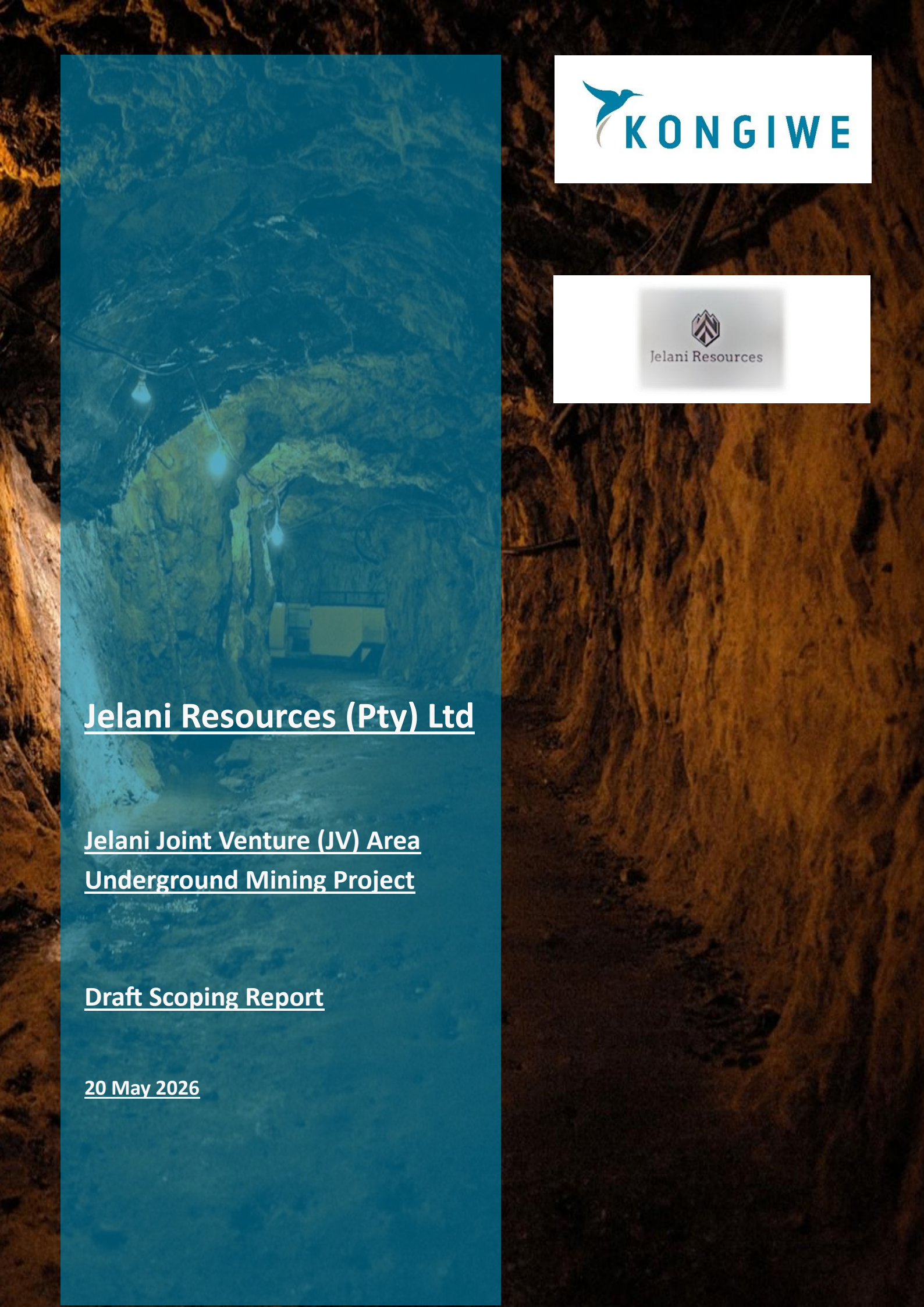

Jelani Resources (Pty) Ltd

Jelani Joint Venture (JV) Area Underground Mining Project

Draft Scoping Report

20 May 2026

Report Preparation By

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Report Information

Project	Jelani Joint Venture (JV) Area Underground Mining Project
Report Title	Draft Scoping Report
Client	Jelani Resources (Pty) Ltd
EIA Reference No.	FS30/5/1/2/3/2/1(10098) MR
Project No.	JELA#001
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Approval

Verification	Capacity	Name	Signature	Date
By Author	Environmental Consultant	Ripfumelo Macevele		16 March 2026
Reviewed and Approved by	Environmental Assessment Practitioner	Umeshree Naicker		23 March 2026

Please consider the Environment before you print this document.

Important Notice

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, 1998 (Act 107 of 1998). It cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of Regulation 16(3) (b) of the Environmental Impact Assessment Regulations 2014, as amended, 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 Regulation 17(1)(c) the Competent Authority must check whether the application has considered any minimum requirements applicable, or instructions or guidance provided by the Competent Authority to the submission of applications.

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

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

Objective of the Scoping Process

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

- Identify the relevant policies and legislation relevant to the activity.
- Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location,
- Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process.
- Identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment.
- Identify the key issues to be addressed in the assessment phase.
- Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site.
- Identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

Public Review Period for the Draft Scoping Report

This Draft Scoping Report (DSR) will be made available to stakeholders and interested and affected parties on the Kongiwe Environmental (Pty) Ltd (Kongiwe) website and at public venues for a 30-day comment period from Thursday, 21 May 2026 to Monday, 22 June 2026. Notification of the availability of the documentation for review has been distributed on Thursday, 14 May 2026. The DSR will be made available at the following locations:

Location	Physical Address	Contact Person
DSR Hard Copy		
Allanridge Public Library	53 Caledon St, Allanridge	Ms Anna Matjelo, Librarian (078) 713 2063) Monday - Friday Open: 08:00 Close: 15:30
A non-executive summary of the Draft Scoping Report will be distributed to all stakeholders on the database.		
Website Name	**Website Address**	**Contact Person**
Electronic Copy		
Kongiwe Environmental website	http://www.kongiwe.com/publications-view/public-documents/	Vanessa Viljoen/Jean-Mari Williams
An electronic copy (CD) of the DSR will be made available upon a request directed to the stakeholder engagement team. Stakeholders are encouraged to contact the stakeholder engagement team (Vanessa Viljoen/Jean-Mari Williams), Tel: (012) 003 6627, Email: stakeholders@kongiwe.com should they require assistance with accessing the DSR or have queries regarding the Proposed Project.		

Comments received from the public throughout the public review process will be addressed and included in the Final Scoping Report (FSR).

Executive Summary

Kongiwe Environmental (Pty) Ltd ("Kongiwe") has been appointed by Jelani Resources (Pty) Ltd ("Jelani"), as the independent Environmental Service Provider and tasked with conducting the Scoping and Environmental Impact Assessment (S&EIA) process, which is aimed at critically evaluating the potential environmental and social impacts of the proposed **Jelani Joint Venture (JV) Area Underground Mining Project** ("Proposed Project").

The application for an Environmental Authorisation (EA) was submitted to the Department of Mineral and Petroleum Resources (DMPR), which is the Competent Authority (CA) for the Proposed Project, on Tuesday, 21 April 2026. The Draft Scoping Report (DSR) has been made available for public review and comment for a period of 30 days, from Thursday, 21 May 2026 to Monday, 22 June 2026.

Project Introduction and Background

Jelani Resources (Pty) Ltd is a joint venture (JV) company established by White Rivers Exploration (WRE) and Harmony Gold. The JV was formed to conduct underground mining operations within the Joint Venture (JV) area, which is made up of areas within the existing Harmony Target mining right (Harmony contribution) and Prospecting Rights (PR) areas to the west of Harmony Gold's existing Target Mine (WRE contribution) in the Free State Province of South Africa. Following the exploration and licensing phases, Jelani intends to initiate underground mining operations within the same area.

The Proposed Project entails licensing the underground mining of the following potential mineral resources:

- Gold ore (primary target),
- Silver ore,
- Uranium ore,
- Sulphur,
- Platinum Group Metals,
- Rare earths,
- Diamonds (alluvial),
- Copper ore,
- Cobalt ore,
- Manganese ore,
- Molybdenum ore,
- Nickel ore,
- Lead ore,
- Tungsten ore,
- Zinc ore, and
- Iron ore.

Jelani's underground mining operations initially will target shallower mineral resource deposits at the project site (approximately 1 200 mbs). As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of mined ore per month.

Two mining methods have been identified as the most practical for exploiting the mineral resources: conventional breast mining and shrinkage stoping. The selection of each method is primarily based on the dip of the mineralised reef, with the shrinkage stoping being used for the steeper slopes (3% of the total stope tonnage). Where the orebody dips below 55°, conventional breast mining will be used.

Ore will be transported to the shaft ore pass system using conveyor system loaded by a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump.

Existing underground access (shafts and level access) will be refurbished and re-equipped. Target No 2 and Target No 3 shafts will, over the course of the mines life, be used for the movement of men, material and rock depending on which phase the mine is in.

Project Infrastructure Requirements

All operational mining infrastructure required for the Proposed Project will be located within Harmony's existing Target Mine mining right area. No new operational mining infrastructure planned within the JV project area. Underground access infrastructure will comprise either refurbished facilities at Target Shafts No. 3, 4, and 5 or newly constructed infrastructure at the Target No. 2 Shaft site, all within the existing mining right.

The infrastructure requirements are intended to support the managerial, supervisory and operational functions associated with the respective underground mining operations/targets. A layout of the proposed Target 3 shaft surface infrastructure which either needs to be refurbished or constructed is presented in the Figure 1-8. Target 3 shaft will be used to access the underground workings during Phase 1 of the project whilst Target 2 shaft is refurbished.

The Target No 2 shaft will be used as the main access to the underground orebody and workings in Phase 2, and Target No 3 shaft will be maintained as a second outlet.

The Target No 2 shaft is currently not utilised for mining production activities. Instead, it acts as the emergency exit for Target No. 1 Shaft with only a limited amount of infrastructure remaining in place. Once the shaft has been refurbished and surface infrastructure is completed and the shaft commissioned, mining operations associated Proposed Project will be relocated to this shaft.

To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary. Each station will include a small sensor pad/housing (approximately 5–10 m^2), basic power/comms setup, 6 m of perimeter fencing per station (total 24 m), and short gravel access tracks (total approximately 1 km across all stations, 4 m wide). These installations represent the only surface infrastructures on the JV project area.

Additionally, a new Tailings Storage Facility (TSF) will be constructed to the west of the existing Target metallurgical plant and north of the existing Target TSF. The total area required for this new facility is approximately 69 Hectares (Ha). This TSF is a separate project (and application) being undertaken by Harmony Gold.

Environmental Impact Process

The proposed underground mining operation will require environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and will follow a Scoping and Environmental Impact Assessment (S&EIA) process in accordance with the EIA Regulations, 2014, as amended[1]. These regulations impose a strict timeframe and require the Competent Authority, the DMPR, to issue a decision within 300 days from the date of submission of the Environmental Authorisation (EA) application.

[1] The most recent amendment is GN R517 of 11 June 2021. This S&EIA takes these amendments into account.

An Integrated Water Use Licence Application (IWULA) will be prepared and submitted in accordance with the Water Use Licence Application and Appeals Regulations 2017 published in GNR 267 on 24 March 2017 and will be supported by a Technical Report and Integrated Water and Waste Management Plan (IWWMP).

The nature and extent of the Proposed Project, along with the potential environmental impacts associated with an activity of this nature, have been assessed and are presented in this Scoping Report.

Legal Background and Requirements

Jelani Resources Ltd (Jelani) is a joint venture (JV) company formed by White Rivers Exploration (WRE) and Harmony Gold Mining Company Ltd (Harmony). WRE holds various prospecting rights for gold, coal, and other minerals, and currently operates as an exploration company with no active operations. Harmony is a gold-focused mining company with operations in South Africa and Papua New Guinea. The JV partners have vested a range of prospecting and mining rights in Jelani over an area designated as the JV Area for the proposed Underground Mining Project.

White Rivers Exploration (WRE) holds a Prospecting Rights (PR) for various minerals within the JV area. This PR (Ref: (FS) 30/5/1/1/2/10350 PR) was notarially executed on 21 June 2017 and registered in the Mineral and Petroleum Titles Registration Office (MPTRO) on 11 December 2017 under registration number 95/2017. The rights entitles WRE to prospect for Silver ore, Gold ore, Uranium ore, Sulphur, Platinum Group Metals, Rare earths, Alluvial diamonds, Copper ore, Cobalt ore, Manganese ore, Molybdenum ore, Nickel ore, Lead ore, Tungsten ore, Zinc ore, and Iron ore occurring in, on, and under various farms situated in the District of Odendaalsrus. Additionally, the renewal application was granted for a further period of three years by the Deputy Director-General on 30 May 2023, ending on 29 May 2026. This renewal was executed on 5 March 2024 and registered in the MPTRO on 30 April 2024 under registration number 17/2024.

Jelani has submitted a Mining Right (MR) Application for the areas currently covered by the Prospecting Rights to the Department of Mineral and Petroleum Resources (DMPR), which issued acceptance of the MR application on 18 May 2026. In accordance with the requirements of the Mineral and Petroleum Resources Development Act (MPRDA) and the NEMA Environmental Impact Assessment (EIA) Regulations, 2014 (as amended), the company is obligated to undertake a comprehensive Scoping and Environmental Impact Assessment (S&EIA) process prior to the granting of the Mining Right.

The Scoping Report has been compiled in terms of the provisions of Appendix 2 of the EIA 2014 Regulations, as amended, and the Directive set out in the template prescribed by the DMPR. The alignment of this Scoping Report with the requirements of Appendix 2 of the EIA Regulations is outlined in Table A.

Table A: Structure of the Scoping Report in line with the Appendix 2 of the EIA 2014 Regulations, as Amended

No.	Regulation Requirement	Report Section	Page Number
(a)	**Details of -**	1.4	5-6
(i)	The EAP who prepared the report and		
(ii)	The expertise of the EAP including a CV	Appendix A	
(b)	**The location of the activity, including –**	1.5	7
(i)	The 21-digit Surveyor General code of each cadastral land parcel		

No.	Regulation Requirement	Report Section	Page Number
(ii)	Where available, the physical address and farm name		
(iii)	Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property or properties	N/A	
(c)	**A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is –**	Appendix B	Appendix B
(i)	A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken		
(ii)	On land where the property has not been defined, the coordinates within which the activity is to be undertaken		
(d)	**A description of the scope of the proposed activity, including –**	1.7	11-21
(i)	All listed and specified activities triggered	1.8	21-24
(ii)	A description of the activities to be undertaken, including associated structures and infrastructure	1.7	11-21
(e)	**A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process**	2	25-40
(f)	**A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location**	3	41-56
(g)	**Period of environmental authorisation**	4	57
(h)	**A full description of the process followed to reach the proposed preferred activity, site and location within the site, including -**	5	57
(i)	Details of the alternatives considered	5	57-61
(ii)	Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs	6 Appendix C	61-64
(iii)	A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them.	Appendix C	Appendix C
(iv)	**The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects**	7	64-99
(v)	**The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts –** **(aa) can be reversed.** **(bb) may cause irreplaceable loss of resources.** **(cc) can be avoided, managed or mitigated**	8	99-103

No.	Regulation Requirement	Report Section	Page Number
(vi)	The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives	8.1	100-102
(vii)	Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects	8.2	102-104
(viii)	The possible mitigation measures that could be applied and level of residual risk	9.3.5	123-127
(ix)	The outcome of the selection matrix	8.5	105
(x)	If no alternatives, including alternative locations for the activity were investigated, the motivation for no considering such	8.6	105-106
(xi)	A concluding statement indicating the preferred alternatives, including preferred locations of the activity	8.7	106
(i)	**A plan of study for undertaking the environmental impact assessment process to be undertaken, including -**	9	106-125
(i)	A description of the alternatives to be considered and assessed within the preferred site	5	57
(ii)	A description of the aspects to be assessed as part of the environmental impact assessment process	9	106-120
(iii)	Aspects to be assessed by specialists	9.1	106-112
(iv)	A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists	9.1	106-112
(v)	A description of the proposed method assessing duration significance	9.3.1	121
(vi)	An indication of the stages at which the competent authority will be consulted	9.3.2	123
(vii)	Particulars of the public participation process that will be conducted during the environmental impact assessment process	9.3.3	121
(viii)	A description of the tasks that will be undertaken as part of the environmental impact assessment process	9.3.4	122-123
(ix)	Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored	9.3.5	123
(j)	**An undertaking under oath or affirmation by the EAP in relation to –** (i) The correctness of the information provided in the report. (ii) The inclusion of comments and inputs from stakeholders and interested and affected parties. (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties	12	127
(k)	**An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected**	12	127

No.	Regulation Requirement	Report Section	Page Number
	parties on the plan of study for undertaking the environmental impact assessment		
(l)	**Where applicable, any specific information required by the competent authority**	N/A	N/A
(m)	**Any other matter required in terms of section 24(4)(a) and (b) of the Act**	N/A	N/A

Key Findings of the Scoping Report

The report provides a scoping-level identification of potential environmental impacts (physical, biological and social) associated with the Proposed Project, as well as a strategy for how these impacts will be investigated and assessed further in the EIA Phase. The baseline environmental information provided in this DSR was compiled as a high-level desktop investigation, and the project information is sourced from existing background information relevant to the Proposed Project. The preliminary environmental impacts identified in Table B will be further refined, calculated and assessed for all the feasible alternatives identified. Mitigation and management measures will also be suggested by the specialists for all impacts identified. The potential positive and negative impacts which may arise because of the Proposed Project have also been summarised in the Table B overleaf.

Table B: Potential Impacts Associated with the Proposed Project

Environmental Component	Component Type	Potential Impact (positive or negative)	Specialist Study Planned for EIA
Physical Environment (non-living)	Surface water	• Potential hydrocarbon spills during the construction of the seismographic monitoring stations and the development of the gravel access tracks.	• Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM). • Hydrological Assessment
	Groundwater	• Dewatering of deep aquifer causing groundwater level decline. • Lowering of the water table in the shallow aquifer. • Groundwater flow alteration. • Potential seepage of mine water to the groundwater system may contaminate groundwater resources.	• Hydrogeological Assessment
	Soil and geology	• Potential soil contamination from hydrocarbon spills. • Subsidence risk above mined-out areas. • Seismicity risk from deep-level blasting.	• Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM,) Soils and Agricultural Potential. • Hydrogeological Assessment. • Blasting and Vibrations.
	Air quality	• Dust emissions during the installation of the seismographic monitoring stations and the development of the gravel access tracks. • Dust emissions from ore handling. • Diesel exhaust emissions.	• Air Quality Impact Assessment • Climate Change Impact Assessment
Biological Environment	Fauna and Flora	• Vegetation clearance required for the installation of the seismographic monitoring stations and the development of the gravel access tracks may result in the loss of habitat for local flora and fauna, potentially disrupting ecological communities and reducing biodiversity in the affected area.	• Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM,) Soils and Agricultural Potential.
Social and Economic Environment	Socio-Economic	• Potential employment opportunities and job security. • Potential investment in local economy.	• Social Impact Assessment.

Environmental Component	Component Type	Potential Impact (positive or negative)	Specialist Study Planned for EIA
		• Influx of people seeking employment. • Potential community conflict and increases in certain social challenges (e.g., in-migration and potential increases in crime). • Impact on economic and social infrastructure in the local area. • Impact on local resource use (energy, water).	
	Vibration	• Vibration from shaft hoisting operations and ore handling. • Vibration from underground blasting and drilling. • Vibration impacts from blasting potentially affecting nearby structures.	• Blasting and Vibrations.

Overall Conclusions

Although mining activities often generate positive social and economic benefits, they may also result in notable negative environmental impacts. Prioritising environmental stewardship, complying with relevant environmental legislation and implementing specialist recommendations and sustainable operational practices will be required to minimise its environmental footprint and reduce ecological impacts as far as possible while balancing the economic and social benefits.

At this stage, the findings of this DSR indicate that no environmental fatal flaws have been identified for the Proposed Project. While some limitations do exist, it is anticipated that the implementation of appropriate mitigation measures would assist in reducing the significance of such impacts to acceptable levels. Impacts associated with the Proposed Project need to be considered further during the EIA Phase according to the Way Forward and the Plan of Study contained in this report.

Way Forward

This DSR has been undertaken with the aim of identifying potential positive and negative impacts on the environment and gathering comments on concerns and queries from stakeholders. It documents the process followed, the findings and recommendations of the Scoping Phase study, and the proposed Plan of Study for the EIA Phase to follow. The overarching objectives of the EIA process will be to:

- Prepare integrated sensitivity maps for the study area based on the findings of specialist assessments as input into the project design process;
- Identify and assess the significance of potential impacts associated with the project activities; and
- Recommend mitigation and enhancement measures to ensure that the development is undertaken in such a way as to promote the positive impacts and to minimise the negative impacts.

The procedure for this study going forward is as follows:

- Submit the finalised Scoping Report to the DMPR for permission to undertake the EIA Phase of the project;
- Upon the decision to grant or refuse the final Scoping Report, all stakeholders will be notified. If granted, stakeholders will also be notified of the conditions of the DMPR for proceeding with the EIA Phase of the project;
- In the case of approval of the final scoping, execute the Plan of Study for the Impact Assessment during the EIA Phase of the project;
- Incorporate and address comments and issues raised during the consultation period on the Scoping Report into the EIA, and make changes to the report where relevant;
- Make the EIA Report and Environmental Management Programme report (EMPr) available to the public, stakeholders and authorities;
- Finalise the EIA Report and submit the final EIA Report to the DMPR; and
- DMPR review period and decision-making for 107 calendar days.

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Appendix C: Public Participation Information

- Appendix C1: Stakeholder Database
- Appendix C2: Land Claims
- Appendix C3: Consultation Materials
- Appendix C4: Newspaper Advertisement
- Appendix C5: Site Notice
- Appendix C6: Correspondence
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- Appendix C8: Meeting Minutes
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- Appendix C10: Comment and Response Report

Appendix D – Environmental Screening Tool

Abbreviations and Units

Abbreviation/ Symbol	Description
AMD	Acid Mine Drainage
BID	Background Information Document
BRP	Bio Regional Plan
CA	Competent Authority/Authorities
CARA	Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983)
CBA	Critical Biodiversity Area
CRR	Comments and Response Report
DALRRD	Department of Agriculture, Land Reform and Rural Development
DEFF	Department of Forestry, Fisheries and the Environment
DWS	Department of Water and Sanitation
DMPR	Department of Mineral and Petroleum Resources
DoH	Department of Health
DPWI	Department of Public Works and Infrastructure
DSR	Draft Scoping Report
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EIP	Environmental Implementation Plan
EIR	Environmental Impact Report
EMF	Environmental Management Framework
EMPr	Environmental Management Programme Report
ESA	Ecologically Sensitive Areas
FSR	Final Scoping Report
GDP	Growth Domestic Product
Ha	Hectare
IDP	Integrated Development Plan
IWULA	Integrated Water Use Licence Application
JV	Joint Venture
Km	Kilometre
m	Metre
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
MR	Mining Right
NBSAP	National Biodiversity Strategy and Action Plan
NDP	National Development Plan
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:BA	National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004)
NEM:PAA	National Environmental Management Protected Areas Act, 2003 (Act No 57 of 2003)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NEMLAA	National Environmental Laws Amendment Act, 2014 (Act No. 25 of 2014)

Abbreviation/ Symbol	Description
NFEPA	National Freshwater Ecosystem Priority Area
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NNR	National Nuclear Regulator
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PA	Protected Area
PAIA	Promotion of Access to Information Act (Act No. 2 of 2000)
PR	Prospecting Rights
PPP	Public Participation Process
RoD	Record of Decision
SANBI	South African National Biodiversity Institute
S&EIA	Scoping and Environmental Impact Assessment
SAHRA	South African Heritage Resources Agency
SDF	Spatial Development Framework
SIA	Social Impact Assessment
SLP	Social and Labour Plan.
SPLUMA	Spatial Planning and Land Use Management Act (Act No. 16 of 2013)
SRP	Surface Right Permit
STR	Screening Tool Report
TSF	Tailings Storage Facility
WRE	White Rivers Exploration
WMA	Water Management Area
WML	Waste Management Licence

1. Introduction and Background

1.1 Project Background and Motivation

Jelani Resources (Pty) Ltd ("Jelani") is a joint venture (JV) company established by White Rivers Exploration (WRE) and Harmony Gold. The JV was formed to conduct underground mining operations within the Joint Venture (JV) area, which is made up of areas within the existing Harmony Target mining right (Harmony contribution) and Prospecting Rights (PR) areas to the west of Harmony Gold's existing Target Mine (WRE contribution) in the Free State Province of South Africa.

Jelani intends to initiate underground mining operation within the JV area, to extract various minerals, primarily focusing on Gold ore, along with Silver, Uranium, and other associated minerals. The Proposed Project follows the completion of the Prospecting Phase, which confirmed the viability of developing an underground mining operation and identified significant potential mineral resources to support such development.

In addition, the project's development includes utilising the available spare capacity within Harmony's existing infrastructure at the Target Mine. This includes the Target No. 3 and No. 2 shafts, the Target No. 1 Processing Plant and associated surface infrastructure. All mining infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project area.

1.2 Scoping and Environmental Impact Assessment

1.2.1 Application Relevant to the S&EIA Process

Kongiwe has been appointed by **Jelani Resources (Pty) Ltd** (the Applicant) to undertake a Scoping and Environmental Impact Assessment (S&EIA) process which evaluates the environmental impacts associated with the Proposed Project as part of an Environmental Authorisation (EA). The S&EIA and specialist studies to be undertaken will support the applications for the required approvals. The following applications will be made to the DMPR for the Proposed Project:

- **EA Application** for listed activities triggered in Listing Notices GN R983, GN R984 and GN R9852 published pursuant to the EIA Regulations 2014 (as amended), promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

In addition, the following application will be made to the relevant Competent Authority:

- **An Integrated Water Use Licence Application (IWULA)** in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA) will be submitted to the Department of Water and Sanitation (DWS) for any potential impact to water resources by the Proposed Project.

The EIA findings, including specialist findings, are used by the applicant and authorities to obtain an objective view of the potential environmental, social and cultural impacts that could arise due to the Proposed Project. Measures for the avoidance or mitigation of negative impacts will be proposed, and positive impacts will be enhanced.

[2] These Listing Notices have been amended by GN R327, GN R325 and GN R324 of 7 April 2017 and GN R 517 of 11 June 2021

1.2.1.1. The National Web Based Environmental Screening Tool

According to Regulation 16(1)(b)(v) of the EIA 2014 Regulations (as amended), it is a requirement for an EA application to be submitted with a screening report generated by the National Web Based Environmental Screening Tool ("Screening Tool"). This requirement took effect from October 2019.

The Screening Tool allows the EAP to screen their Proposed Project site for any environmental sensitivities. It serves as a guide to identify related exclusions and/or specialist studies that may be a requirement for a Proposed Project.

The Screening Report for the Proposed Project, acquired through the Screening Tool, is included in this report as Appendix D.

1.2.2 Methodology applied to conducting the Scoping Process

The outcome of the first phase of the S&EIA is the Scoping Report, which provides the terms of reference for undertaking the EIA Phase of the project. Figure 1-1 indicates the methodology that is applied in conducting the S&EIA process.

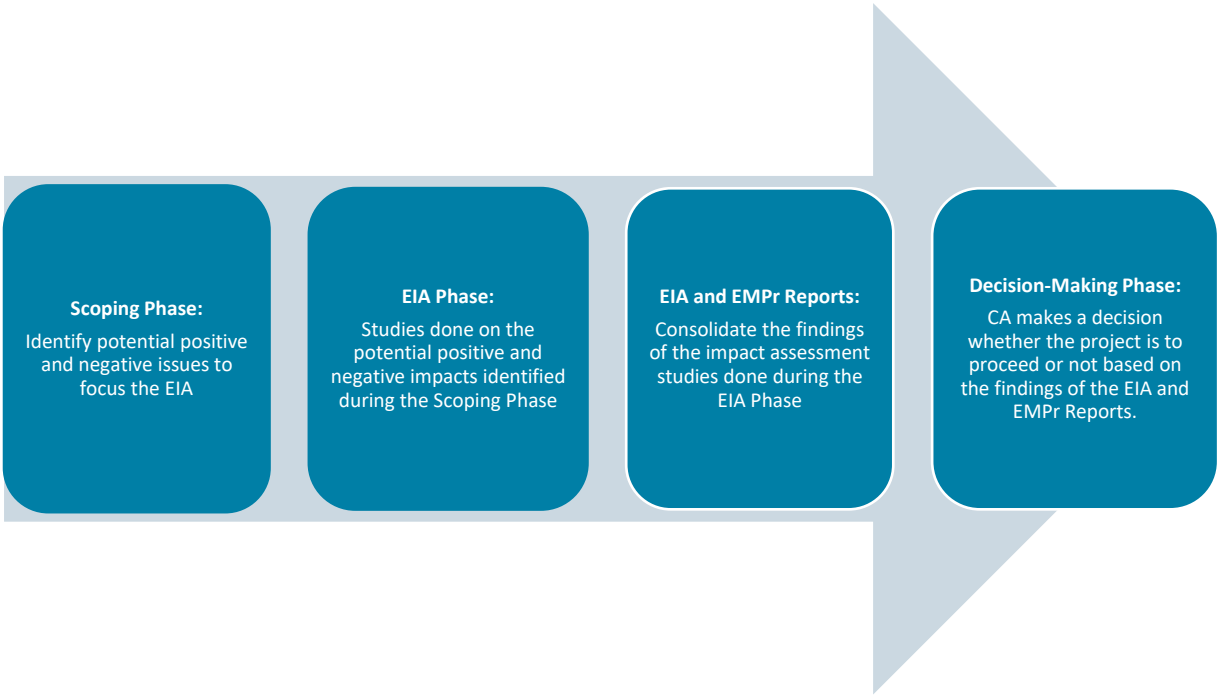


Figure 1-1: Different Phases of S&EIA

1.2.3 S&EIA Timeframes

The DSR will be submitted and made available for a 30-day public review period. The comments received during this period will be captured in a Comments and Responses Report (CRR) that will be submitted with the Final Scoping Report (FSR).

Once the FSR has been submitted to the DMPR as CA, the Department must either accept or reject the Scoping Report within **43 days**. Once confirmation of acceptance has been received from the DMPR, the EIA Phase commences and will run for a period of **106 days**, in which time stakeholders will be afforded a **30-day** period in which to review and comment on the S&EIR documentation.

Upon submission of the EIA/Environmental Management Programme (EMPr) document, the CA will have **107 days** to reach a decision on the project (Record of Decision (RoD)). The RoD is otherwise referred to as the EA which authorises the project activities to proceed. The decision to grant the EA may be appealed (within **20 days**) by any party, including the Applicant, following the process outlined in the National Appeal Regulations (GNR 993 of 8 December 2014) published in terms of the NEMA.

If significant changes to the EIA/EMPr are required, which were not consulted on during the initial public participation process, a notice may be submitted to the DMPR stating that the EIA/EMPr will be submitted within **156 days** from date of acceptance of the Scoping Report. During the aforesaid **156-day** period, stakeholders will be afforded a further **30-day** period in which to review the amended EIA/EMPr documentation.

1.2.4 Public Participation Process

The Public Participation Process (PPP) has been designed to comply with the regulatory requirements set out in the EIA 2014 Regulations (as amended). The PPP provides the opportunity for communication between agencies making decisions and the public. This communication can be an early warning system for public concerns, a means through which accurate and timely information can be disseminated, and can contribute to sustainable decision-making (IAP2, 2006).

Kongiwe encourages stakeholders to provide input into the S&EIA. The sharing of information forms the basis of PPP, with an aim to encourage the public to have meaningful input into the decision-making process from the onset of the project. Stakeholders may participate at various stages of the S&EIA process. The key opportunities for input during the Scoping, EIA and Decision-Making phases are illustrated in Figure 1-2.

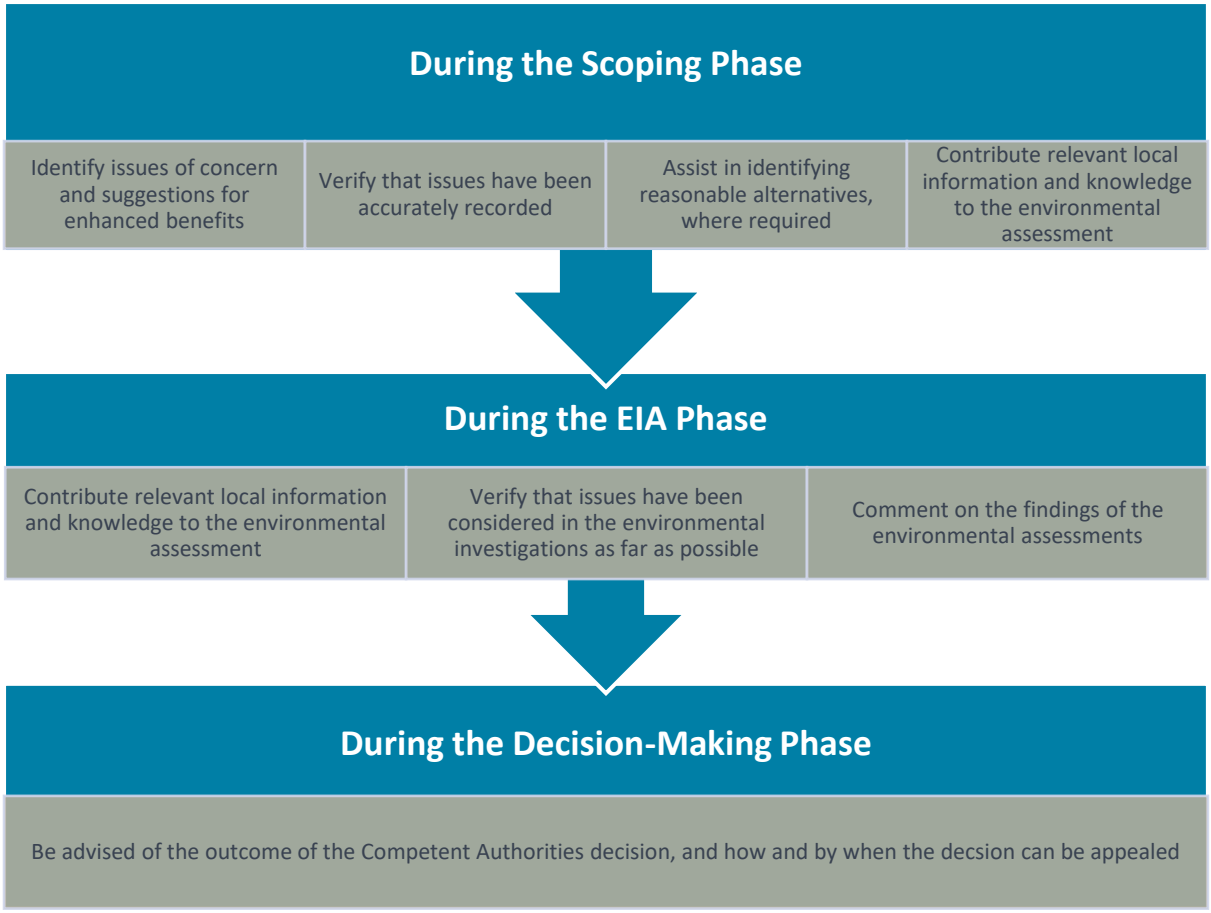


Figure 1-2: Stakeholder Engagement Opportunities During the Scoping, EIA and Decision-Making Phases

The DSR has been made available for public comment from Thursday, 21 May 2026 to Monday, 22 June 2026. The project team will conduct an Open Day with stakeholders on Saturday, 30 May 2026 at S.A. Mokhothu Primary School from 11H00 – 13H00. Additionally, an online meeting will be held on Wednesday, 27 May 2026 from 10H00 – 11H00 via Microsoft Teams. During the Open Day, the DSR content will be presented and discussed. Comments received during the DSR commenting period will be captured in the CRR and then included in the FSR.

1.3 Details of the Applicant

Jelani Resources Ltd (Jelani) is a joint venture (JV) company with participants White Rivers Exploration (WRE) and Harmony Gold Mining Company Ltd (Harmony). WRE is a privately owned company with shareholders in South Africa and Australia, the company is South Africa focused and has various prospecting rights for gold, coal and other minerals. WRE is currently an exploration company with no active mining operations. Harmony is a publicly listed company with a primary listing on the Johannesburg Stock Exchange (JSE) and secondary listings on the New York Stock Exchange and the Berlin Stock Exchange. The company is a gold focused miner with operations in South Africa and Papua New Guinea. The JV partners have vested various prospecting and mining rights in Jelani over an area identified as the JV Area for the proposed Underground Mining Project.

Table 1-1: Details of the Applicant

Project Applicant	Jelani Resources (Pty) Ltd		
Registration number (if any)	2014/099861/07		
Trading name (if any)	Jelani Resources (Pty) Ltd		
Responsible Person **(E.g. CEO, Director, etc.)**	Bernard Olivier		
Contact person:	Neels Hoek		
Physical address	HHK House North Corner Ruth Crescent Northcliff (Johannesburg) Gauteng 2115		
Postal address	HHK House North Corner Ruth Crescent Northcliff (Johannesburg) Gauteng 2115		
Postal Code	2115	Cell:	076 254 2506 / 082 071 7571
Telephone	N/A	Fax:	N/A
Email	nhoek@mera.co.za		

1.4 Details of the Environmental Assessment Practitioner

Kongiwe is a contemporary, problem-solving consultancy specialising in solving real-world environmental challenges. We pride ourselves in using the latest technology available to realise pragmatic solutions for our clients. The company was created with the essential intent: 'To solve environmental challenges for a world driven towards a sustainable future.'

With offices in Johannesburg and Pretoria, South Africa, and in Canada and the United Kingdom respectively, our team of professional Environmental Scientists are highly trained in various environmental disciplines and have significant, hands-on experience in an array of projects across numerous industries. The company has extensive environmental and project management experience in multiple sectors, with significant experience in South Africa, as well as internationally. Kongiwe focuses on the integration of environmental studies and processes into larger projects. Moreover, Kongiwe provides clients with strategic environmental assessments and compliance advice, the identification of environmental management solutions and mitigation / risk minimising measures throughout the project lifecycle.

1.4.1 Contact Person and Corresponding Address

The report was compiled by Ripfumelo Macevele. Author details Table 1-2.

Table 1-2: Details of Environmental Consultant

Name of Practitioner	Ripfumelo Macevele, Kongiwe Environmental (Pty) Ltd
EAP Registration No.	2019/1051
Tel No	+27 (10) 140 6508
Cell No	079 178 9655
E-mail Address	rmacevele@kongiwe.com

Ripfumelo Macevele is an Environmental Assessment Practitioner at Kongiwe Environmental. He is EAPASA Registered Environmental Assessment Practitioner (2019/1051) as well as registered with SACNASP as Environmental Science Candidate Natural Scientist (128491) and has extensive experience in executing the process to obtain Environmental Approvals through Environmental Impact Assessment and conducting Environmental Monitoring, Auditing & Reporting and Developing Environmental Management Plans as well as Water Use Licence applications and Public Participation. Qualifications in Appendix A.

The Draft Scoping Report was Peer Reviewed and approved by Umeshree Naicker.

Table 1-3: Details of Reviewer

Name of Practitioner	Umeshree Naicker, Kongiwe Environmental (Pty) Ltd
EAP Registration No.	2019/1665
SACNASP Registration No.	120502
Tel No	+27 (10) 140 6508
Cell No	(081) 773 2625
E-mail Address	unaicker@kongiwe.com

Umeshree Naicker holds a B.Sc. Honours Environmental Monitoring and Modelling form University of South Africa and is a registered Environmental Assessment Practitioner (EAP) (2019/1665) and Professional Natural Scientist (Environmental Management) (Registration No: 120502). Qualifications in Appendix A.

Umeshree Naicker has over 18 years' work experience as an Environmental Consultant, predominantly in the renewable energy, water, transport, and infrastructure projects. She has extensive expertise in environmental consulting, social impact assessments, and project management, having led ESIAs, Basic Assessments, Scoping Reports, Environmental Management Programmes, and stakeholder engagement processes in alignment with South African legislation and IFC Performance Standards. Umeshree has managed multidisciplinary teams, overseen specialist appointments, guided environmental processes through public participation and compliance phases, and represented clients in steering committee meetings, ensuring successful integration of environmental requirements into large-scale developments for both public and private sector clients.

1.4.2 Independent Specialist Team Members

A number of independent specialist consultants have been appointed as part of the Scoping and Environmental Impact Assessment (S&EIA) team to adequately identify and assess potential impacts associated with the Proposed Project. The specialist consultants who will provide input into the S&EIA are presented in Table 1-4.

Table 1-4: Details of the Specialist Team

Specialist Study	Specialist Company
Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM,) Soils and Agricultural Potential.	SAS Environmental
Desktop Heritage and Palaeontology Impact Assessment	PGS Heritage
Air Quality Impact Quality Assessment	Rayten Engineering
Mine Closure Plan	CRPM
Hydrological Assessment	Kongiwe Environmental
Hydrogeological Assessment	Arjan van 't Zelfde
Climate Change	Rayten Engineering
Blasting and Vibrations	Blast Management and Consulting
Socio-Economic Impact Assessment	Kongiwe Environmental

1.5 Project Location

The Proposed Project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 1,5km west of Allanridge town, and 22km east of Wesselsbron, in the Free State Province of South Africa. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality. Refer to Figure 1-3 for the Proposed Project local orientation. Below is a summary of the location of the Project Site (Table 1-5).

Table 1-5: Summary of the Location of the Project Site

Province	Free State Province
Municipality	Matjhabeng Local Municipality
Ward Number	36
Nearest Town	Allanridge

Table 1-6 below shows the properties that are directly affected by the Proposed Project.

