee at Vahlengwe Mining Advisory and Consulting, the independent environmental assessment practitioner appointed to facilitate the Environmental Impact Assessment (EIA) process for the Mining Right application on behalf of TSMG (Pty) Ltd.

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Fw: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

From Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Date Mon 2026-08-31 8:55 AM

To Lusizo Nqasha <lusizo@vahlengweadvisory.co.za>

 1 attachment (531 KB)

Portion 4 of Farm Doornkraal Comments.pdf;

Kind regards,

Email Disclaimer:

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From: Mthokozese Nsizwane <MNsizwane@dffe.gov.za>

Sent: Friday, August 28, 2026 3:36 PM

To: Rhandzu Mabaso <Rhandzu@vahlengweadvisory.co.za>

Subject: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

Dear Sir / Madam

Please find the attached comments from the Directorate: Biodiversity Conservation.

Regards
Mthokozese

From: Khuliso KKP. Khomari <KKhomari@dffe.gov.za>

Sent: Tuesday, 18 August 2026 10:06

To: Rhandzu@vahlengweadvisory.co.za

Cc: Portia Makitla <PMakitla@dffe.gov.za>; Mthokozese Nsizwane <MNsizwane@dffe.gov.za>; BC Admin <bcadmin@dffe.gov.za>

Subject: FW: Request for Comments on the Draft Scoping Report and EMPr – TSMG (Pty) Ltd (GP 30/5/1/2/2/10138 MR)

Dear Sir/Madam

-

Appendix 5:

A. Environmental Screening tool

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

EIA Reference number: GP 30/5/1/2/2/10138 MR

Project name: Mining Right

Project title: Scoping Report

Date screening report generated: 03/07/2026 11:15:37

Applicant: TSMG (Pty) Ltd

Compiler: Nqasha Lusizo

Compiler signature: 
.....

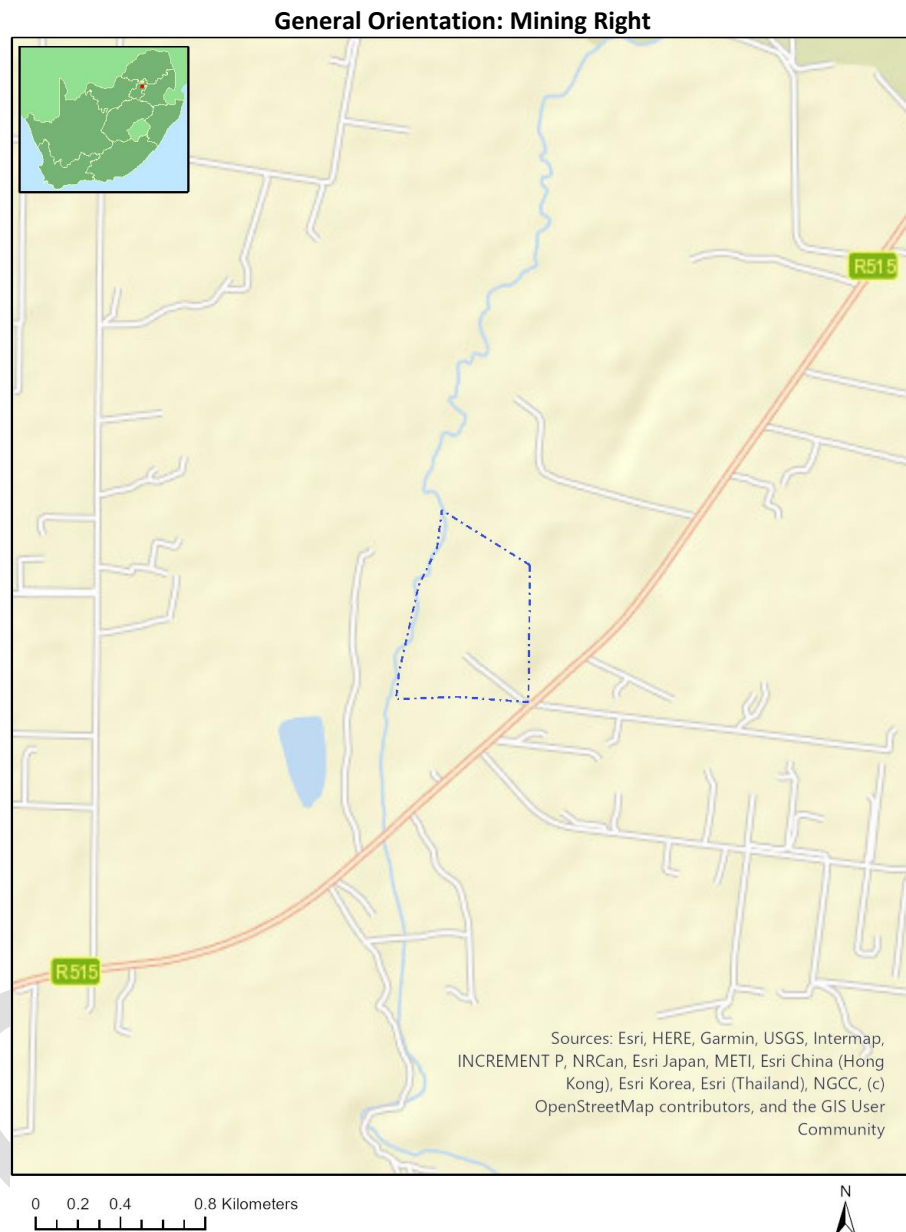
Application Category: Mining|Mining Right

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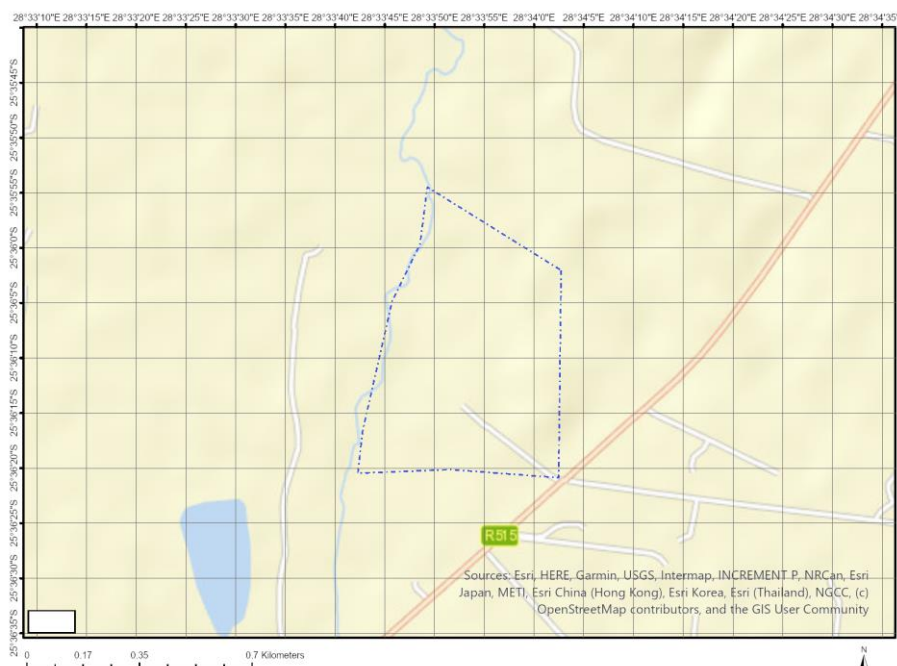
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Proposed Project Location

Orientation map 1: General location



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	DOORNKRAAL	420	0	25°36'12.65S	28°33'37.98E	Farm
2	DOORNKRAAL	420	101	25°35'40.56S	28°34'13.08E	Farm Portion
3	DOORNKRAAL	420	14	25°36'10.04S	28°33'53.46E	Farm Portion
4	DOORNKRAAL	420	169	25°35'54.32S	28°33'42.67E	Farm Portion

Development footprint¹ vertices:

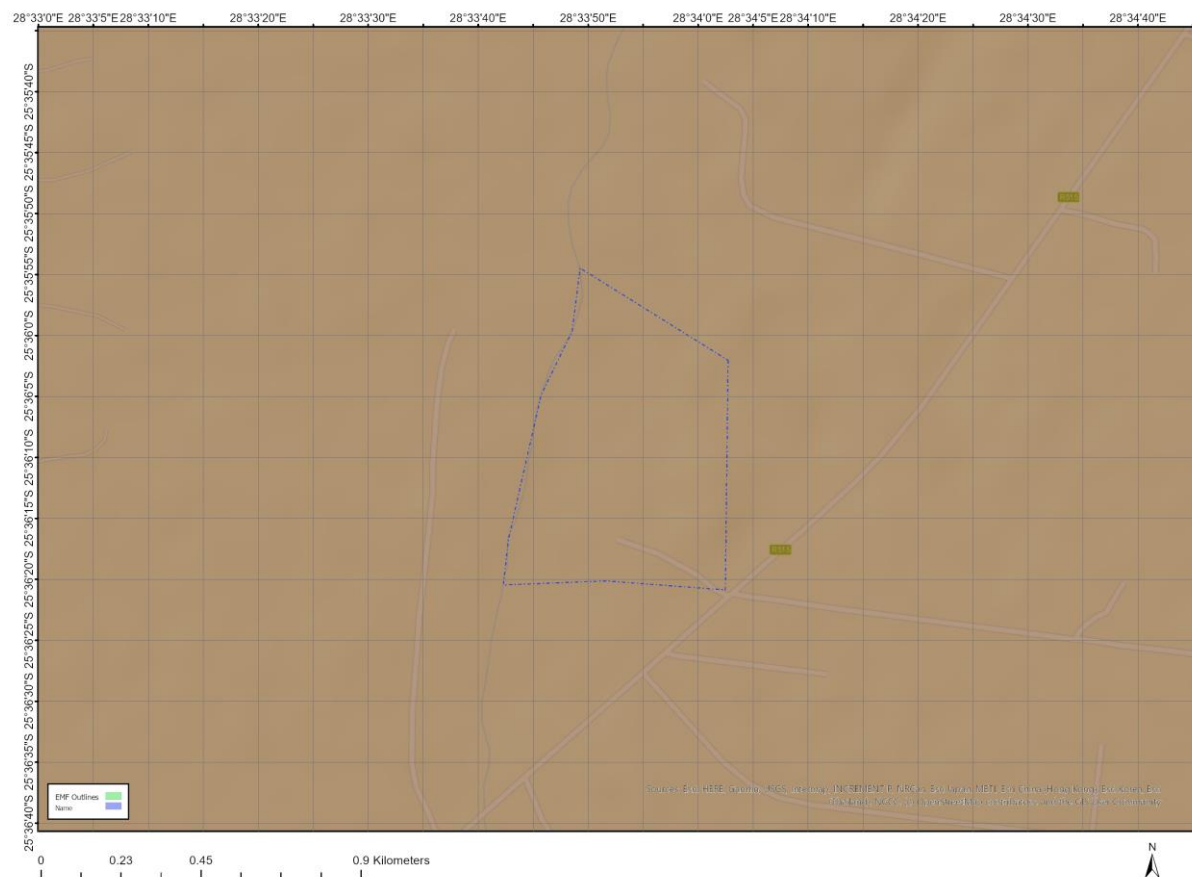
No development footprint(s) specified.

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

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	14/12/16/3/3/2/2507	Solar PV	Approved	8.3

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

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Olifants EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/Zone_4_6, 67, 78, 80, 92, 103, 122, 129.pdf
Gauteng EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/GPEMF_2021_Gazette_and_summary.pdf
Dinokeng	https://screening.environment.gov.za/ScreeningDownloads/EMF/Dinokeng_EMF&SEMP_final_March_2010.pdf

Environmental screening results and assessment outcomes

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

Mining | Mining 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

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

Specialist assessments identified

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

No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	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/GuidanceforHIA.pdf
4	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/GuidanceforPIA.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

		otocols.pdf
7	Hydrology Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.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 P rotocols.pdf
10	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
11	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
12	Climate Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
13	Health Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
14	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
15	Ambient Air Quality Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
16	Seismicity Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment P rotocols.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 Protoco ls.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