Table 1-6: Description of Directly Affected Properties

Farm Name	Farm ID	Farm Portion	SG Code
Welvaart No. 63	RD	0 (RE)	F02400000000006300000
Welvaart No. 63	RD	1	F02400000000006300001
Welvaart No. 63	RD	2	F02400000000006300002
Diamant No. 37	RD	0	F02400000000003700000
Graspan No. 40	RD	0 (RE)	F02400000000004000000
Graspan No. 40	RD	1	F02400000000004000001
Swartpan No. 436	RD	0 (RE)	F02400000000043600000

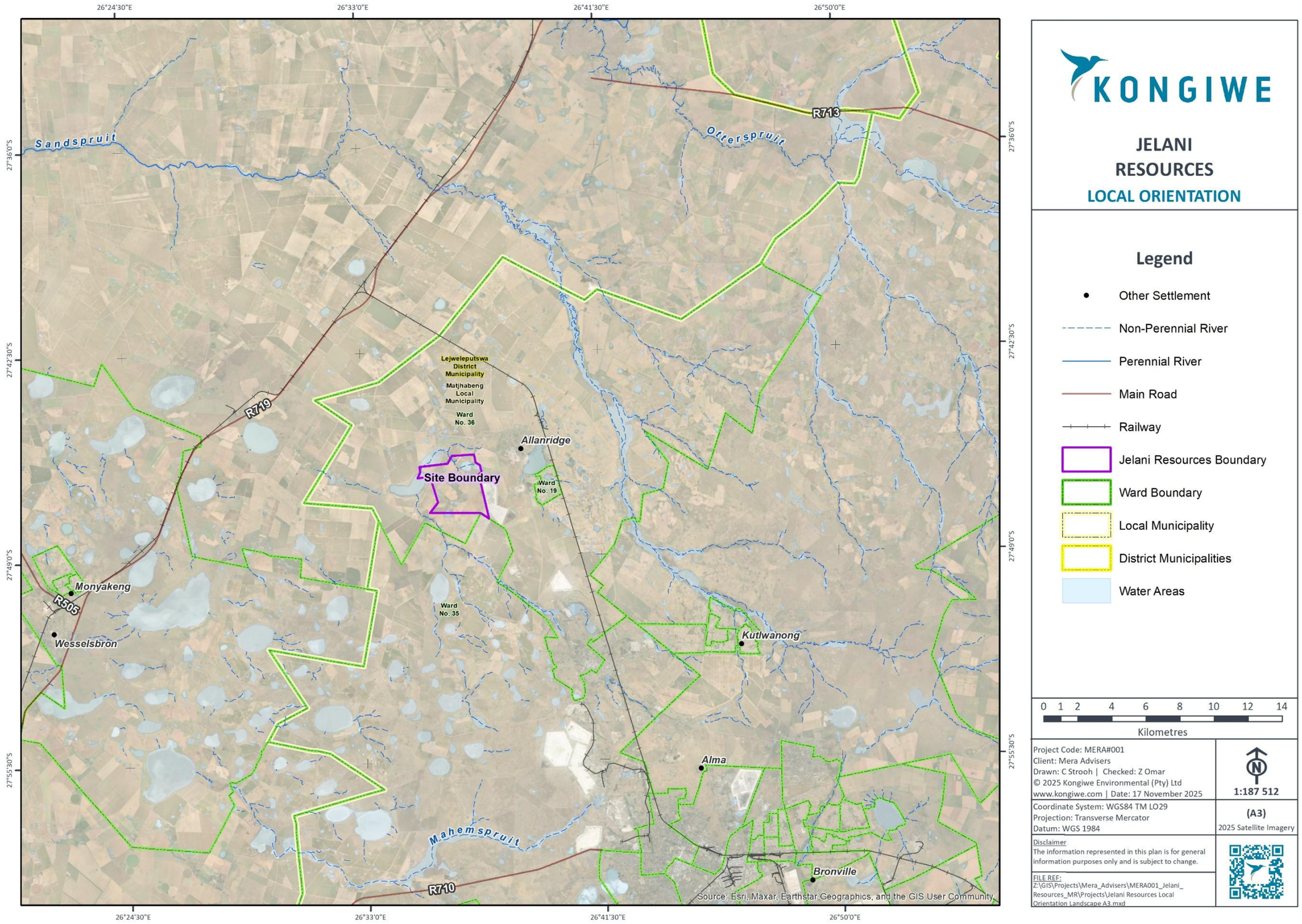
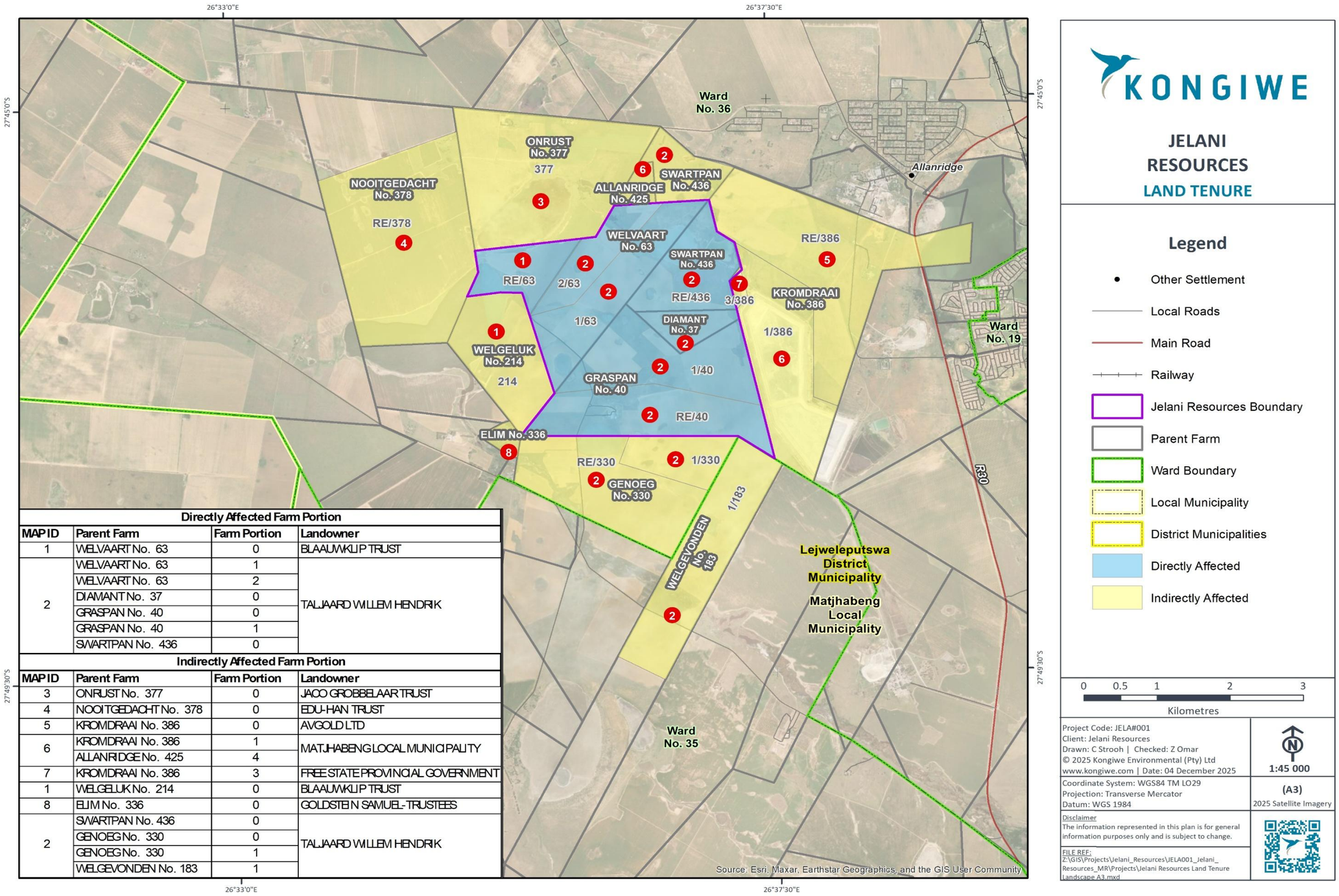


Figure 1-3: Local Orientation of the proposed JV Area Underground Mining Project



Directly Affected Farm Portion

MAP ID	Parent Farm	Farm Portion	Landowner
1	WELVAART No. 63	0	BLAAUWKLIP TRUST
2	WELVAART No. 63	1	TALJAARD WILLEM HENDRIK
	WELVAART No. 63	2	
	DIAMANT No. 37	0	
	GRASPAN No. 40	0	
	GRASPAN No. 40	1	
	SWARTPAN No. 436	0	

Indirectly Affected Farm Portion

MAP ID	Parent Farm	Farm Portion	Landowner
3	ONRUST No. 377	0	JACO GROBBELAAR TRUST
4	NOOITGEDACHT No. 378	0	EDU-HAN TRUST
5	KROMDRAAI No. 386	0	AVGOLD LTD
6	KROMDRAAI No. 386	1	MATJHABENG LOCAL MUNICIPALITY
	ALLANRIDGE No. 425	4	
7	KROMDRAAI No. 386	3	FREE STATE PROVINCIAL GOVERNMENT
1	WELGELUK No. 214	0	BLAAUWKLIP TRUST
8	ELIM No. 336	0	GOLDSTEIN SAMUEL - TRUSTEES
2	SWARTPAN No. 436	0	TALJAARD WILLEM HENDRIK
	GENOEG No. 330	0	
	GENOEG No. 330	1	
	WELGEVONDEN No. 183	1	

KONGIWE

JELANI RESOURCES
LAND TENURE

Legend

- Other Settlement
- Local Roads
- Main Road
- Railway
- Jelani Resources Boundary
- Parent Farm
- Ward Boundary
- Local Municipality
- District Municipalities
- Directly Affected
- Indirectly Affected

0 0.5 1 2 3
Kilometres

Project Code: JELA#001
Client: Jelani Resources
Drawn: C Strooh | Checked: Z Omar
© 2025 Kongiwe Environmental (Pty) Ltd
www.kongiwe.com | Date: 04 December 2025

1:45 000
(A3)
2025 Satellite Imagery

Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

Disclaimer
The information represented in this plan is for general information purposes only and is subject to change.

FILE REF:
Z:\GIS\Projects\Jelani_Resources\JELA001_Jelani_Resources_MR\Projects\Jelani Resources Land Tenure Landscape A3.mxd

Figure 1-4: Jelani Underground Mining Project Land Tenure Map

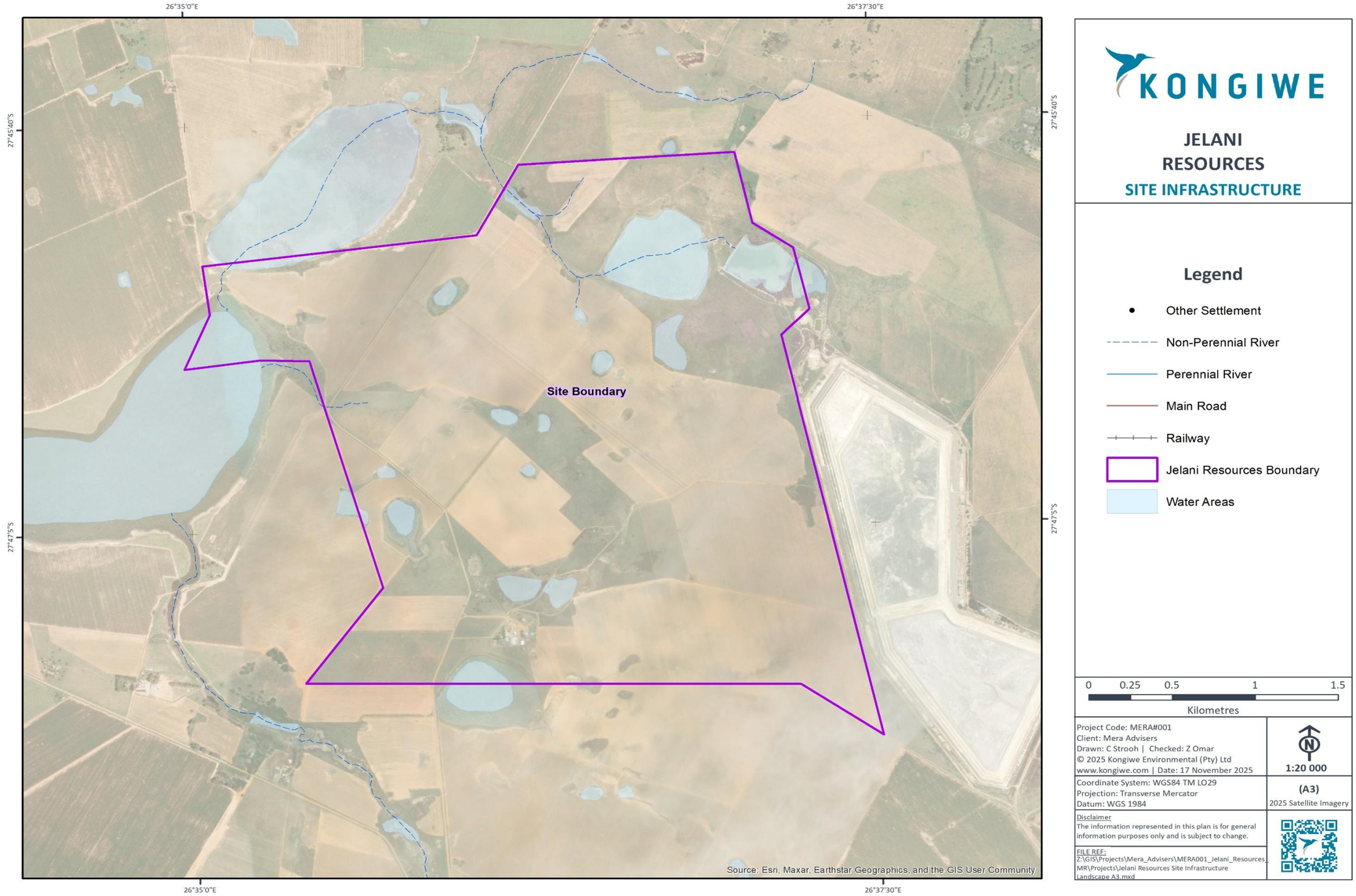


Figure 1-5: Jelani Underground Mining Project Infrastructure Map

1.6 Site Access, Access Control and Security

The Proposed Project is located within an area served by an established road network. Public routes in close proximity to the site include existing roads currently used for Harmony Target Mine operations as well as gravel roads used by the local farmers.

Only the development of gravel access tracks to facilitate the monitoring of potential mining-induced seismicity and boundary interactions is anticipated at the project site.

Vehicle access to the shaft site is via the R30 public road, connecting to the existing mine access roads, that will continue to be used. No additional refurbishments are required on these roads other than possibly cutting back the overhanging branches of the two rows of trees that run along the entire length of the road.

The shaft site perimeter is already fenced and assumed to be according to the Harmony Standard, as no other security measures or devices were observed. Access to the shaft complex is controlled through the main access security gate (Item 21 in Figure 1-8). Provision has been made to refurbish the system.

1.7 Project Description

Jelani Resources (Pty) Ltd is a joint venture (JV) company established by White Rivers Exploration (WRE) and Harmony Gold. The JV was formed to conduct underground mining operations within the Joint Venture (JV) area, which is made up of areas within the existing Harmony Target mining right (Harmony contribution) and Prospecting Rights (PR) areas to the west of Harmony Gold's existing Target Mine (WRE contribution) in the Free State Province of South Africa. Following the exploration and licensing phases, Jelani intends to initiate underground mining operations within the same area.

The Proposed Project entails licensing the underground mining of the following potential mineral resources:

- Gold ore (primary target),
- Silver ore,
- Uranium ore,
- Sulphur,
- Platinum Group Metals,
- Rare earths,
- Diamonds (alluvial),
- Copper ore,
- Cobalt ore,
- Manganese ore,
- Molybdenum ore,
- Nickel ore,
- Lead ore,
- Tungsten ore,
- Zinc ore, and
- Iron ore.

Jelani's underground mining operations initially will target shallower mineral resource deposits at the project site (approximately 1,200 mbs). As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of mined ore per month.

Two mining methods have been identified as the most practical for exploiting the mineral resources: conventional breast mining and shrinkage stoping. The selection of each method is primarily based on the dip of the mineralised reef, with the shrinkage stoping being used for the steeper slopes (3% of the total stope tonnage).

Conventional Breast Mining

Where the orebody dips below 55°, conventional breast mining will be used. Footwall drives will be developed in the strike direction, between 40 to 48m below the mining horizon. Crosscuts will subsequently be developed perpendicularly to the footwall drives, towards the reef horizon. Access to the reef horizon will be by travelling way, developed from the crosscut. Ore passes will be developed between the reef horizon and the crosscut for the removal of blasted ore from the stope. On the stope horizon, a raise or centre gully will be developed between levels up the centre of the mining block. Breast mining panels will be established off the centre gully. The panels will be mined approximately in the strike direction away from the centre gully to the stope block limit. An advanced strike gully (ASG) will be carried on the down dip side of each mining panel for access to the stope face and for clearing of blasted ore from the face. Typically, two stope ore passes will be situated in the centre gully which will connect the stoping areas to the footwall infrastructure. All ore produced in the stopes will be scraped into the ore passes for loading in the crosscut. Figure 1-6 shows a plan of a typical stope block.

The breast faces will be drilled using hand-held, hydro-powered rock drills and airlegs. Blast holes will be charged with packaged emulsion explosives. Scraper cleaning will be used in the stope horizon. Ore will be scraped from the face, into the ASG and then into the centre gully. From the centre gully the rock is scraped over a stope grizzly into the ore pass. The bottom of the ore pass is equipped with a boxfront with a hydraulically operated gate.

Where multiple reefs occur, and both are payable and are planned to be mined, the order of mining will be to extract the uppermost reef first, working downwards.

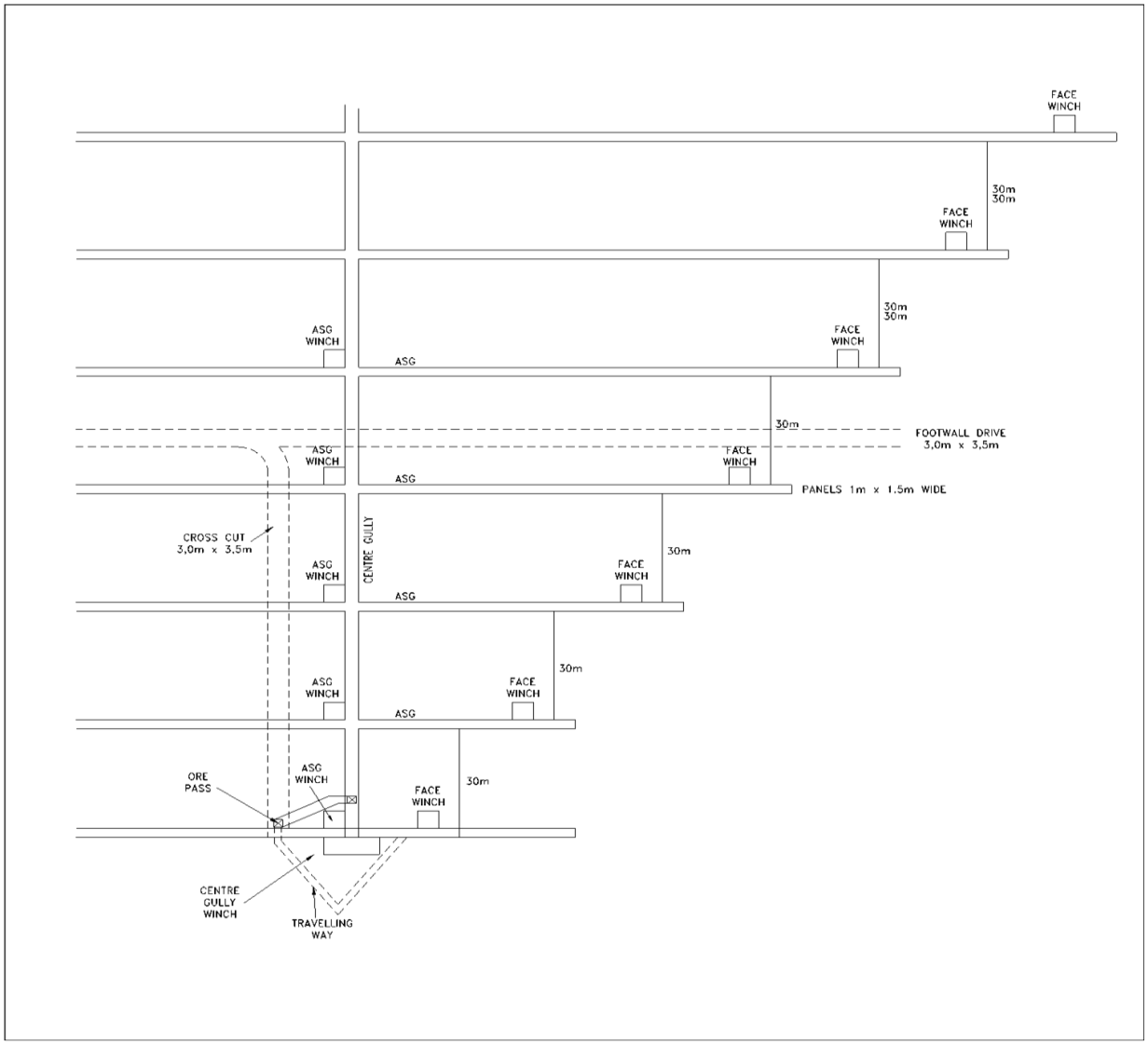


Figure 1-6: Schematic plan view of a conventional stope block

Shrinkage Stoping

Shrinkage stoping is an overhand mining method that relies on broken material being left in the stope to be used as the "working floor" and to support the walls. The shrinkage stope is accessed via a travelling way. The stope is established and accessed by the development of two raises, one on each end of the stope panel.

Two drives, separated by a sill pillar, are established at the bottom of the stope. Draw points are developed between the two drives for loading ore from the stope. Once the stope preparation development and equipping has been completed stoping commences by advancing the stope face up-dip from the sill drive. After each blast sufficient ore is drawn out to allow access between the new stope face and the top of the muckpile. Once the stope face reaches the upper limit, which is normally defined by a crown pillar, all men and equipment are withdrawn from the stope and the remaining ore is drawn from the stope. Ore is drawn out of the stope by operating the scraper winch in the reef drive. This clears rock from the draw points and allows the ore to continue to flow.

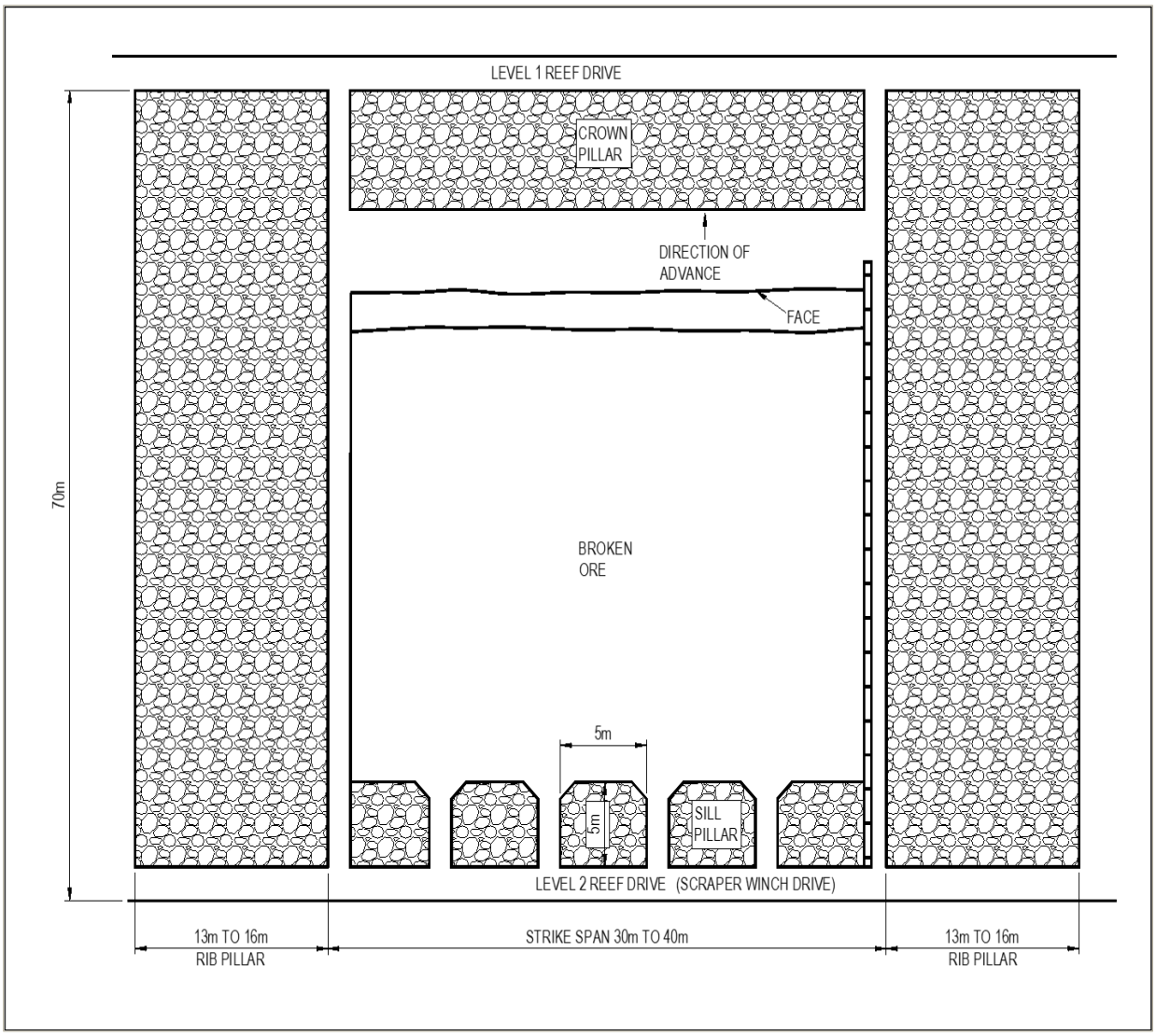


Figure 1-7: Schematic long section illustrating a typical shrinkage stope

Ore will be transported to the shaft ore pass system using a conveyor system loaded by a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump.

Existing underground access (shafts and level access) will be refurbished and re-equipped. Target No 2 and Target No 3 shafts will, over the course of the mines life, be used for the movement of men, material and rock depending on which phase the mine is in.

1.7.1 Infrastructure Requirements

All operational mining infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project

area. Underground access infrastructure will either consist of refurbished facilities at Target Shafts No. 3, 4 and 5 or newly constructed infrastructure at the Target No. 2 Shaft site, all within the existing mining right.

The infrastructure requirements are intended to support the managerial, supervisory, and operational functions associated with the respective underground mining operations/targets. A layout of the proposed Target 3 shaft surface infrastructure which either needs to be refurbished or constructed is presented in Figure 1-8. Target 3 shaft will be used to access the underground workings during Phase 1 of the project whilst Target 2 shaft is refurbished. Mining activities during this phase will take place between 57 Level and 48 Level (Figure 1-9).

Figure 1-8: Target No 3 Shaft surface infrastructure layout

The No 3 shaft surface infrastructure will compromise of the following (as numbered):

1. No 3 shaft
2. Shaft facilities
   (a) Lamp repair
   (b) Proto room
   (c) Lamp room
3. Change house facilities
   (a) Main laundry
   (b) Main change house
4. Compressor house
5. Waste rock dump (not on Figure 1-8)
6. Surface rock handling
7. Main substation
8. Parking area
9. Offices
   (a) Management, administration and technical services
   (b) Mining
   (c) Engineering
10. Man winder
11. Barlow winder
12. Rock winder
13. Fridge plant
14. Store building
15. Services/fitting workshops
16. Dirty water dam & pump station
17. Sewerage plant
18. Evaporation plant
19. Change house (not on Figure 1-8)
20. No 4 shaft ventilation fans
21. Security office
22. Explosives store
23. Conveyors
24. Laydown area and salvage yard
25. Walkway
26. Marshalling yard
27. Drop off area
28. Ablution block
29. Laundry
30. Change houses
31. Offices
32. Lapa
33. Parking (not on Figure 1-8)
34. Parking
35. Turnstiles
36. Waiting area
37. Lean to roof
38. Underground store
39. Pump house
40. Service boiler shop (not on Figure 1-8)
41. Services boiler store (not on Figure 1-8)
42. Rail line
43. Pipeline
44. Security
45. Timber yard
46. Electrical workshop
47. Flammable store
48. Old oil store

An overview of the Target 3 Shaft with level elevations, is shown in Figure 1-9.

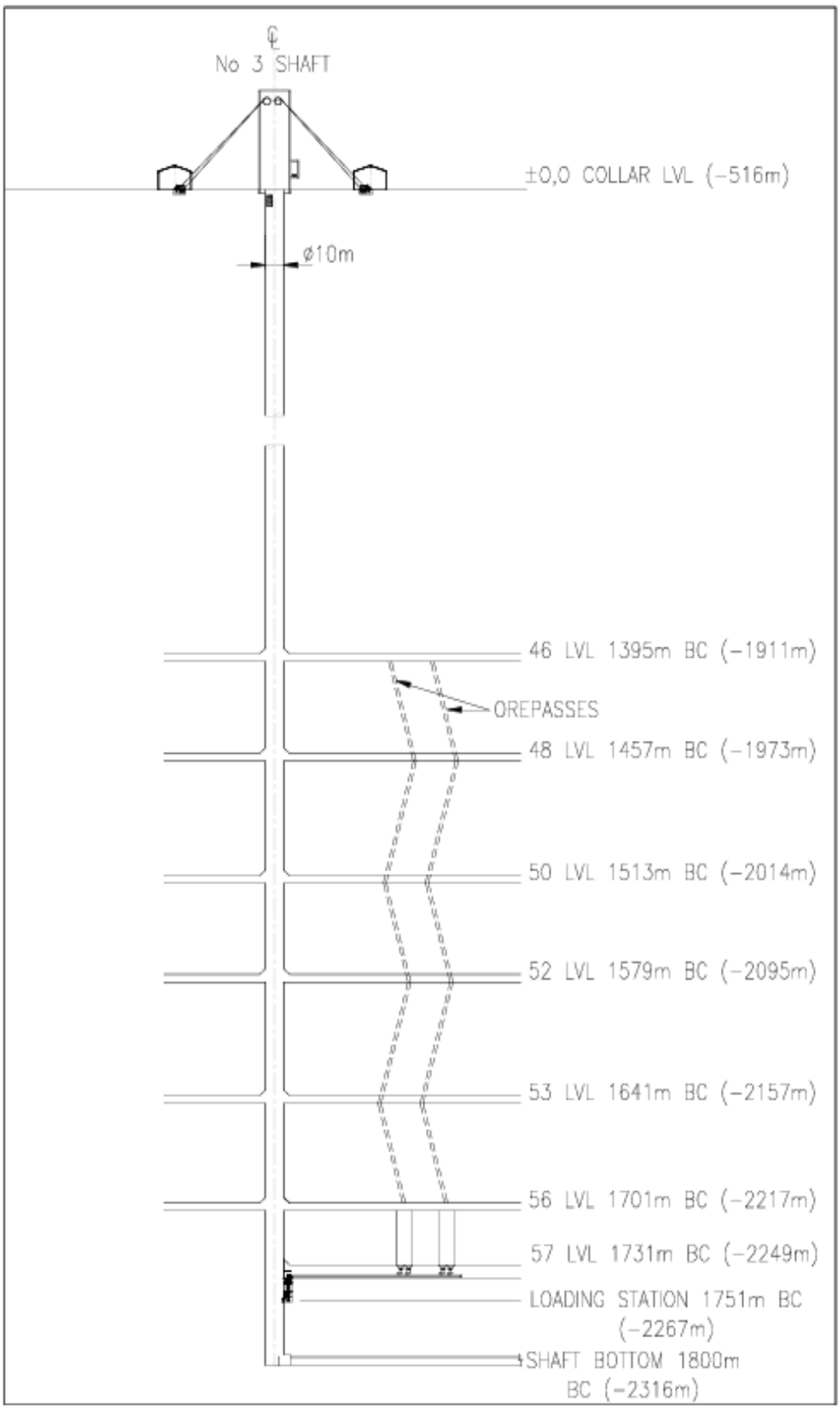


Figure 1-9: Target 3 shaft longitudinal arrangement

Figure 1-10: Harmony Target No 3 Shaft

The Target No 2 shaft will be used as the main access to the underground orebody and workings in Phase 2, and Target No 3 shaft will be maintained as a second outlet. Mining activities in this phase are planned to occur above 48 Level and below 57 Level.

The Target No 2 shaft is currently not utilised for mining production activities. Instead, it acts as the emergency exit for Target No. 1 Shaft with only a limited amount of infrastructure remaining in place. Once the shaft has been refurbished and surface infrastructure is completed and the shaft commissioned, mining operations associated with the Proposed Project will be relocated to this shaft.

Figure 1-11*: *Harmony Target No 2 Shaft

A layout of the current Target No 2 Shaft surface infrastructure as well as the proposed new infrastructures which are required to be constructed are presented in Figure 1-12.

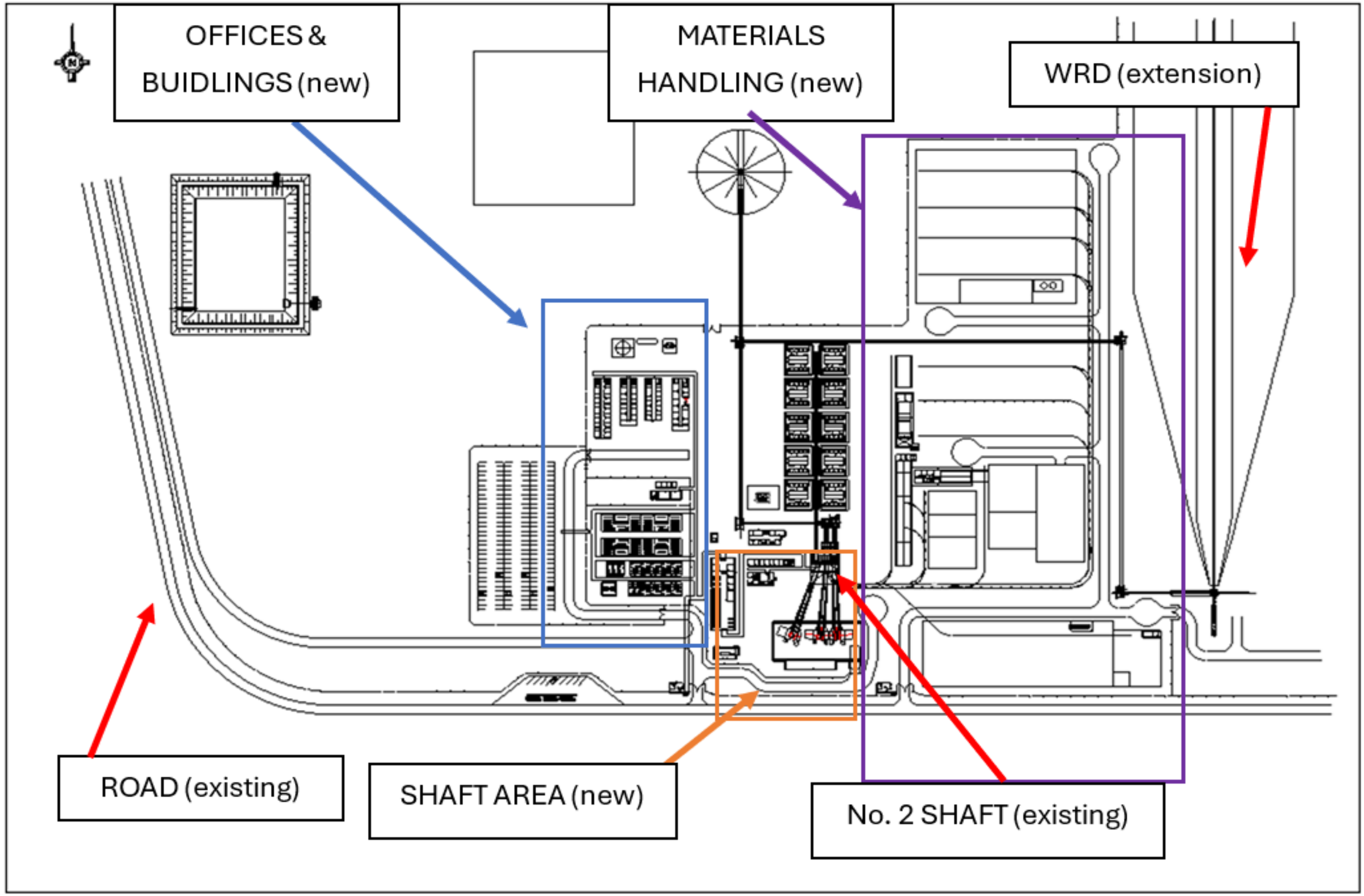


Figure 1-12: Target No 2 Shaft existing infrastructure and proposed infrastructure

To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary. Each station will include a small sensor pad/housing (approximately 5–10 m^2), basic power/comms setup, 6 m of perimeter fencing per station (total 24 m), and short gravel access tracks (total approximately 1 km across all stations, 4 m wide). These installations represent the only surface infrastructures on the JV project area.

Additionally, a new Tailings Storage Facility (TSF) will be constructed to the west of the existing Target metallurgical plant and north of the existing Target TSF. The total area required for this new facility is approximately 69 Hectares (Ha). This TSF is a separate project (and application) being undertaken by Harmony Gold.

1.7.2 Area Extent

The total extent of the application area is 956.76 hectares (ha).

1.7.3 Depth of Mineral Below Surface

The orebodies extend between 1 500m and 2 600m below surface.

1.7.4 Proposed Beneficiation Process

All ore produced from the underground mining operations will be transported to the existing Target 1 metallurgical plant for processing.

1.7.5 Project Schedule

Prior to the initiation of mine implementation and construction activities, various stages of design work will be required to be undertaken. It is expected that these activities will take approximately four years before implementation can be initiated. Active mining can commence during year 7. The key timelines are listed in Table 1-7 below:

Table 1-7: Project Timelines

Period	Description
Year 1 - 3	Site data gathering and feasibility studies
Year 4	Detailed engineering design
Year 5 - 8	Implementation and construction activities
Year 7	Hiring of employees
Year 7	**Initiation of mining activities underground**

The production build-up is planned to occur in two phases:

In Phase 1, which is planned to last for four years starting in Year 5, with construction and refurbishment with mining starting in Year 7. The first two years are required for level access and refurbishment, after which Target No 3 shaft will be used for hoisting of men, material and rock.

Phase 2 commences in Year 9, whereby access to the underground workings is via Target No 2 shaft, with Target No 3 shaft being reserved as a second outlet.

As mine development progresses over the first four years, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of ore per month, which is achieved in Year 10.

10 340 Mt of ore is expected to be mined over the Life of Mine (LOM), which is 14 years

1.8 Listed and Specified Activities

Listed activities are activities identified in terms of Section 24 of NEMA which are likely to have a detrimental effect on the environment, which may not commence without an EA from the CA. An EA is required for any listed activity and is subject to the completion of an environmental process, either a Basic Assessment (BA) or a Scoping and Environmental Impact Assessment (S&EIA). Application for an EA for activities listed in Listing Notices 1 and 3 must take the form of a BA, and activities listed in Listing Notice 2 must follow the full procedure of a S&EIA.

Table 1-8 below contains the listed activities identified in terms of NEMA and the EIA Regulations of 2014 (GN R982 of December 2014, as amended by GNR 326 of April 2017 and GNR 517 of 11 June 2021) and Listing Notices 1, 2 and 3 (GN R983, GN R984 and GN R985 of December 2014, as amended by GNR 327, GNR 325 and GNR 324 of April 2017, respectively, as well as GN R517 of 11 June 2021) which may be triggered by the Proposed Project, and for which an application for EA has been submitted. Table 1-8 also includes a description of those project activities which relate to the applicable listed activities.

The Commenting Authorities for the Proposed Project are:

- National Department of Forestry, Fisheries and the Environment (DFFE).
- Department of Water and Sanitation (DWS)
- South African Civil Aviation Authority (SACAA).
- National Nuclear Regulator of South Africa (NNR).
- Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs.
- Free State Department of Health (DoH).
- Free State Province Department of Agriculture and Rural Development.
- Free State Department of Community Safety, Roads and Transport.
- Free State Department of Cooperative Governance and Traditional Affairs.
- Free State Department of Public Works and Infrastructure
- National Department of Public Works and Infrastructure (DPWI).
- Matjhabeng Local Municipality.
- Lejweleputswa District Municipality.
- Eskom Holdings SOC Limited.
- South African Heritage Resources Agency (SAHRA).

Table 1-8: Listed Activities Triggered by the Proposed Project

Name of Activity	Aerial Extent of the Activity (ha)[3] Ha or m²	Applicable Listing Notice GNR 983, 984 and 985 as amended by GNR 327, GNR 325 or GNR 324	Listed Activity	Waste Management Authorisation	Water Use License Authorisation[4]
Underground Mining Operation	956,76 Hectares	GNR 984 - Activity 17	Any activity including the operation of that activity which requires a mining right in terms of section 22 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice, in Listing Notice 1 of 2014 or Listing Notice 3 of 2014, required to exercise the mining right	No Waste Management License (WML) activities are triggered by the proposed underground mining operation	Section 21 (c) and (i)
Development of gravel access tracks To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary. Each station will include a small sensor pad/housing	Gravel access tracks approximately 1 km across all stations, with a width of 4 m wide	GNR 985 – Activity 4	The development of a road wider than 4 metres with a reserve less than 13,5 metres. **(b) Free State** (i) Outside urban areas: (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	No Waste Management License (WML) activities are triggered by the proposed development of gravel access tracks	Section 21 (c) and (i)

[3] The total area of the reclamation and associated areas is approximately 956,76 hectares.
[4] Water use licences in terms of Section 21 of that National Water Act, 1998, will be required for various of the Listed Activities.

Name of Activity	Aerial Extent of the Activity (ha)[3] Ha or m²	Applicable Listing Notice GNR 983, 984 and 985 as amended by GNR 327, GNR 325 or GNR 324	Listed Activity	Waste Management Authorisation	Water Use License Authorisation[4]
(approximately 5–10 m²), basic power/comms setup, 6 m of perimeter fencing per station (total 24 m), and short gravel access tracks (total approx. 1 km across all stations, 4 m wide).					
Installation of the seismographic monitoring stations. To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary. Each station will include a small sensor pad/housing (approximately 5–10 m²), basic power/comms setup, 6 m of perimeter fencing per station (total 24 m), and short gravel access tracks (total approx. 1 km across all stations, 4 m wide).	40 m²	GNR 985 - Activity 14	The development of (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 meters of a watercourse, measured from the edge of a watercourse; **(b) Free State**	No Waste Management License (WML) activities are triggered by the proposed underground mining operation	Section 21 (c) and (i)

Name of Activity	Aerial Extent of the Activity (ha)[3] Ha or m²	Applicable Listing Notice GNR 983, 984 and 985 as amended by GNR 327, GNR 325 or GNR 324	Listed Activity	Waste Management Authorisation	Water Use License Authorisation[4]
			(i) Outside urban areas: (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;		

2. Policy and Legislative Context

This chapter provides an overview of the policy and legislative context relevant to the Proposed Project. It identifies all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to the planned activities and are to be considered in the assessment process which may be applicable or have relevance to the Proposed Project.

2.1 National, Provincial and Local Legislation

The foundation for environmental preservation is entrenched in the **Constitution of South Africa, 1996**. Following the birth of democracy in South Africa, legislative and environmental policies and regulations have undergone a large transformation, and various laws and policies were promulgated with a strong emphasis on environmental concerns and the need for sustainable development. The Constitution provides environmental rights (contained in the Bill of Rights, Chapter 2 (Section 24)) and includes implications for environmental management. The environmental rights are guaranteed in Section 24 of the Constitution, and state that:

Everyone has the right:

- To an environment that is not harmful to their health or well-being.
- To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:

- Prevent pollution and ecological degradation.
- Promote conservation and
- Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

To ensure that the various spheres of the social and natural environmental resources are not overlooked, other legislation and regulations have been promulgated in addition to those contained within the Constitution. The additional legislature and regulations ensure that there remains a key focus on various industries or components of the environment, and to ensure that the objectives of the Constitution are effectively implemented and upheld on an on-going basis. In terms of Section 7, a positive obligation is placed on the State to give effect to the environmental rights. Shown in Table 2-1, the Constitution sets out the fundamental environmental rights and duties that guide all subsequent environmental legislation and policy. The applicable provincial and local policies, guidelines and by-laws relevant to the Proposed Project are summarised in Table 2-2.