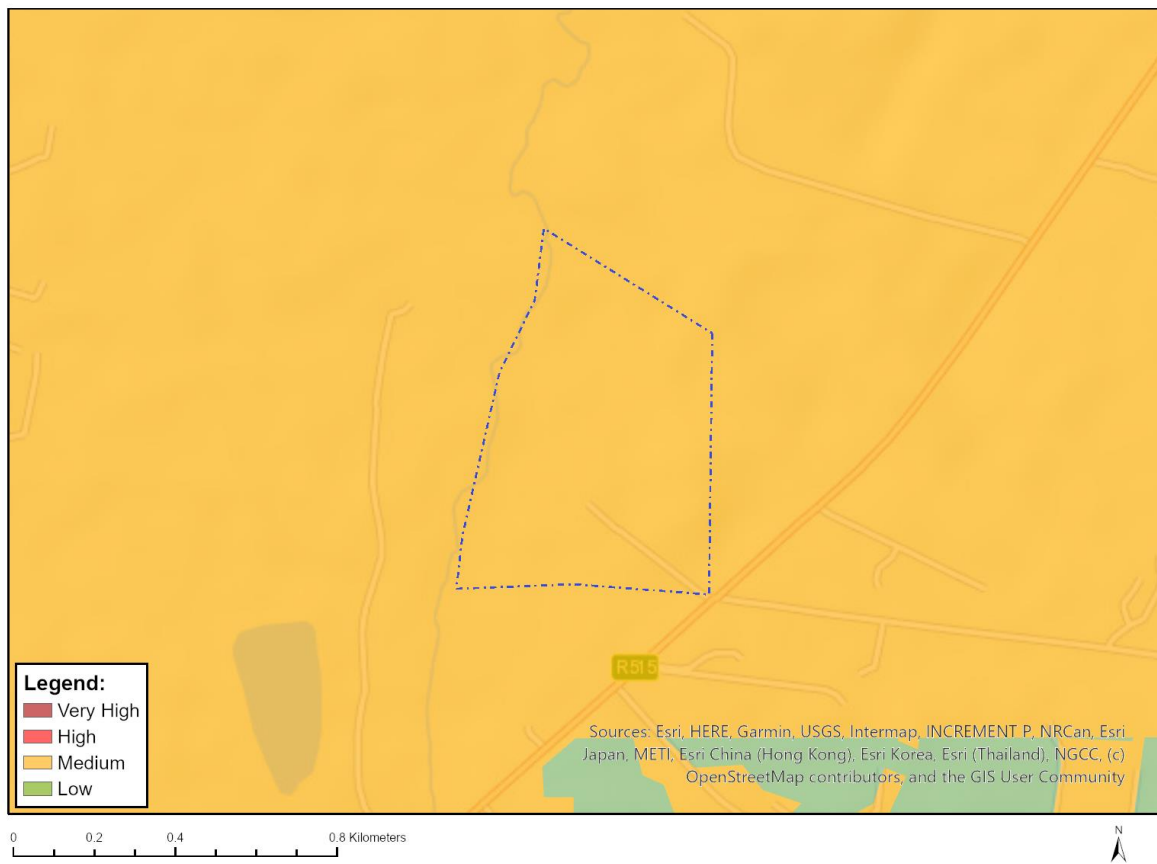


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	08. Moderate
High	09. Moderate-High
High	10. Moderate-High
Very High	Cullinan PAA
Very High	11. 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)
Medium	Aves-Hydroprogne caspia
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Dasymys robertsii
Medium	Reptilia-Kinixys lobatsiana

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

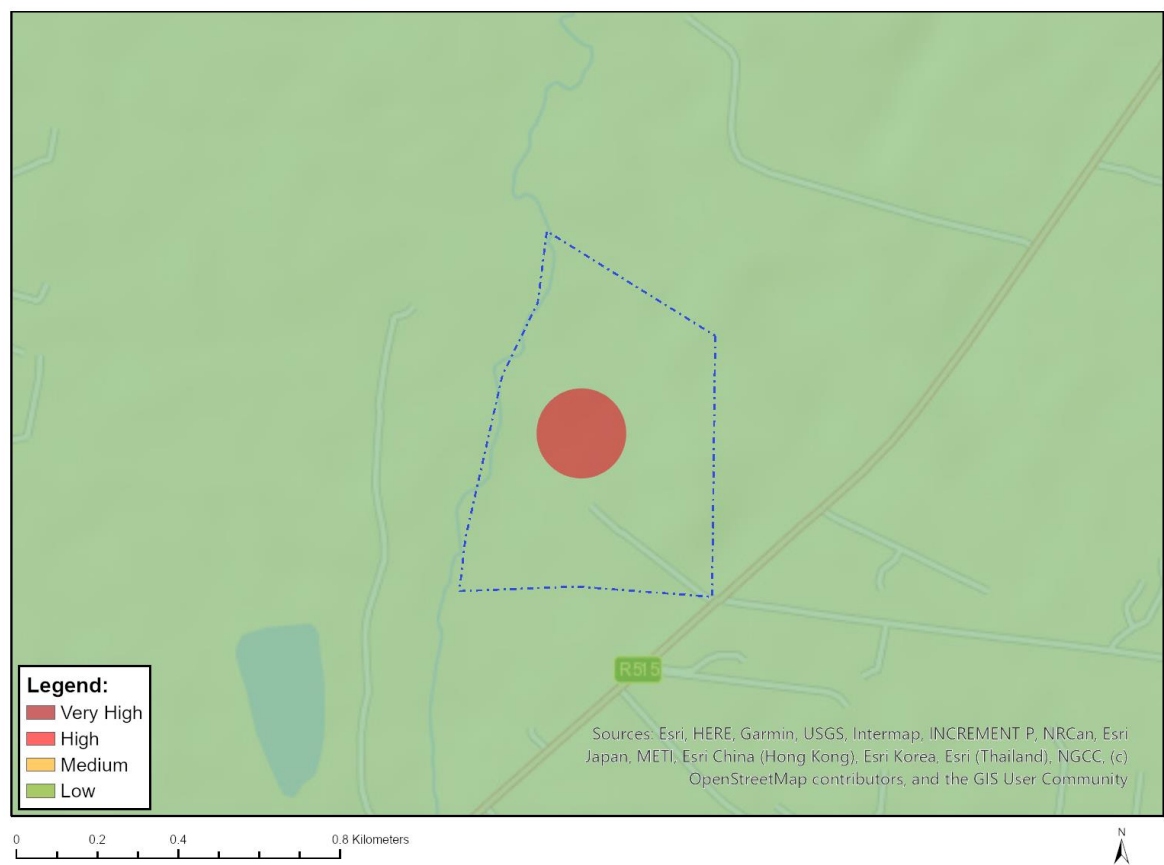


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Rivers