2.2 Environmental Sensitivity Screening

The “Protocols for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes” (the Protocols) were published in Government Gazette No. 43110 on 20 March 2020 and Government Gazette No. 43855 on 30 October 2020. The Protocols are allowed for in terms of Section 24(5)(a) and (h) and Section 44 of NEMA.

The Protocols must be complied with for every new application for an EA that is submitted after 9 May 2020. According to the Protocols, the EAP must verify the current use of the site in question and its environmental sensitivity as identified by the Screening Tool to determine the need for specialist inputs in relation to the themes included in the Protocols. The outcome of the DFFE Screening Tool Report (STR) is noted in Section 9.

Table 2-1: Applicable National Legislation and Guidelines

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
The Constitution of South Africa, 1996 • Section 24 of the Constitution states that everyone has the right to an environment that is not harmful to their health or well-being; to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation. secure ecological sustainable development and use of natural resources while promoting justifiable economic and social development. • Section 32 of the Constitution states that every person has a right to information held by the State and to information held by other people that is required in the exercise or protection of a right. • Section 33 of the Constitution states that everyone has a right to just and procedurally fair administrative action.	• As per the requirements of NEMA and the NEMA EIA Regulations, alternative activities that are less taxing on the environment and resources must be investigated where possible. • The Draft Scoping Report and Draft EIA Report will be made available for public review (as per the PPP section of this report). The Appeal Process will be described to all stakeholders through the EA notification described in the PPP section of this report.
The One Environmental System • In terms of the One Environmental System established by the NEMLAA, an EA in respect of the mining operation must be issued within 300 days of the application being submitted. This system aims to streamline the licensing processes for environmental authorisations and water use.	• Jelani proposes to establish underground mining operation and has submitted the required EA. The company is currently preparing and submitting the necessary WULA documentation in accordance with the prescribed regulatory timeframes.
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) • The overarching principle of the NEMA is sustainable development. It defines sustainability as meaning the integration of social, economic and environmental factors into planning, implementation and decision making to ensure the development serves present and future generations. Section 2 of NEMA provides for the NEMA principle which apply throughout the Republic to the actions of all organs of state that may significantly affect the environment and in conjunction with other appropriate and relevant considerations. The NEMA principles serve as the general	• It is the objective of this application to align to NEMA. • The NEMA is the overarching Act governing sustainable development and the NEMA principles apply to all mining operations and any matter or activity relating to such operation.

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
framework within which environmental management and implementation plans must be formulated and serve as a guideline by reference to which any organ of state must exercise any function when taking any decision in terms of the NEMA or any statutory provision concerning the protection of the environment. • NEMA authorises the Minister of the DFFE to issue Regulations relating to the administration of the Act5, which has been done with the publication of the EIA 2014 Regulations, as amended. Section 24(2) allows the Minister to identify activities which may not commence without environmental authorisation from the competent authority. This identification has been done in accordance with listing notices referred to as Listing Notice 1, Listing Notice 2 and Listing Notice 3. The NEMA also allows the Minister to determine which authority will be the competent authority to receive and evaluate applications for EAs. • Listing Notice 1 identifies activities of limited scale and effect, which need to be assessed by a fairly simple process referred to as a BA, where after a Basic Assessment Report (BAR) is submitted to the competent authority. Listing Notice 2 identifies activities of significantly greater magnitude, which require evaluation through an initial Scoping Phase followed by an EIA and an EMPr. This process is generally referred to as the S&EIR process. Listing Notice 3 relates to activities limited to specified geographical areas and matters of concern to the various provinces which require a BAR process to be dealt with by the provincial authority concerned. • Regulation 16 (1) prescribes the general application requirements and states that an application for an EA must be made on the official application form obtainable from the CA and must, amongst others, include proof of payment of the prescribed application fee. • Regulation 21 provides for the submission of the Scoping Report to the CA for consideration and states that the scoping report must contain all the information set out in Appendix 2 to the EIA 2014 Regulations, as amended. In terms of regulation 22, the CA must, after considering the Scoping Report, either accept the report, with or without conditions and advise the applicant to proceed with the plan of study for EIA or refuse the EA. Once the Scoping Report is accepted by the CA, the applicant must submit the EIA Report inclusive of specialist reports and an EMPr which have been subjected to a PPP. The timeframes for submission of the Scoping Report and the EIA Report inclusive of the timeframes within which the CA must consider the reports and approve the EA are prescribed in regulations 21 to 24 of the EIA 2014 Regulations. • Once a decision on the EA application has been reached, the CA must notify the applicant in writing of the decision	• Listed activities as per the EIA 2014 Regulations, as amended, have been identified (refer to Chapter 1, subsection 1.8).

[5] Sections 24(5) and Section 44

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
and give reasons for the decision.	
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM: WA) • In terms of NEM:WA, a List of Waste Management Activities that have, or are likely to have, a Detrimental Effect on the Environment has been published in GN R921 of 29 November 20136. Regulation 2 provides that a waste management activity listed in this Schedule under Category A and Category B would require a Waste Management Licence (WML).	• No Waste Management License (WML) activities are triggered by the Proposed Project (refer to Chapter 1, subsection 1.8).
National Water Act, 1998 (Act No. 36 of 1998) (NWA) In terms of the NWA, the national government, acting through the Minister of Water and Sanitation, is the public trustee of South Africa's water resources, and must ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner for the benefit of all persons (section 3(1)). In terms of the NWA a person may only use water without a license if such water use is permissible under Schedule 1 (generally domestic type use) if that water use constitutes a continuation of an existing lawful water use (water uses being undertaken prior to the commencement of the NWA, generally in terms of the Water Act of 1956), or if that water use is permissible in terms of a general authorisation issued under section 39 (general authorisations allow for the use of certain section 21 uses provided that the criteria and thresholds described in the general authorisation is met). Permissible water use furthermore includes water use authorised by a license issued in terms of the NWA. Section 21 of the NWA defines water uses which are governed in terms of the Act and for which a WUL is required. In terms of section 40 (1) of the NWA "a person who is required or wishes to obtain a licence to use water must apply to the relevant responsible authority for a licence." These water uses, in terms of Section 21, are as follows: (a) taking water from a water resource; (b) storing water; (c) impeding or diverting the flow of water in a watercourse; (d) engaging in a stream flow reduction activity contemplated in Section 36;	• An IWULA will be required for the Proposed Project and will be submitted to the DWS.

[6] As amended by GN 332 of 2 May2014, GN R633 of 4 July 2015 and GN 1757 of 11 February 2022.

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
(e) engaging in a controlled activity identified as such in Section 37(1) or declared under Section 38(1); (f) discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit; (g) disposing of waste in a manner which may detrimentally impact on a water resource; (h) disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process; (i) altering the bed, banks, course or characteristic of a watercourse; (j) removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and (k) using water for recreational purposes. The IWULA must be prepared and submitted in accordance with the Water Use Licence Application and Appeals Regulations 2017 published in GNR 267 on 24 March 2017 and must generally be supported by a Technical Report, as well as conceptual design drawings of all water related infrastructure.	
National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004) (NEM:BA) • The NEM:BA provides for the management and conservation of South Africa's biodiversity within the framework of NEMA, as well as the protection of species and ecosystems that warrant national protection and the sustainable use of indigenous biological resources. The South African National Biodiversity Institute (SANBI) website and GIS tools were utilised to determine whether any nationally protected and threatened ecosystems occur on site. • The Proposed Project falls within the Free State Province, which has a provincial Biodiversity Plan (v1.0). This strategy has been incorporated and considered throughout the compilation of this report.	• NEM:BA was used to inform whether activities triggered Listing Notice 3. • As per Chapter 1, the location of the Proposed Project in relation to these areas must be confirmed in the Biodiversity Assessment.
National Environmental Management: Protected Areas Act (NEM:PAA), Act 57 of 2003 as amended The National Environmental Management Protected Areas Act (Act No. 57 of 2003) (NEM:PAA) concerns the protection and conservation of ecologically viable areas representative of South Africa's diversity and its natural landscapes and seascapes, and includes *inter alia*: • The establishment of a national register of all national, provincial and local protected areas;	• The SANBI website and GIS tools were used to determine whether the project area overlaps with Critical Biodiversity Areas (CBAs). The majority of the development plan falls within a Critical Biodiversity Area. • The Regulations were utilised to determine the need for any additional listed

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
• The management of those areas in accordance with national standards; and • Inter-governmental co-operation and public consultation in matters concerning protected areas. Sections 48 to 53 of the NEM:PAA lists restricted activities that may not be conducted in a protected area. Section 48 states that no person may conduct commercial prospecting or mining activities in a: • Special nature reserve or nature reserve; • Protected environment without the written permission of the Minister and the Cabinet member responsible for minerals and energy affairs; and Protected area referred to in Section 9: • (b) world heritage sites; and • (d) specially protected forest areas, forest nature reserves and forest wilderness areas declared in terms of the National Forests Act (No. 84 of 1998);	scheduled activities under GNR 985 (refer to Chapter 1, subsection 1.8).
Mine Health and Safety Act (MHSA), Act 29 of 1996 (as amended): • Jelani operates in accordance with the MHSA and associated regulations. This includes creating a safe and healthy work environment and providing the necessary protection and training to staff to ensure their health and safety is not compromised. • Hazardous substances will be adequately stored and labelled. All regulations pertaining to safe use, handling, processing, storage, transport and disposal of hazardous substances; protection of equipment, structures and water sources and the surface of land; infrastructures associated with the mining operations; the monitoring and control of those environmental aspects which may affect the health and safety of persons will be applied on site. Regulations pertaining to provision of water, ablution facilities and staff health and safety will be applied on site.	• Although not strictly addressed in the DSR of the Proposed Project, protecting the environment contributes to a safe working environment. MHSA regulations will be worked into the mine's Code of Practice (COP) and Standard Operating Procedures (SOPs).
Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) • The MPRDA contains provisions relating to the mining operations. This must be read together with the EIA 2014 Regulations, as amended, and the assessment of impacts relating to pollution control, where appropriate, must form	• Jelani proposes to undertake the desired underground mining project activities in accordance with the provisions of the

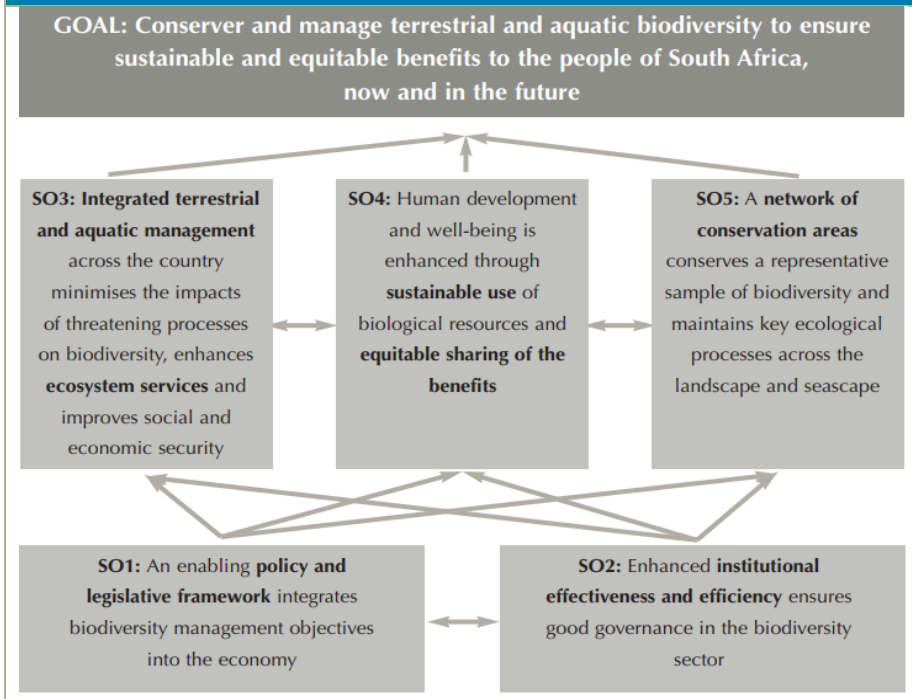
Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
part of the EMPr. In terms of the One Environmental System established by the NEMLAA, an EA in respect of the mining operations must be issued within 300 days of the application being submitted.	MPRDA.
Mining and Biodiversity Guideline, 2013. This guideline is founded on six fundamental principles: ❖ Apply the law; ❖ Use the best available biodiversity information; ❖ Engage relevant stakeholders thoroughly; ❖ Use best practice in EIA to identify, assess and evaluate impacts on biodiversity; ❖ Apply the mitigation hierarchy when planning any mining-related activities and develop robust EMPrs; and ❖ Ensure effective implementation of EMPrs, including adaptive management. The guideline stipulates the requirements for both utilising and integrating biodiversity information and informants into the assessment of impacts (i.e. this S&EIA process) of mining on biodiversity and ecosystem services and recommends good practice throughout the projects life cycle.	• This project will, as far as possible, make use of the fundamental principles outlined in the Mining and Biodiversity Guideline, 2013.
The South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7 of 1998) The National Road Traffic Regulations, 2000 places specific duties on the consignor and consignee of dangerous goods. A consignor means the person who offers dangerous goods for transport (i.e. hazardous waste) and a consignee is the person who accepts dangerous goods, which have been transported in a vehicle. Both consignor and consignee must comply with the requirements of several SANS standard specifications and codes of practice relevant to dangerous goods which have been incorporated into the regulations. The mine owner is responsible for: • Offloading of the dangerous goods; • Providing the dangerous goods offloading supervisor; and	• The requirements of the Act and Regulations will be considered when assessing the project impacts and developing the associated mitigation measures in the EIA Phase.

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
• Ensuring that the loading and offloading are carried out by qualified employees trained in the relevant procedures. Jelani must, in line with Section 54 of the Act and GN R225, provide evidence that the company has appointed responsible personnel to oversee the off-loading of dangerous goods at its operations. A driver of a vehicle transporting dangerous goods is required to undergo training at an approved training body.	
Hazardous Substances Act, 1973 (Act No. 15 of 1973) • The Regulations for Hazardous Chemical Substances apply to an employer or a self-employed person who carries out work at a workplace which may expose any person to the intake of hazardous chemical substances at that workplace. Regulations 14 and 15 provide for the labelling, packaging, transportation and storage and the disposal of hazardous chemical substances respectively. These regulations set out specific requirements which form part of an employer's duty to provide and maintain, as far as reasonably practicable, a working environment that is safe and without risk to the health of his or her employees.	• The requirements of the Act and Regulations will be considered when assessing the project impacts and developing the associated mitigation measures in the EIA Phase. • Mitigation measures will be carried out in the EMPr Report.
Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) (SPLUMA) • The SPLUMA was promulgated in May 2015. SPLUMA is a framework act for all spatial planning and land use management legislation in South Africa. It seeks to promote consistency and uniformity in procedures and decision-making in this field. SPLUMA will also assist municipalities to address historical spatial imbalances and the integration of the principles of sustainable development into land use and planning regulatory tools and legislative instruments.	• The project footprint is currently being used for agricultural purposes. • The proposed underground mining operation will allow agricultural and other surface land uses to continue.
National Development Plan, 2030 The NDP strives to ensure a tightening of the accountability chain, where, in relation to this EIA, environmental noncompliance in terms of Section 16(1)(b) of NEMA is addressed at all levels of government. The environmental sustainability and resilience objectives include, inter alia: • Implementing a set of indicators for natural resources, accompanied by publication of annual compliance reports; • Achieving the peak plateau and decline trajectory for greenhouse gas (GHG) emissions coupled with the entrenchment of an economy-wide carbon price;	• The project – if approved – will support South Africa's long-term sustainable development vision through the implementation of necessary mitigation measures to safeguard environmental integrity, including compliance with NEMA and environmental management requirements and applying strategies to reduce pollution, land degradation and ecological disturbance.

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
• Improving disaster preparedness for extreme climate events. Gauteng is severely affected by drought; and • Increasing investment in new agricultural technologies, research and the development of adaptation strategies for the protection of rural livelihoods and expansion of commercial agriculture. The National Development Plan (NDP) offers a long-term perspective. It defines a desired destination and identifies the role different sectors of society need to play in reaching that goal. • As a long-term strategic plan, it serves four broad objectives: – Providing overarching goals for what we want to achieve by 2030. – Building consensus on the key obstacles to us achieving these goals and what needs to be done to overcome those obstacles. – Providing a shared long-term strategic framework within which more detailed planning can take place to advance the long-term goals set out in the NDP. – Creating a basis for making choices about how best to use limited resources. • The Plan aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and reduction of inequality. The core elements of a decent standard of living identified in the Plan are: – Housing, water, electricity and sanitation. – Safe and reliable public transport. – Quality education and skills development. – Safety and security. – Quality health care. – Social protection. – Employment. – Recreation and leisure. – Clean environment. – Adequate nutrition. The Proposed Project contribute to the goals of the NDP in creating a decent standard of living.	• A Social Impact Assessment (SIA) specialist will be consulted to ensure compliance with the requirements of this Plan. • Social considerations will be integrated when assessing project impacts and developing appropriate mitigation measures during the EIA phase. • Social Labour Plan will be implemented.

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
Action Plan of the Environmental Initiative of the New Partnership of Africa's Development, 2003. This Action Plan was established with the aim of encouraging sustainable development, conservation and acceptable use of biodiversity in Africa. It has been recognised that a healthy and productive environment is a prerequisite for the success of New Partnership of Africa's Development (NEPAD), together with the need to systematically address and sustain ecosystems, biodiversity and wildlife. Six areas have been identified: • Combating land degradation, drought and desertification; • Conserving Africa's wetlands; • Preventing and controlling invasive alien species; • Conservation and sustainable use of coastal and marine resources; • Combating climate change in Africa; and • Cross-border conservation and management of natural resources.	• The protection of wetland ecosystem and control of alien species will be contained within the EIA Report. • Various specialists' including terrestrial biodiversity, freshwater, climate change and agricultural will be consulted to systematically address and sustain ecosystems, biodiversity, and wildlife. • These considerations will form an integral part of the EIA phase of the project. • All identified mitigation measures will be incorporated into the EMPr Report for implementation and monitoring.
National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) • The NHRA aims to promote good management of cultural heritage resources and encourages the nurturing and conservation of cultural legacy so that it may be bestowed to future generations. • The Act requires all developers to undertake cultural heritage studies for any development exceeding 0.5 ha. It also provides guidelines for impact assessment studies to be undertaken where cultural resources may be disturbed by development activities. – The South African Heritage Resources Agency (SAHRA) will need to approve the heritage assessment undertaken as part of the impact assessment process.	• A Heritage, Archaeology and Palaeontology Impact Assessment will be undertaken as part of the EIA Phase and submitted to SAHRA for their comment.
Conservation of Agricultural Resources Act (No. 43 of 1983) • The Conservation of Agricultural Resources Act (Act No. 43 of 1983) (CARA) includes the use and protection of land, soil, wetlands and vegetation and the control of weeds and invader plants. This is the only legislation that is directly aimed at conservation of wetlands in agriculture. The Act contains a comprehensive list of species that are declared weeds and invader plants dividing them into three categories. These categories are as follows:	• The protection of land, soil, wetlands and vegetation, including the control of weeds and invader plants will be contained within the EIA Report. • Various specialists will be conducted during the EIA Phase to determine the impact on

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
– Category 1: Declared weeds that are prohibited on any land or water surface in South Africa. These species must be controlled or eradicated where possible. – Category 2: Declared invader species that are only allowed in demarcated areas under controlled conditions and prohibited within 30m of the 1:50 year flood line of any watercourse or wetland. – Category 3: Declared invader species that may remain but must be prevented from spreading. No further planting of these species is allowed. • In terms of the Act, landowners are legally responsible for the control of alien species on their properties. Failure to comply with the Act may result in various infringement consequences and in some instances imprisonment and other penalties for contravening the law.	soil and vegetation i.e. Agriculture Potential and Soil Impact Assessment, Biodiversity Impact Assessment, Aquatic and Freshwater Impact Assessment and Surface water Impact Assessment.
South Africa's National Biodiversity Strategy and Action Plan • The National Biodiversity Strategy and Action Plan (NBSAP) set out a framework and a plan of action for the conservation and sustainable use of South Africa's biological diversity and the equitable sharing of benefits derived from this use. The NBSAP was prepared by the former Department of Environmental Affairs and Tourism (DEAT), during the period May 2003 to May 2005. • The goal of the NBSAP is to conserve and manage terrestrial and aquatic biodiversity to ensure sustainable and equitable benefits to the people of South Africa, now and in the future. In support of this goal, five key strategic objectives (SOs) have been identified, each with a number of outcomes and activities. The schematic below represents the objectives and their interconnection in achieving the NBSAP "Goal", although the project is related to reclamation, the following would still apply:	• The Proposed Project is cognisant of the obligation to protect and preserve the integrity of the environment as well as its biodiversity. • Principles of this plan will be taken into consideration during the EIA Phase.

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
 • Through the NSBA, it is recognised that biodiversity cannot be conserved through protected area networks only. All stakeholders, from private landowners and communities to business and industry must get involved in biodiversity management. • NBSAP further identified mining as one of the activities that causes habitat transformation and degradation and seriously threatens aquatic and terrestrial biodiversity. The strategy therefore promotes the inclusion of biodiversity considerations in mining regulations, guidelines and best practice codes to mitigate negative impacts and encourage sustainable mining practices through partnerships.	
Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) • The PAIA gives effect to the constitutional right of access to any information held by the state and any information	• The requirements of the Act will be considered when assessing and involving the public and registered interested and

Applicable Legislation and Guidelines Used in Compiling this Report	Reference Where Applied
that is held by another person and that is required for the exercise or protection of any rights. to provide for matters connected therewith.	affected parties (I&APs).
National Environmental Management Act: National Appeal Regulations, 2014 • The purpose of these regulations is to regulate the procedure contemplated in section 43(4) of the National environmental management act relating to the submission, processing and consideration of a decision on an appeal. This Act is used to help guide and understand the appeal process and the procedures may follow.	• The requirements of the Act will be considered if an appeal may need to be or is lodged for the project. Stakeholders will be identified through WinDeed searches and compiling a stakeholder database, followed by consultations with landowners, occupiers, and relevant authorities such as ward councillors through virtual or in-person meetings. Key tasks include preparing and distributing project announcement materials (such as Background Information Documents, registration sheets, advertisements, site notices, and notification letters), conducting land claims enquiries, and ensuring stakeholders receive project details and specialist study information.
Best Practice Guideline Series The Department of Water and Sanitation has developed a number of best practice guidelines for water resource protection in the South African mining industry. The best practice guidelines include international principles and approaches towards sustainability. There best practice guidelines include *viz.:* • A water management hierarchy; • General water management strategies, techniques and tools; and • Guidelines for mining related activities and aspects.	• The guidelines define and document best practices for water and waste management associated with the project have been considered throughout the Scoping process and reporting.

Table 2-2: Applicable Provincial and Local Policies, Guidelines and By-Laws

Policies, Guidelines and By-Laws	
Free State Climate Change Adaptation Strategy & Implementation Plan (2024–2029) • This provincial strategy outlines climate-response measures, adaptation priorities, environmental resilience guidelines, and institutional structures for environmental planning in the Free State. • The objective related to the mining sector in the Free State Province Climate Change Adaptation Strategy and Implementation Plan 2024–2029 is to Enhance resilience in the mining sector. • This goal is supported by specific response actions, including: – Implementing a programme with mining entities to incorporate climate change adaptation actions into mine operating, safety, and disaster response guidelines. – Conducting research to identify possible solutions for recycling mining tailings in Free State Province. – Developing a fire protection implementation plan for the mining sector that can be incorporated into the proposed implementation plan linked to the Wildfire Management Framework of Free State Province	• The Climate Change Adaptation Strategy and Implementation will be contained within the EIA Report. • Climate Change Assessment Study will be conducted during the EIA Phase
Free State Provincial Biodiversity Plan (2024) • The Biodiversity Plan provides: – Critical Biodiversity Areas (CBA) & Ecological Support Areas (ESA). – Land-use guidelines for biodiversity conservation. – Inputs for environmental planning and EIA decision-making.	• Aspects of the Free State Terrestrial Critical Biodiversity Areas (CBA) are applicable to the Proposed Project. • Where applicable, these will be considered throughout the S&EIA process and will be included within the reporting documents. • Biodiversity Assessment Study will be conducted during the EIA Phase.
Free State Spatial Development Framework (2023/2024) • This version provides: – Provincial spatial strategies. – Development guidance. – Environmental protection and land-use management direction.	• Aspects of this Framework are applicable to the Proposed Project. • Where applicable, these will be considered throughout the S&EIA process and will be included within the reporting documents.

Policies, Guidelines and By-Laws	
– Alignment with Provincial Growth and Development Strategy (PGDS), the Medium-Term Strategic Framework (MTSF), and the Spatial Planning and Land Use Management Act (SPLUMA) requirements.	
Matjhabeng Municipality: Municipal Land Use Planning By-Laws (2015) • The document specifically outlines the objectives and procedures for integrating mining rehabilitation into the municipal spatial planning process. The primary objectives in connection with mining operations are: – Integrating Mining Rehabilitation into Spatial Planning – Developing Aligned Rehabilitation Plans – Establishing a Sequence for Rehabilitation Implementation – Managing Land Transfer and Development – Defining End Land Use	• Aspects of this Plan are applicable to the Proposed Project. • Where applicable, these will be considered throughout the S&EIA process and will be included within the reporting documents.
The Public Participation Guidelines in terms of the National Environmental Management Act, 1998 Environmental Impact Assessment Regulations, 2017 • This document aims to assist with the participation process of all interested and affected parties regarding any Proposed Project. This guideline provides information and guidance for proponents or applicants, interested and affected parties, competent authorities and environmental assessment practitioners on the public participation requirements of the act, as well as provides information on the characteristics of a vigorous and inclusive public participation process.	• This guideline was used to ensure that all of the required steps are followed to ensure that a complete and successful public participation process is conducted.
Integrated Environmental Management Guideline on Need and Desirability, 2017 • This document assists Environmental assessment practitioners on the best practice as well as how to meet the peremptory requirements prescribed by the legislation as well as sets out both the strategic and statutory context for the consideration of the need and desirability of a development involving any one of the NEMA listed activities. This document further sets out a list of questions which should be addressed when considering need and desirability of a proposed development.	• This Guideline was used to ensure that the need and desirability of the Proposed Project was thoroughly considered.
The Centre for Environmental Rights - Mining and your Community: Know your Environmental Rights • To exploit a mineral, mining companies must get permission to mine from the government. This is known as an	• This DSR incorporates the recommendations and guidelines listed in the guide when undertaking Public

Policies, Guidelines and By-Laws	
Environmental Authorisation. To get permission, the mining company is required to assess the environment and learn about the community and consult with everyone who will be affected by the proposed mining. The Guide published in 2014 by the CER discusses what rights communities and individuals who are affected by mining have, and what laws and processes must be followed by a mining company before it can start mining.	Participation (PP). All PP is implemented according to the requirements listed in the NEMA EIA Regulations of 2014, as amended. • Refer to Chapter 6 for an overview of Public Participation to be undertaken.

3. The Need and Desirability of the Project

Reference is made to the DFFE 2017 Guideline on Need and Desirability which states that while the "concept of need and desirability relates to the type of development being proposed. The Need and Desirability of the proposed development has been considered in terms of the regional location and the project's cumulative impact. The guidelines pose questions that should be considered in this investigation, which are addressed in Table 3-1.

Jelani intends to initiate underground mining operation within the JV area, to extract various minerals, primarily focusing on Gold ore, along with Silver, Uranium, and other associated minerals. The Proposed Project follows the completion of the Prospecting Phase, which confirmed the viability of developing an underground mining operation and identified significant potential mineral resources to support such development.

The project's development includes utilising the available spare capacity within Harmony's existing infrastructure at the Target Mine. This includes the Target No. 3 and No. 2 shafts, the Target No. 1 Processing Plant, and associated surface infrastructure. All operational mining infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project area.

Although mining activities often generate positive social and economic benefits, they may also result in notable negative environmental impacts. Prioritising environmental stewardship, complying with relevant environmental legislation, and implementing specialist recommendations and sustainable operational practices will be required to minimise its environmental footprint and reduce ecological impacts as far as possible while balancing the economic and social benefits.

Promoting Justifiable Economic and Social Development

- A Social and Labour Plan (SLP) will be implemented for the Proposed Project. As part of the SLP, the Nyakallong Community Hall will be refurbished to support and promote socio-economic development within the local community.
- Community needs will be identified through a Public Participation Process, and the outcomes of this process will be documented in a Public Participation Report.
- The local economy is strongly dependent on the mining sector. The Proposed Project will continue to support economic activity in the region through job creation, and securing of existing jobs due to increased life of mine of adjacent Harmony operation,stimulating investment and contributing to ongoing economic growth and development.

Table 3-1: Considerations of Need and Desirability of the Proposed Project

No.	Description	Comment
1	How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	• The provincial and national legislative frameworks and guidelines considered for the Proposed Project are detailed in Table 2-1. • The underground mining operation is not expected to directly affect ecological integrity within the project area. All operational mining infrastructure required for the project will be situated within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project area. Any disturbance associated with the underground mining operation will occur within the approved mining right area, which would already have been disturbed as part of the Target Mine mining process. • The installation of the seismographic monitoring stations and the development of gravel access tracks to facilitate the monitoring of potential mining-induced seismicity and boundary interactions will be the only minor surface disturbances within the JV project area. • The utilisation of existing infrastructure within the Harmony Target Mine mining right area is intended to minimise impacts on the ecological integrity of the surrounding project area. • The Biodiversity Impact Study will assess the impacts that the Proposed Project may have on the receiving environment. Section 7.6 of this DSR provides ecological background information.
1.1	How were the following ecological integrity considerations taken into account?[7]	
1.1.1	Threatened Ecosystems[8]	
1.1.2	Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure[9]	
1.1.3	Critical Biodiversity Areas (“CBAs”) and Ecological Support Areas (“ESAs”)	
1.1.4	Conservation targets.	
1.1.5	Ecological drivers of the ecosystem.	
1.16	Environmental Management Framework.	
1.1.7	Spatial Development Framework.	
1.1.8	Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).[10]	
1.2	How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts,	• The project development places all required operational mining infrastructure within the existing Harmony Target Mine mining right area, thereby limiting additional disturbance within the project area ecosystem. No new operational mining infrastructure is planned

[7] Section 24 of the Constitution and Section 2(4)(a)(vi) of NEMA refer.
[8] Must consider the latest information including the notice published on 9 December 2011 (Government Notice No. 1002 in Government Gazette No. 34809 of 9 December 2011 refers) listing threatened ecosystems in terms of Section 52 of National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).
[9] Section 2(4)(r) of NEMA refers.
[10] Section 2(4)(n) of NEMA refers.

No.	Description	Comment
	and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?[11]	within the project area. • The installation of the seismographic monitoring stations and the development of gravel access tracks to facilitate the monitoring of potential mining-induced seismicity and boundary interactions will be the only minor surface disturbances within the JV project area. • The Biodiversity Impact Assessment will present current impacts and will investigate the impacts that could occur from the Proposed Project activities. • Measures to avoid and/or minimise negative impacts, as well as to enhance positive impacts, will be detailed in the Biodiversity Impact Assessment report.
1.3	How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?[12]	• The Proposed Project entails mineral extraction activities from underground, utilising existing operational mining infrastructure located within the adjacent Harmony Target Mine mining right area, thereby minimising major surface disturbance within the project footprint. The installation of the seismographic monitoring stations and the development of gravel access tracks will be the only minor surface disturbance within the JV project area. • All underground access infrastructures and operational facilities are located within the adjacent Harmony Target Mine mining right area. Furthermore, the ore will be processed at the existing Target 1 metallurgical plant, avoiding the need for new processing infrastructure. • Mitigation measures to manage impacts on the biophysical environment will be included in the EMPr.
1.4	What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have	• The proposed mining activities will be undertaken as underground operation, with all waste and ore extracted and handled within the Harmony Target Mine mining right area. • All required operational mining infrastructure will be located within the Target Mine mining right area.

[11] Section 24 of the Constitution and Sections 2(4)(a)(i) and 2(4)(b) of NEMA refer.
[12] Section 24 of the Constitution and Sections 2(4)(a)(ii) and 2(4)(b) of NEMA refer.

No.	Description	Comment
	been explored to safely treat and/or dispose of unavoidable waste?[13]	• The project is anticipated to generate significant volumes of waste, primarily in the form of excavated waste rock and general operational waste. Rock will be transported either to the Harmony Target processing plant or to the Target waste rock dump. • Mitigation measures to manage waste will be included in the EMPr.
1.5	How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?[14]	• The Heritage Impact Assessment will evaluate the potential impacts associated with the Proposed Project. • Mitigation measures will be identified by the heritage specialists to minimise impacts and enhance positive impacts.
1.6	How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?[15]	• An application for a Mining Right in terms of the Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters, has been submitted by the Applicant. • The proposed mining activities will essentially deplete a non-renewable natural resource within the project area. Once the mineral is removed, it will be gone from the area forever. • Impacts of the Proposed Project will be identified, and mitigation measures aimed at avoiding, reducing, and/or managing the negative impacts, as well as enhancing the positive impacts, will be developed. These management measures will be included in the EMPr. • The EIA will provide mitigation measures to reduce the overall impact of the mine in terms of scarce resource usage.

[13] Section 24 of the Constitution and Sections 2(4)(a)(iv) and 2(4)(b) of NEMA refer.
[14] Section 24 of the Constitution and Sections 2(4)(a)(iii) and 2(4)(b) of NEMA refer.
[15] Section 24 of the Constitution and Sections 2(4)(a)(v) and 2(4)(b) of NEMA refer.

No.	Description	Comment
1.7	How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?[16]	• An application for a Mining Right in terms of the Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters, has been submitted by the Applicant. • The proposed mining activities will essentially deplete a non-renewable natural resource within the project area. Once the mineral is removed, it will be gone from the area forever. • Impacts of the Proposed Project will be identified, and mitigation measures aimed at avoiding, reducing, and/or managing the negative impacts, as well as enhancing the positive impacts, will be developed. These management measures will be included in the EMPr. • The EIA will provide mitigation measures to reduce the overall impact of the mine in terms of scarce resource usage.
1.7.1	Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth, or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life).	
1.7.2	Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e., what are the opportunity costs of using these resources this the proposed development alternative?)	
1.7.3	Do the proposed location, type and scale of development promote a reduced dependency on resources?	
1.8	How were a risk-averse and cautious approach applied in terms of	

[16] Section 24 of the Constitution and Sections 2(4)(a)(vi) and 2(4)(b) of NEMA refer.

No.	Description	Comment
	ecological impacts?[17]:	• Specialists will investigate the impacts and present the gaps and/or limitations in knowledge in their respective reports. Additionally, specialists will provide an assessment of the risks associated with assumptions and the limits/gaps in current knowledge. • The list of gaps and uncertainties will be listed in the EIA once the specialist studies have been completed. • The potential impacts of air quality will also be evaluated during EIA phase. Further this, surface and groundwater monitoring will be undertaken throughout the project life. • Specialist will conduct their assessment in the required seasons to meet legislative requirements.
1.8.1	What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	
1.8.2	What is the level of risk associated with the limits of current knowledge?	
1.8.3	Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	
1.9	How will the ecological impacts result from this development impact on people's environmental right in terms following[18]	• The impacts will be investigated and quantified by each specialist and presented in the EIA report. • Air Quality, Surface Water, Groundwater and the Social Impact Assessment (SIA), among others will be conducted during the EIA phase. • Impacts of the Proposed Project will be identified, and mitigation measures aimed at avoiding, reducing, and/or managing the negative impacts, as well as enhancing the positive impacts, will be developed. These management measures will be included in the EMPr. • Positive impacts include the creation of jobs providing income and, therefore, having a further positive impact on the regional socio-economy aspects of the area, along with other benefits arising from the Social and Labour Plan.
1.9.1	Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?	
1.9.2	Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?	
1.10	Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio- economic impacts (e.g. on livelihoods, loss of	• The Proposed Project will potentially result in various impacts, including the continuation of impacts currently associated with ongoing mining activities in close proximity to the project area. Section 8.2 of the DSR list potential impacts identified. • The Proposed Project will also be able to create additional employment opportunities.

[17] Section 24 of the Constitution and Section 2(4)(a)(vii) of NEMA refer.
[18] Section 24 of the Constitution and Sections 2(4)(a)(viii) and 2(4)(b) of NEMA refer.

No.	Description	Comment
	heritage site, opportunity costs, etc.)?	In an area where unemployment rates are considered high, employment creation is regarded as an important benefit of the proposed underground mine. • Positive impacts include the creation of jobs providing income and, therefore, having a further positive impact on the regional socio-economy aspects of the area, along with other benefits arising from the Social and Labour Plan. • The Social Impact Assessment (SIA) will identify additional mitigation measures for consideration by Jelani.
1.11	Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	• Section 8.2 of the DSR list potential impacts identified.
1.12	Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?[19]	• Jelani intends to initiate an underground mining operation within the JV area to extract various minerals, primarily focusing on gold ore, along with silver, uranium, and other associated minerals. White Rivers Exploration (WRE), the joint venture partner, holds the Prospecting Right (PR) for various minerals within the JV area. This Proposed Project follows the completion of the Prospecting Phase, which confirmed the viability of developing an underground mining operation and identified significant potential mineral resources to support such development. In addition, the project's development includes utilising the available spare capacity within Harmony's existing infrastructure at the Target Mine. Consequently, the location of the project site and associated infrastructure is limited, and the identified sites are therefore considered the best practicable environmental option. • Refer to Section 5 for a discussion on Project alternatives.
1.13	Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and	• Section 8.2 of the DSR list potential impacts identified. • The cumulative impacts will be assessed by the specialists and presented in the EIA.

[19] Section 2(4)(b) of NEMA refer.

No.	Description	Comment
	existing and other planned developments in the area?[20]	
2.1	"Promoting justifiable economic and social development"[21]	• The socio-economic context of the region and the area around the Proposed Project is described in Section 7.11. • Table 2-2 in Section 2 details the applicable provincial and local policies, guidelines and by-laws considered during the EIA process. • A Social Impact Assessment will be undertaken. • A Social and Labour Plan (SLP) will be implemented for the Proposed Project. As part of the SLP, the Nyakallong Community Hall will be refurbished to support and promote socio-economic development within the local community. • Community needs will be identified through a Public Participation Process, and the outcomes of this process will be documented in a Public Participation Report. • The local economy is strongly dependent on the mining sector. The Proposed Project will continue to support economic activity in the region through job creation and securing of existing jobs due to increased life of mine of adjacent Harmony operation, stimulating investment and contributing to ongoing economic growth and development.
	What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?	
2.1.1	The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area.	
2.1.2	Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.).	
2.1.3	Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.).	
2.1.4	Municipal Economic Development Strategy ("LED Strategy").	
2.2	Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?	• Social Impact Assessment will be conducted during the EIA phase to determine the impacts of the Proposed Project. • It is anticipated that the Proposed Project will complement the local socio-economic initiatives of increasing employment, and social upliftment through the implementation of a Social and Labour Plan.
2.2.1	Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?	
2.3	How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?[22]	• A Social and Labour Plan (SLP) will be implemented for the Proposed Project. As part of the SLP, the Nyakallong Community Hall will be refurbished to support and promote socio-economic development within the local community.

[20] Regulations appendix1 3(1)(h)(vii) & 3(1)(j)(i) , appendix2 2(1)(h)(vii) and appendix3 3(1)(h)(vii) & 3(1)(j)(i) in Government Notice No. R. 982 refer.
[21] Section 24 of the Constitution refers.
[22] Section 2(2) of NEMA refers.

No.	Description	Comment
		• Community needs will be identified through a Public Participation Process, and the outcomes of this process will be documented in a Public Participation Report.
2.4	Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term?[23] Will the impact be socially and economically sustainable in the short- and long-term?	• A Social and Labour Plan (SLP) will be implemented for the Proposed Project. As part of the SLP, the Nyakallong Community Hall will be refurbished to support and promote socio-economic development within the local community. • Social Impact Assessment will be conducted during the EIA phase to determine the impacts of the Proposed Project.
2.5	In terms of location, describe how the placement of the proposed development will[24]:	• It is anticipated that the Proposed Project will complement the local socio-economic initiatives of increasing employment, and social upliftment through the implementation of a Social and Labour Plan. • Given its proximity to other mining areas, there are already people with some skills in the area that the mine could employ. • The Proposed Project will allow the mine to contribute to the local, regional and national Gross Domestic Product (GDPs), and also to the local communities through job security, as well as other influences and community upliftment programmes. • All operational mining infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project area. • Transport aspects are not applicable to the scope of this Proposed Project application. • The Proposed Project will not impact bulk infrastructure planning or settlement planning. • The Proposed Project is unlikely to result in urban sprawl. • The Proposed Project is not expected to result in any changes to existing and planned settlements in the area. No resettlement of surrounding communities is required.
2.5.1	result in the creation of residential and employment opportunities in close proximity to or integrated with each other.	
2.5.2	reduce the need for transport of people and goods.	
2.5.3	result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport).	
2.5.4	compliment other uses in the area.	
2.5.5	be in line with the planning for the area.	
2.5.6	for urban related development, make use of underutilised land available with the urban edge.	
2.5.7	optimise the use of existing resources and infrastructure.	
2.5.8	opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement).	

[23] Sections 2(2) and 2(4)(c) of NEMA refers
[24] Section 3 of the Development Facilitation Act, 1995 (Act No. 67 of 1995) ("DFA") and the National Development Plan refer.

No.	Description	Comment
2.5.9	discourage "urban sprawl" and contribute to compaction/densification	• The Proposed Project will not include the construction of any additional residential settlements. • An application for a Mining Right in terms of the Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters, has been submitted by the Applicant.
2.5.10	contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs.	
2.5.11	encourage environmentally sustainable land development practices and processes.	
2.5.12	take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.).	
2.5.13	the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential).	
2.5.14	impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area.	
2.5.15	in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?	
2.6	How were a risk-averse and cautious approach applied in terms of socio-economic impacts?[25]	• A Social Impact Assessment will be undertaken, and the gaps and limitations will be included in the EIA.
2.6.1	What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?[32]	
2.6.2	What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?[26]	

[25] Section 2(4)(a)(vii) of NEMA refers.
[26] Section 24(4) of NEMA refers.

No.	Description	Comment
2.6.3	Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	
2.7	How will the socio-economic impacts result from this development impact on people's environmental right in terms following:	• The negative impacts will be identified in the Social Impact Assessment and will be presented in the EIA. • Mitigation measures relating to the potential socio-economic impacts will be included in the EMPr. • Potential impacts are listed in Table 8-5.
2.7.1	Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?	
2.7.2	Positive impacts. What measures were taken to enhance positive impacts?	
2.8	Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?	• The Proposed Project will potentially result in various impacts, including the continuation of impacts currently associated with ongoing mining activities in close proximity to the project area. Section 8.2 of the DSR list potential impacts identified. • The Proposed Project will also be able to create additional employment opportunities. In an area where unemployment rates are considered high, employment creation is regarded as an important benefit of the proposed underground mine. • Positive impacts include the creation of jobs providing income and, therefore, having a further positive impact on the regional socio-economy aspects of the area, along with other benefits arising from the Social and Labour Plan. • The Social Impact Assessment (SIA) will identify additional mitigation measures for consideration by Jelani.
2.9	What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?[27]	• The "best practicable environmental option" will be identified in the EIA Phase where specialists' findings and recommendations will be considered. • A comprehensive public participation process, guided by Chapter 6 of the EIA Regulations

[27] Section 2(4)(b) of NEMA refers.