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

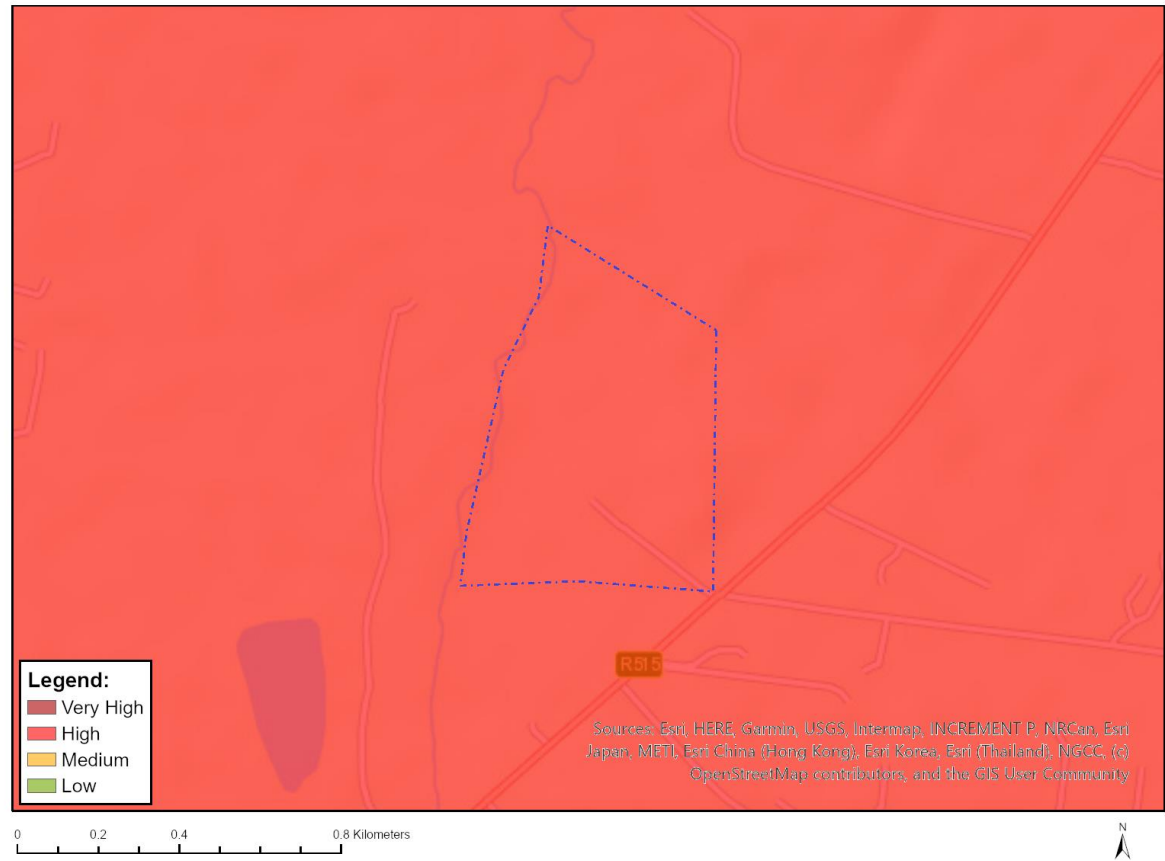


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Within 100m of an Ungraded Heritage site