No.	Description	Comment
		(GNR982 of 2014), will be undertaken throughout the Scoping and EIA phases. The Public Participation Process followed is described in Section 6 of this Scoping Report. • The EMPr will provide mitigation measures for any expected impacts on all sectors of society and include grievance management measures.
2.10	What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)?[28] Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?	• An application for a Mining Right in terms of the Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters, has been submitted by the Applicant. • A comprehensive public participation process, guided by Chapter 6 of the EIA Regulations (GNR982 of 2014), will be undertaken throughout the Scoping and EIA phases. The Public Participation Process followed is described in Section 6 of this Scoping Report. • The EMPr will provide mitigation measures for any expected impacts on all sectors of society and include grievance management measures. • The proposed activities will be operated in strict accordance with the requirements of the Mine Health and Safety Act, No. 29 of 1996.
2.11	What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?[29]	• An application for a Mining Right in terms of the Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters, has been submitted by the Applicant. • A comprehensive public participation process is being undertaken as per the requirements of Chapter 6 of the EIA 2014 Regulations, detailed in Section 6 of this report. • A Social and Labour Plan (SLP) will be implemented for the Proposed Project. As part of the SLP, the Nyakallong Community Hall will be refurbished to support and promote

[28] Section 2(4)(c) of NEMA refers.
[29] Section 2(4)(d) of NEMA refers.

No.	Description	Comment
		socio-economic development within the local community.
2.12	What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?[30]	• An application for a Mining Right in terms of the Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters, has been submitted by the Applicant. • A comprehensive public participation process, guided by Chapter 6 of the EIA Regulations (GNR982 of 2014), will be undertaken throughout the Scoping and EIA phases. The Public Participation Process followed is described in Section 6 of this Scoping Report. • The EMPr will provide mitigation measures for any expected impacts throughout the life cycle of the project. • The proposed activities will be operated in strict accordance with the requirements of the Mine Health and Safety Act, No. 29 of 1996.
2.13	What measures were taken to:	• A comprehensive public participation process is being undertaken as per the requirements of Chapter 6 of the EIA 2014 Regulations, detailed in Section 6 of this report.
2.13.1	ensure the participation of all interested and affected parties	
2.13.2	provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation[31]	
2.13.3	ensure participation by vulnerable and disadvantaged persons[32]	
2.13.4	promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means[33]	
2.13.5	ensure openness and transparency, and access to information in	

[30] Section 2(4)(e) of NEMA refers.
[31] Section 2(4)(f) of NEMA refers.
[32] Section 2(4)(f) of NEMA refers.
[33] Section 2(4)(h) of NEMA refers.

No.	Description	Comment
	terms of the process[34]	
2.13.6	ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge[35]	
2.13.7	ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted?[36]	
2.14	Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?[37]	• A Social and Labour Plan (SLP) will be implemented for the Proposed Project. As part of the SLP, the Nyakallong Community Hall will be refurbished to support and promote socio-economic development within the local community. • The findings of the Social Impact Assessment will be included in the EIA. Section 8.2 of the Scoping Report lists potential impacts identified.
2.15	What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?[38]	• Jelani will comply with the requirements of the Mine Health and Safety Act, No. 29 of 1996 and will ensure that itself and the contractor/s employed will comply with the Occupational Health and Safety Act, Act 85 of 1993. • Employees will be made aware, as part of the EIA / EMPr, of Section 4(j) of NEMA, which relates to the right of workers to refuse work that is harmful to human health or the environment and is informed of dangers. The environmental awareness programme will be included in induction material for all employees and contractors.
2.16	Describe how the development will impact on job creation in terms of, amongst other aspects:	• It is anticipated that the Proposed Project will complement the local socio-economic initiatives of increasing employment, and social upliftment through the implementation
2.16.1	the number of temporary versus permanent jobs that will be	

[34] Section 2(4)(k) of NEMA refers.
[35] Section 2(4)(g) of NEMA refers.
[36] Section 2(4)(q) of NEMA refers.
[37] Section 2(4)(g) of NEMA refers.
[38] Section 2(4)(j) of NEMA refers.

No.	Description	Comment
	created.	of a Social and Labour Plan.
2.16.2	whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area).	
2.16.3	the distance from where labourers will have to travel.	
2.16.4	the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits).	
2.16.5	the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.).	
2.17	What measures were taken to ensure:	• Section 2 of this report details all relevant national and local legislation, policies, and guidelines that have been reviewed and incorporated. • During the Scoping phase, all relevant State Departments were provided with copies of environmental documentation for comment and were afforded the same opportunity during the EIA Phase. The list of Stakeholders provided with environmental documentation is in Section 5.3 of the PPP Plan.
2.17.1	that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment.	
2.17.2	that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	
2.18	What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?[39]	• All environmental impacts, including appropriate mitigation and management measures as well as monitoring measures, will be considered by the EAP and incorporated into the EIA/EMPr.
2.19	Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left? [40]	• The EAP will ensure that the mitigation measures which will be set out in the EMPr are realistic and practical.
2.20	What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further	• The Proposed Project will comply with national and local environmental regulations, such as the National Environmental Management Act (NEMA) and the National Environmental Waste Management Act. These regulations require that polluters are held

[39] Section 2(4)(o) of NEMA refers.
[40] Section 24O(1)(b)(iii) of NEMA and the National Development Plan refer.

No.	Description	Comment
	pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?[41]	accountable for any environmental damage caused. • In accordance with the requirements of Regulations 5 and 6 of the NEMA Regulations on Financial Provision (GN940 of 2014) and the DMPR Guidelines on Financial Provision, the quantum for closure-related financial provision will be determined to ensure that adequate funds are made available upfront (prior to the commencement of the project) for the rehabilitation, management, and remediation of negative residual environmental impacts. • The EMPr will provide mitigation, management and monitoring measures to ensure that potential negative impacts are managed throughout the life of the Proposed Project. • An application for a Mining Right in terms of the Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters, has been submitted by the Applicant. • The Applicant will be legally bound to comply with the conditions of the EMPr.
2.21	Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?[42]	• The best practice environmental option will only be identified in the EIA Report, taking into consideration all the specialists' findings.
2.22	Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	• The cumulative socio-economic impacts will be identified and covered in the EIA phase.

[41] Section 2(4)(p) of NEMA refers.
[42] Section 2(4)(b) of NEMA refers.

4. Period for which the Environmental Authorisation is Required

The Environmental Authorisation (EA) is required for **14 years**. Subsequent amendments can be lodged as the operational structures change accordingly.

5. Description of the Process Followed to Reach the Proposed Preferred Site

5.1 The Consideration of Alternatives

In accordance with the requirements outlined in Appendix 2 of the EIA 2014 Regulations, as amended, a consideration of reasonable and feasible alternatives, including site and technology alternatives, and as well as the "do-nothing" alternative must be undertaken. Each alternative is to be accompanied by a description and comparative assessment of the advantages and disadvantages that such development and activities will pose on the environment and socio-economy.

The EIA 2014 Regulations, as amended, define alternatives as the different means of meeting the general purpose and requirements of the activity, which may include alternatives to:

- The property on which or location where it is proposed to undertake the activity.
- The type of activity to be undertaken.
- The design or layout of the activity.
- The technology to be used in the activity.
- The operational aspects of the activity.
- The option of not implementing the activity.

Although a collection of alternatives may exist for the Proposed Project, only feasible alternatives have been considered for this DSR and are discussed in greater detail below. Kongiwe strives to seek alternatives that maximise efficient and sustainable resource utilisation and minimise environmental impacts.

5.1.1 The Property on which or Location where it is Proposed to Undertake the Activity

Jelani intends to initiate an underground mining operation within the JV area to extract various minerals, primarily Gold, along with Silver, Uranium, and associated minerals. White Rivers Exploration (WRE), the joint-venture partner, holds the Prospecting Rights for these minerals in this area. The Proposed Project follows the completion of the Prospecting Phase, which confirmed the viability of developing an underground mining operation and identified significant potential mineral resources to support such development. Additionally, the project development intent to utilise available spare capacity within Harmony's existing infrastructure at the Target Mine, which is located adjacent to the JV area. As the potential mineral resources were confirmed within specific properties and the required supporting operational mining infrastructure already exists within Harmony's Target Mine mining right area, the activity is constrained to these locations. **Therefore, no alternative sites are feasible.**

5.1.2 The Type of Activity to be Undertaken

One option has been identified to be assessed as part of the Proposed Project to extract the mineral resource deposit within the project area: **Underground Mining Operation**.

Jelani intends to initiate underground mining operation within the project area. The Proposed Project initially will target shallower mineral resource deposits at the project site, estimated at approximately 1,200 meters below surface (mbs). As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of mined ore per month.

Two mining methods have been identified as the most practical for exploiting the mineral resources: conventional breast mining and shrinkage stoping. Selection between these methods will be based primarily on the dip of the mineralised reef.

The development plan is phased:

- Phase 1: Access to the underground mine will occur via the existing Target 3 Shaft, with mining activities undertaken between 57 Level and 48 Level.
- Phase 2: Access will occur via the existing Target 2 Shaft, with mining activities taking place above 48 Level and below 57 Level.

Existing underground access (shafts and level access) will be refurbished and re-equipped. Target No 2 and Target No 3 shafts will, over the course of the mine's life, be used for the movement of men, material and rock depending on which phase the mine is in. All ore produced from the underground mining operation will be transported to the existing Target 1 metallurgical plant for processing.

Table 5-1: The advantages and disadvantages of underground mining activities.

Option	Advantage	Disadvantage
Underground mining activities	• Minimises need for new shaft sinking. • Refurbishing and re-equipping the existing infrastructure significantly limits new construction requirements and speeds up project initiation. • Making use of the existing Target 1 metallurgical plant, remove the need for a new processing plant. • Reduces extensive surface excavation and avoids the creation of large open pits, while enabling access to deeper mineralised reef deposits. • Allows other surface land uses. • Minimises risk of relocation or displacement of local communities. • Positive economic benefits. • Lower chance of attracting illegal miners compared to open pits.	• Potential profits rely on substantial volumes of material that need to be mined and on the fluctuating price of commodities (e.g., the fluctuating price of gold). • Potential negative environmental effects during the operational phase of the project. • Potential lowering of groundwater levels due to dewatering needs. • Deep mining increases geotechnical risks (heat, rock stress, seismicity). • Potential for long-term subsidence over mined-out areas. • Labour-intensive. • Increased demand for ventilation and support systems for safe operations. • High-risk working environment for underground personnel. • Potential community concern.

5.1.3 The Design and Layout of the Activity.

The proposed layout for the Proposed Project is illustrated in Figure 1-5 above. The layout is influenced by the potential mineral resource deposits identified during the exploration phase, as well as the availability of existing infrastructure situated within the Harmony Target Mine mining right area, to support the mining project. No new operational mining infrastructure is planned within the project area. **No alternative design and layout option considered.**

5.1.4 The Technology to be Used in the Activity

Industry best practice underground mining methods will be employed. Two mining methods have been identified as the most practical for exploiting the mineral resources: conventional breast mining and shrinkage stoping. The selection of each method is primarily based on the dip of the mineralised reef, with the shrinkage stoping being used for the steeper slopes (3% of the total stope tonnage). Where the orebody dips below 55°, conventional breast mining will be used. Further detail on the selected mining methods is provided in Section 1.7.

Ore will be transported to the shaft ore pass system using conveyor system loaded by a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump.

Table 5-2: The advantages and disadvantages of the technology to be used

Option	Advantage	Disadvantage
Conventional breast mining	• Highly suited for the majority of the orebody (<55° dip). • All ore produced in the stopes will be scraped into the ore passes. • Lower waste-rock generation because the method supports selective mining and improving ore waste separation. • Labour-intensive method supports local employment, skills transfer, and job creation.	• Higher direct worker exposure to blasting. • Handheld drilling and high-frequency blasting. • Larger stope voids may require additional support materials. • Delayed operations due to economic factors. • Stealing of project equipment and disruption of activities.
Shrinkage stoping	• Broken ore acts as a working platform. • Reduce worker exposure inside the stope, as personnel mainly operate from raises, travelling ways, or drawpoints rather than unsupported voids. • Improves extraction of narrow or irregular steep reef zones. • Limited machinery requirements inside the stope during active stoping.	• Ore must remain in the stope until final drawdown and may delay revenue generation as well as impacting early production schedules and plant feed. • Ground stability risk during final drawdown. • Higher blasting intensity. • Delayed operations due to economic factors. • Stealing of project equipment and

		disruption of activities.

5.1.5 The Operational Aspects of the Activity

The Proposed Project involves underground mining, targeting initial mineral resources located approximately 1,200 m below surface. As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of mined ore per month. Conventional breast mining and shrinkage stoping mining methods have been identified as the most practical, with the selection determined by the dip of the mineralised reef.

Ore will be transported to the shaft ore pass system using a conveyor system loaded by a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump. All ore will be processed at the existing Target 1 metallurgical plant.

The project's development includes utilising the available spare capacity within Harmony's existing infrastructure at the Target Mine. This includes the Target No. 3 and No. 2 shafts, the Target No. 1 Processing Plant, and associated surface infrastructure. All operational mining infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project area. Existing shafts and level access will be refurbished and re-equipped as required, and throughout the life of mine Targets 2 and 3 Shafts will facilitate the movement of personnel, materials, and rock.

To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary. Each station will include a small sensor pad/housing (approximately 5–10 m²), basic power/comms setup, 6 m of perimeter fencing per station (total 24 m), and short gravel access tracks (total approximately 1 km across all stations, 4 m wide). These installations represent the only surface infrastructures on the JV project area.

This will be reported on in greater detail in the EIA phase of the project following recommendations and findings from independent specialist studies.

Table 5-3: The advantages and disadvantages of the operational alternative considered

Option	Advantage	Disadvantage
Underground mining operation	• Utilising the available spare capacity within Harmony's existing operational mining infrastructure at the Target Mine, including the Target No. 3 and No. 2 shafts, the Target No. 1 Processing Plant, and the associated infrastructure significantly reduces the need for new construction and limits additional infrastructure development.	• Limits flexibility in mine layout optimisation due to fixed infrastructure positions. • Potential profits rely on substantial volumes of material that need to be mined and on the fluctuating price of commodities (e.g., the fluctuating price of gold). • Potential negative environmental effects during the operational phase of the project.

	• Minimises need for new shaft sinking. • Reduces extensive surface excavation and avoids the creation of large open pits, while enabling access to deeper mineralised reef deposits. • Allows other surface land uses. • Minimises risk of relocation or displacement of local communities. • Positive economic benefits. • Lower chance of attracting illegal miners compared to open pits.	• Potential lowering of groundwater levels due to dewatering needs. • Deep mining increases geotechnical risks (heat, rock stress, seismicity). • Potential for long-term subsidence over mined-out areas. • Labour-intensive. • Increased demand for ventilation and support systems for safe operations. • High-risk working environment for underground personnel. • Potential community concern.

5.1.6 The "No-Go" Option

The option of the Proposed Project not proceeding would mean that the environmental and social status would remain the same as current. This means that both the potential negative and positive impacts associated with the Proposed Project would not occur. As a result, negative impacts on water resources and other environmental aspects would be avoided. However, positive impacts such as economic development, employment creation, skills development, and poverty alleviation would also not materialise.

Negative impacts that would be avoided include, but are not limited to, the dewatering of the deep aquifer and various socio-economic effects, such as potential community conflict and increases in certain social challenges (e.g., in-migration and potential increases in crime).

Potential positive impacts associated with the project include future employment opportunities, which may help reduce unemployment and support improved livelihoods within local communities. In addition, the project could stimulate the local economy, potentially contributing to further development and community empowerment.

Should the Proposed Project not proceed, the aforementioned positive economic and social impacts would not be realised. Furthermore, the mineral reserves in the project area would remain unmined. The benefits associated with the proposed underground mining project will be lost, and the current socio-economic conditions, particularly those affecting surrounding communities would remain unchanged.

6. Public Participation

The Public Participation Process (PPP) offers stakeholders an opportunity to be informed about the Proposed Project, to raise issues and to make suggestions for enhanced project benefits. The PPP will be undertaken to ensure compliance with the relevant legal framework applicable to the Proposed Project.

The PPP is designed to build and maintain constructive relationships. It is an ongoing process between the applicant and the Project's stakeholders that extends throughout the life of the Project. The PPP for the Project ensures that adequate and timely information is provided to all potentially Project-affected people and other stakeholders, that stakeholders are given sufficient opportunity to raise comments, and that these comments are taken into consideration during Project decisions.

6.1 Applicable Legislation

The PPP as required by the environmental laws and regulations specified therein was followed as best practice. The PPP was undertaken in line with the statutory requirements for public participation. The following legislation was considered when developing and implementing the PPP:

- National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).
- The Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) (EIA 2014 Regulations).
- Public Participation guideline in terms of NEMA.
- The National Water Act, 1998 (Act No. 36 of 1998) (NWA).
- National Environmental Management: Waste Act, 2008 (Act No 59 of 2008) (NEM:WA) and the List of Waste Management Activities (GN R921 of 29 November 2013, as amended).
- Protection of Personal Information Act, 2013 (Act No. 4 of 2013) (POPIA).
- Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA).

NEMA mandates public participation for environmental decision-making, ensuring affected communities have a voice in development projects through the EIA Regulations, 2014. The NEMA Public Participation Guideline (in terms of the EIA Regulations) is a mandatory part of the (EA process, aiming for transparent, informed decisions that promote sustainable development by integrating social, economic, and environmental factors.

The POPIA regulates the processing of personal information by both public and private bodies, aiming to protect individuals' constitutional right to privacy.

The PAIA gives effect to the constitutional right to access information held by both the state and private bodies. The Act establishes procedures for individuals to request information for the protection or exercise of their rights

In addition to the above legislation, the PPP needs to be aligned to International good-practice guidelines for public participation, particularly in regard to the following Core Values of the International Association for Public Participation (IAP2).

- Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
- Public participation includes the promise that the public's contribution will influence the decision.
- Public participation promotes sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers.
- Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
- Public participation seeks input from participants in designing how they participate.
- Public participation provides participants with the information they need to participate in a meaningful way.
- Public participation communicates to participants how their input affected the decision.

6.2 Objectives of the Public Participation Process

The PPP objectives for this Project include the following:

- Ensure that stakeholders are informed about the development of for the Project in an adequate and timely manner;
- Provide stakeholders with the opportunity to participate in the environmental regulatory processes and provide comment;
- Involve stakeholders in identifying ways in which comments can be addressed;
- Work directly with stakeholders throughout the environmental regulatory processes to ensure that stakeholder comments are consistently understood and considered; and
- Verify that stakeholder comments have been recorded and addressed.

6.3 Scoping Public Participation

The Public Participation activities involve a comprehensive stakeholder engagement process for the Proposed Project. This includes identifying stakeholders through WinDeed searches and compiling a stakeholder database, followed by consultations with landowners, occupiers, relevant communities and relevant authorities such as ward councillors through virtual or in-person meetings. Key tasks include preparing and distributing project announcement materials (such as Background Information Documents, registration sheets, advertisements, site notices, and notification letters), conducting land claims enquiries, and ensuring stakeholders receive project details and specialist study information. The process also involves obtaining initial and subsequent comments from stakeholders, updating the stakeholder database, making the Scoping Report available for public review, and communicating stakeholder feedback to specialists and the applicant.

Stakeholders are informed about specialist studies, and environmental reports, with opportunities provided for public review and comment during scoping and impact assessment phases. Feedback and comments from Interested and Affected Parties (I&APs) are recorded, communicated to specialists and the applicant, and addressed in mitigation measures. The process concludes with notifying all registered stakeholders of the competent authority's decision and explaining the appeal process.

6.4 Consultation Approach

Consultation during the Scoping phase aimed at providing stakeholders with an overview of the Project and to obtain comments to inform specialist studies and Project planning. Stakeholders were invited to participate through online and in-person engagements depending on preference. The purpose of these meetings is to discuss the Project, contents of the DSR, provide stakeholders with an opportunity to raise their comments and to interact with the Project team members. Locality, infrastructure and land tenure maps will be distributed as part of these meetings.

The following meetings will be held:

- **Authority Meetings:** Meetings will be held with the relevant Authorities.
- **Landowner Meetings:** Consultation meetings will be held with directly and indirectly affected landowners.
- **Online Meeting:** Online meeting will be held with stakeholders who prefer online engagements.
- **Broader Public Consultation Meeting:** An Open Day will be held with the broader public during the public review period.

Focused efforts will be made to engage with directly impacted stakeholders (those residents in the proposed project area). Meetings will be held in a culturally appropriate manner, allowing stakeholders to voice their

opinions and/or concerns openly. To respect the social and political hierarchy in the project area, meetings with the local and traditional leadership structures might be held prior to wider communication with the broader public but these meetings will be made known to the communities and will not displace community engagement. All affected communities and groups will be made aware of the project feedback.

Stakeholders will also be given the option to raise issues in the language of their choice, and where translation is required, it will be provided.

Stakeholder meetings will be accessible, and adequate notice will be given to stakeholders to encourage stakeholder involvement and participation. Mobilisation of stakeholders will be done for Authorities, NGOs, landowners / land occupiers and community members to promote attendance, by means of telephonic consultation and distribution of emails and SMSs.

Considerations for the engagement process:

- All proof of correspondence with stakeholders will be recorded and included as appendices to the environmental reports.
- The proposed approach to engagement and communication methods will be verified and updated where necessary during the stakeholder engagement process.
- All comments raised by stakeholders during these meetings will also be captured into the Comment and Response Report (CRR). Responses to comments will be provided in line with the overall project scope and available information.

6.5 Availability of the DSR for Public Review and Comment

Copy of the Draft Scoping Report (DSR) will be made available for public review and comment for a period of 30 days during each phase. All stakeholders will be encouraged to download the reports from Kongiwe's website: https://kongiwe.com/projects/.

A non-technical summary of the reports will be compiled and distributed electronically to stakeholders and a hard copy provided to stakeholders with no access to the internet. A Hard copy of the non-technical summary will be distributed through the relevant community representatives and at the open day that will be held. If required, an electronic copy of the reports can be made available upon a request directed to the stakeholder engagement team.

Additionally, Public Libraries will be used to display a hard copy of the Draft Scoping Report and the non-technical summary of the DSR.

7. The Baseline Environment

At this stage of the scoping phase, only high-level desktop baseline studies have been conducted; however, specialist studies are on-going, and findings will be included in the EIA stage.

7.1 Climate

The Proposed Project is situated in Allanridge, within the Matjhabeng Local Municipality in the Lejweleputswa District of the Free State Province. Allanridge's climate is classified as Mid-latitude desert (BWk) under the

Köppen–Geiger system, based on 1 km global climate maps (Beck et al., 2018; Beck et al., 2023; Kottek et al., 2006), and is influenced by its elevation of approximately 1322m above sea level (asl).

7.1.1 Temperature

The temperature patterns in Allanridge reflect the climate of the Highveld interior plateau, with clear seasonal changes and large differences between daytime and nighttime temperatures. Long-term climate data show that Allanridge has a mean annual temperature of about 22.26 °C, which is slightly higher than the national average. This supports its classification as a warm semi-arid to mid-latitude desert environment. Figure 7-1 illustrates the average minimum and maximum temperature in Allanridge. The graph clearly indicates the fluctuations of the seasons, from summer in January to winter in July.

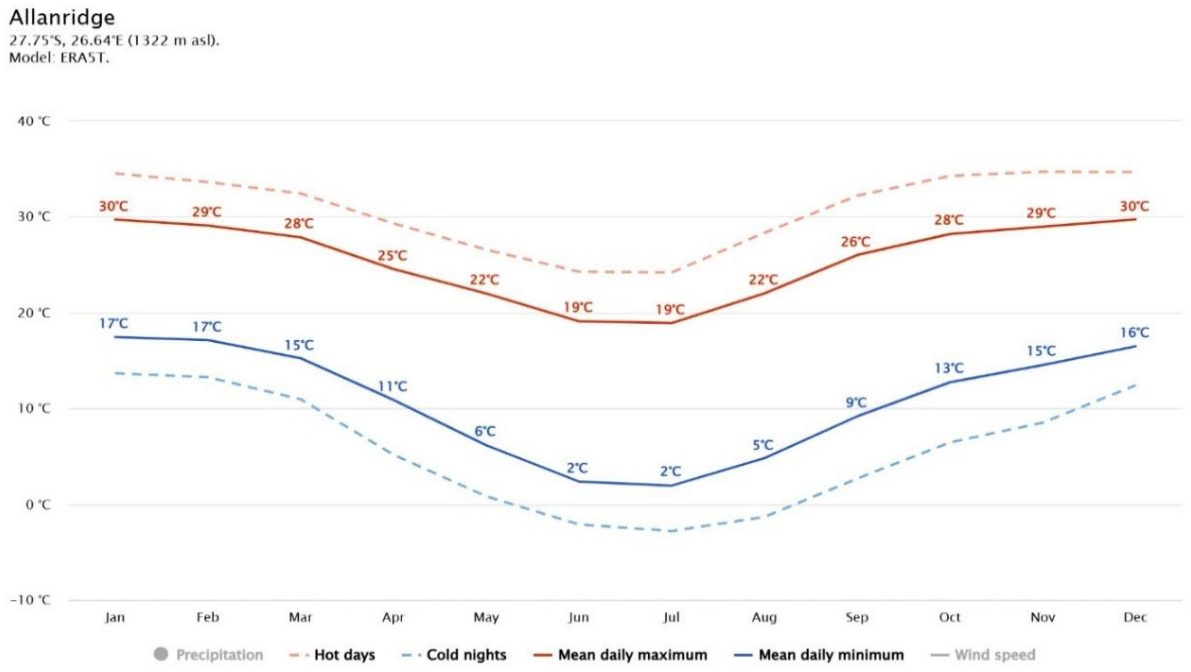


Figure 7-1: Average daily min and max temperature in Allanridge (Source: https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/allanridge_south-africa_1023287).

7.1.2 Regional Climate Rainfall

The area receives an annual rainfall of between 400 mm and 600 mm. Thunderstorms mainly occur in the project area during summer, from October to April, and account for most of the summer precipitation. January and December has the most rainy days, while July has the fewest rainy days. The wettest period falling between November and March. The dry season occurs between May and September.

Rainfall data from 1980 to 2016 was sourced from the National Aeronautics and Space Administration's (NASA) Modern-Era Retrospective analysis for Research and Applications, Version 2 (MERRA) dataset. The possibility of wet days in Welkom varies notably throughout the year. The mean monthly rainfall is indicated in Figure 7-2. Rainfall is highest in the months of October to April, and lowest over May to September.

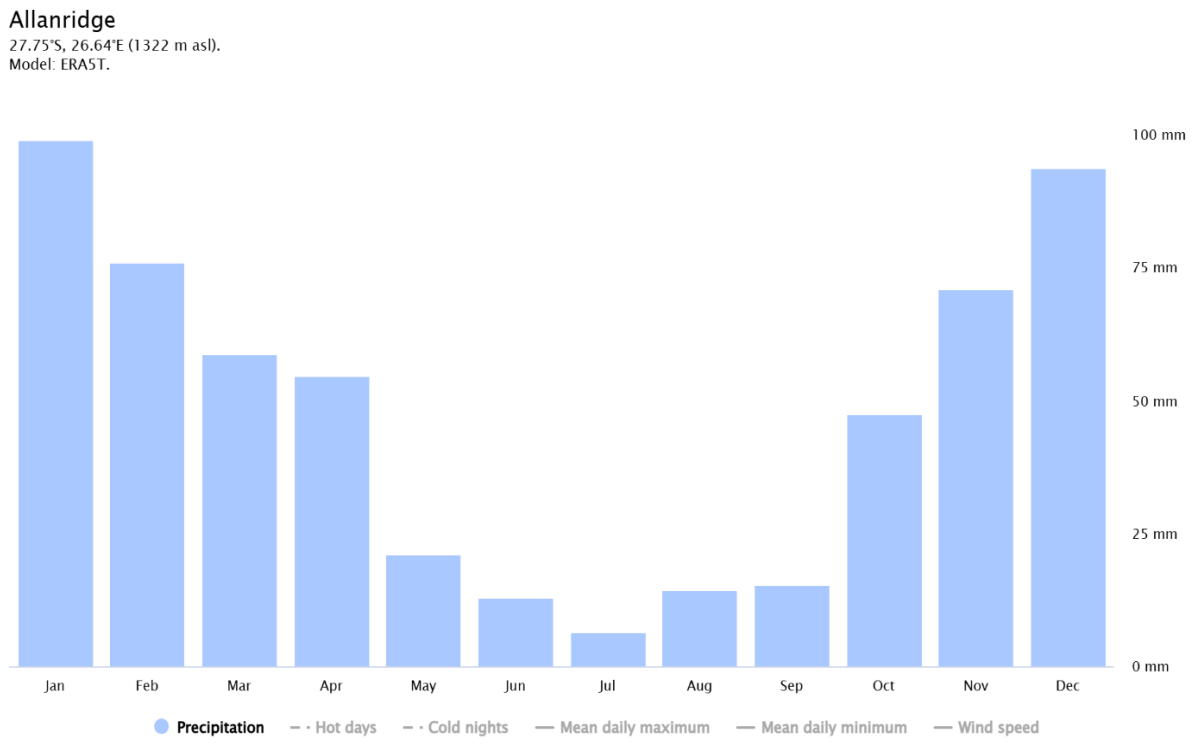


Figure 7-2: Mean monthly rainfall for the area

More than 79% of the mean annual precipitation occurs in the six months period October to March and the storm rainfall depths in the vicinity of Welkom were extracted from the Design Rainfall Estimation in South Africa software programme (Smithers and Schulze, 2002). The programme uses the six closest rainfall stations to a user specified position to calculate the storm rainfall depths. The extracted storm rainfall depths for the project are indicated in Table 7-1.

Table 7-1: Storm rainfall depth for the area

Storm Duration	Storm Rainfall Depth (mm)						
	1:2 yr	1:5 yr	1:10 yr	1:20 yr	1:50 yr	1:100 yr	1:200 yr
5 min	9	13	15	17	20	23	25
10 min	14	19	22	25	30	33	37
15 min	17	24	28	32	38	42	47
30 min	22	30	35	41	48	53	59
45 min	25	34	40	46	55	61	68
1 hr	28	38	45	51	60	68	75
1.5 hr	32	43	51	59	69	78	86
2 hr	35	48	56	65	76	85	95
4 hr	41	56	66	76	89	100	111
6 hr	45	61	72	83	98	109	121
8 hr	48	65	77	89	104	117	129
10 hr	51	68	81	93	110	123	136
12 hr	53	71	84	97	114	128	142

Storm Duration	Storm Rainfall Depth (mm)						
	1:2 yr	1:5 yr	1:10 yr	1:20 yr	1:50 yr	1:100 yr	1:200 yr
16 hr	56	76	90	103	122	136	151
20 hr	59	80	94	109	128	143	159
24 hr	62	83	98	113	133	149	165
1 day	51	69	82	94	111	124	138
2 day	63	85	101	116	136	153	169
3 day	71	96	114	131	154	172	191
4 day	77	104	123	142	167	187	207
5 day	82	111	131	151	178	199	220
6 day	87	117	138	159	187	209	232
7 day	90	122	144	166	196	219	242

7.1.3 Evaporation

Evaporation data were sourced from DWA's hydrological dataset (2012). Evaporation data were available between 2000 and 2012, and the average evaporation based on the data is provided in Table 7-2 (Jones & Wagener, 2017). The mean evaporation for 2019 is indicated in Table 7-3.

Table 7-2: Monthly and annual evaporation at the project area (2000 – 2012)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average	189	204	225	215	171	159	119	101	77	88	120	161	1 869
Minimum	92	99	105	100	95	93	82	76	63	57	64	59	997
Maximum	247	274	315	298	244	218	144	138	97	121	150	234	2 197

Table 7-3: Mean monthly and annual evaporation at the project area (2019)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Evaporation	206	163	146	110	86	69	78	107	147	184	202	213	1 711

7.2 Topography

The project area is situated in the Highveld area of South Africa and topography is relatively flat with low hills or 'koppies' ranging from approximately 1295m to 1305m above mean sea level ("mamsl").

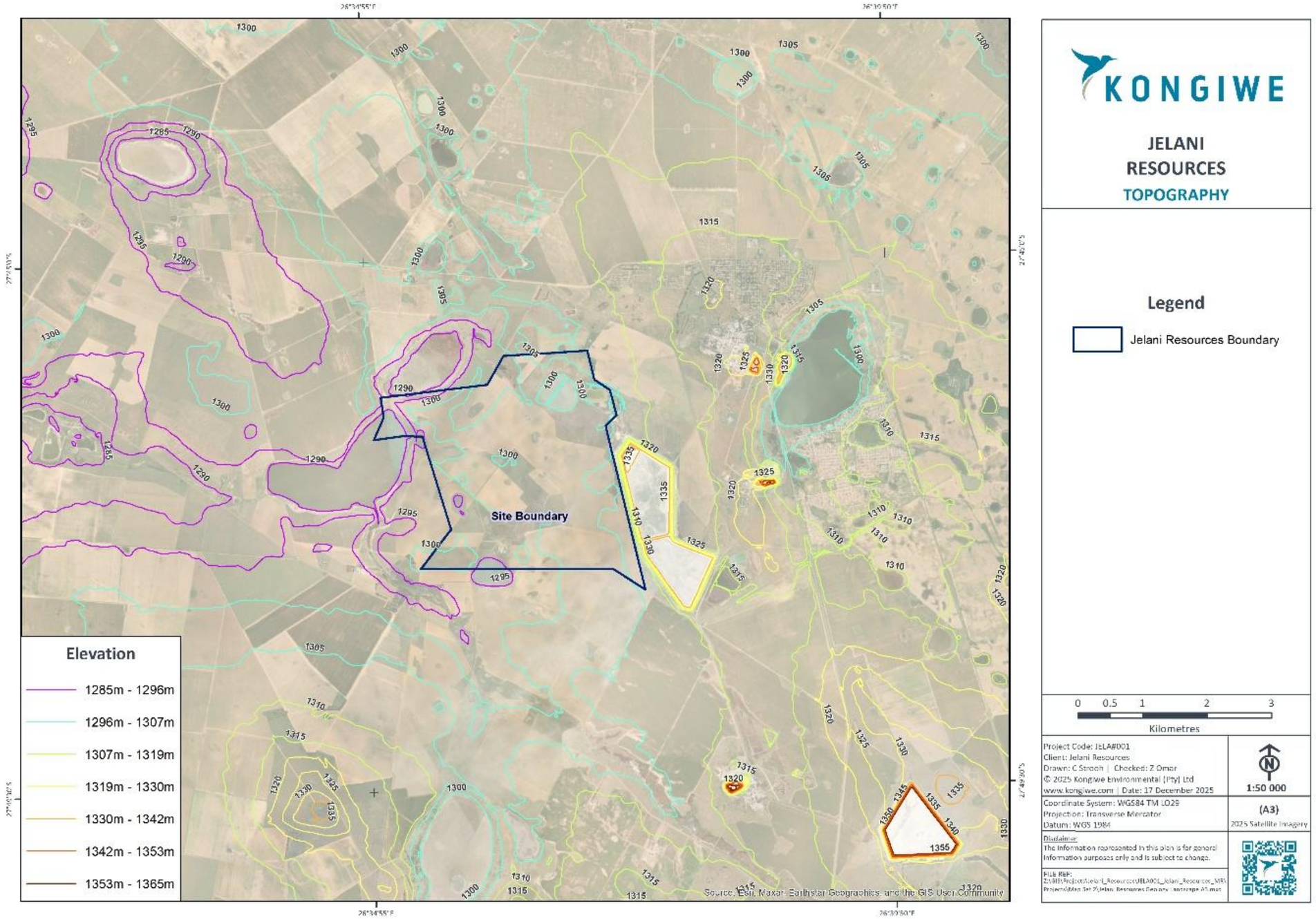


Figure 7-3: Topography of the project area.

7.3 Geology

The project area is located adjacent to the Target Mine area in the northwestern portion of the Free State Goldfield (locally also referred to as the Welkom Goldfield; Figure 7-4). The Free State Goldfield is located in a northward-striking, synclinal structure which is split near its axis by two major faults that structurally divide the Goldfield into a western (Odendaalsrus) and eastern (Virginia) section around the centrally situated De Bron Horst (Minter et al., 1986).

Information on the West Rand Group in the Free State Goldfield is sparse and, apart from near surface information close to the De Bron Horst, little is known of its stratigraphy or lithology (Minter et al., 1986). Observations from outcrops elsewhere in the Witwatersrand Basin indicate that the West Rand Group comprises mainly quartzite and shale with only very localised, gold poor conglomerates.

A number of sedimentary sequences, which represent unconformity-bounded, genetic packages, are defined in the Central Rand Group. These packages represent either separate fans or the reworked product of underlying fans (Minter et al., 1986).

The Central Rand Group exceeds 2 000 m in thickness in the northern part of the Goldfield, but thins southwards to less than 500 m due to internal erosional unconformities. The current stratigraphic subdivision of the Central Rand Group is illustrated in Figure 7-5 (McCarthy, 2006). The base of the Central Rand Group is marked by a conglomerate, named the Beisa Reef, which has a locally developed carbon seam in the southern part of the Goldfield. This reef contains appreciable uranium and some gold and was mined at Beisa Mine, which later became part of Oryx Mine.

The overlying Main and Randfontein Formations consist of locally pebbly, argillaceous or siliceous quartzite. The base of the Luipaardsvlei Formation (also referred to locally as the Welkom Formation), which overlies the Randfontein Formation, is marked by a zone of conglomerate up to 2 m thick. The latter are referred to as the Intermediate Reef Zone, which locally developed placers containing uranium and minor gold (McCarthy, 2006).

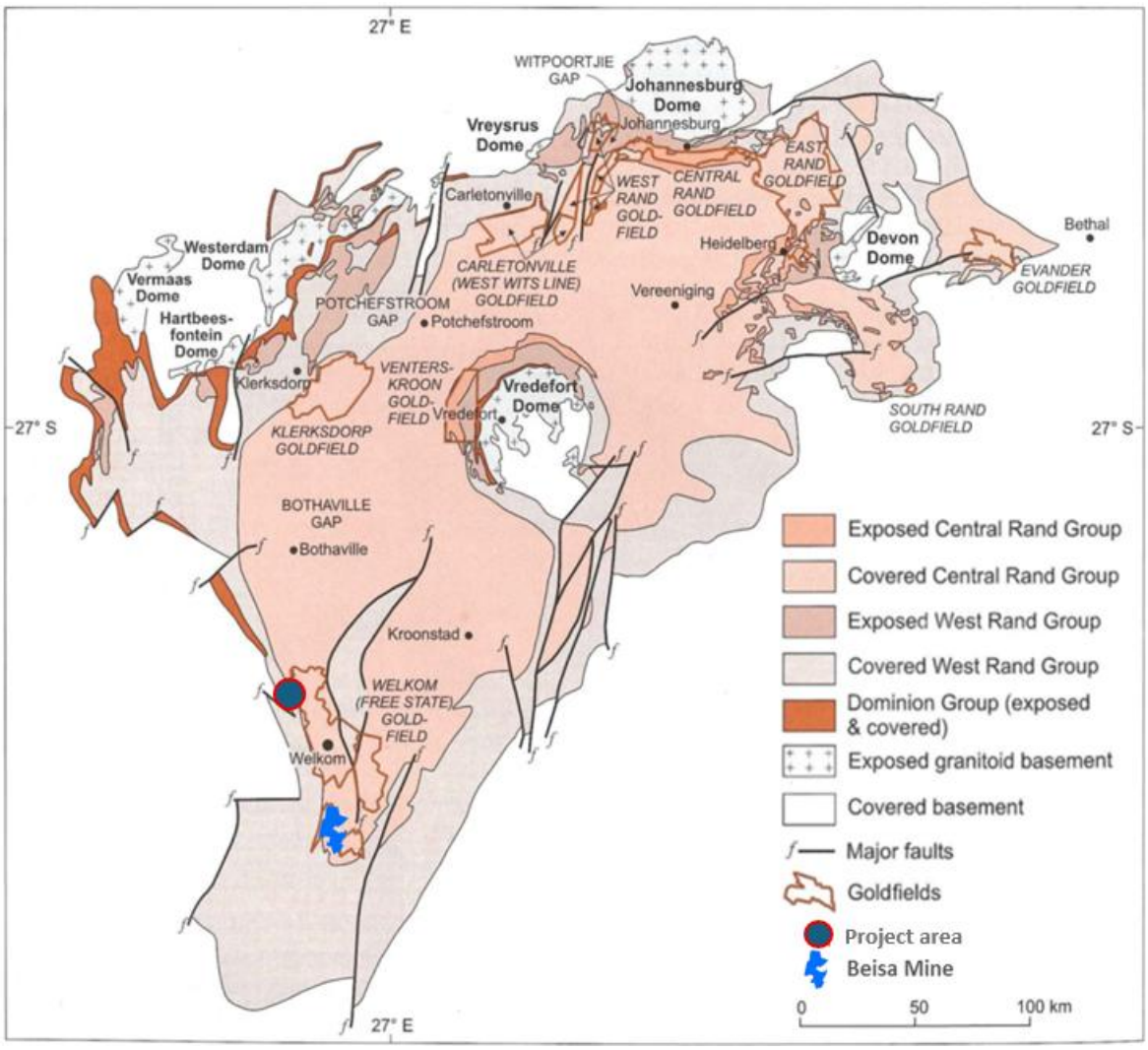


Figure 7-4: Sub-surface geological map of the Witwatersrand Basin showing the location of the project area (modified after McCarthy, 2006).

The Basal and Steyn reefs, upon which the wealth of the Free State Goldfield was founded, developed approximately 250 m higher in the stratigraphic column. The reefs deposited on an erosional surface at the top of the Luipaardsvlei Formation. The two conglomerates differ in their clast assemblage, the Steyn Reef being polymictic and the Basal Reef being oligomictic. The Steyn Reef is slightly younger than the Basal Reef. Underground observations indicate different provenances for the two placers, the Basal Reef being sourced mainly from the west and the Steyn Reef from the south (McCarthy, 2006). In the project area only the Basal Reef has been identified. A carbon seam often occurs at the bottom contact.

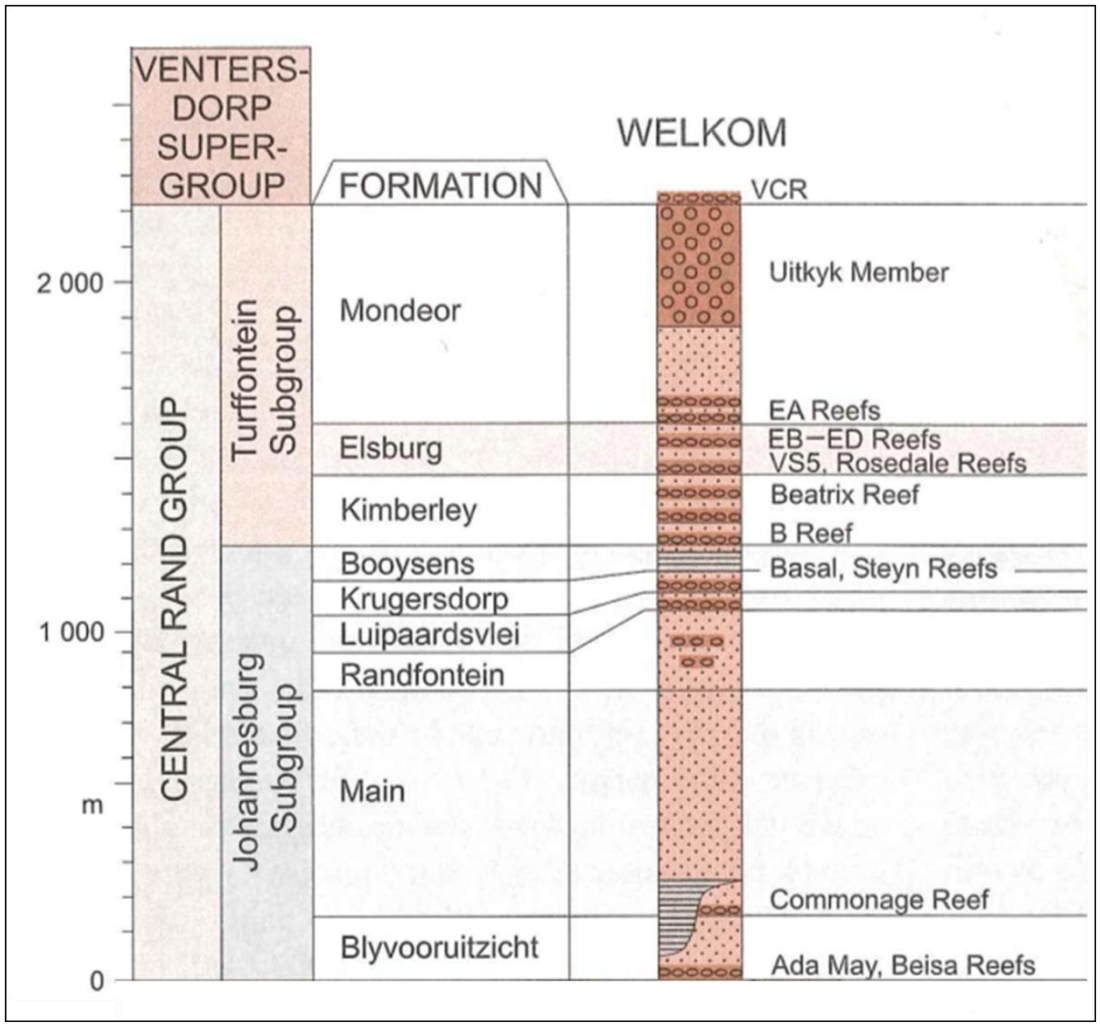


Figure 7-5: General stratigraphic subdivision of the Central Rand Group in the Free State Goldfield.

7.3.1 Local Geology

The geological setting of the project area, as illustrated in Figure 7-6, is characterised by a combination of sedimentary bedrock formations and surficial unconsolidated deposits. Two geological units underlie the project area: the Alluvial–Colluvial–Eluvial Deposits (NgQ) and the Volksrust Formation (Ro)

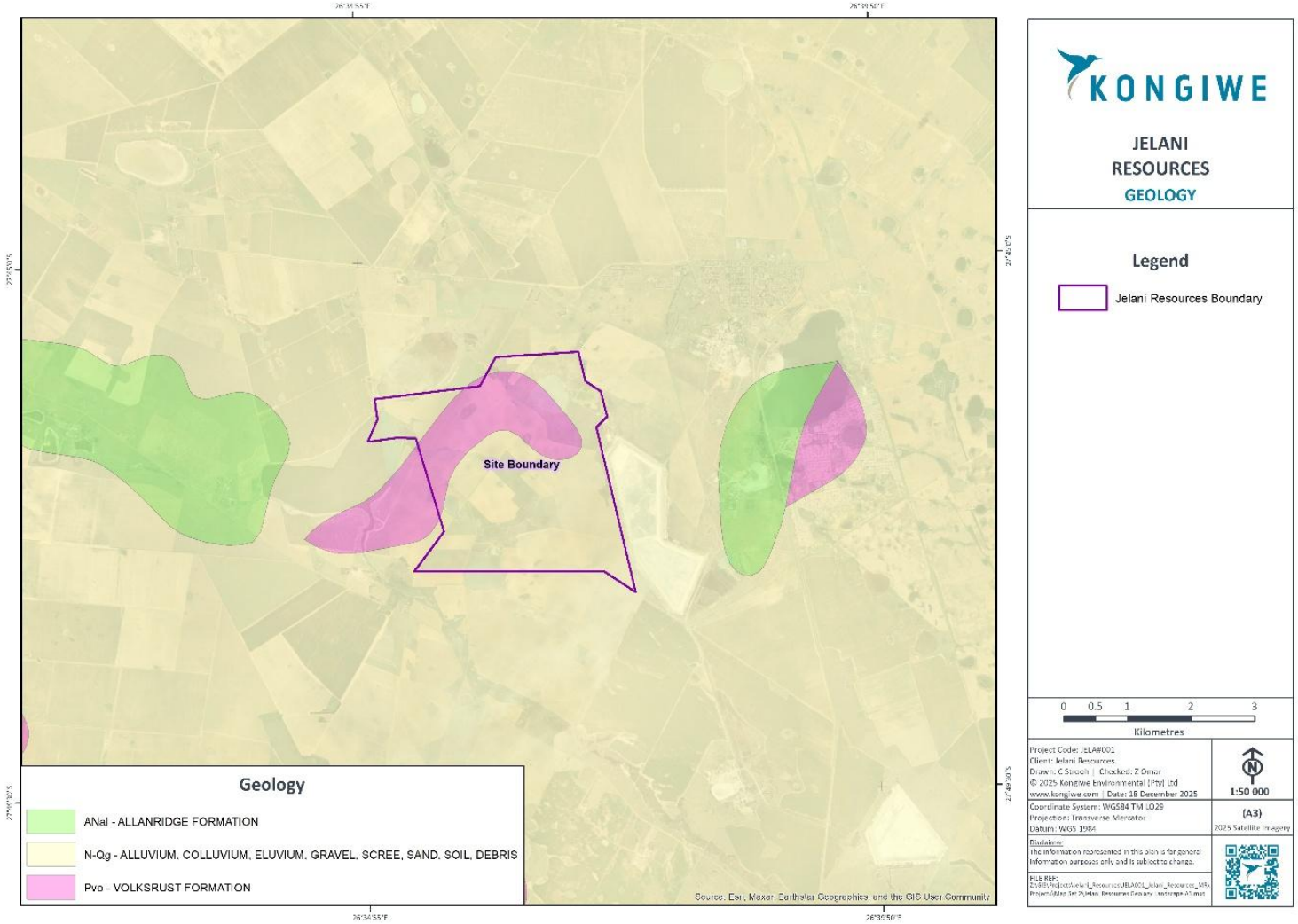
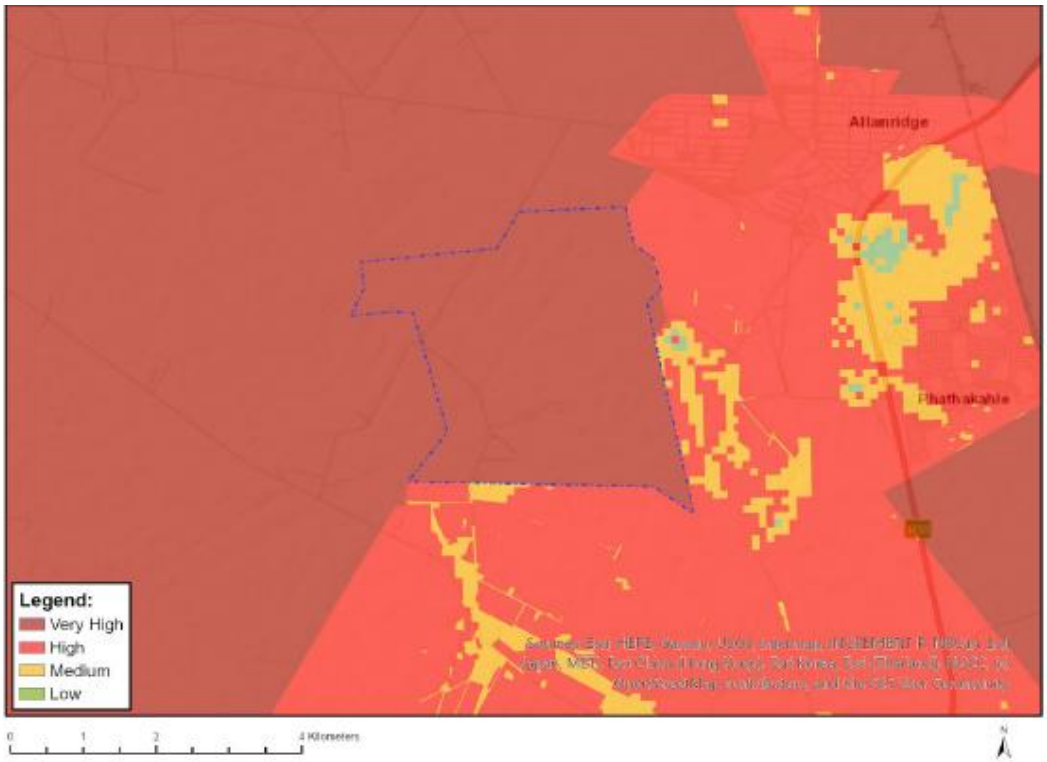


Figure 7-6: Geology map

7.4 Soils, Land Use and Land Capability

7.4.1 DFFE Screening Tool

According to the DFFE Screening Tool Report, the agriculture theme for the Proposed Project site has a very high sensitivity theme. See Figure 7-7 below. The land capability of the Proposed Project site will be investigated further during the EIA Phase.



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Old_Fields
High	Rainfed Annual Crop Cultivation / Planted Pastures
High	08. Moderate
High	09. Moderate-High
High	10. Moderate-High
Low	05. Low
Medium	06. Low-Moderate
Medium	07. Low-Moderate
Very High	Bothaville PAA

Figure 7-7: Agriculture Sensitivity Theme Map for the Proposed Project

7.4.2 Soil

The soil composition of South Africa is vast and unique and is composed of 73 soil forms. Soil forms are defined by the nature of the topsoil (organic, humic, vertic, melanic, silicic, calcic, duplex, podzolic, plinthic, oxidic, gleyic, cumulic, lithic and anthropic) (Fey, 2010).

The project footprint is predominantly underlain by Ae40 – Red-Yellow Apedal, Freely Drained Soils, which are characterised by red, high base-status profiles typically deeper than 300 mm, with no dunes. In addition to this dominant unit, there are smaller, patchy occurrences of Dc9 – Prismacutanic and/or Pedocutanic diagnostic horizons, which may include vertic, melanic, and red structured diagnostic horizons (Figure 7-8).

7.4.3 Land Use

The project boundary is currently utilised for agricultural purposes. Land uses within the immediate project boundary consist predominantly of cultivated fields, grassland, forested areas, waterbodies, and wetlands (Figure 7-9). The immediate surrounding landscape also includes existing mines and tailings storage facilities (TSFs), as well as transport infrastructure, electricity infrastructure, water supply infrastructure and various farming operations. Furthermore, the Proposed Project area is situated immediately adjacent to, and west of, the Harmony Gold Target Mine.

7.4.4 Land Capability

Most of the study area is dominated by moderate and moderate to high (08. Moderate) – (09. Moderate – High) land capability rating, while the remaining patches are characterised by (Low – Moderate) with a rating score of 06 – 07. The study area can be classified as having a good land capability to support agricultural cultivation of crops. This information will be verified during EIA phase (Figure 7-10).

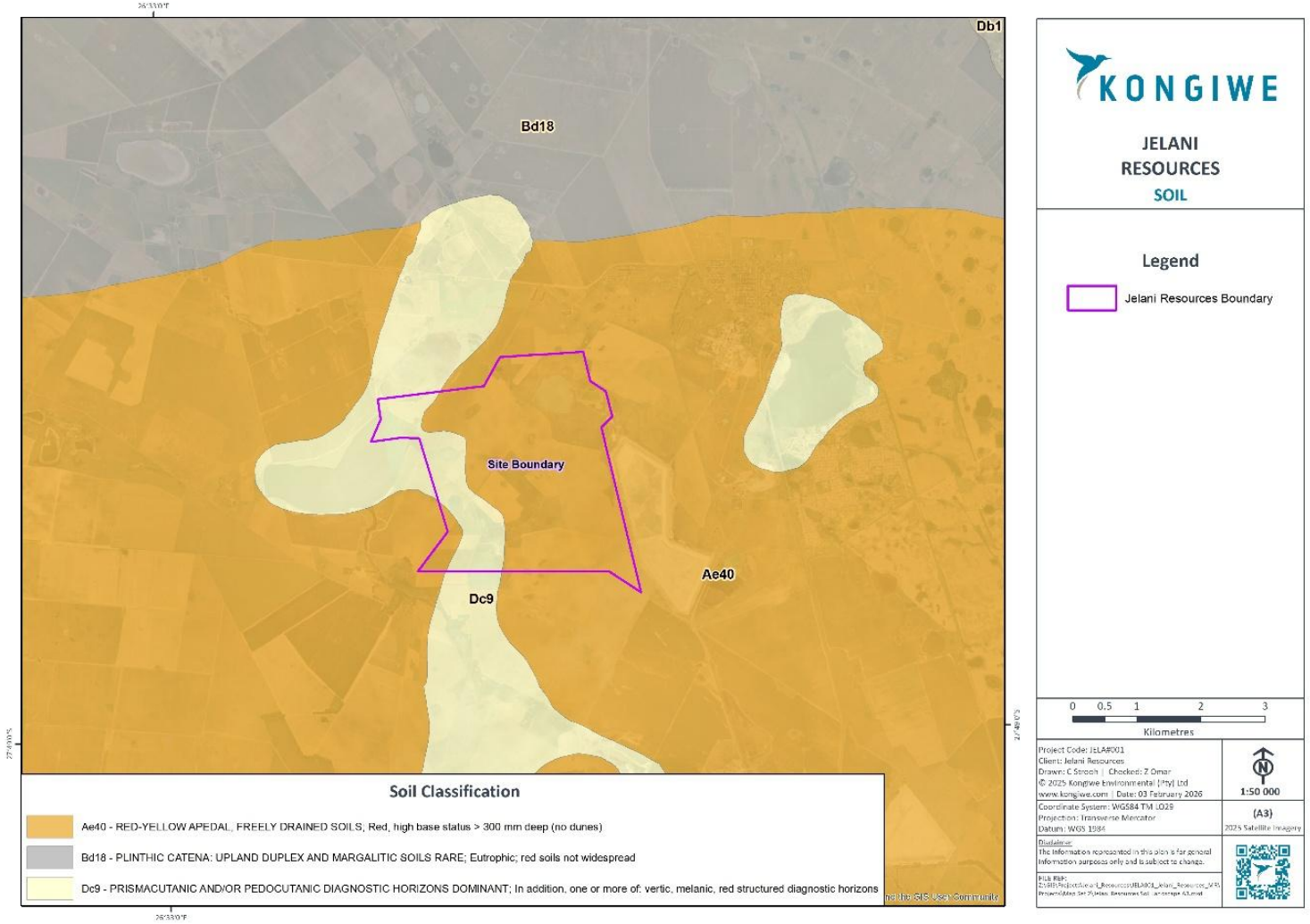


Figure 7-8: Soil type for the Proposed Project

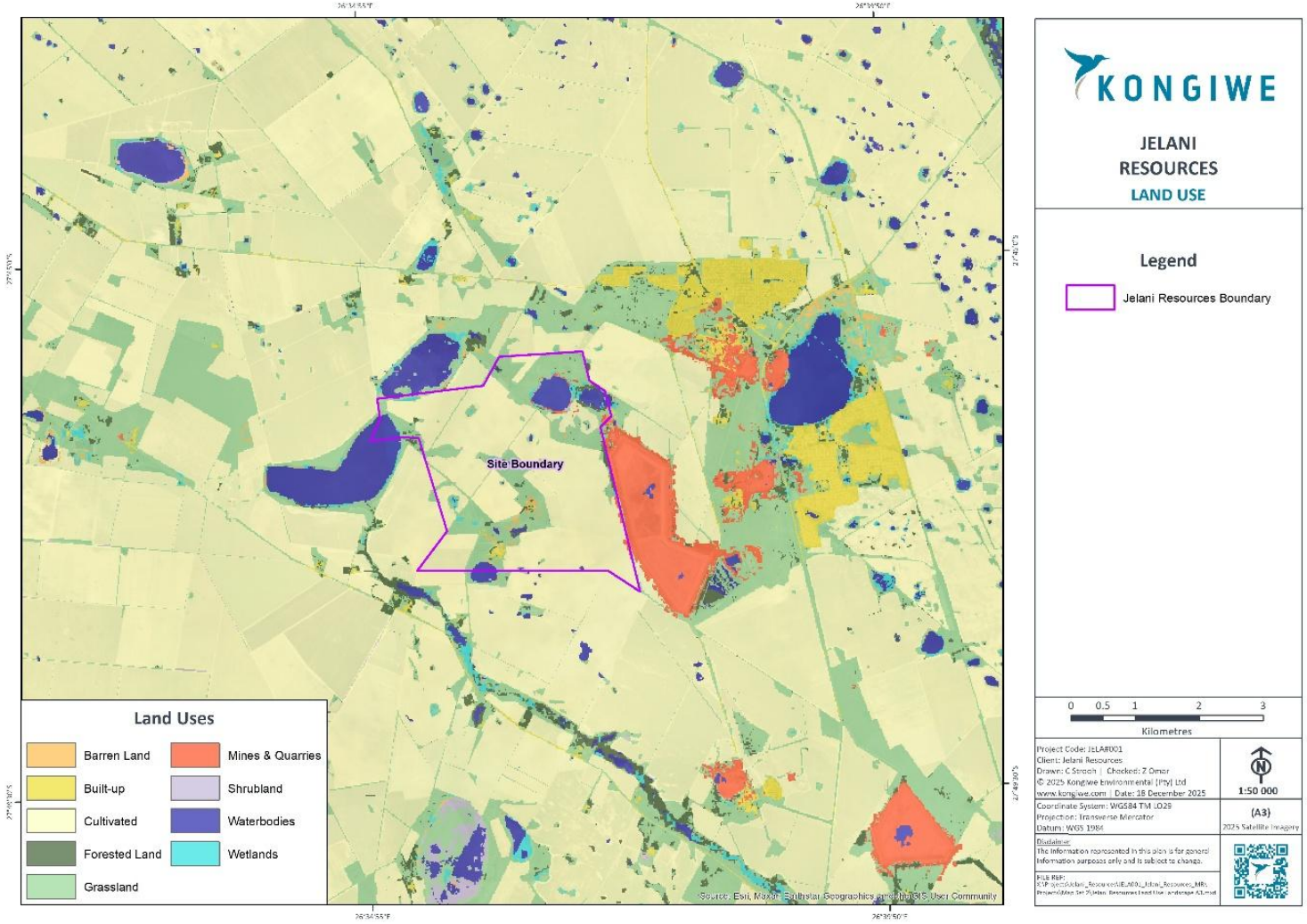


Figure 7-9: Land Use map for the Proposed Project

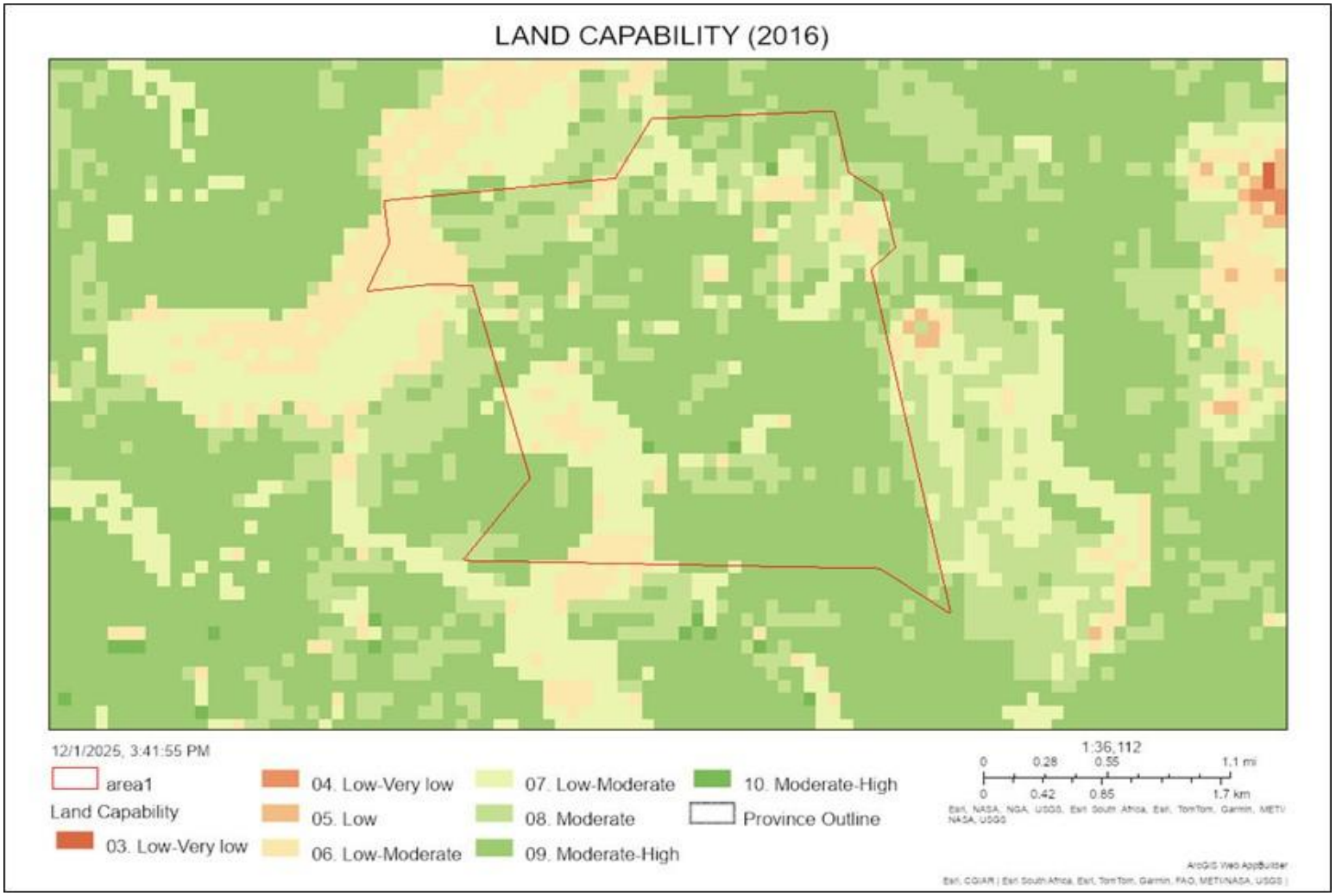
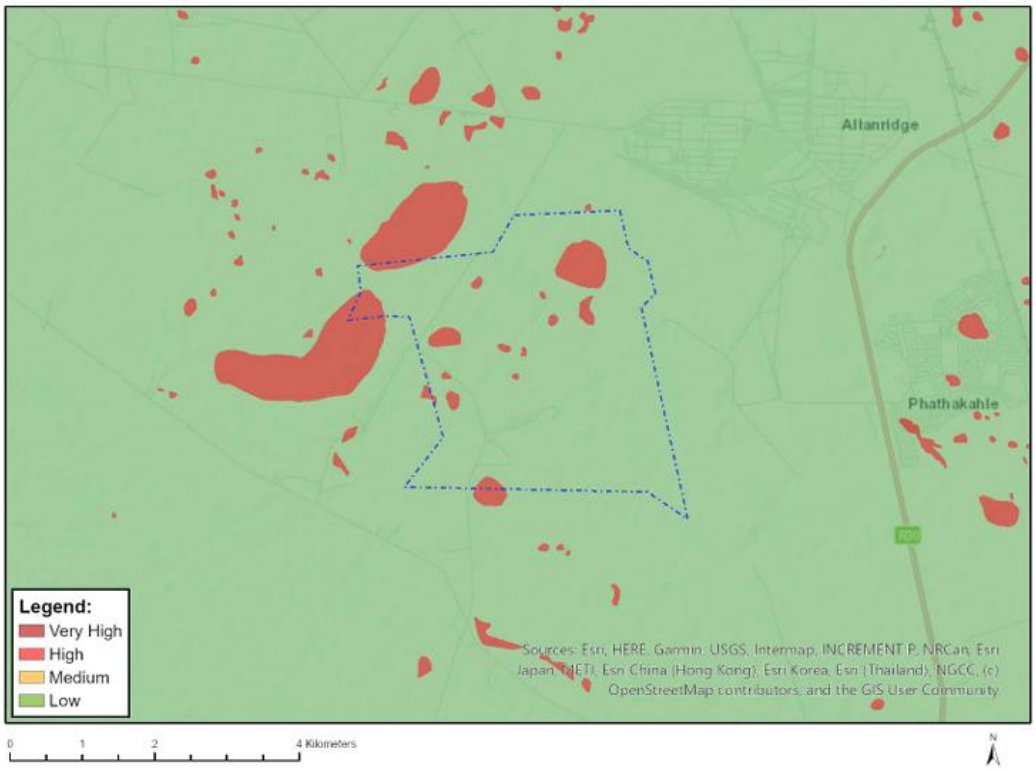


Figure 7-10: Land capability rating associated with the study area.

7.5 Surface Water, Wetland and Ground Water

7.5.1 DFFE Screening Tool

According to the DFFE Screening Tool Report, the Aquatic Biodiversity theme for the Proposed Project site has a very high sensitivity theme. See Figure 7-11 below. The freshwater ecosystems and hydrological characteristics of the site will be further assessed and verified during the EIA Phase.



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Wetlands_Depression
Very High	Wetlands_Unchannelled valley-bottom

Figure 7-11: Aquatic Biodiversity Sensitivity Theme Map for the Proposed Project

7.5.2 Surface Water

The Proposed Project is located within the Vaal Orange Water Management Area (WMA), specifically in quaternary catchment C25B. The surface water resource within the site boundary include a non-perennial river located to the north of the project area. Another non-perennial river is situated to the west of the site boundary.

The surface water map (Figure 7-12) indicates that the project area contains surface water areas, including wetlands.

The surface drainage across the project site is predominantly directed from the south-west toward the north-west (AquiSim, 2012). The Sandspruit is located approximately 8 km east of the site. It originates approximately 17 km to the south-east and flows in a south-east to north-west direction, ultimately discharging into the Vaal River.

A Hydrological Assessment will be conducted, and the findings will be included in the EIA Phase Report.

7.5.3 Wetland

A wetland is an area where water covers the soil, either seasonally or permanently. It can be saltwater, freshwater, or a mix of both. Wetlands function as distinct ecosystems and are characterised by vegetation adapted to wet soil (Keddy, Paul A, 2010).

National Freshwater Ecosystem Priority Areas (NFEPA) wetlands refers to wetland areas identified as part of South Africa's National Freshwater Ecosystem Priority Areas (NFEPA) project. NFEPA was developed to map and prioritise freshwater ecosystems including rivers, wetlands and estuaries that are important for biodiversity conservation and support national ecological processes. These priority areas help guide planning, conservation, sustainable land use and development decisions.

Types of wetlands that may occur in the areas surrounding the Proposed Project include the following:

- Unchannelled valley-bottom wetlands;
- Valley bottom wet areas;
- Seepage zones; and
- Seasonal depressional wetlands.

As indicated by the DFFE Screening Tool results in 7.5.1, wetlands are present within the Proposed Project area as well as in the surrounding landscape. Several wetlands (wetlands depression and unchannelled valley-bottom (UVB) were identified and delineated occurring inside the project footprint with additional wetlands to the west, north, and south-central parts of the site, refer to Figure 7-13.

The specific wetland types, their extent, condition and ecological function will be confirmed and presented in detail during the EIA Phase, following a comprehensive Freshwater and Aquatic Assessment.

7.5.4 Ground Water

Geohydrological specialist study will be undertaken as part of this EIA, and the findings will be included in the EIA Phase Report. The geohydrological setting and conceptual model of the study area will be described in accordance with the following key criteria:

- Borehole information;
- Aquifer type;
- Groundwater use;
- Aquifer parameters;
- Aquifer recharge;

- Groundwater gradients and flow;
- Groundwater quality; and
- Aquifer classification.

In a typical hydrogeological setting, groundwater flow and aquifer development are closely linked to the geology and structural geology of an area. There is no reason to believe that the area under investigation will not conform to this assumption and therefore the surface geology as depicted in Figure 7-4 forms the basis on which the conceptual hydrogeological model is based spatially. The nature and distribution of the geological units, and possibly geological structures control the hydrogeology of the study area. The aquifer(s) underlying the study area consist(s) mainly of hard rock aquifers associated with the Karoo Sequence sandstone, siltstone and shale (AquiSim, 2025).

According to Golder (2008), two main aquifers exist in the area; these are (a) a shallow aquifer associated within the weathered and fractured zone of the Karoo lithologies, and (b) a deeper aquifer which is developed in the fractured and faulted Ventersdorp and Witwatersrand rocks. These aquifer systems collectively influence groundwater availability, flow dynamics and potential connectivity to surface water features within the project footprint.

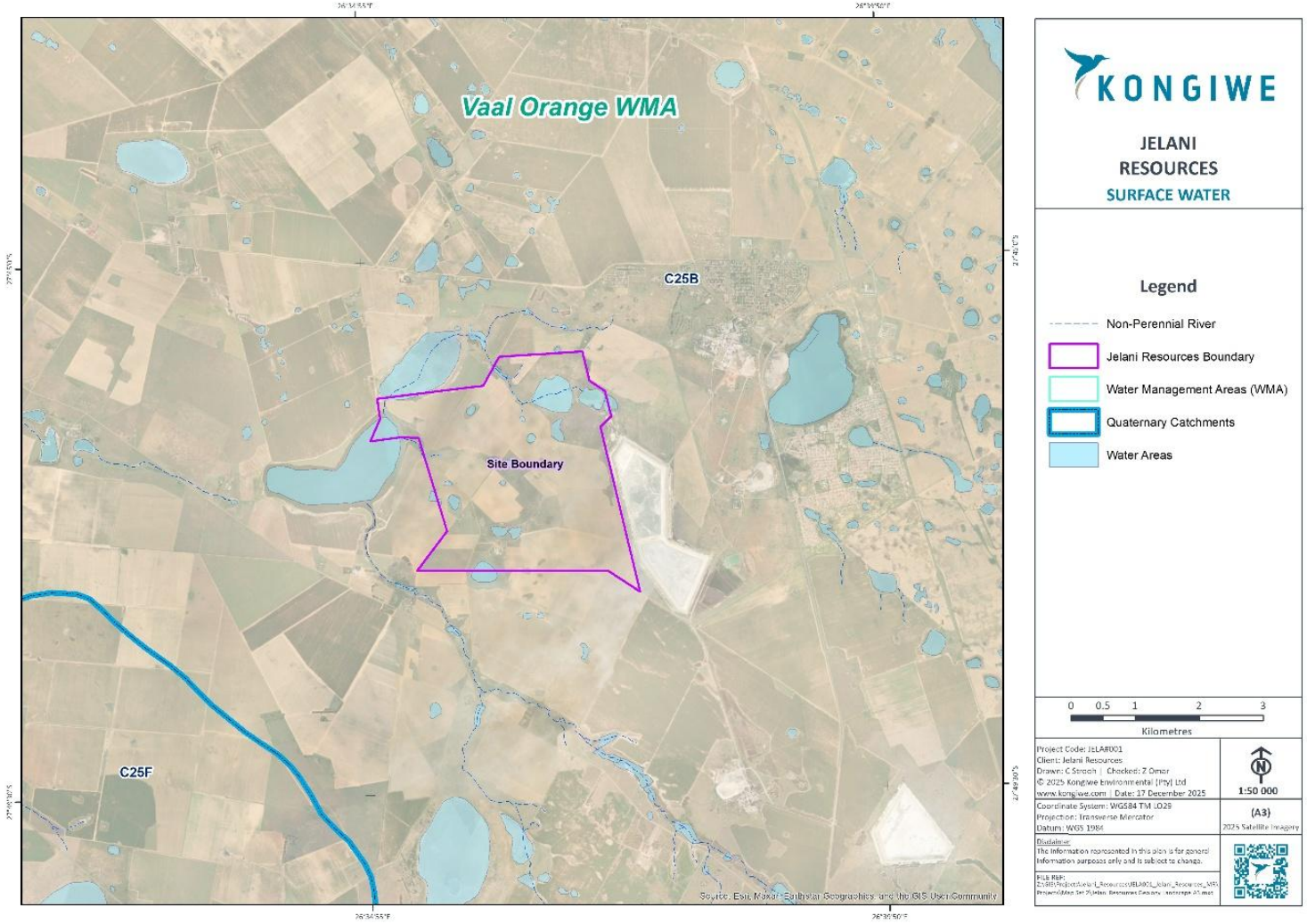


Figure 7-12: Surface water map for the Proposed Project

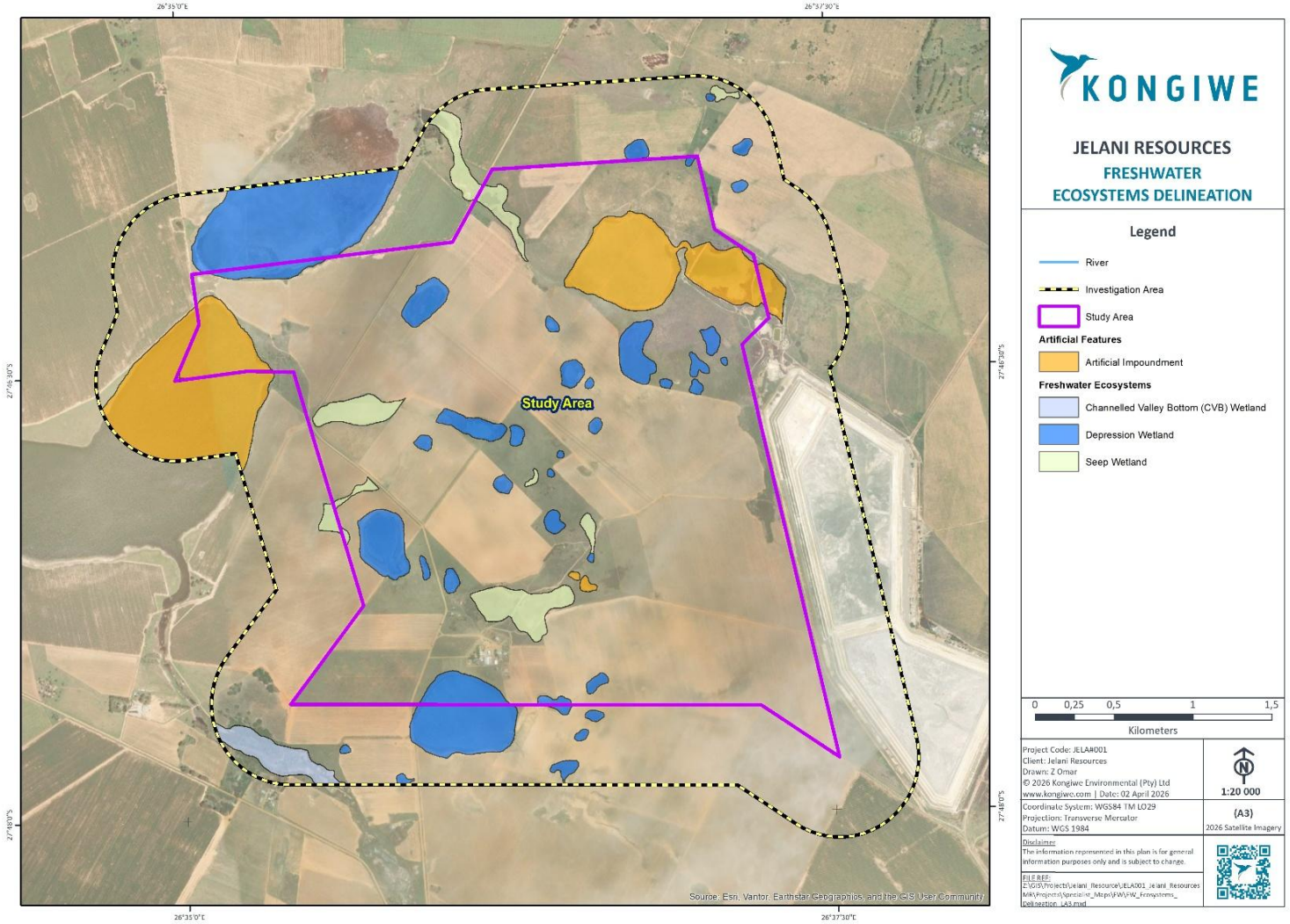
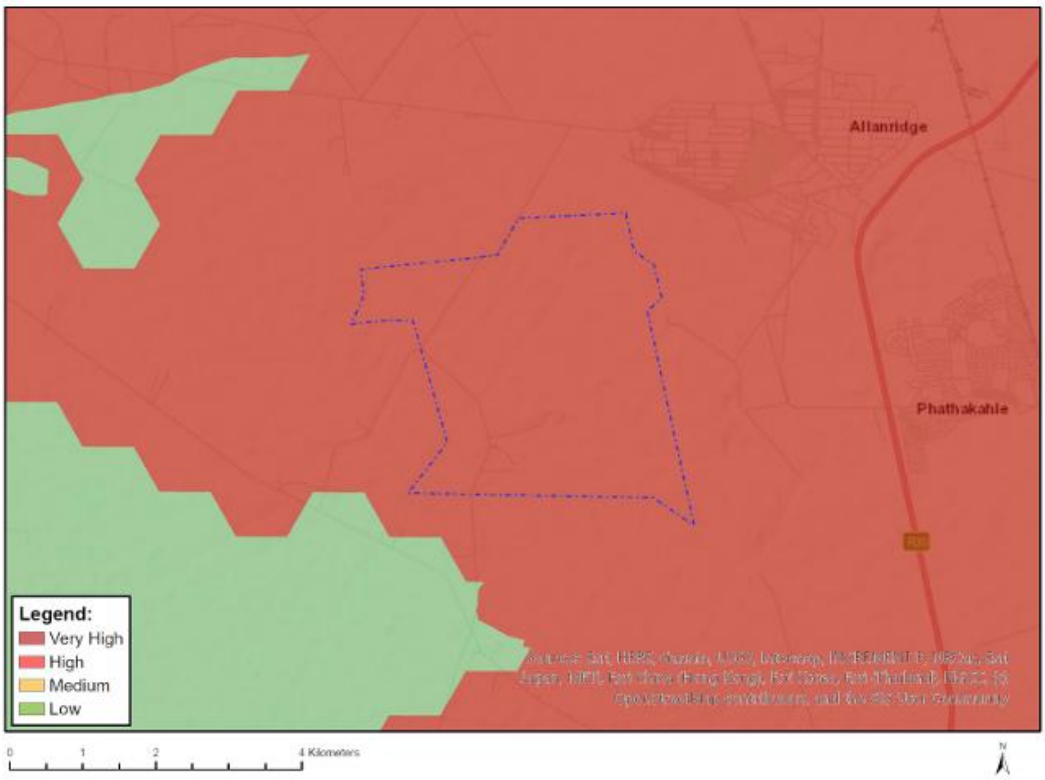


Figure 7-13: Wetland map for the Proposed Project

7.6 Biodiversity

7.6.1 DFFE Screening Tool

According to the DFFE Screening Tool Report, the Terrestrial Biodiversity theme for the Proposed Project site is classified as having very high sensitivity (Figure 7-14). The Plant Species theme is classified as low sensitivity (Figure 7-15), while the Animal Species theme is classified as medium sensitivity (Figure 7-16). A detailed assessment of the site's biodiversity will be undertaken as part of the Terrestrial Biodiversity Specialist Assessment Report, the Plant Species Compliance Statement, and the Terrestrial Biodiversity Faunal Assessment. These findings will be confirmed and further refined during the EIA phase.



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	CBA 1
Very High	ESA 1
Very High	ESA 2
Very High	EN_Vaal-Vet Sandy Grassland

Figure 7-14: Terrestrial Biodiversity Sensitivity Theme Map for the Proposed Project

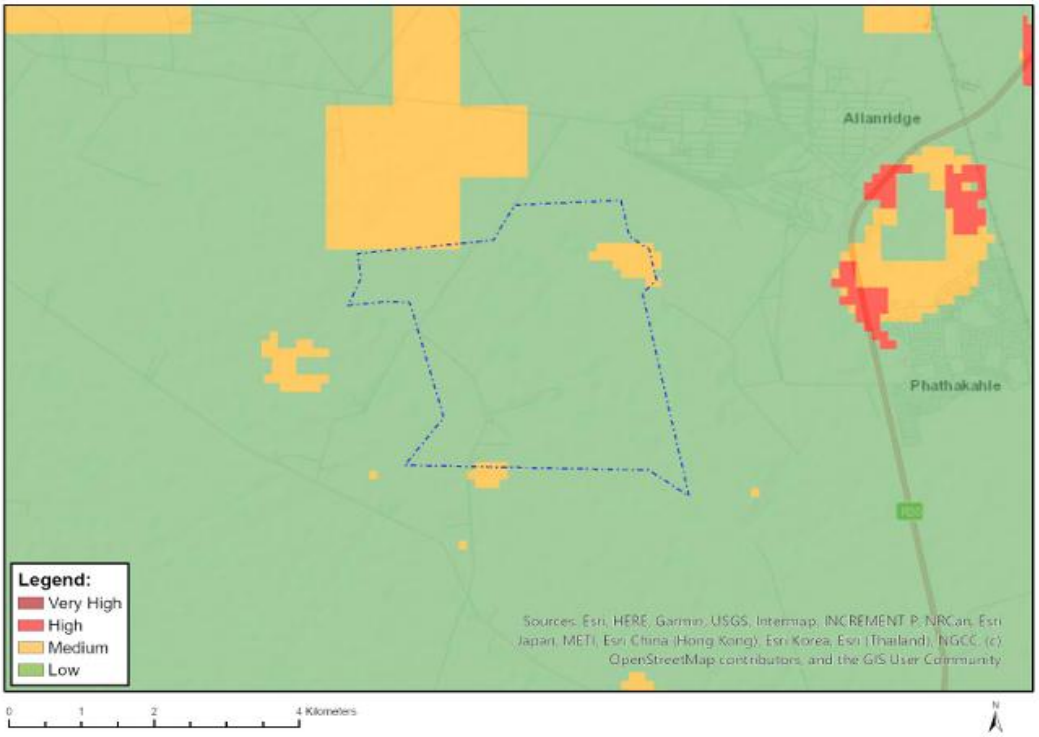
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their 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

Figure 7-15: Plant Species Sensitivity Theme Map for the Proposed Project



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	Subject to confirmation
Medium	Aves-Hydroprogne caspia
Medium	Mammalia-Hydrictis maculicollis

Figure 7-16: Animal Species Sensitivity Theme Map for the Proposed Project

7.6.2 Free State Biodiversity Conservation Plan

The Free State Conservation Plan (2024) classified areas on the basis of their contribution to reach the conservation targets within the province. These areas are classified as Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) to ensure sustainability in the long term. The CBAs are classified as either 'Irreplaceable' (must be conserved), or 'Important'.