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

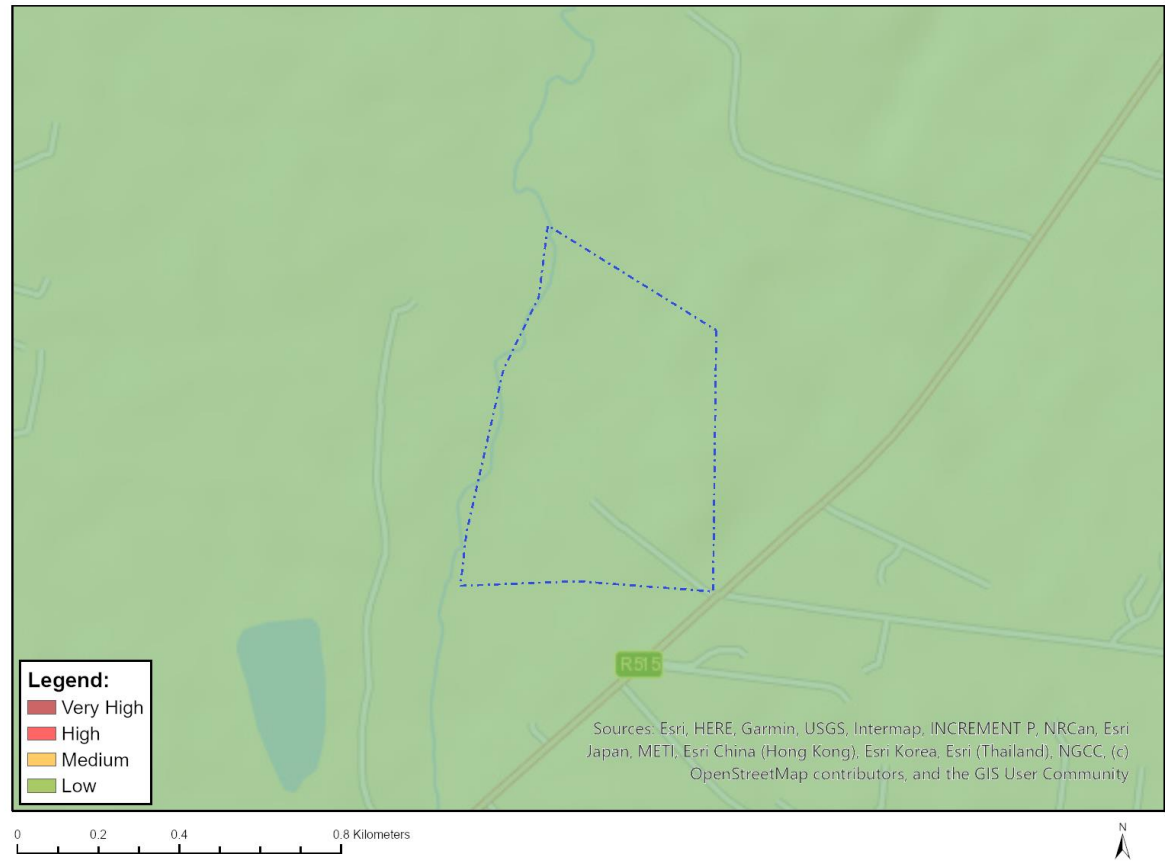


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 15 km of a civil aviation radar
High	Dangerous and restricted airspace as demarcated
Medium	Between 15 and 35 km from a civil aviation radar
Medium	Between 15 and 35 km from a major civil aviation aerodrome
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