CBAs are terrestrial and aquatic areas that need to be maintained in a natural or near-natural state to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services. Thus, if these areas are not maintained in a natural or near natural state then biodiversity targets cannot be met.

According to the DEA Screening Tool Report, the Proposed Project falls within a CBA 1 and an ESA 2 (Figure 7-14).

7.6.3 Flora

The project area is situated within South Africa's Grassland Biome, specifically in the Dry Highveld Grassland region of the Free State, as defined in the SANBI National Vegetation Map (2024). The National Vegetation Map serves as South Africa's official system for classifying and mapping vegetation types and is a key tool used in biodiversity planning. Grassland vegetation units such as Gh9 and Gh10 form part of this classification system. Within this biome, the site consists of two terrestrial vegetation types: Western Free State Clay Grassland (Gh9) and Vaal-Vet Sandy Grassland (Gh10) (Figure 7-17).

7.7.3.1. Western Free State Clay Grassland

The western portion of the site is located within the Western Free State Clay Grassland vegetation type (Figure 7-17), which is restricted to flat bottomlands that support dry, species-poor grassland with a high density of embedded salt pans (playas). In disturbed areas, dwarf karoo shrublands typically occur around these playas (Mucina & Rutherford, 2006).

According to Mucina and Rutherford (2006), Western Free State Clay Grassland are considered to be Least Threatened. The conservation target is 24%. Almost 20% already transformed for maize and wheat cultivation. A species of *Prosopis* appears as occasional invasive alien. Erosion very low (38%).

7.7.3.2. Vaal-Vet Sandy Grassland

The eastern portion of the site is situated within the Vaal-Vet Sandy Grassland vegetation type (Figure 7-17), which comprises slightly undulating plains dominated primarily by short *Themeda triandra-dominated grassland*. However, much of this vegetation is heavily grazed and often degraded. This region forms part of one of the most scenic landscapes of the Highveld, where the Vaal River cuts through the mountainous terrain of the Vredefort Dome within the Savanna Biome. Large granite boulders are characteristic of the area, creating diverse microhabitats that support a variety of plant species (Mucina & Rutherford, 2006).

According to Mucina and Rutherford (2006), the Vaal-Vet Sandy Grassland is classified as Endangered. The conservation target for this vegetation type is 24%, yet none of it is currently conserved within statutory protected areas. Nearly half of the vegetation type has already been transformed due to cultivation (primarily maize fields), urban development, and road construction. Erosion levels within the remaining habitat are considered very low (96%).

The Biodiversity Impact Assessment will be undertaken in the EIA Phase to confirm any sensitive floral species on site.

7.6.4 Fauna

According to the Screening Tool Report, the following sensitive species are likely to be on the project site:

- *Aves-Hydroprogne caspia*
- *Mammalia-Hydrictis maculicollis*

The Biodiversity Impact Assessment will be undertaken in the EIA Phase to confirm any sensitive faunal species on site.

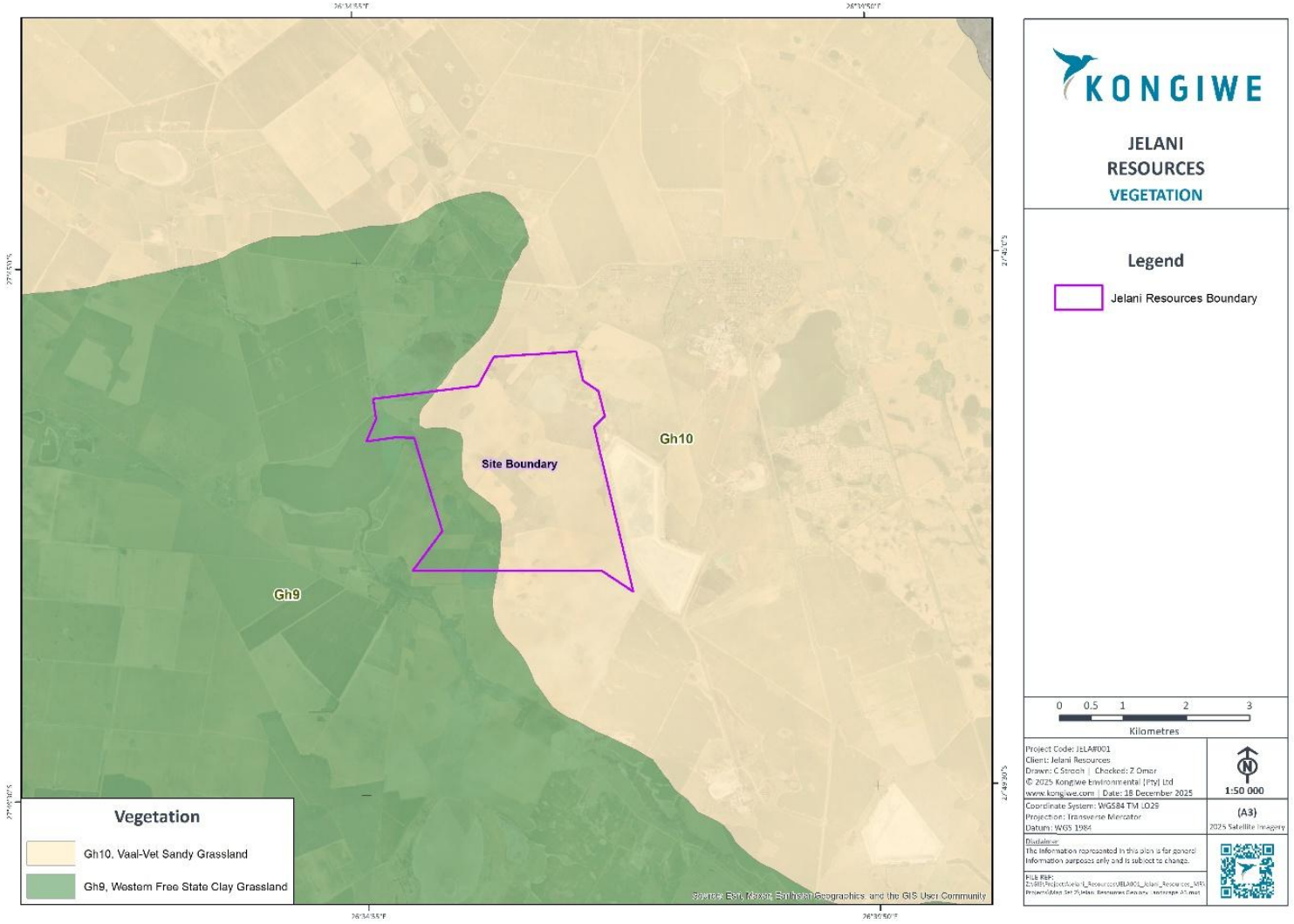


Figure 7-17: Vegetation map for the Proposed Project

7.7 Heritage and Palaeontology

7.7.1 DFFE Screening Tool

A heritage screening was conducted by means of the DFFE National Web-based Environmental Screening Tool. DFFE issued guidelines in April 2025 concerning the application of the screening tool in relation to cultural heritage, archaeology, and palaeontological themes. The guidelines indicate that the "theme layer represents a limited number of known heritage and palaeontological resources. These resources are widely distributed and may be present at any development site within South Africa. The guidelines state the following in terms of –

- HIA "Therefore, a Heritage Impact Assessment (HIA) must be undertaken for all developments, irrespective of the sensitivity shown on the archaeological and cultural heritage theme layer"
- PIA "Therefore, a Palaeontological Impact Assessments (PIAs) must be undertaken for all developments as per the PalaeoSensitivity Map provided on South African Heritage Resources Information System (SAHRIS), irrespective of the sensitivity shown on the palaeontology theme layer."

The guidelines further stipulate the requirements for both an HIA and PIA must:

Table 7-4: Requirements for HIA and PIA

Heritage Impact Assessment	Palaeontological Impact Assessment
• meet the requirements of section 38(3) of the NHRA or section 41(1) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No. 5 of 2018) (KNARIA), should the development be in KwaZulu-Natal (KZN); • must be undertaken by a qualified heritage specialist; • be undertaken in line with GN 326 Appendix 6; and • for HIA submitted to SAHRA the report must also comply with the requirements of the "2007 Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment Reports", accessible at https://sahris.sahra.org.za	• meet the requirements of section 38(3) of the NHRA or section 41(1) of the KNARIA should the development be in KZN; • must be undertaken by a qualified palaeontological specialist; • be undertaken in line with GN 326 Appendix 6; and • for PIA submitted to SAHRA, the report must comply with the requirements of the "2012 Minimum Standards: Palaeontological Components of Heritage Impact Assessments", accessible at https://sahris.sahra.org.za

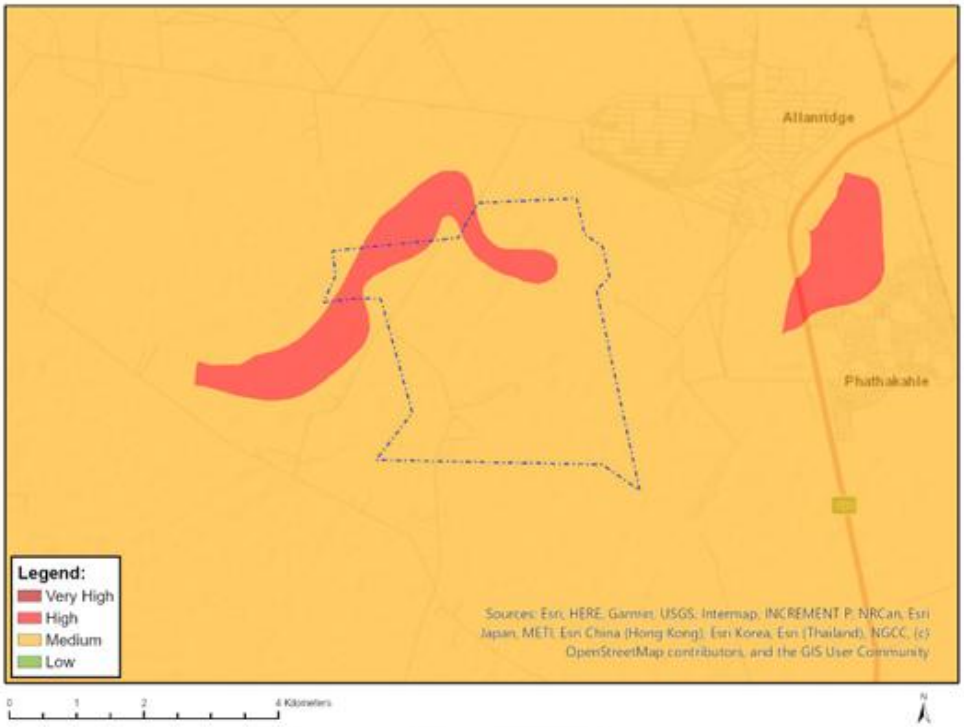
According to the DFFE Screening Tool Report, the Archaeological and Cultural Heritage Sensitivity Theme for the proposed development area is classified as low sensitivity (Figure 7-18), whereas the Palaeontological Sensitivity Theme is classified as high sensitivity (Figure 7-19). A Heritage Impact Assessment and a Palaeontological Impact Assessment will be undertaken during the EIA phase to verify these sensitivities and identify any heritage or palaeontological resources that may be present on site.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

Figure 7-18: Archaeological and Cultural Heritage Sensitivity Theme Map for the Proposed Project



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

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

Figure 7-19: Palaeontology Sensitivity Theme Map for the Proposed Project

7.8 Air Quality

Particulate Matter (PM) exists in the atmosphere as either solid or liquid particles varying in chemical composition and size, these particles can be considered as either primary or secondary pollutants. Particles can be classified by their aerodynamic properties into coarse particles, PM10 and fine particles, PM2.5 (Harrison and Van Grieken, 1998). The fine particles contain the secondarily formed aerosols such as sulphates and nitrates, combustion particles and re-condensed organic and metal vapours. The coarse particles contain earth crust materials and fugitive dust from roads and industries (Fenger, 2002). It is the amount of fine dust and the chemical and mineralogical composition of the dust which will dictate the potential for health impacts (Schwegler, 2006).

The respective size of the particle is important because that determines where in the respiratory system that particle may cause harm. Particles with a diameter equal to or less than 10µm and 2.5µm (commonly referred to as PM10, and PM2.5) are of the perfect size to cause harm within the upper and lower portions of the respiratory tract of the exposed individual, which may lead to cardiovascular and respiratory illness (Kampa and Castanas, 2008).

Air quality in mining dominated regions such as Allanridge, located within the Lejweleputswa District of the Free State Province, is shaped by a long history of gold-mining operations, tailings storage facilities, haul-road traffic, and associated industrial activities. Numerous studies have shown that mining affected communities in the district remain exposed to elevated particulate concentrations and that the region suffers from inadequate air-quality monitoring system (Mbele & Masinde, 2020).

According to the Matjhabeng Integrated Development Plan (IDP) 2024–2025, there are no ambient monitoring station in Matjhabeng Local Municipality to measure the quality of air. However, the anthropogenic activities (human) when combined with environmental activities are one of the primary drivers and pressures affecting air quality in the municipality. The main drivers are agriculture, mining, domestic fuelling, wastewater treatment, solid waste disposal, livestock and industrial activities. The main pressures on air quality are increased concentrations of particulate matter (PM10 and PM2,5), Sulphur dioxide (SO2), Nitrogen Oxide (NO2) and Ozone.

Modelled air-quality information, including the Air Quality Index (AQI), indicates that the Matjhabeng Local Municipality fall in the Moderate to Unhealthy, which has significant health impacts on vulnerable groups.

Air Quality Specialist Assessment study will be undertaken as part of this EIA, and the findings will be included in the EIA Phase Report.

7.9 Noise

Natural sounds are a part of the environmental noise surrounding humans. Ambient sound levels are significantly affected by the area where the sound measurement location is situated. When the sound measurement location is situated within an urban area, close to industrial plants or areas with a constant sound source (ocean, rivers, etc.), seasons and even increased wind speeds have an insignificant to massive impact on ambient sound levels.

The Proposed Project site is located within an area characterised by mixed land-use, where different human activities contribute to the prevailing noise environment. The major noise sources in the vicinity include mining activities, vehicular traffic on public roads and various agricultural-related operations.

Noise can be defined as "unwanted sound", and an audible acoustic energy that adversely affects the physiological and/or psychological well-being of people, or which disturbs or impairs the convenience or peace of any person. Figure 7-20 illustrates the acceptable zone sound levels as set out by SANS.

1	2	3	4	5	6	7
Type of district	Equivalent continuous rating level ($L_{Req,T}$) for noise dBA					
	Outdoors			Indoors, with open windows		
	Day/night $L_{R,dn}$[a]	Daytime $L_{Req,d}$[b]	Night-time $L_{Req,n}$[b]	Day/night $L_{R,dn}$[a]	Daytime $L_{Req,d}$[b]	Night-time $L_{Req,n}$[b]
a) Rural districts	45	45	35	35	35	25
b) Suburban districts with little road traffic	50	50	40	40	40	30
c) Urban districts	55	55	45	45	45	35
d) Urban districts with one or more of the following: workshops; business premises; and main roads	60	60	50	50	50	40
e) Central business districts	65	65	55	55	55	45
f) Industrial districts	70	70	60	60	60	50

Figure 7-20: Acceptable zone sound levels for noise in districts (from SANS 10103:2008).

7.10 Traffic

The Proposed Project is located within an area served by an established road network. Public routes in close proximity to the site include existing roads currently used for Harmony Target Mine operations as well as gravel roads used by the local farmers. Only the development of gravel access tracks to facilitate the monitoring of potential mining-induced seismicity and boundary interactions is anticipated at the project site.

Vehicle access to the shaft site is via the R30 public road (Figure 7-21), connecting to the existing mine access road, which will continue to be used for Proposed Project's related traffic. No major upgrades to these roads are anticipated. The existing internal mine roads and farm roads will be utilised for the duration of the Proposed Project.

Road Classification

The Road Classification and Access Management (RCAM) guideline 2010 provides for roads classification into the following six class systems:

- Class 1 Principal arterial
- Class 2 Major arterial
- Class 3 Minor arterial
- Class 4 Collector
- Class 5 Local Street
- Class 6 Walkway

The first three classes (the arterials) are mobility roads, while the second three classes are activity/access streets. In relation to the Proposed Project, the mobility roads will encompass R30, connecting to the existing mine access road. It is expected that the Proposed Project will result in a slight increase in traffic volumes, particularly during infrastructure refurbishment activities. This will be looked at in detail during the EIA phase of the project.

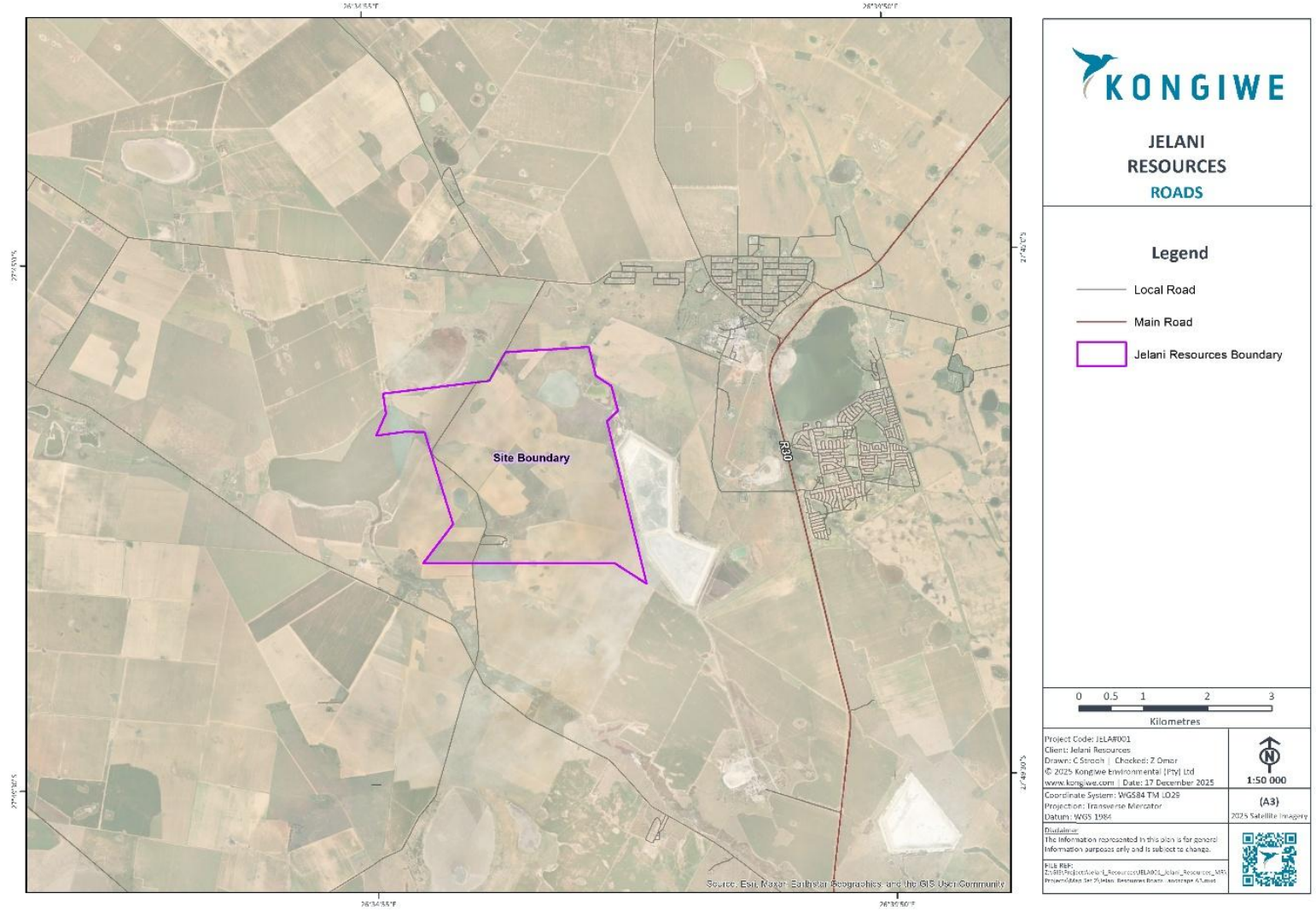


Figure 7-21: Road map for the Proposed Project.

7.11 Socio-Economic

The Proposed Project has the potential to result in both positive and negative social impacts. As such, it is important that the socio-economic baseline conditions are understood to ensure accurate identification and assessment of potential impacts associated with the Proposed Project.

The following socio-economic baseline outlines various aspects of the socio-economic profile of various administrative levels relevant to the Project, including the Ward level (Wards 19 and 36), the Matjhabeng Local Municipality (MLM) level, and the Provincial level (Free State). As the population of the MLM made up approximately 65% of the Lejweleputswa District Municipality popiulation, the large overlap justified the exclusion of the District Municipality from the analysis.

Unless otherwise specified, data were derived from Statistics South Africa (StatsSA) in relation to their 2011 Census, 2016 Community Survey and 2022 Census. A major constraint to the baseline assessment was the absence of Ward level data following the 2011 Census. Thus, Ward level data is outdated and should be considered with caution.

The baseline assessment investigates trends of the socio-economic profile at the three administrative levels, specifically concerning population, number of households, number of informal households, gender, ethnicity, youth population, language, education, unemployment, household income, key industries and access to services (including piped water, electricity, sanitation facilities and refuse disposal).

7.11.1 Population

Table 7-5 presents available data regarding population, from 2011 to 2022. For an area of just 2.4 km2, Ward 19 had 14,259 people, which translates to approximately 5,950 people per km2. In constrast, Ward 36 (comprising 339 km2) had 9,605 people – or about 28 people per km2. At the MLM and Provincial levels, the population has been steadily increasing since 2011. The average annual population growth rate (between the 2011 and 2022) for the MLM was 0.39%, compared to a very low 0.18 % at the Provincial level.

Table 7-5: Population

	Population (2011)	Population (2016)	Population (2022)
Free State	2,745,590	2,834,714	2,964,412
Matjhabeng	407,020	429,113	439,034
Ward 19	14,259	Not available	Not available
Ward 36	9,605	Not available	Not available

7.11.2 Number of Households

Table 7-6 summarises the number of households, from 2011 to 2022. At the MLM and Provincial levels, the number of households recorded for the 2022 census do not correlate with the population increases indicated since the 2016 survey – and are therefore likely to be incorrect.

In 2011, the number of households was 3961 in Ward 19 and 3371 in Ward 36, which collectively constituted just 5.7% of households in the MLM.

Table 7-6: Number of Households

	Number of Households (2011)	Number of Households (2016)	Number of Households (2022)
Free State	838,877	946,639	845,250
Matjhabeng	127,547	149,165	126,068
Ward 19	3,961	Not available	Not available
Ward 36	3,371	Not available	Not available

7.11.3 Informal Households

Table 7-7 shows that the proportion of households that lived in informal dwellings (shacks) was 8% in Ward 19, compared to 2% in Ward 26. The extent of informal dwellings among households at the MLM level was much higher, at 19-20% between 2011 and 2022.

Table 7-7: Proportion of Households Residing in Informal Dwellings

	Proportion (%) of Households (2011)	Proportion (%) of Households (2016)	Proportion (%) of Households (2022)
Free State	15.4	14.0	9.7
Matjhabeng	19.1	14.8	19.9
Ward 19	7.6	Not available	Not available
Ward 36	2.1	Not available	Not available

7.11.4 Gender Ratio

Gender ratio is the proportional relationship between the number of males and females in a population. A ratio greater than 1.0 indicates that the population has more males than females. A gender ratio of well over 1.0 can be indicative of population in-migration (influx), as unskilled job seekers moving into an area tend to be male. As Table 7-8 indicates, there is little indication of population influx at all administrative levels.

Table 7-8: Gender Ratio

	Gender Ratio (2011)	Gender Ratio (2016)	Gender Ratio (2022)
Free State	0.94	0.95	0.90
Matjhabeng	0.98	1.01	092
Ward 19	0,95	Not available	Not available
Ward 36	1.03	Not available	Not available

7.11.5 Ethnicity

Table 7-9 summaries the proportion of the population of Black African ethnicity, for each administrative level. In 2011, almost the entire population in Ward 19 was Black African. The proportion of Black Africans in Ward 36 was 69%. At the MLM and Provincial levels, Black Africans constituted about 88% of their respective populations in 2011. These numbers have remained static since 2011.

As Table 7-10 shows, the proportion of the White population at the MLM and Provincial levels was 9-10% in 2011, and has since declined to about 8-9% in 2022. In 2011, the proportion of the White population in Ward 36 was 29%, whereas there were only 10 White people in Ward 19.

Table 7-9: Proportion of the Population of Black African Ethnicity

	Proportion (%) of Population (2011)	Proportion (%) of Population (2016)	Proportion (%) of Population (2022)
Free State	87.6	88.7	88.1
Matjhabeng	87.7	88.9	88.7
Ward 19	99.6	Not available	Not available
Ward 36	69.2	Not available	Not available

Table 7-10: Proportion of the Population of White Ethnicity

	Proportion (%) of Population (2011)	Proportion (%) of Population (2016)	Proportion (%) of Population (2022)
Free State	8.7	8.5	8.0
Matjhabeng	9.6	8.5	9.0
Ward 19	0.1	Not available	Not available
Ward 36	29.2	Not available	Not available

7.11.6 Language

Table 7-11 summarises the proportion of the population that speaks Sesotho, at each administrative level. In 2011, Sesotho was spoken by more than three quarters (76%) of the population in Ward 36. In contrast, only 46% of the population in Ward 36 spoke this language. Approximately 62-63% of the MLM/ Provincial populations spoke Sesotho in 2011 – and this has since been steadily increasing.

Table 7-12 summarises the proportion of the population that speak Afrikaans, at each administrative level Approximately 30% of the population in Ward 36 spoke Afrikaans in 2011, compared to just 1% in Ward 19 – and about 12% at the MLM and Provincial levels. The proportion of the MLM and Provincial populations speaking Afrikaans have been declining since 2011, to about 10%.

Another popular language at the Ward level was IsiXhosa. This language was spoken by 12 and 8% of the populations in Ward 19 and 36 respectively.

Table 7-11: Proportion of Population Speaking Sesotho

	Proportion (%) of Population (2011)	Proportion (%) of Population (2016)	Proportion (%) of Population (2022)
Free State	62.6	70.6	72.1
Matjhabeng	62.2	73.8	69.7
Ward 19	76.4	Not available	Not available
Ward 36	46.4	Not available	Not available

Table 7-12: Proportion of Population Speaking Afrikaans

	Proportion (%) of Population (2011)	Proportion (%) of Population (2016)	Proportion (%) of Population (2022)
Free State	12.4	10.7	10.0
Matjhabeng	11.9	9.9	9.7
Ward 19	1.2	Not available	Not available

Ward 36	29.6	Not available	Not available

7.11.7 Education

As Table 7-13 shows, only 11% of the population (aged 20 years and above) in Ward 19 had a Matric qualification or higher, compared to 25% in Ward 36. There was a steady improvement in the proportion of the population having a matric qualification or higher at the MLM and Provincial levels.

Table 7-13: Proportion of Population (Aged 20 years and above) Attaining a Matric Qualification or Higher

	Proportion (%) of Population (2011)	Proportion (%) of Population (2016)	Proportion (%) of Population (2022)
Free State	21.3	Not available	24.4
Matjhabeng	20.0	Not available	28.8
Ward 19	10.5	Not available	Not available
Ward 36	24.7	Not available	Not available

7.11.8 Household Income

In 2011, the average monthly household income in the Ward 19 was R 2500, almost half of that of Ward 36 (R 4775). In 2022, the average monthly household income in the MLM was R 6725, which was marginally higher compared to that at the Provincial level of R 6441 (Quantec, 2022).

7.11.9 Youth Population

Table 7-14 summaries the proportion of youth (aged 19 years or less) in the total population. In 2011, the proportion of youth in the population was much higher in Ward 19 (40%), compared to Ward 36 (29%). The proportion of youth is likely to have been increasing since 2011, as indicated in the trend at the MLM level, where the proportion of youth has increased from 33 to 35% from 2011 to 2022.

Table 7-14: Proportion of Youth (Aged 19 Years or Less)

	Proportion (%) of Population (2011)	Proportion (%) of Population (2016)	Proportion (%) of Population (2022)
Free State	34.7	35.7	35.4
Matjhabeng	32.7	32.1	35.2
Ward 19	39.6	Not available	Not available
Ward 36	28.9	Not available	Not available

7.11.10 Industry Sectors

Table 7-15 summarises the contribution to Gross Value Added (GVA) of various industry sectors to the MLM's Gross Domestic Product (GDP), between 2010 and 2020. Although being the largest contributor to the MLM's GVA, the mining sector's contribution to total GVA decreased from 36% in 2010 to 30% in 2020. The mining sector was the only sector that decreased its level of contribution to the MLM's GVA over the 10-year period. The manufacturing sector contributed 17% of the MLM's GVA in 2020. The finance and trade sectors were also major contributors to the MLM's GVA (13 and 11% respectively). The agricultural sector only contributed 2.3% of the MLM's GVA in 2020.

Table 7-15: Contribution to GVA by Industry Sector in the MLM, between 2010 and 2020

	Proportion (%) of Contribution to GVA (2010)	Proportion (%) of Contribution to GVA (2020)
Mining	35.6	30.1
Manufacturing	16.2	17.2
Government and Community Services	12.6	14.3
Finance and business	10.8	12.8
Trade	10.7	11.1
Transport and communication	6.2	6.6
Construction	3.1	3.0
Electricity and Water	2.6	2.6
Agriculture	2.2	2.3
Total	100.0	100.0

Source: Standardised regional data, Quantec (2022)

7.11.11 Employment

StatsSA only has reliable employment data dating back to 2011. According to StatsSA, there were 2166 and 2850 people employed in Wards 19 and 36, in 2011. This translates to 25 and 42% of the population aged 20 years or more in Wards 19 and 36 respectively.

Unemployment rates were not available at the Ward level. The unemployment rate is the proportion of the labour force that is unemployed, and includes only the unemployed who are actively searching for work, thus excluding the discouraged. In 2020, the unemployment rate in the MLM was 27.2%, which was slightly higher than that at the Provincial level of 26.7% (Quantec, 2022). Note that data from StatsSA, in their Quarterly Labour Force Survey reports, indicated a much higher unemployment rate of 33.4% in Free State, in 2020. The StatsSA reports also calculated that the expanded unemployment rate (which includes the unemployed who are actively searching for work and those who are not actively searching) was 39.9% in Free State, which has since increased to 43.8% in 2025. This implies that the unemployment rates calculated by Quantec are likely to be undestimating the extent of unemployment at the MLM level.

Table 7-16: Contribution to Employment by Industry Sector in the MLM, between 2010 and 2020

	Proportion (%) of Contribution to Employment (2010)	Proportion (%) of Contribution to Employment (2020)
Mining	32.2	22.8
Government and Community Services	25.7	27.4
Trade	17.3	19.6
Finance and business	9.7	11.8
Manufacturing	5.4	6.4
Agriculture	3.4	4.3
Construction	3.0	4.0
Transport and communication	3.0	3.4
Electricity and Water	0.3	0.4
Total	100.0	100.0

Source: Standardised regional data, Quantec (2022)

7.11.12 Access to Water

Table 7-17 shows that, in 2011, the proportion of households with access to tap water was 99 and 90% for Wards 19 and 36 respectively. The general downward trend in the level of access to tap water at the MLM and Provincial level, since 2011, is indicative of the decline of this service across Free State.

Table 7-17: Proportion of Population with Access to Tap Water

	Proportion (%) of Households (2011)	Proportion (%) of Households (2016)	Proportion (%) of Households (2022)
Free State	89.4	91.2	86.1
Matjhabeng	94.6	94.7	85.8
Ward 19	98.7	Not available	Not available
Ward 36	90.2	Not available	Not available

7.11.13 Access to Sanitation Facilities

Table 7-18 shows that, in 2011, the proportion of households with access to flush or chemical toilets was 98 and 92% in Wards 19 and 36 respectively. Since 2011, access to flush or chemical toilets has remained static, at least at the MLM and Provincial levels.

Table 7-18: Proportion of Population with Access to Flush or Chemical Toilets

	Proportion (%) of Households (2011)	Proportion (%) of Households (2016)	Proportion (%) of Households (2022)
Free State	67.2	71.8	69.5
Matjhabeng	81.7	86.2	79.7
Ward 19	97.6	Not available	Not available
Ward 36	91.8	Not available	Not available

7.11.14 Access to Refuse Disposal Services

Table 7-19 shows that, in 2011, the proportion of households having access to refuse disposal services was 95 and 85% for Wards 19 and 35 respectively. The downward trends in the level of access to refuse disposal services at the MLM and Provincial level, since 2011, are indicative of the decline of this service across Free State.

Table 7-19: Proportion of Population with Access to Refuse Disposal Services

	Proportion (%) of Households (2011)	Proportion (%) of Households (2016)	Proportion (%) of Households (2022)
Free State	70.7	69.8	57.4
Matjhabeng	87,1	74.0	56.3
Ward 19	95.3	Not available	Not available
Ward 36	84.7	Not available	Not available

The abovementioned issues have a bearing on how the Proposed Project may bring about social change within the affected local area. Potential impacts of the Proposed Project along with mitigation measures will be further investigated during the EIA Phase.

8. Potential Impacts Identified during the Scoping Phase

8.1 Methodology for determining the Significance of Environmental Impacts

This part of the document focuses on the identification of the major potential impacts the activities, processes and actions may have on the surrounding environment. The criteria and rating parameters used to assess the significance of these impacts are presented in Table 8-1, which reflects compliance with the EIA Regulations of 2014 for evaluating direct, indirect, cumulative and residual impacts.

Potential environmental impacts (physical, biological, social and economic) associated with the Proposed Project will be presented as per Table 8-1. The significance of these impacts will be systematically assessed and rated using the assessment mythology described in this section once the results of the various specialist studies are available. The EIA will include a full risk assessment of all environmental impacts. The EIA/EMPr Report will set out mitigation measures to be implemented during the Construction, Operational, Decommissioning and Closure, as well as Post-Closure Phases in accordance with NEMA requirements.

Table 8-1: Impact Assessment Criteria Used to Determine the Significance of Environmental Impacts

Nature of The Impact: ***Describe the Impact in Respect to The Activity to be Undertaken***		
	Impact Rating Without Mitigation	**Impact Rating with Mitigation**
Impact Status: (*positive or negative*)		
Extent *(Local, Regional, International)*		
Duration *(Short term, Medium term, Long term)*		
Magnitude *(Major, Moderate, Minor)*		
Probability *(Definite, Possible, Unlikely)*		
Calculated Significance Rating (Low, Medium, High)		
Reversibility: (Reversible or Irreversible)		
Irreplaceable loss of resources: (Yes or No)		
Residual impacts ❖ (List these below)		
Cumulative Impacts ❖ (List these below)		
Mitigation measures ❖ (List these below)		

The impact significance rating process serves two purposes: firstly, it helps to highlight the critical impacts requiring consideration in the management and approval process; secondly, it shows the primary impact characteristics, as defined above, used to evaluate impact significance.

The impact significance rating system is presented in Table 8-2, Table 8-3, as well as Table 8-4 and it involves three parts:

- **Part A:** Define impact consequence using the three primary impact characteristics of magnitude, spatial scale/ population and duration.
- **Part B:** Use the matrix to determine a rating for impact consequence based on the definitions identified in Part A.
- **Part C:** Use the matrix to determine the impact significance rating, which is a function of the impact consequence rating (from **Part B**) and the probability of occurrence.

8.1.1 Part A: Defining Consequence in Terms of Magnitude, Duration and Spatial Scale

Use these definitions to define the consequence in Part B, as showcased below in Table 8-2.

Table 8-2: Consequence Rating Definitions

Impact Characteristics	Definition	Criteria
Magnitude	Major -	Substantial deterioration or harm to receptors; receiving environment has an inherent value to stakeholders; receptors of impact are of conservation importance; or identified threshold often exceeded
	Moderate -	Moderate/measurable deterioration or harm to receptors; receiving environment moderately sensitive; or identified threshold occasionally exceeded
	Minor -	Minor deterioration (nuisance or minor deterioration) or harm to receptors; change to receiving environment not measurable; or identified threshold never exceeded
	Minor +	Minor improvement; change not measurable; or threshold never exceeded
	Moderate +	Moderate improvement; within or better than the threshold; or no observed reaction
	Major +	Substantial improvement; within or better than the threshold; or favourable publicity
Spatial scale or population	Site or local	Site specific or confined to the immediate project area
	Regional	May be defined in various ways, e.g. cadastral, catchment, topographic
	National/ International	Nationally or beyond
Duration	Short term	Up to 18 months.
	Medium term	18 months to 5 years
	Long term	Longer than 5 years

8.1.2 Part B: Determining Consequence Rating

Rate consequence based on definition of magnitude, spatial extent and duration, as showcased in Table 8-3.

Table 8-3: Consequence Rating Methodology

			Spatial Scale/ Population		
			Site or Local	Regional	National/ international
MAGNITUDE					
Minor	**Duration**	**Long term**	Medium	Medium	High
		Medium term	Low	Low	Medium
		Short term	Low	Low	Medium
Moderate	**Duration**	**Long term**	Medium	High	High
		Medium term	Medium	Medium	High
		Short term	Low	Medium	Medium
Major	**Duration**	**Long term**	High	High	High
		Medium term	Medium	Medium	High
		Short term	Medium	Medium	High

8.1.3 Part C: Determining Significance Rating

Rate significance based on consequence and probability, as showcased in Table 8-4.

Table 8-4: Significance Rating Methodology

Probability (of Exposure to Impacts)	Consequence Negative			Consequence Positive		
	Low	Medium	High	Low	Medium	High
Definite	Medium	Medium	High	Medium	Medium	High
Possible	Low	Medium	High	Low	Medium	High
Unlikely	Low	Low	Medium	Low	Low	Medium

8.2 Possible Positive and Negative Impacts identified

Section 5.1 refers to the considered Proposed Project alternatives. Positive and negative impacts associated with each alternative identified for the Proposed Project will be assessed in the EIA Report.

Table 8-5 below will be used during the EIA Phase to describe the identified impacts of the Proposed Project, as well as the relevant mitigation measures proposed by specialist studies.

Table 8-5: Potential identified impact associated with the Proposed Project

Environmental Component	Component Type	Potential Impact (positive or negative)	Specialist Study Planned for EIA
Physical Environment (non-living)	Surface water	• Potential hydrocarbon spills during the construction of the seismographic monitoring stations and the development of the gravel access tracks.	• Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM). • Hydrological Assessment
	Groundwater	• Dewatering of deep aquifer causing groundwater level decline. • Lowering of the water table in the shallow aquifer. • Groundwater flow alteration. • Potential seepage of mine water to the groundwater system may contaminate groundwater resources.	• Hydrogeological Assessment
	Soil and geology	• Potential soil contamination from hydrocarbon spills. • Subsidence risk above mined-out areas. • Seismicity risk from deep-level blasting.	• Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM,) Soils and Agricultural Potential. • Hydrogeological Assessment. • Blasting and Vibrations.
	Air quality	• Dust emissions during the installation of the seismographic monitoring stations and the development of the gravel access tracks. • Dust emissions from ore handling. • Diesel exhaust emissions.	• Air Quality Impact Assessment • Climate Change Impact Assessment
Biological Environment	Fauna and Flora	• Vegetation clearance required for the installation of the seismographic monitoring stations and the development of the gravel access tracks may result in the loss of habitat for local flora and fauna, potentially disrupting ecological communities and reducing biodiversity in the affected area.	• Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM,) Soils and Agricultural Potential.
	Socio-Economic	• Potential employment opportunities and job security.	• Social Impact Assessment.

Environmental Component	Component Type	Potential Impact (positive or negative)	Specialist Study Planned for EIA
Social and Economic Environment		• Potential investment in local economy. • Influx of people seeking employment. • Potential community conflict and increases in certain social challenges (e.g., in-migration and potential increases in crime). • Impact on economic and social infrastructure in the local area. • Impact on local resource use (energy, water).	
	Vibration	• Vibration from shaft hoisting operations and ore handling. • Vibration from underground blasting and drilling. • Vibration impacts from blasting potentially affecting nearby structures.	• Blasting and Vibrations.

8.3 Cumulative Impacts

Due to the ongoing mining operations at Harmony Gold Target Mine and the presence of agricultural activities within the development footprint and its immediate surroundings, the assessment of cumulative impacts is of significant importance. The identification and assessment of cumulative impacts will be undertaken, and mitigation measures suggested during the detailed EIA level investigation. The impact identification and calculation methodology employed by all specialists incorporates cumulative impacts in a quantitative manner to determine the final impact score and corresponding rating.

8.4 Application of Possible Mitigation Measure

Mitigation measures are implemented to ensure that the identified impacts from the Proposed Project activities are reduced as far as possible. Mitigation measures will be provided in the specialist reports to be undertaken in the EIA Phase of the project. Specialist will be informed to be cognisant of the following mitigation measure objectives:

- To find more environmentally sound ways of undertaking specific activities.
- To enhance any environmental and social benefits of a proposed activity.
- To avoid, minimise or remedy negative environmental impacts.
- To ensure that any residual negative environmental impacts are environmentally acceptable.

The identification of appropriate mitigation measures will be conducted in a hierarchal manner:

1. Preventative measures will be identified to avoid, where possible, negative impacts that may arise as a result of the proposed activity.
2. Measures will be identified to minimise and/or reduce the negative impacts to “as low as practicable” levels.
3. Measures will be identified to compensate or remedy residual negative impacts that are unavoidable and cannot be minimised or reduced any further (Department of Environmental Affairs (as it then was), 2006).

Proposed mitigation measures will be communicated to the applicant for review as part of draft EMPr. The applicant will comment on the feasibility and practicality of implementing the mitigation measures. The mitigation measures may be adjusted based on the applicant’s comments.

8.5 Outcome of the Site Selection Matrix: The Final Site Layout Plan

The finalisation of specialist studies and recommendations made within the specialist reports will help to inform a final site layout plan. At the time of compiling the Draft Scoping Report, preliminary site layout plans are included in Appendix B, and these maps were be presented as part of the pre-application process with stakeholders.

8.6 Motivation where no Alternative Sites were considered

As outlined in Chapter 5.1, no alternative sites were considered during the Draft Scoping Report. The selection of the proposed site was influenced by the confirmed presence of potential mineral resources within specific properties during the Prospecting Phase. Furthermore, the necessary supporting operational mining

infrastructure required for the Proposed Project is already established within Harmony's Target Mine mining right area, making this location the most practical and viable option.

8.7 Statement motivating the Preferred Site.

The preferred site was chosen as per Chapter 5

9. Plan of Study for the Environmental Impacts Assessment

9.1 Aspects to be assessed as part of the Environmental Impact Process

The following aspects have been identified for assessment as part of the EIA process:

- Agricultural;
- Landscape/Visual Impact;
- Archaeological and Cultural Heritage;
- Palaeontology;
- Terrestrial Biodiversity;
- Aquatic Biodiversity;
- Hydrology;
- Noise;
- Radioactivity;
- Traffic;
- Geotechnical;
- Climate Impact;
- Health;
- Socio-Economic;
- Seismicity;
- Ambient Air Quality;
- Plant Species; and
- Animal Species;

Screening of the Proposed Project was undertaken using the DFFE National Web-Based Environmental Screening Tool (Screening Tool). The specialist studies flagged by the Screening Tool have been taken into consideration during the development of the EIA Plan of Study. Table 9-1 outlines the specialist studies identified, the respective sensitivity rating and the motivation to conduct the respective specialist study or not.

Table 9-1: Specialist assessment identified, Screening tool sensitivity rating and Motivation

No	Specialist assessment	Applicable protocol	Motivation
1	Agricultural Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Agricultural Impact Assessment (Published in Government Notice No. 320,	The Screening Tool Report (STR) indicates that the Agricultural sensitivity of the Proposed Project area is Very High. A Soil, Land Use, and Land Capability Assessment will be undertaken for the Proposed Project.

No	Specialist assessment	Applicable protocol	Motivation
		Government Gazette 43110, dated 20 March 2020)	
2	Landscape/Visual Impact Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The screening tool has not assigned a sensitivity rating to the Landscape/Visual Theme. It has, however, indicated the need for further assessment. Jelani intends to initiate underground mining operation, and all required operational mining infrastructure is already in place within Harmony's existing mining right area. Project implementation involves the refurbishment and utilisation of existing shaft complexes rather than the development of new above-ground structures. These activities occur within an already transformed mining footprint and will not alter the existing visual landscape. Therefore, the expected visual effects are limited and a Landscape/Visual Impact Assessment is not considered necessary.
3	Archaeological and Cultural Heritage Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Agricultural Impact Assessment (Published in Government Notice No. 320, Government Gazette 43110, dated 20 March 2020)	The STR denoted the site as Low sensitivity. A Desktop Heritage Impact Assessment will be undertaken for the Proposed Project.
4	Palaeontology Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Agricultural Impact Assessment (Published in Government Notice No. 320, Government Gazette 43110, dated 20 March 2020)	The STR denoted the site as Low sensitivity. A Desktop Palaeontology Impact Assessment will be undertaken for the Proposed Project.
5	Terrestrial Biodiversity Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Published in Government	The STR has marked the site as Very High Sensitivity. A Terrestrial Biodiversity Assessment will be undertaken and will include

No	Specialist assessment	Applicable protocol	Motivation
		Notice No. 320, Government Gazette 43110, dated 20 March 2020)	management measures for the protection of terrestrial biodiversity.
6	Aquatic Biodiversity Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Published in Government Notice No. 320, Government Gazette 43110, dated 20 March 2020)	The STR denoted the site as Very High sensitivity. The Freshwater and Aquatic Biodiversity Assessment Study will be undertaken for the Proposed Project.
7	Hydrology Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The STR has not assigned a sensitivity rating to hydrology. The Hydrological Assessment is a requirement as per the NWA. A comprehensive surface water impact assessment will be prepared to assess the potential impacts that the proposed activities may have and to provide mitigation measures for identified impacts. The impact assessment will make use of a numerical rating system, that takes into consideration the intensity, duration, spatial scale and probability of the impacts to determine the impact significance.
8	Noise Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Published in Government Notice No. 320, Government Gazette 43110, dated 20 March 2020)	The STR has not assigned a sensitivity rating to the noise. It has, however, indicated the need for further assessment. The proposed underground mining operation will occur approximately 1 200 metres below surface. At these depths, underground mining activities do not generate surface-level noise that is detectable. No new noise-generating surface infrastructure is proposed within the Proposed Project area. All operational infrastructure required for mining, including shafts, will be located within Harmony's existing and authorised Target Mine mining right area. These facilities are

No	Specialist assessment	Applicable protocol	Motivation
			already established, historically operational and assessed under previous authorisations. Therefore, noise specialist study is not warranted for this development.
9	Radioactivity Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The STR has not assigned a sensitivity rating to the Radioactivity Theme. It has, however, indicated the need for further assessment. The geology of the Proposed Project area is a direct extension of the geological formations occurring within the Harmony Target Mine mining right area (Section 7.3), which has already been subject to detailed radiological assessment and regulatory approval. Harmony Gold Mining Company Limited, a joint venture partner in Jelani Resources, already holds a Radiological Public Safety Assessment for its Free State operations, as well as a valid Certificate of Registration (CoR Regulation 10) issued by the National Nuclear Regulator (NNR) for its Target Mine operation located adjacent to the Proposed Project area. The proposed underground mining operation will involve the excavation of mineral resources within the Proposed Project area. However, access to and egress from the underground workings will be undertaken through the existing Harmony Target shafts, and the ore will be processed using the existing Harmony Target operational mining infrastructure. These shafts, operational systems and geological formations have already been assessed and approved by the NNR. Although uranium is listed as a potential co-product within the mineral resource, the Proposed Project does not introduce new processing streams or changes in radiological exposure pathways beyond

No	Specialist assessment	Applicable protocol	Motivation
			those already authorised under Harmony's existing operations. Based on the above, it is considered that the Proposed Project does not introduce new or materially different radiological risks that would warrant a standalone Radioactivity assessment. However, Radiological aspects will be included in the EIA report.
10	Traffic Impact Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The STR has not assigned a sensitivity rating to the Traffic Theme. It has, however, indicated the need for further assessment. Jelani intends to initiate underground mining operation. Ore will be transported to the shaft ore pass system using conveyor system loaded by a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump. The Proposed Project is located within an area served by an established road network. Public routes in close proximity to the site include existing roads currently used for Harmony Target Mine operations as well as gravel roads used by the local farmers. Vehicle access to the shaft site is via the R30 public road, connecting to the existing mine access road, which will continue to be used for project-related traffic. No major upgrades to the access road are anticipated. The existing internal mine roads and internal farm roads will be utilised for the duration of the project. No major access road construction is planned for the project. Existing Roads will mainly be utilised throughout the project

No	Specialist assessment	Applicable protocol	Motivation
			phases. The Traffic Impact Assessment may not be necessary.
11	Geotechnical Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The screening tool has not assigned a sensitivity rating to the Geotechnical Theme. It has, however, indicated the need for further assessment. Geotechnical/underground support requirements will be covered in the future detailed design work (this will be relevant for underground mining operation) and presented within subsequent applications.
12	Climate Impact Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The screening tool has not assigned a sensitivity rating to the Climate Theme. It has, however, indicated the need for further assessment. A Climate Change Impact Assessment will be undertaken for the Proposed Project.
13	Health Impact Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The screening tool has not assigned a sensitivity rating to the Health Theme. It has, however, indicated the need for further assessment. The air quality impact will be assessed to determine the possible health-related effects expected to occur as a result of the Proposed Project. The specialist study will assess anticipated air quality impacts and develop mitigation and management measures for the identified potential impacts. This will include the implementation of an air quality monitoring programme.
14	Socio-Economic Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The STR has not assigned a sensitivity rating to the Socio-Economic Theme. It has, however, indicated the need for further assessment. A Social Impact Assessment will be undertaken for the Proposed Project.
15	Seismicity Assessment	Site Sensitivity verification requirements where a specialist assessment is	The STR has not assigned a sensitivity rating to the Seismicity Theme. It has,

No	Specialist assessment	Applicable protocol	Motivation
		required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	however, indicated the need for further assessment. A Blasting and Vibration Assessment will be undertaken for the Proposed Project.
16	Ambient Air Quality Impact Assessment	Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed (Published in GN No. 320, government Gazette 43110; Dated 20 March 2020)	The STR has not assigned a sensitivity rating to the Ambient Air Quality Theme. It has, however, indicated the need for further assessment. Air Quality Impact Assessment will be undertaken for the Proposed Project.
17	Plant Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Published in Government Notice No. 320, Government Gazette 43110, dated 20 March 2020)	The STR has marked the site as Low Sensitivity for the plant species theme. The Terrestrial Biodiversity Assessment undertaken for the Proposed Project.
18	Animal Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Published in Government Notice No. 320, Government Gazette 43110, dated 20 March 2020)	According to the STR, the Animal Theme sensitivity is Medium sensitivity. The Terrestrial Biodiversity Assessment undertaken for the Proposed Project.

9.2 Terms of Reference for Specialist Studies for the Plan of Study

Table 9-2 outlines the specialist studies proposed during the EIA Phase of the project and the proposed Plan of Study to be undertaken as part of the S&EIA process.

Table 9-2: Plan of Study for Specialist Studies

Study	Terms of Reference
1. Soil, Land Use and Land Capability Assessment	<u>The assessment will entail the following aspects:</u> • Assess existing information; • Conduct an assessment within the proposed development area using the digital satellite imagery and other suitable digital aids; • Review historical as well as current land uses within the proposed development area; and • Review and interpret existing Soil Maps and other relevant database(s) such as the Agricultural Geo-referenced Information Service (AGIS) to establish broad baseline conditions and areas of environmental sensitivity and sensitive agricultural areas. <u>Site Investigation:</u> • A detailed soil classification survey will be conducted within the proposed development area; • Subsurface soil observations will be made by means of a manual hand auger; • Dominant soil types will be classified, and soil boundaries established according to the South African Soil Classification System (Soil Classification Working Group, 2018); • Soil properties of survey points will be recorded using a Global Positioning System (GPS); and • Field assessment data will include a detailed description of physical soil properties including the following parameters: – Terrain morphological units Landscape position; – Diagnostic soil horizons and their respective sequence; – Texture estimated as % clay according to the in-situ hand feel method; – Depth of identified soil horizons; – Soil classification according to the South African Soil Classification System; – Depth to saturation (water table), if encountered; and <u>Reporting (Mapping and Impact Assessment):</u> • If deemed appropriate a compliance statement will be developed in support of the project. • If a report is required due to confirmed sensitivities, the following will be undertaken: – Group uniform soil patterns into map units, according to observed limitations; – Evaluate land use impacts of the proposed development on the receiving environment in relation to the identified soils using the Zimpande Research Collaborative method; – Assess the interconnection between climate change and agriculture; – Provide an Agricultural Impact Assessment; – Provide recommended mitigation measures to implement in order to manage the anticipated impacts and to comply with the applicable legislations; and – The findings of the assessment will be presented in the form of an electronic report which will include: ○ A Soil Type Map, indicating the delineated soil types within study area; ○ Photos of current environmental conditions on site and adjacent land uses; ○ Integrated mitigation measures and recommended management practices to be implemented to reduce the significance of the identified impacts.
2. Desktop Heritage & Palaeontology Assessment	Scope of Work include: <u>Desktop Study</u>

Study	Terms of Reference
	• A review of archaeological, palaeontological, and historical records will be conducted, incorporating previous heritage assessments, old topographic maps, and relevant literature for the study area and its surroundings. Report Compilation • A desktop HIA report will be prepared, including relevant sub-specialist studies and recommendations in line with heritage regulations and best practices.
1. **Terrestrial Biodiversity (Flora and Fauna) Assessment Study**	The Scope of Work will include a desktop analysis of relevant conservation database, Important Bird Areas, National Biodiversity Assessment, Threatened Ecosystems and South African National Biodiversity Institute (SANBI) databases. A field assessment will be undertaken, and assessment methods will be applied to characterise the dominant habitat types, Present Ecological State (PES) and Ecological Importance and Sensitivity (EIS) of the receiving environment. The ecological assessment will focus on the identification of sensitive habitats and the occurrence/ potential occurrence of Red Data Listed (RDL) floral and faunal species and species of conservation concern as identified by the relevant national and provincial databases. The assessment will also fulfil the ecological assessment requirements of the EIA as required in terms of the National Environmental Management Act (NEMA) and the associated regulations as well as other legal requirements applicable on both a national and provincial level. A site sensitivity map will be developed from the data gathered during the assessment. The assessment will be conducted to best meet the requirements of the Gauteng Province for ecological assessments and any other relevant regulations and other legal requirements applicable on both a national and provincial level. Floral Assessment: The proposed methodology includes both a desktop review and a field work component. A desktop review of distribution lists (including Red Data species and protected species according to the province) and available literature will be conducted to guide the field work component. The vegetation type for the study area will be defined according to sources such as Mucina and Rutherford (2006) and the National Vegetation Map Project (SANBI, 2024). Extensive consideration will also be given to determining the ecological importance and sensitivity of the study area according to the Biodiversity GIS (BGIS) database. The SANBI and PRECIS databases for the QDS will also be consulted and will serve as the reference data to which the field survey will be compared to. The assessment will include a detailed assessment of the proposed development site as well as the surrounding zone of influence. Results will be compared to a suitable reference site if the proposed areas are already significantly disturbed. The field assessment will identify: • Various habitat types; • A description of each habitat type based on conservation importance and present ecological state; • Floral species associated with each habitat component – Focus on sensitive habitat types, the ecological importance of flora species and impacts associated to them in order to fulfil the requirements of the study; – Vegetation communities will be identified and mapped; – Species lists and dominant species associated with each vegetation community will be compiled; – Focus will also be given to identifying areas of severe alien and invader encroachment and Category 1, 2 and 3 species in terms of GNR 598: National Environmental Management Biodiversity Act: (Act No. 10 of 2004) will be identified and listed; – Veld condition will be identified and compared to the typical vegetation for the vegetation type of the area according to Mucina & Rutherford (2006); – Sensitive areas will be mapped where detail will be given of the ecological aspect of concern in each sensitivity zone; – Specific focus will also be given to establishing the presence of RDL and protected plants as listed within the IUCN List, relevant provincial lists and the TOPS list of NEMBA; • Based on the findings a detailed baseline study on all identified significant risks will take place; and

Study	Terms of Reference
	• Recommendations on management and mitigation measures (including opportunities and constraints) with regards to the construction and operation of the proposed activities in order to manage and mitigate impacts on the flora l assemblage of the area. Faunal Assessments • The faunal assemblage will be determined using the following methods: – Extensive consideration will be given to determining the ecological importance and sensitivity of the study area according to the relevant conservation databases. The relevant databases for the QDS will also be consulted and will serve as the reference data to which field surveys will be compared to; – Visual observations of actually occurring species; – Identification of evidence of occurrence, e.g. call spoor, droppings etc; – The reports produced will include sensitive habitat types (which will be mapped) and impacts from habitat disturbance, faunal assemblages at risk and an assessment of impacts on migratory routes; – An assessment of cumulative impacts on faunal assemblages in the region will also be made; – The SCC probability assessment will also be considered in order to quantify the importance of the study area in terms of faunal SCC conservation; – Based on the findings a detailed baseline study on all identified significant risks will take place; and – Recommendations on management and mitigation measures (including opportunities and constraints) with regards to the construction and operation of the proposed activities in order to manage and mitigate impacts on the faunal assemblage of the area.
2. Freshwater and Aquatic Biodiversity Assessment Study;	Assessment A detailed assessment will be undertaken in which all available background information will be reviewed. All relevant national and provincial databases will be reviewed and searched as required, in order to further define the environmental sensitivities of the receiving environment. The desktop assessment will highlight the Ecological Importance and Sensitivity and Present Ecological State based on databases such as the NFEPA database (2011) and the BGIS website. As part of the desktop studies all freshwater areas will be mapped based on desktop delineation methods. The findings of the desktop studies will then be used to refine and focus the field work assessment. Further detail on the assessment methods are presented in the sections below. Freshwater and Aquatic ecological assessment A site visit will be undertaken whereby all freshwater feature(s) associated with study area as provided by the client will be assessed, and the following will be undertaken: • Delineation of the freshwater ecosystems within the study area will be verified, according to "DWAF, 2008: A practical Guideline Procedure for the Identification and Delineation of Freshwater ecosystems and Riparian Zones". Aspects such as soil morphological characteristics, vegetation types and wetness will be used to verify the delineation of the freshwater temporary zone according to the guidelines; • Delineation of freshwater features within 500m of the study area will be undertaken utilising desktop methods, with limited field verification thereof; • If applicable, on site biota specific water quality testing will take place for parameters including pH, Electrical Conductivity (EC), Dissolved Oxygen (DO) and temperature, • Benthic diatom composition at each site will be assessed according to the Specific Pollution Index (SPI); • All freshwater features identified during the field assessment will be mapped using a handheld GPS and the use of the applicable GIS software; • Applicable buffer zones and/or zones of regulation according to relevant legislation or provincial guidelines will then be delineated around the freshwater ecosystems. The applicable buffer maps will be provided; • A freshwater classification assessment will be undertaken according to the Classification System for Freshwater and other Aquatic Ecosystems in South Africa. User Manual: Inland systems (Ollis *et al*., 2013); and • Applicable buffer zones and/or zones of regulation according to relevant legislation or provincial guidelines will then be delineated around the freshwater ecosystems. The applicable buffer maps will be provided.

Study	Terms of Reference
	Reporting will include: • A brief statement of the findings of the site assessment will be provided, as well as all maps and data from national and provincial databases that have bearing on the freshwater PES and EIS. In this regard specific mention is made of the NFEPA database and relevant Conservation datasets; • The freshwater services provided by the resources associated with the proposed development will be assessed according to the method of Kotze et al (2020) in which services to the ecology of the site will be defined and services to the people of the area will be defined; • The freshwater Present Ecological State (PES) will be assessed according to indices such as the Wet-Health (Level 1) / Index of Habitat Integrity as advocated by Macfarlane et al., (2008) and Kleynhans (2008), respectively as applicable; • The freshwater EIS will be determined based on the method described by Rountree & Kotze, (2013); and • Aspects regarding freshwater drivers and receptors as required by the DWS Chief Directorate Instream Water Use will be reported on, including the following: – Freshwater drivers: ○ Hydrology; ○ Water quality; and ○ Sediment balance and the geomorphological regime; – Freshwater receptors: ○ Habitat; and ○ Biota. • Based on the findings during the desktop and field assessments, and based on the project plan and proposed layout plan as provided, a detailed risk assessment on all identified significant risks will take place including cumulative impacts on freshwater assemblages in the region; and • Recommendations on management and mitigation measures (including opportunities and constraints) with regards to the development/operation or decommissioning of the proposed development in order to improve manage and mitigate impacts on the freshwater ecology of the area will be provided.
3. Hydrology Assessment Study	The following is proposed to be undertaken for the Proposed Project description: Site Visit A site visit will be undertaken to: • Assess the hydrological and hydraulic characteristics of the Vaal River in the vicinity of the project; and • Obtain surface water quality samples from upstream and downstream positions of the project. Baseline Hydrology The baseline hydrology will provide a description of the current surface water environment of the project. The following will be included: • A desktop review of existing information and data on the area will be undertaken. • A description of the hydrological setting of the project in terms of the catchments, watercourses, topography, land cover/use and soils. • An analysis and description of the climate of the area in terms of the rainfall and evaporation; • An analysis of the surface water runoff of the area.

Study	Terms of Reference
	• An assessment of the surface water quality from three (3) samples taken on the site visit as well as from monitoring data from the DWS. Samples will be sent to SANAS accredited laboratory for water quality analysis. Floodline Determination A 1:50, 1:100 and 1:200-year floodline determination will be undertaken for the rivers in the vicinity of the Proposed Project. The HEC-RAS hydraulic model will be setup to conduct the modelling required to determine the flood water elevations. The following will be undertaken: • A hydrological assessment will be undertaken to determine the 1:50, 1:100 and 1:200 peak flows. • The stream catchments will be delineated, and the land cover/use, soils and topography will be assessed. An appropriate flood estimation method will be applied to calculate the peaks. • Preparation of geometric data in RAS Mapper. • Undertake a hydraulic analysis using HEC-RAS to determine the 1:50, 1:100 and 1:200 year surface water elevations. The report will detail the methodology, assumptions, modelling undertaken and results. The floodlines will be indicated on plans in the report and will be provided to the client in shapefile, DXF and KMZ format. Surface Water Impact Assessment A comprehensive surface water impact assessment will be prepared to assess the potential impacts of the project, and to provide mitigation measures for impacts. The impact assessment will make use of a numerical rating system, that takes into consideration the intensity, duration, spatial scale and probability of the impacts to determine the impact significance. The cumulative impacts will also be assessed. Water Balances Undertaking a water balance of an area involves quantifying all inflows, outflows, and changes in storage within a defined system over a specified time period. The process requires collecting and analysing hydrological, climatic, and operational data such as precipitation, surface water inflows, groundwater recharge, abstraction, evaporation, seepage, and discharges. By comparing inputs and outputs, the water balance provides insight into the availability, sustainability, and efficiency of water use in the area. This information is essential for identifying potential deficits or surpluses, supporting regulatory compliance, guiding resource management decisions, and ensuring that water use is aligned with environmental and operational objectives. Monitoring Programmes A surface water quality monitoring programme will be developed for the project and will include the following: • The parameters to be monitored. • Location of monitoring points. • Handling and transportation of samples to the laboratory. • Frequency and duration of monitoring to be conducted. • Reporting intervals.
4. Climate Impact Assessment	The Scope of Work will include: Climate Impact Assessment • A concise overview of the project. • Description of the study sites, including nearby sensitive receptors, surrounding land use, and topography. • Meteorological analysis to assess local, national, and/or global climate conditions and their impact on the study site.

Study	Terms of Reference
	• Review of relevant legislative and regulatory requirements. • Quantification of the project's greenhouse gas (GHG) emissions. • Evaluation of the project's impact on climate change at local, national, and/or global levels. • Physical and Transitional Risk Assessment. • Analysis of how local, national, and global climate conditions affect the project. • Identification of potential mitigation measures and adaptation strategies.
5. Socio-Economic Assessment Study;	The following outlines the proposed tasks for preparing the Socio-Economic Impact Assessment (SIA) Report. <u>Baseline Assessment Update:</u> • A desktop review of the socio-economic profile of the stakeholders in the Project area will be based on StatsSA data and other relevant online sources, such as Matjhabeng Local Municipality Integrated Development Plan (2023/24) and Spatial Development Framework report (2023). The baseline review will consider trends relating to population size, gender and age distribution, ethnicity, language, household size, migration patterns, education; health status; safety and security, economic activities; and access to services. <u>On-site meetings:</u> • During the Public Participation process, meetings will be held with local government representatives of relevant departments as well as ward councillors (from Wards 19 and 36). Comments and responses derived from the public meetings will also be recorded and incorporated into the SIA report. <u>Risk assessment/itigation measures:</u> • The findings from the stakeholder engagement process and the baseline assessment will form the basis of preparing a risk assessment. Significance ratings of identified impacts will be undertaken for pre- and post-mitigation scenarios. Recommended measures will be formulated for mitigating negative impacts and enhancing positive ones. <u>Drafting of report:</u> • The draft SIA report will be prepared and sent for review.
6. Air Quality Assessment	The Scope of Work will include: <u>Baseline Assessment</u> • A brief project description. • A description of the study site including surrounding sensitive receptors, surrounding land use and topography. • Meteorological assessment. Met data will be evaluated to determine the local prevailing weather conditions, and its influence on the dispersion and dilution potential of pollutants released into the atmosphere. AERMET ready modelled met data, for input into the AERMOD model, from Lakes Environmental will be used. • Identification of existing sources of emissions and characterisation of ambient air quality at or near to the project site using available monitoring data (this can only be conducted if data is available). • Review of the current legislative and regulatory air quality requirements. • Literature review of the potential health effects associated with the criteria air pollutants of concern. • Detailed literature review of emissions from all activities on site. Where information is not available on emission rates, USEPA or NPI emission factors will be used (client to assist in the provision of information needed to calculate emissions). <u>Emissions Inventory</u>

Study	Terms of Reference
	• Compilation of an emissions inventory for the project for criteria air pollutants and dustfall. The following information will need to be supplied by the Client in order to calculate emissions: – Particulate emission rates – If this is not available, emission factors will be applied; – Facility design and detailed layout, including process flow diagram and stack description: height, diameter, exit velocity and exit temperature, fuel consumption, and material inputs and outputs for facility processes, where applicable; – Source parameters for area sources (dimensions and co-ordinates - length, width, height as well as activity rates, material characteristics, etc.); – Information on all line sources and information of vehicle type and activity. • A detailed questionnaire will be put together with all the required information. <u>Dispersion Modelling</u> • Dispersion modelling, using the AERMOD model, will be conducted in line with the South African National Regulations Regarding Air Dispersion Modelling, 2014. • Potential emissions from the operation and associated activities will be modelled, to determine the predicted ambient air pollutant concentrations (for criteria air pollutants and dustfall only). • Emissions will be modelled for the construction and operational phases of the project. • The output of the dispersion model will include contour maps presenting the area of dispersion and the results of the assessment. • Comparison of the predicted concentrations will be made with the South African National Ambient Air Quality Standards and Dust Control Regulations to determine compliance. Where there are no SA standards, international standards will be used to determine compliance. <u>Impact Assessment - Analysis and Interpretation</u> • Dispersion simulations of ground level pollutant concentrations will be carried out. The anticipated and cumulative impacts of the activities on the ambient air quality of the area will also be identified and discussed. – Analysis of dispersion modelling to highlight: ○ Predicted zones of maximum ground level impacts (particulate and gaseous emissions for selected criteria air pollutants). ○ Maximum concentrations at the boundary of the site. ○ Maximum concentrations at identified nearby discrete receptors. ○ Area of exceedances of selected criteria air pollutants and dust fallout. • General recommendations will be provided regarding the mitigation and management of the identified potential impacts. This may include the implementation of an air quality monitoring programme.
7. Blasting and Vibrations	The following scope of work is presented to ensure proper evaluation of possible blasting and vibration influences: <u>Information capture.</u> • Review of site considering the various installations in and around the proposed blasting area, • Definition of existing structures and review of possible concerns <u>Modelling and report.</u> • A detailed EIA study report will be prepared and presented using data captured and information provided. The following aspects will be considered and presented as different sections in a final report:

Study	Terms of Reference
	– Introduction – Background information of the proposed site – Mining operations and / or Blasting Operation Requirements – Impact Evaluation – Mitigations and recommendations – Basic structure information. A structure profile that will indicate what is typical of the area. This is not a full photographic survey but will assist in making a proper evaluation of allowable ground vibration and air blast levels.

9.3 Proposed EIA Methodology

The EIA will be undertaken according to the method detailed below. This methodology is compliant with the NEMA 2014 EIA Regulations, as amended in 2017 and 2021.

Generally, the impact assessment is divided into three parts:

- **Issue Identification** – each specialist will be asked to evaluate the 'aspects' arising from the project description and ensure that all issues in their area of expertise have been identified.
- **Impact Definition** – positive and negative impacts associated with these issues (and any others not included) then need to be defined – the definition statement should include the activity (source of impact), aspect and receptor as well as whether the impact is direct, indirect or cumulative. Fatal flaws should also be identified at this stage.
- **Impact Evaluation** – this is not a purely objective and quantitative exercise. It has a subjective element, often using judgement and values as much as science-based criteria and standards. The need therefore exists to clearly explain how impacts have been interpreted so that others can see the weight attached to different factors and can understand the rationale of the assessment.

To understand the impact evaluation, the sensitivity of the receiving environment, the effect on the receiving environment and the significance of the impacts, these three points above need to be clearly described. The impact assessment methodology that will be used during the EIA Phase is described in Chapter 8.

9.3.1 Assessment of the Duration of Significance

Duration of significance of impacts will be assessed using the following criteria, where the duration of time relates to how long that impact will occur for during that phase of the project. Specific durations will be allocated to each project phase in the EIA document where the detailed impact assessment rating will be undertaken. For example, for the operational phase:

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

9.3.2 Stages at which the Competent Authority will be Consulted

The DMPR and Commenting Authorities will be consulted at various stages during the EIA process. This includes:

- Pre-application meetings.
- Announcement and Scoping Phase.
- EIA Phase.

9.3.3 Public Participation to be undertaken during the EIA Phase

Stakeholder engagement during the EIA Phase involves a review of the findings of the impact assessment presented in the EIA Report for public comment which will be made available. Stakeholders will be notified using the following:

- Media advertisements in the same newspapers used during the Scoping Phase to announce the availability of the draft EIA Report for public comment.
- Registered stakeholders will be informed by way of personal letters/ SMS distributed by mail and e-mail in advance of the report being available.
- Stakeholders will be invited to attend a public Open Day where the contents of the EIA Report will be presented, and stakeholders will have an opportunity to comment. Details of the meeting will be confirmed closer to the time of the meeting.

Following the availability of the draft EIA Report, meetings with relevant stakeholders will be undertaken. During the EIA Phase, stakeholders will be invited to comment on the EIA Report in any of the following ways:

- By raising comments during key stakeholder/ public meetings where the content of the draft EIA Report will be presented.
- By completing comments sheets available with the report at public places, and by submitting additional written comments, by email, fax or by telephone, to Kongiwe.
- The draft EIA Report will be available for comment for a period of 30 days at public places in the project area, sent to stakeholders who request a copy, and placed on the Kongiwe website.

All comments and issues raised during the 30-day public comment period will be incorporated into the final EIA Report to be submitted to the competent and commenting authorities. Description of the information to be provided to stakeholders includes:

- The project description (final site layout, all alternatives investigated) and the surrounding baseline environment.
- Findings from the specialist studies undertaken.
- Potential biophysical and socio-economic impacts during construction, operations, closure and decommissioning phases of the project.
- Management/ mitigation measures developed to address the potential impacts.
- The closure objectives, plan and financial provision.
- Details on how stakeholders can comment on the draft EIA Report.

9.3.4 Tasks to be undertaken during the Environmental Impact Phase

The plan of study for the EIA Report is set out below for review by the authorities and stakeholders. The rationale for the different levels of study for the various environmental components will be taken from the issues raised by stakeholders, the expected severity of impacts and the level of confidence required in their prediction. The level of information required to develop adequate, practical management and mitigation measures was also a consideration in determining the terms of reference of studies.

Within the EIA Phase, the EIA Report, WUL and stakeholder engagement activities will run concurrently. During the EIA Phase, the following will be undertaken:

1. Specialists will conduct and complete specialist impact assessments. Workshops will be held with specialists to workshop all potential impacts and integrate specialist studies.
2. Stakeholder engagement materials will be prepared (advertisements, notification letters, site notices), and a public open day, focused group meetings and consultation with affected landowners will be undertaken.

3. A draft EIA Report will be compiled, and management measures and commitments workshopped with the Applicant.
4. The draft EIA Report will be made available for public review and comment.
5. The final EIA Report, including public comments and responses, will be submitted to authorities for decision-making.

9.3.5 Mitigation, Management and Monitoring of Identified Impacts

The summary of potential issues identified during the Scoping Phase of the project have been indicated in Section 8. These impacts require further investigation during the EIA Phase. Section 9 provides an indication of the independent specialist studies, field surveys and assessments that are required to form part of the EIA Phase. The specialist studies will consider the footprint proposed for the Proposed Project, including all associated infrastructure. With this information, the Proposed Project will be able to fully assess and investigate the feasible and reasonable alternatives proposed in Chapter 5.

The possible mitigation measures that could be applied and the level of risk is depicted as follows:

The potential impacts identified for the Proposed Project have been described below. It is important to note that these impacts have not yet been ground-truthed or rated for significance by specialists. The impacts have been described based on what the current status of the sites, as well as existing information assessed at a desktop level. The below impacts, and other identified impacts, will be fully described during the Environmental Impact Assessment (EIA) phase.

Table 9-3: High Level Mitigation Measures for Potential Impacts Identified

Aspect Affected	Phase	Potential Impact	Mitigation Measures
Surface water	Construction, operation phase	• Potential hydrocarbon spills during the construction of the seismographic monitoring stations and the development of gravel access tracks.	• Implement spill-prevention systems (drip trays, spill kits). • Conduct hydrocarbon management training for staff. • Create and maintain an emergency response plan for accidental spills and leakage. • Implement a detailed surface water management as described in the surface water impact report.
Groundwater (Deep and shallow aquifer)	Construction, operation phase	• Dewatering of deep aquifer causing groundwater level decline. • Lowering of the water table in the shallow aquifer. • Groundwater flow alteration. • Potential seepage of mine water to the groundwater system may contaminate groundwater resources.	• Seal off deep permeable fractures. • Seal off fractures linked to shallow aquifer. • Ensure effective management of any accidental spills. • Protect existing users of groundwater from impacts on water quality and quantity. • Re-use and or treatment prior to any discharge to the environment. • Implement groundwater monitoring. • Implement a detailed groundwater management as described in the groundwater impact report.
Biodiversity (Fauna and Flora)	Construction, operation phase	• Vegetation clearance required for the installation of the seismographic monitoring stations and the development for the gravel access tracks may result in the loss of habitat for local flora and fauna, potentially disrupting ecological communities and reducing biodiversity in the affected area.	• Areas to be developed must be specifically demarcated as per the site layout plans so that only the demarcated areas are impacted. • All work areas and access roads must be clearly demarcated from surrounding natural areas and no unauthorised persons should be allowed to enter these areas. • Areas rated as highly sensitive must be declared as 'no-go' areas. • No waste to be dumped in no-go areas. • If any flora and/or faunal species are recorded an appropriate specialist should be consulted to identify the correct course of action. This is applicable to all species, even smaller species such as rodents, reptiles and amphibians.
Soil	Construction, operation phase	• Potential soil contamination from hydrocarbon spills during the construction of seismographic monitoring stations and the development of gravel access tracks.	• Implement spill-prevention systems (drip trays, spill kits). • Conduct hydrocarbon management training for staff. • Create and maintain an emergency response plan for accidental spills and leakage. • Implement a detailed soil management as described in the soil, land use and land capability assessment.
Geology	Operation phase	• Unavoidable impact to geology due to underground mining. • Subsidence risk above mined-out areas. • Seismicity risk from deep-level blasting.	• Geological impacts associated with underground mining are unavoidable due to the nature of the activity. However, mining operations must be undertaken strictly in accordance with a detailed Life-of-Mine (LoM) plan to ensure that impacts are managed and controlled as far as reasonably practicable. • Regular conduct geotechnical assessments to monitor subsidence zones. • Controlled blasting with real-time seismic monitoring. • Ensure that an accurate and comprehensive closure-related financial provision is calculated and secured prior to the commencement of mining activities, to guarantee that sufficient funds are available for the rehabilitation, management, and remediation of any residual geological and environmental impacts arising from underground mining operations. • Implement a detailed vibration and blasting management as described in the Blasting and Vibrations report.
Social	Construction, operation phase	• Potential employment opportunities and job security. • Potential investment in local economy. • Influx of people seeking employment. • Potential community conflict and increases in certain social challenges (e.g., in-migration and potential increases in crime).	• Prioritise local hiring and procurement. • Implement Social and Labour Plan (SLP) initiatives • Establish community engagement and grievance mechanisms

Aspect Affected	Phase	Potential Impact	Mitigation Measures
		• Impact on economic and social infrastructure in the local area. • Impact on local resource use (energy, water).	
Air quality	Construction, operation phase	• Dust emission during the installation of the seismographic monitoring stations and the development for the gravel access tracks. • Dust emissions from ore handling. • Diesel exhaust emissions.	• Implement air quality monitoring programme • Implement a detailed air quality management as described in the air quality impact report.
Vibration	Operation phase	• Vibration from shaft hoisting operations and ore handling. • Vibration impacts from underground blasting and drilling.	• Controlled blasting with vibration limits • Notify communities of blasting schedules • Continuous vibration monitoring

10.Assumption, Limitations and Uncertainties

Certain assumptions, limitations, and uncertainties are associated with the Scoping phase. This report is based on information that is currently available and, as a result, the following limitations and assumptions are applicable:

- The scoping process and report is based on the technical information and process description provided by the Applicant.
- The description of the baseline environment has been obtained from a desktop analysis.

11.Conclusion

This scoping exercise is being undertaken to present the proposed activities to the I&APs as well as various stakeholders and to identify environmental issues discussed in this report and concerns raised as a result of the proposed development alternatives to date.

The DSR, being undertaken in terms of NEMA, summarises the process undertaken, the alternatives presented, and the issues and concerns raised. All issues and concerns raised by I&APs, authorities, the project team as well as specialist input, based on the assessment undertaken will be dealt with and incorporated into the EIA Report.

Although mining activities often generate positive social and economic benefits, they may also result in notable negative environmental impacts. Prioritising environmental stewardship, complying with relevant environmental legislation, and implementing specialist recommendations and sustainable operational practices will be required to minimise its environmental footprint and reduce ecological impacts as far as possible while balancing the economic and social benefits.

At this stage, the findings of this DSR indicate that no environmental fatal flaws have been identified for the Proposed Project. While some limitations do exist, it is anticipated that the implementation of appropriate mitigation measures would assist in reducing the significance of such impacts to acceptable levels. Impacts associated with the Proposed Project need to be considered further during the EIA Phase according to the Way Forward and the Plan of Study contained in this report.

According to the Way Forward and the Plan of Study, contained in this report, impacts associated with the Proposed Project need to be considered further during the EIA Phase.

Above all, the significance of the impacts associated with the alternatives proposed will be assessed further in the specialist studies, as part of the EIA. Once the specialist studies have been completed, they will be summarised in an Environmental Impact Report (EIR), which integrates the findings of the assessment phase of the EIA. Should the EIA process be authorised, the significant issues raised in the process to date will be addressed and the specialist studies noted in this report, will be undertaken.

12.Declaration of Independence

12.1 Undertaking Regarding Correctness of Information

I, **Ripfumelo Macevele**, herewith undertake that the information provided in the foregoing report is correct.

Signature of EAP

Date: 20 May 2026

12.2 Undertaking Regarding Level of Agreement

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

Signature of EAP

Date: 20 May 2026

13.References

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Appendix A: EIA Project Team CV's

RIPFUMELO MACEVELE

Environmental Consultant
Kongiwe Environmental

RMACEVELE@KONGIWE.COM

+27 (10) 140 6508

150 BRYANSTON DRIVE
BRYANSTON, SANDTON, 2191
SOUTH AFRICA

PROFESSIONAL REGISTRATIONS

South African Council for Natural Science Professionals (SACNASP) – 2021

Environmental Assessment Practitioners Association of South Africa (EAPASA) – 2023

EDUCATION

2024 - B.Sc. Honours Environmental Management, University of South Africa

2018 - B.Sc. Environmental Science, University of Venda

LANGUAGES

English – Fluent
isiZulu – Fluent
Xitsonga – Fluent
Tshivenda – Fluent
Setswane – Fluent

KONGIWE

IMPACT

Ripfumelo is a Junior Environmental Consultant with 8 years of hands-on experience supporting environmental assessments and compliance processes across the mining and infrastructure sectors. He holds a bachelor's degree in Environmental Sciences and is registered with both SACNASP as a Candidate Natural Scientist and EAPASA as an Environmental Assessment Practitioner. His project contributions include environmental impact assessments, water use licence applications, environmental management programmes, and site-based environmental monitoring. Ripfumelo is committed to regulatory compliance, technical quality, and building his expertise in environmental management through practical project involvement.

KEY SKILLS

- Environmental Compliance Monitoring and Auditing
- Environmental Impact Reporting and Authorisation
- ECO Field Work and Reporting
- Report Writing
- GIS and Google Earth

SELECTED PROJECT EXPERIENCE

Mining and Industrial Projects – Gauteng, South Africa (2024–Current)

Environmental Consultant
Assisted in the EIA process for multiple mining infrastructure and effluent management projects, including mechanical reclamation of gold-bearing silts and tailings processing facilities. Supported IWULAs through the E-WULAAS portal and conducted authority engagements and stakeholder consultation meetings. Oversaw logistics and ensured compliance across overlapping EIA and WULA processes.

Renewable Energy Projects – Mpumalanga, South Africa (2025–Current)

Environmental Consultant
Contributed to the Basic Assessment process for a large-scale solar PV and BESS project. Responsibilities included environmental screening, regulatory coordination, and stakeholder engagement to support project authorisations.

Environmental Compliance Audits – Mpumalanga & KwaZulu-Natal, South Africa (2024–Current)

Environmental Consultant
Conducted external environmental compliance audits (EMPr, WUL, and WML) across multiple operational mining complexes. Evaluated compliance against authorisations, identified gaps, and proposed practical mitigation and improvement measures to align with legal and corporate environmental standards.

Environmental Assessment Practitioners Association of South Africa

Registration No. 2019/1051

Herewith certifies that

RIPFUMELO CLARENCE MACEVELE

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

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UMESHREE NAICKER

Principal Environmental Consultant
Kongiwe Environmental

UNAICKER@KONGIWE.COM

+27 (10) 140 6508

150 BRYANSTON DRIVE
BRYANSTON, SANDTON, 2191
SOUTH AFRICA

PROFESSIONAL REGISTRATIONS

South African Council for Natural Science Professionals (SACNASP) – 2019

Environmental Assessment Practitioners Association of South Africa (EAPASA) – 2019

GEOGRAPHICAL EXPERIENCE

AFRICA
South Africa, Mozambique, Botswana, Tanzania, Zimbabwe, Swaziland and Lesotho

EDUCATION

2011 - B.Sc. Honours Environmental Monitoring and Modeling, University of South Africa

2006 - B.Sc. Biological Sciences, University of KwaZulu-Natal

KONGIWE

IMPACT

Umeshree is a Senior Environmental Scientist with 17 years experience across South Africa and the wider African region, specialising in renewable energy, water, transport, and infrastructure projects. She has extensive expertise in environmental consulting, social impact assessments, and project management, having led ESIAs, Basic Assessments, Scoping Reports, Environmental Management Programmes, and stakeholder engagement processes in alignment with South African legislation and IFC Performance Standards. Umeshree has managed multidisciplinary teams, overseen specialist appointments, guided environmental processes through public participation and compliance phases, and represented clients in steering committee meetings, ensuring successful integration of environmental requirements into large-scale developments for both public and private sector clients.

KEY SKILLS

- Environmental and Social Impact Assessments (ESIAs)
- Basic Assessments, Scoping Reports & Environmental Management Programmes
- Project Management & Administration
- IFC Performance Standards Compliance
- Transaction Technical Advisory
- Stakeholder Engagement & Public Participation
- Strategic Report Writing & Client Liaison

SELECTED PROJECT EXPERIENCE

Mokolo and Crocodile River (West) Water Augmentation Project – South Africa (2018–2025)

Senior Environmental Scientist
Served as supportive lead to the environmental team on the development of project-specific environmental processes and report compilation including Environmental Management Programmes, technical evaluations, specialist appointments and management, and project management.

Waterkloof Solar IPP Programme – South Africa (2017–2020)

Senior Environmental Scientist
Conducted the Scoping and Environmental Impact Assessment (EIA) process, public participation process and baseline assessments for 108MW solar plant near Rustenburg.

Redevelopment of Six Border Posts – Lesotho (2016–2019)

Project Manager
Oversaw the environmental, civil, geotechnical, and building services teams as part of the feasibility and procurement processes.