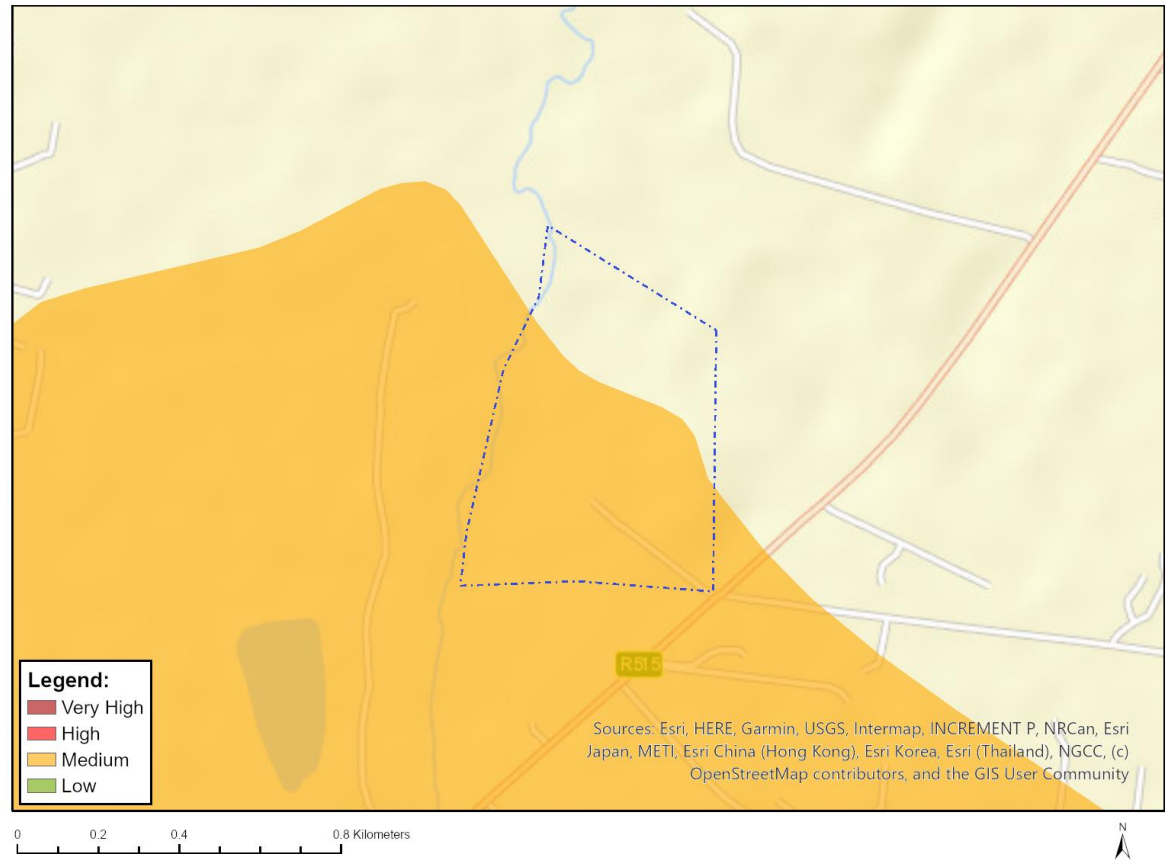


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

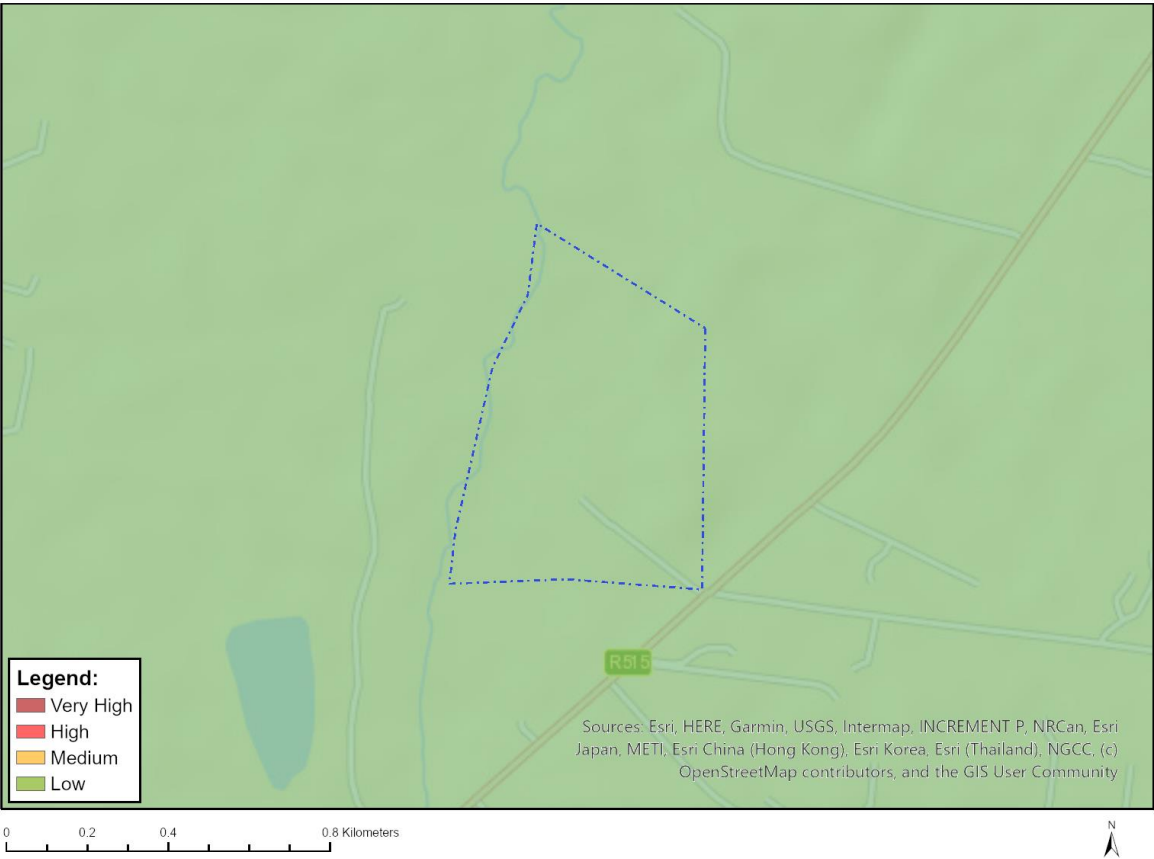


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
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