Environmental Assessment Practitioners Association of South Africa

Registration No. 2019/1665

Herewith certifies that

UMESHREE NAICKER

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

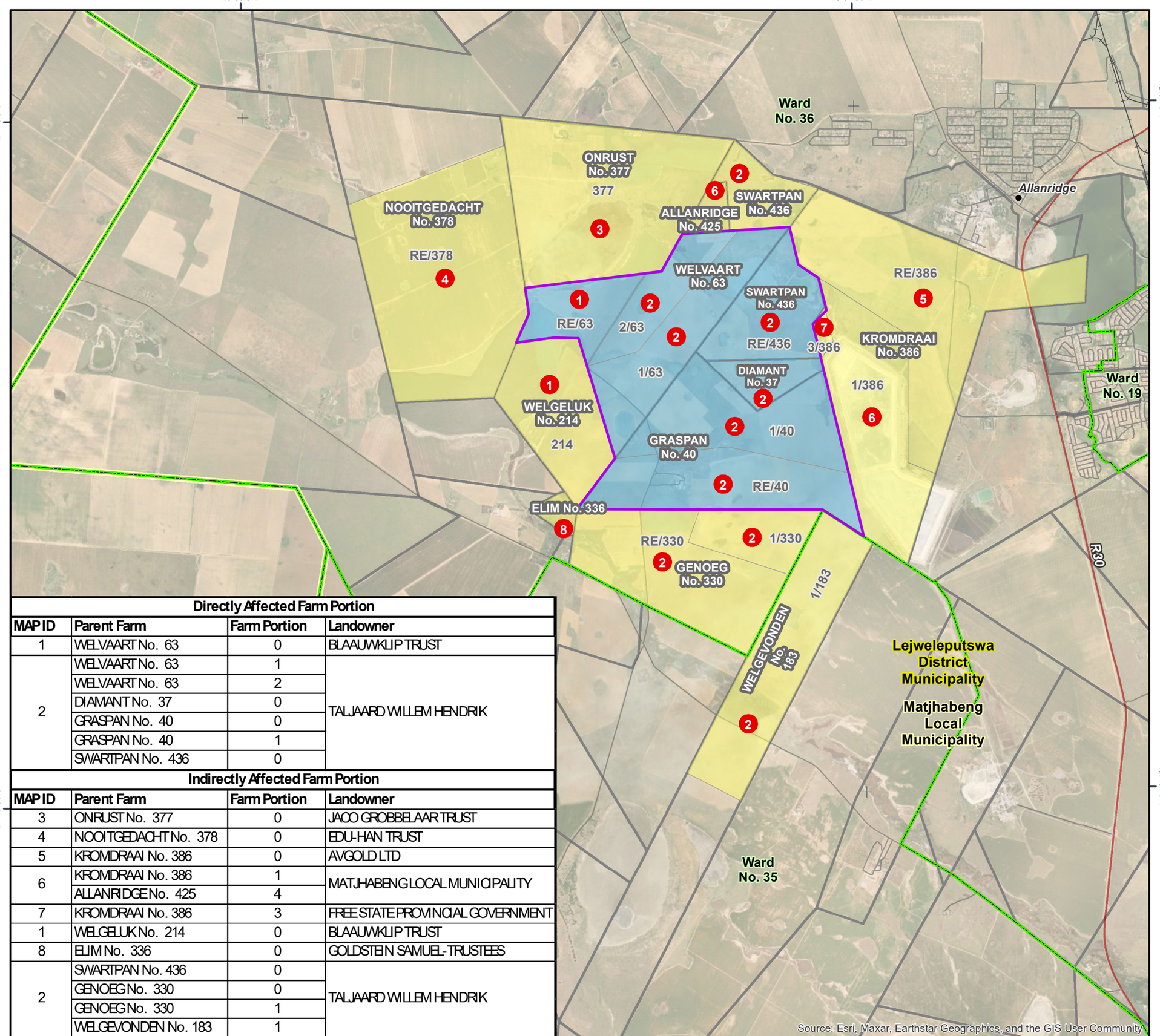
Expires: 31 March 2027

Chairperson

Registrar

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

Appendix B: A3 Maps



Directly Affected Farm Portion			
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1	WELVAART No. 63	0	BLAAUWKLIP TRUST
2	WELVAART No. 63	1	TALJAARD WILLEM HENDRIK
	WELVAART No. 63	2	
	DIAMANT No. 37	0	
	GRASPAN No. 40	0	
	GRASPAN No. 40	1	
	SWARTPAN No. 436	0	

Indirectly Affected Farm Portion			
MAP ID	Parent Farm	Farm Portion	Landowner
3	ONRUST No. 377	0	JACO GROBBELAAR TRUST
4	NOOITGEDACHT No. 378	0	EDU-HAN TRUST
5	KROMDRAAI No. 386	0	AVGOLD LTD
6	KROMDRAAI No. 386	1	MATJHABENG LOCAL MUNICIPALITY
	ALLANRIDGE No. 425	4	
7	KROMDRAAI No. 386	3	FREE STATE PROVINCIAL GOVERNMENT
1	WELGELUK No. 214	0	BLAAUWKLIP TRUST
8	ELIM No. 336	0	GOLDSTEIN SAMUEL-TRUSTEES
2	SWARTPAN No. 436	0	TALJAARD WILLEM HENDRIK
	GENOEG No. 330	0	
	GENOEG No. 330	1	
	WELGEVONDEN No. 183	1	

KONGIWE

JELANI RESOURCES

LAND TENURE

Legend

- Other Settlement
- Local Roads
- Main Road
- Railway
- Jelani Resources Boundary
- Parent Farm
- Ward Boundary
- Local Municipality
- District Municipalities
- Directly Affected
- Indirectly Affected

0 0.5 1 2 3

Kilometres

Project Code: JELA#001
Client: Jelani Resources
Drawn: C Strooh | Checked: Z Omar

www.kongiwe.com | Date: 04 December 2025

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Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

(A3)

2025 Satellite Imagery

Disclaimer
The information represented in this plan is for general information purposes only and is subject to change.

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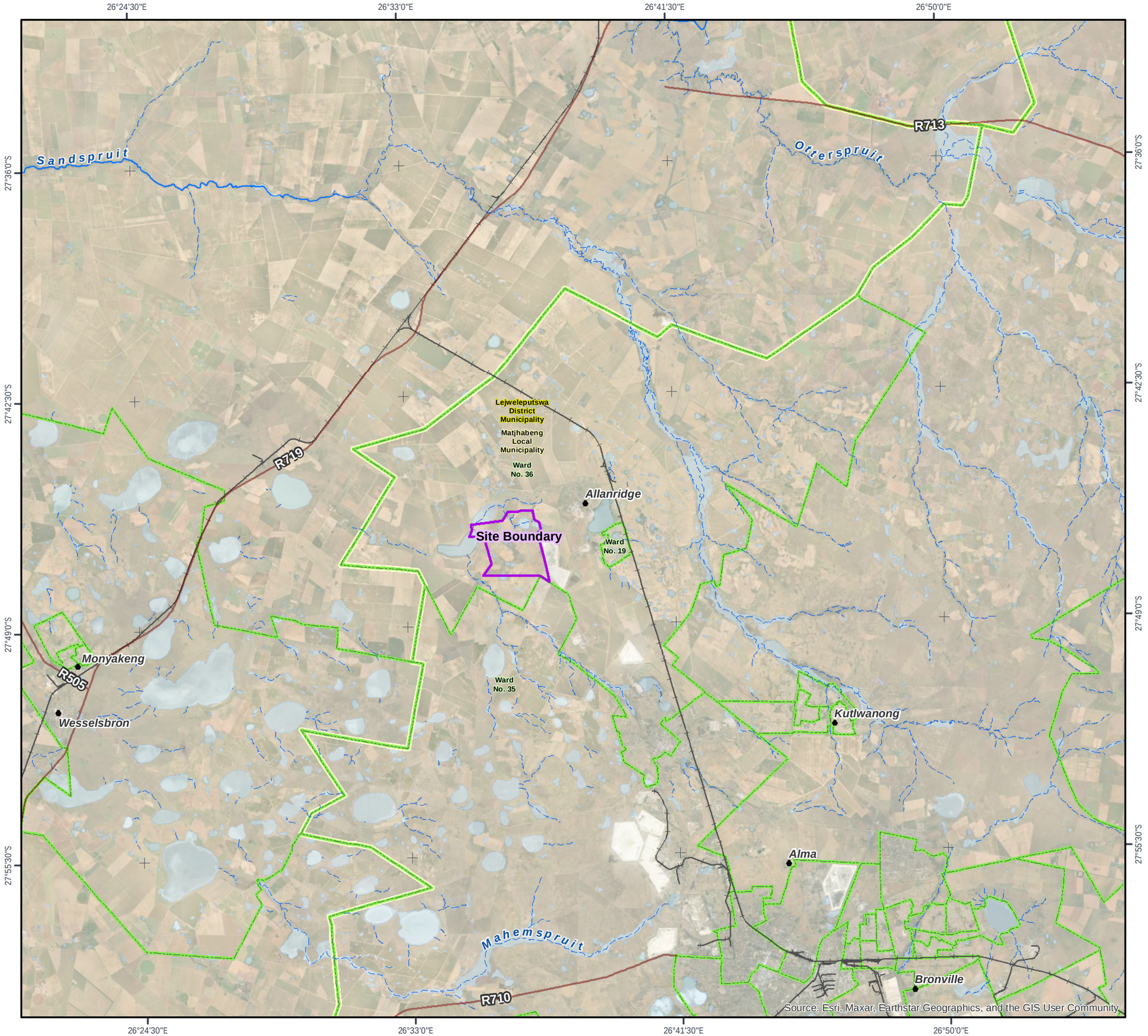

KONGIWE

JELANI RESOURCES

LOCAL ORIENTATION

Legend

- Other Settlement
- Non-Perennial River
- Perennial River
- Main Road
- Railway
- Jelani Resources Boundary
- Ward Boundary
- Local Municipality
- District Municipalities
- Water Areas

0 1 2 4 6 8 10 12 14

Kilometres

Project Code: MERA#001
Client: Mera Advisers
Drawn: C Strooh | Checked: Z Omar

www.kongiwe.com | Date: 17 November 2025

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Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

(A3)
2025 Satellite Imagery

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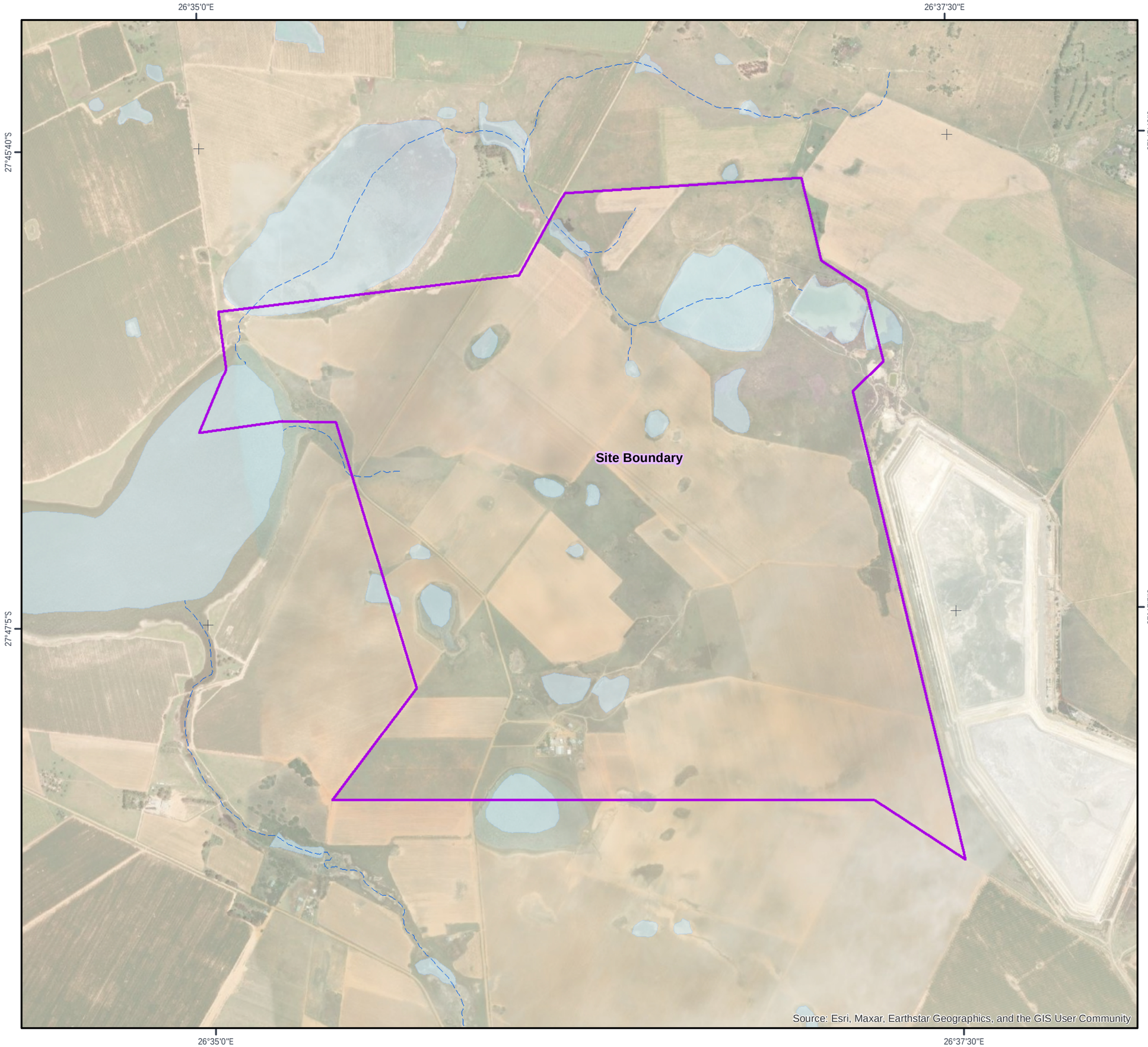

KONGIWE

JELANI RESOURCES

SITE INFRASTRUCTURE

Legend

- Other Settlement
- Non-Perennial River
- Perennial River
- Main Road
- Railway
- Jelani Resources Boundary
- Water Areas

0 0.25 0.5 1 1.5

Kilometres

Project Code: MERA#001
Client: Mera Advisers
Drawn: C Strooh | Checked: Z Omar

www.kongiwe.com | Date: 17 November 2025

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Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

(A3)
2025 Satellite Imagery

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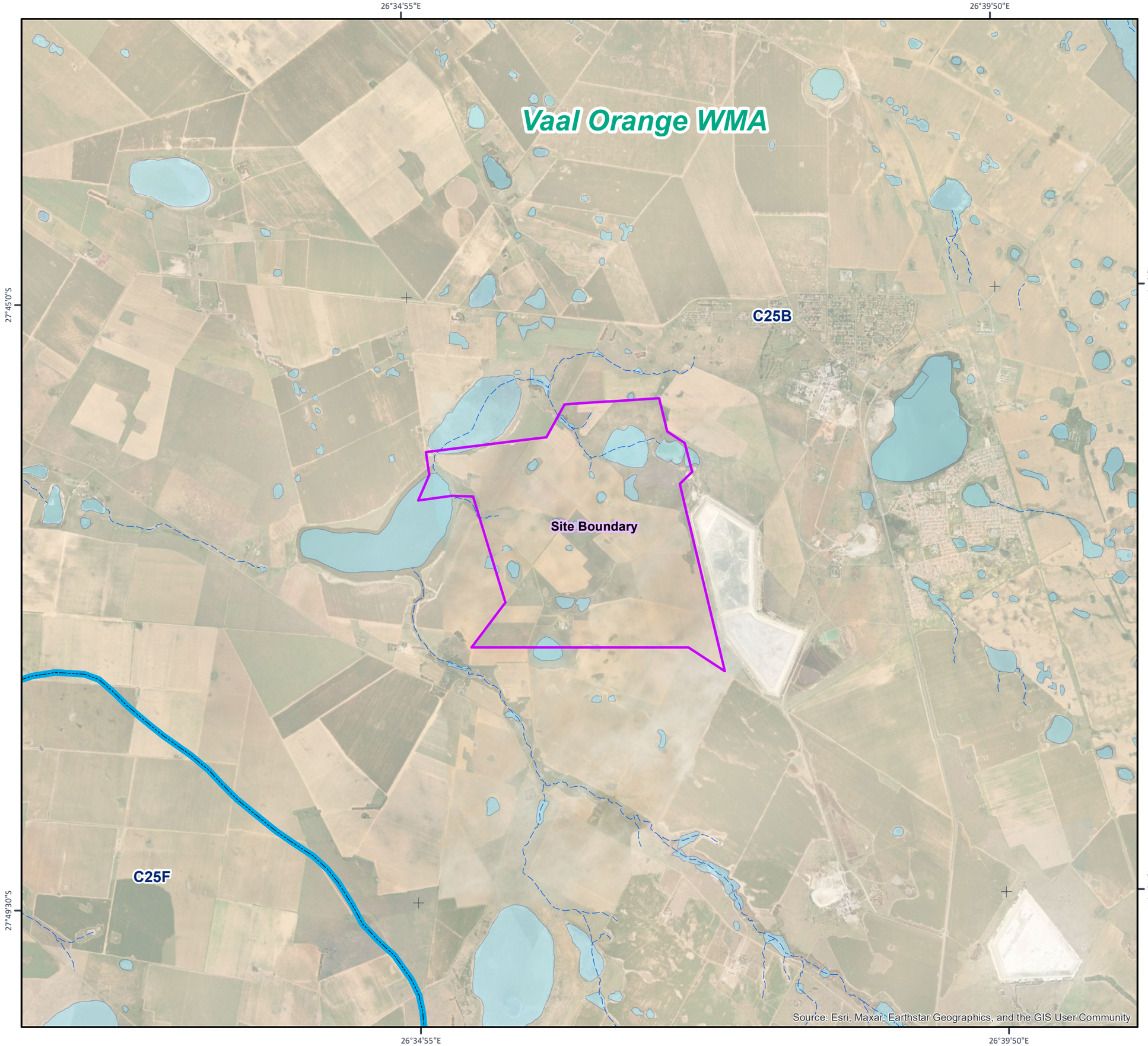

KONGIWE

JELANI RESOURCES

SURFACE WATER

Legend

- Non-Perennial River
- Jelani Resources Boundary
- Water Management Areas (WMA)
- Quaternary Catchments
- Water Areas

0 0.5 1 2 3

Kilometres

Project Code: JELA#001
Client: Jelani Resources
Drawn: C Strooh | Checked: Z Omar

www.kongiwe.com | Date: 17 December 2025

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2025 Satellite Imagery

Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

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FILE REF:
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26°34'55"E
26°39'50"E
27°45'0"S
27°49'30"S

Site Boundary

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

KONGIWE

JELANI RESOURCES

WETLANDS

Legend

- Jelani Resources Boundary
- Wetlands

0 0.5 1 2 3

Kilometres

Project Code: JELA#001
Client: Jelani Resources
Drawn: C Strooh | Checked: Z Omar

www.kongiwe.com | Date: 18 December 2025

1:50 000

Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

(A3)
2025 Satellite Imagery

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Appendix C: Public Participation Information

Jelani Resources (Pty) Ltd

Environmental Authorisation and Integrated Water Use Licence Application for Jelani Joint Venture (JV) Area Underground Mining Project, Free State Province

Public Participation Report for the Draft Scoping Phase

May 2026

Report Preparation By

Kongiwe Environmental (Pty) Ltd	
Registration Number	2016/135562/07
Telephone Number	+27 (10) 140 6508
Email	info@kongiwe.com
Registered Address	150 Bryanston Drive, Bryanston, Sandton, 2191, South Africa
Mailing Address	PostNet Suite No 163, Private Bag X21, Bryanston, 2021, South Africa
Website	www.kongiwe.com

Report Information

Client	Jelani Resources (Pty) Ltd
Project	Jelani Joint Venture (JV) Area Underground Mining Project
Report Title	Public Participation Report
DMPR Reference No.	FS30/5/1/2/3/2/1(10098) MR
DWS Reference No.	WU50090
Project No.	JELA#001
Compilation Date	May 2026
Status of Report	Public Participation Report for the Draft Scoping Report
Actions	Application for Environmental Authorisation (EA)

Approval

Verification	Name	Capacity	Signature	Date
Compiled by	Vanessa Viljoen	Principal Stakeholder Consultant		15 May 2026
Reviewed by	Ripfumelo Macevele	Environmental Consultant		18 May 2026
Approved by	Umeshree Naicker	Principal Environmental Consultant		May 2025

Please consider the Environment before you print this document.

Table of Contents

List of Tables

List of Appendices

Abbreviations

Abbreviation	Description
BID	Background Information Document
CA	Competent Authority
CBO	Community-Based Organisation
CRR	Comments and Response Report
DALRRD	Department of Agriculture, Land Reform and Rural Development
DMPR	Department of Mineral and Petroleum Resources
DSR	Draft Scoping Report
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme Report
FSR	Final Scoping Report
ha	Hectare
I&AP	Interested and Affected Party
IAP2	International Association for Public Participation
IFC	International Finance Corporation
JV	Joint Venture
km	Kilometre
m	Metre
MLM	Matjhabeng Local Municipality
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NGO	Non-Governmental Organisation
PAIA	Promotion of Access to Information Act, 2000 (Act No. 2 of 2000)
PGMs	Platinum Group Metals
POPIA	Protection of Personal Information Act, 2013 (Act No. 4 of 2013)
PPP	Public Participation Process
PR	Prospecting Right
PS	Performance Standard
S&EIA	Scoping and Environmental Impact Assessment
SMME	Small, Medium and Micro Enterprise
SMS	Short Message Service
t/month	Tonnes per month (production rate)

Abbreviation	Description
TSF	Tailings Storage Facility

Reference Documents

References	Description
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)	Framework environmental law for South Africa
Environmental Impact Assessment Regulations, 2014 (as amended) (EIA 2014 Regulations)	Regulations under NEMA governing EIAs
Public Participation guideline in terms of NEMA Act No. 107 of 1998	Guideline on public participation under NEMA
National Environmental Management: Waste Act, 2008 (Act 59 of 2008)	Waste management legislation
List of Waste Management Activities (GN R921 of 29 Nov 2013, as amended)	Prescribed waste management activities
National Water Act, 1998 (Act 36 of 1998)	Water resource management legislation
Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA)	Law promoting access to information
Protection of Personal Information Act, 2013 (Act No. 4 of 2013) (POPIA)	Law safeguarding personal information

1. Project Background and Motivation

Kongiwe Environmental ('Kongiwe') has been appointed by Jelani Resources (Pty) Ltd ('Jelani') to compile this Public Participation Report for their proposed mining Project ('the Project'), which is located adjacent to Harmony Gold Limited's Target Operation (Target). The Project's centre point is approximately 3 kilometres (km) south-west of the small mining town of Allanridge, and 32 km north of Welkom in the Matjhabeng Local Municipality (MLM), Free State Province.

Jelani is a joint venture (JV) company established by White Rivers Exploration and Harmony Gold. The JV was formed to conduct underground mining operations within the Joint Venture (JV) area, which is made up of areas within the existing Harmony Target mining right (Harmony contribution) and Prospecting Rights (PR) areas to the west of Harmony Gold's existing Target Mine (WRE contribution). Following the exploration, Jelani intends to initiate underground mining operations within the same area.

The Proposed Project entails the licensing of underground mining activities for various minerals, with a primary focus on gold ore, as well as silver, uranium and other associated minerals.

The project's development includes utilising the available spare capacity within Harmony's existing infrastructure at the Target Mine. This includes the Target No. 3 and No. 2 shafts, the Target No. 1 Processing Plant and associated surface infrastructure. All operational mining infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project area.

Project operations will focus on the main horizons within the Central Rand Group of the Witwatersrand Supergroup, which sub-crops against the Ventersdorp Supergroup. It is anticipated that the extensions of these two reefs, together with other reefs, will be economically viable at a depth of between 1,500 and 2,600 metres (m) below surface. As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of mined ore per month.

Two mining methods have been identified as the most practical for exploiting the mineral resources: conventional breast mining and shrinkage stoping. The selection of each method is primarily based on the dip of the mineralised reef, with the shrinkage stoping being used for the steeper slopes (3% of the total stope tonnage). Where the orebody dips below 55°, conventional breast mining will be used.

To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary, withshort gravel access tracks provided for each station . These installations represent the only surface infrastructures on the JV project area.

Additionally, a new Tailings Storage Facility (TSF) will be constructed to the west of the existing Target metallurgical plant and north of the existing Target TSF. The total area required for this new facility is approximately 69 Hectares (Ha). This TSF is a separate project being undertaken by Harmony Gold.

2. Public Participation

The Public Participation Process (PPP) offers stakeholders an opportunity to be informed about the Proposed Project, to raise issues and provide suggestions for mitigating potential negative impacts and enhancing positive ones. The PPP has been developed to ensure compliance with relevant legislation and facilitate meaningful stakeholder engagement, as required for the Environmental Authorisation (EA) and Environmental Management Programme (EMPr) processes (discussed below).

3. Legislative Requirements and Good-Practice Guidelines

3.1 Applicable Legislation and International Best Practice

The Public Participation Process (PPP), as required by the environmental law and regulations specified therein, is being undertaken in line with the statutory requirements for public participation. The following legislation was considered when developing and implementing the PPP:

- National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).
- The Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) (EIA 2014 Regulations).
- Public Participation guideline in terms of NEMA.
- National Environmental Management: Waste Act, 2008 (Act No 59 of 2008) (NEM:WA) and the List of Waste Management Activities (GN R921 of 29 November 2013, as amended).
- NWA (Act No. 36 of 1998).
- Protection of Personal Information Act, 2013 (Act No. 4 of 2013) (POPIA).
- Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA).

NEMA mandates public participation for environmental decision-making, ensuring affected communities have a voice in development projects through the EIA Regulations, 2014. The NEMA Public Participation Guideline (in terms of the EIA Regulations) is a mandatory part of the (EA process, aiming for transparent, informed decisions that promote sustainable development by integrating social, economic, and environmental factors.

The NWA is the primary law for the protection, management, and equitable use of the water resources. The NWA establishes the government's role in allocating water resources, promoting sustainable use of water resources, and preventing pollution.

The POPIA regulates the processing of personal information by both public and private bodies, aiming to protect individuals' constitutional right to privacy.

The PAIA gives effect to the constitutional right to access information held by both the state and private bodies. The Act establishes procedures for individuals to request information for the protection or exercise of their rights.

POPIA: Safeguarding Registered Person's Personal Information
In terms of Section 19 of POPIA, a responsible party must, subject to Sections 9 and 11 of the Act, ensure the integrity and confidentiality of personal information in its possession or under its control by taking appropriate, reasonable technical and organisational measures to prevent loss of, damage to or unauthorised destruction of personal information, unlawful access to or processing of personal information. POPIA requires that personal information should be adequately protected to avoid unauthorised access. Therefore, Kongiwe continuously reviews security controls and procedures to ensure that personal information is secured. It should be noted that in terms of Section 11, personal information may be processed to the extent that this is necessary for pursuing the legitimate interests of the responsible party or parties to whom the information is supplied.

3.2 International Standards

In addition to the above legislation, the PPP is to be aligned to International good-practice guidelines for public participation, particularly in regard to the following Core Values of the International Association for Public Participation (IAP2):

- To be based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
- To include the promise that the public's contribution will influence the decision.

- To promote sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers.
- To seek out and facilitate the involvement of those potentially affected by or interested in a decision.
- To seek input from participants in designing how they participate.
- To provide participants with the information they need to participate in a meaningful way.
- To communicate to participants how their input affected the decision.

3.3 PPP Objectives for the Project

The PPP objectives for this Project include the following:

- Ensure that stakeholders are informed about the development of for the Project in an adequate and timely manner.
- Provide stakeholders with the opportunity to participate in the environmental regulatory processes and provide comment.
- Involve stakeholders in identifying ways in which comments can be addressed.
- Work directly with stakeholders throughout the environmental regulatory processes to ensure that stakeholder comments are consistently understood and considered.
- Verify that stakeholder comments have been recorded and addressed.

The stakeholder engagement process was undertaken in four phases as presented in Table 3-1 below.

Table 3-1: Stakeholder Engagement Activities

Project Phase	Activities to be Undertaken
Pre-Scoping Phase	• Pre-Application meeting with the Department of Mineral and Petroleum Resources (DMPR). • Pre-Consultation meeting with the Department of Water and Sanitation (DWS), Free State Province • Stakeholder identification (WinDeed searches, compilation of stakeholder database). • Consultation with communities (within the nearby surroundings of the Project). • Consultation with the relevant Authorities (including ward councillors/ward committees) (Microsoft Teams/ One-on-one consultation meetings). • Compilation of announcement documents, such as Background Information Documents (BIDs), Registration and Comment Forum, adverts, site notices and Draft Scoping Report (DSR) notification letter). • Obtaining initial comments, suggestions from stakeholders. • Land Claims enquiry.
Scoping Phase	• Consultations with Directly and Indirectly Affected Landowners (Consultation meetings). • Distribution and placement of Project announcement materials (site notices, and newspaper advertisements). • Updating of the stakeholder database. • Making available the DSR for public review and comment. • Providing stakeholders with further details of the Project and associated specialist studies. • Consultations with stakeholders (Online meetings and Open Day meetings). • Obtaining further comments or suggestions from stakeholders. • Development of Comments and Response Report (CRR), capturing all comments/questions and responses. • Informing specialists and the applicant about comments received from stakeholders. • Making available the Final Scoping Report.

Project Phase	Activities to be Undertaken
EIA Phase	• Provide feedback about the specialist studies conducted and mitigation measures proposed by means of consultation with stakeholders. • Provide opportunity for stakeholders to comment on specialist findings, impacts assessments and recommendations. • Make the relevant environmental reports available for public review and comment. • Consultation with stakeholders (Open Day and Online Meeting). • Verify that comments raised by stakeholder have been accurately recorded • Update CRR with new comments, questions and responses. • Inform specialists and the proponent of stakeholders' comments. • Making available the Final EIA / EMPr.
Decision Making Phase EIA	• Once the Competent Authority which is DMPR had come to a decision regarding the authorisation of the Project, all registered stakeholders will be notified of the decision made and the appeal process will be explained with associated timeframes.
Decision Making Phase WUL	• The IWULA will be submitted to DWS in terms of the NWA. Once DWS has come to a decision regarding the WULA, the DWS will notify the applicant and any person who has objected to the application. Written reasons for the decision will be given.

3.4 Summary of Issues Raised by Stakeholders

Comments raised by stakeholders during the Scoping Phase and EIA Phase will be included in the CRR, a template of which is presented in **Appendix C10**.

3.5 Public Participation Approach

3.5.1 Submission of the Environmental Authorisation Application Form

The application for the EA was submitted to the DMPR, which is the Competent Authority (CA) for the Project on **Tuesday, 21 April 2026**. A pre-application meeting was held with DMPR**.**

3.5.2 Pre-Application Meeting with Department of Mineral and Petroleum Resources (DMPR)

An online meeting was arranged and attended with DMPR officials on **Friday, 6 February 2026 from 08:00 – 09:00**.

The purpose of the meeting was to:

- Present and discuss the Project details.
- Provide an overview of the Environmental Process and Procedure.
- Provide an overview of the Specialist studies.
- Provide an overview of the Public Participation Process.
- Present and discuss the Project Timeframes.

Information was presented by means of a PowerPoint presentation. Minutes of the meeting were compiled and distributed to Mr Tuwani Monyai, Assistant Director: Mine Environmental Management and to Mr Cedrick Fhedzisani, Deputy Director: Mine Environmental Management. **(Appendix C8)**.

3.6 Submission of the Integrated Water Use Licence Application

The IWULAs process started when the Proposed Project was registered on the DWS' electronic Water Use Licence Application and Authorisation System (e-WULAAS)**.** A pre-application meeting will be held with DWS for the application.

3.7 Stakeholder Mapping and Identification

Stakeholder mapping is a process of identifying stakeholders before the Project commences. Identified stakeholders are grouped according to their levels of participation, interest, and influence in the Project. These groupings assist in determining how best to involve and communicate to each group throughout the PPP. Project stakeholders are defined as individuals / groups / entities that have an interest in the Project. Such stakeholders are referred to as Interested & Affected Parties (I&APs).

To ensure a proper representation of all stakeholders, the following identification methods were used as part of the stakeholder identification and analysis process:

- Desktop and online research and WinDeed search for the directly affected and adjacent farms.
- Identify and consult with relevant communities (within the nearby surroundings of the Project).
- Identify and consult with relevant Authorities (DMPR/ DWS).
- Identify and consult with the MLM and the Lejweleputswa District Municipality.
- Identify and consult relevant ward councillors and ward committees for affected wards:
  - Mr Clement Hanisi, Ward Councillor: Ward 36.
- Consult with adjacent landowners and land occupiers (directly and adjacent affected landowners).
- Consult with the Department of Land Reform and Rural Development (DLRRD), Office of the Regional Land Claims Commissioner: Free State Province.
- Consulting government departments on a National, Provincial and Local level relevant to the Project.
- Consult with stakeholders who respond to the publication of newspaper advertisements.
- Consult with stakeholders who respond to the distribution of project documentation.

I&APs have been grouped into the following broad categories:

- Landowners and occupiers:
  - With assets within the Project footprint (i.e., directly affected by the Project).
  - With assets adjacent to the Project footprint (i.e., adjacent affected by the Project).
  - Vulnerable persons, including female-headed household heads, children/ youth, the elderly, ethnic minorities, and disabled persons.
- Government: National, Provincial, and Local Municipality Authorities (including ward councillors and ward committee members).
- Parastatals: Various semi-government entities, organs of State.
- Communities: Surrounding communities (community leaders).
- Agriculture and Water: Associations, entities responsible for water management and/or regulation
- Environmental forums.
- Non-governmental Organisations (NGOs): Environmental organisations.
- Community-based Organisations (CBOs): Community forums.
- Business and Industry: Small, Medium and Micro Enterprises (SMMEs), mines, as well as industrial and large business organisations.

Updating the stakeholder database from attendance registers from a broad range of stakeholder meetings that will be held throughout the process, as indicated in **Appendix C1**.

3.7.1 Land Claims Enquiry

A formal letter of enquiry was compiled and sent to the DLRRD, Free State to **Mr Khomotso Mahlatji**, Office of the Regional Land Claims Commissioner on **Thursday, 14 May 2026**. The letter contained a list of all the directly affected properties for the project. Should DLRRD confirm that there are land claims on the affected project areas, Kongiwe will consult with the relevant parties, as shown in **Appendix C2**.

4. Communication and Engagement

4.1.1 Public Participation Materials: Scoping Phase

Considering the legislative requirements and good practice guidelines, the following documents will be developed and distributed to stakeholders. The various PPP information materials will be used as part of the Scoping and Environmental Impact Assessment (S&EIA) process.

Background Information Document (BID): The BID, as detailed in **Appendix C3,** were emailed on **Thursday, 14 May 2026**, to I&APs listed on the stakeholder database as illustrated in **Appendix C6.** The BID will also be available on the Kongiwe website: (https://kongiwe.com/projects/).

The BID provides the following details:

- An overview of the Project.
- The Scoping and EIA and the PPP to be undertaken in support of the relevant environmental authorisations.
- Details about how stakeholders can register as an I&AP and be kept informed about the Project developments.
- Invitation to attend an online meeting via Microsoft Teams.
- Invitation to attend an Open Day meeting.
- Contact details of the stakeholder engagement consultants.

Notification Letter with a Registration and Comment Form: An email was sent to stakeholders on **Thursday, 14 May 2026**, to inform them about the Proposed Project. The email also shared details of the Open Day and invited the greater public to formally register as I&APs. A 'Registration and Comment Form' was also provided for stakeholders to use for formal registration as an I&AP and to submit their comments as shown in **Appendix C3.**

A reminder notification will be emailed to further notify stakeholders of the availability of the DSR for public review and comment. The reminder emails will also serve the purpose of reminding stakeholders to attend the Open Day, and will be presented in **Appendix C6.**

Short Message Service (SMS): An SMS was sent to stakeholders with no access to the internet. Arrangements were made to ensure that these stakeholders had full access to Project documentation. Stakeholders were also notified on when the public meetings / open days will be held.

Newspaper Advertisements: A newspaper advert (refer to **Appendix C4**) was placed in the **Vista,** a local newspaper within the Project area, on **Thursday, 21 May 2026**. The advert included the following details:

- An overview of the Proposed Project.
- Legal framework and details of the competent authorities.
- How stakeholders can access the Draft Scoping Report for public review and comment.
- Registration as I&APs.
- Invitation to attend an online meeting via Microsoft Teams.
- Invitation to attend an Open Day meeting.
- Contact details of the stakeholder engagement consultants.

Site Notice: The site notice, presented in **Appendix C5**, will include the following:

- An overview of the Proposed Project, including a locality map.
- Legal framework and details of the competent authorities.
- PPP to be followed and where relevant information could be obtained.
- Invitation to attend an online meeting via Microsoft Teams.
- Invitation to attend an Open Day meeting and where stakeholders can register to attend.

Pictures and co-ordinates of where the site notices are placed will be recorded into in the site notice report, and a site notice map will be developed, and will be presented in **Appendix C5.**

Telephonic Discussions: Stakeholders were also consulted by means of telephonic discussions where required. These discussions facilitate the process of inviting stakeholders to stakeholder meetings and provide stakeholders with a platform to raise comments and suggestions regarding the Project. Comments raised through telephonic discussions were recorded and addressed by the project team (including the Environmental Assessment Practitioner (EAP) and relevant specialists).

5. Stakeholder Engagement Meetings

This Section outlines the consultation approach as well as details of consultations in relation to the Draft and Final Scoping Report.

5.1 Consultation Approach

Consultation during the Scoping phase aimed at providing stakeholders with an overview of the Proposed Project and to obtain comments to inform specialist studies and Project planning. Stakeholders were invited to participate through online and in-person engagements depending on preference. The purpose of these meetings was to discuss the Proposed Project, contents of the DSR, provide stakeholders with an opportunity to raise their comments and to interact with the Project team members. Locality, infrastructure and land tenure maps were distributed as part of these meetings.

The following meetings will be held:

- **Authority Meetings:** Meetings will be held with the relevant Authorities.
- **Landowner Meetings:** Consultation meetings will be held with directly and indirectly affected landowners.
- **Online Meeting:** Online meeting will be held with stakeholders who prefer online engagements.
- **Broader Public Consultation Meeting:** An Open Day will be held with the broader public during the public review period.

Focused efforts will be made to engage with directly impacted stakeholders (those residents in the Project area), including vulnerable groups at local level. These individuals will be consulted directly and via their representatives and other influential people within communities. Meetings will be held in a culturally appropriate manner, allowing stakeholders to voice their opinions openly. Stakeholders will be given the option to raise issues in the language of their choice and where translation is required, it will be provided.

Authorities, NGOs, landowners / land occupiers and community members will be engaged to promote attendance, by means of telephonic consultation and distribution of emails and SMS.

A list of meetings and consultations undertaken during the process will be provided in **Appendix C8.**

Minutes of these meetings, along with the presentation materials, will be compiled and distributed to all stakeholders who attended, and will be shown in **Appendix C8.**

All comments raised by stakeholders during these meetings will be recorded in the CRR, with responses prepared in accordance with the project scope and available information, as detailed in **Appendix C10.**

5.2 Consultation to be Undertaken for the Scoping Phase

Stakeholders are invited to participate through online and in-person engagements. Consultation meetings will be held using platforms like Microsoft Teams and an Open Day. The purpose of these meetings is to discuss the Project and the contents of the DSR and to provide I&APs with an opportunity to raise their comments and to interact with the Project team.

Refer to Table 5-1 below for the proposed stakeholder meeting schedule.

Table 5-1: Proposed Dates and Methods of Public Engagement

Meeting Dates	Stakeholders	Time Slots
Online Meetings		
Wednesday, 27 May 2026	Microsoft Teams – Online Meeting (with Broader stakeholders)	10:00 – 11:00
In-Person Meetings		
Saturday, 30 May 2026	Broader Stakeholders Meeting: Open Day S.A. Mokhothu Primary School, 3073 Nyakallong, Allanridge, 9490	11:00 – 13:00

5.2.1 Availability of the Draft Scoping Report for Public Review and Comment

As part of the Scoping Process, the applicant is required to compile a Draft Scoping Report (DSR) for mining-related activities. The DSR will be available for public review and comment from **Thursday, 21 May 2026 to Monday, 22 June 2026.**

A notification of the availability of the DSR for public review and comment was distributed on **Thursday, 14 May 2026** to all stakeholders on the database.

The DSR will be made available as follows:

- An electronic copy on Kongiwe's website: https://kongiwe.com/projects/.
- A hard copy at the Allanridge Public Library. Contact details are shown in Table 5-2.

Non-technical summaries of the DSR will be available electronically to all stakeholders on the stakeholder database and distributed in hard copy at the Open Day.

Relevant Authorities received an email with a website link of the DSR as part of the announcement of the Project.

Table 5-2: Place where the DSR Report were Circulated

Location	Physical Address	Contact Person / Times
Allanridge Public Library	53 Caledon St, Allanridge	Ms Anna Matjelo, Librarian (078) 713 2063 Monday – Friday Open: 08H00 Close: 15H30

5.3 Summary of Consultations

Table 5-3 below provides a summary of the stakeholder engagement activities that formed part of the Draft Scoping Phase.

Table 5-3: Summary of Activities Undertaken as Part of the Scoping Phase

Activity	Details	Appendices
Stakeholder Mapping and Identification	• Landowners were identified by means of WinDeed searches and a stakeholder database was compiled.	**Appendix C1** Stakeholder Database

Activity	Details	Appendices
	• Stakeholders were identified through research and stakeholder networking. • The database will be updated with new I&APs who have formally registered and attended stakeholder meetings or submitted comments throughout the process.	
Identification of Land Claims	• A formal letter of enquiry was compiled and sent to the Land Claims Commission, DLRRD – Free State. • The letter comprised a list of directly affected properties for the Project.	**Appendix C2** Land Claims Enquiry Letter and Correspondence from the DLRRD
Compilation of BID	• The BID was developed and emailed to all stakeholders on the database. • The BID is available on Kongiwe's website (under public documents).	**Appendix C3** BID
Placement of Newspaper Advertisements	• A newspaper advert will be placed in Vista.	**Appendix C4** Newspaper Advertisements
Placement of Site Notices	• Site notices will be placed at publicly accessible places within proximity of the Project area. Copies of the site notices will also be placed at the Allanridge Public Library. • A site notice report and site notice map will be developed, indicating the exact locations of where the site notices were placed, with photos and GPS coordinates.	**Appendix C5** Site Notice Report and Placement Map
Announcement of the Project and the Availability of the Draft Scoping Report	• The announcement letter was distributed to stakeholders to: - Announce availability of the DSR. - Invite stakeholders to the Online Meeting and Open Day; and - Indicate where the DSR is available for public review and comment. • The DSR will be made available on Kongiwe's website. • A copy of the DSR will be placed in the following public place: - Allanridge Public Library.	**Appendix C6** Announcement Correspondence **Appendix C3** BID
Stakeholder Consultation Meetings	• Consultation during the Scoping phase is aimed at providing key stakeholders with an overview of the Project, and to obtain comments which will inform specialist studies and project planning.	**Appendix C8** List of Meetings and Meeting Minutes

Activity	Details	Appendices
	• Stakeholders will be invited to participate through online and in-person engagements. One-on-one consultation meetings with authorities, directly and indirectly affected landowners were held via on-line forums such as Microsoft Teams or in-person depending on preference. • The Project team will present a formal presentation of the Proposed Project the Locality, Infrastructure and Land Tenure maps will be displayed as part of the meetings. • Minutes of these meetings will be compiled and distributed to everyone who attended these meetings. • Comments raised from the meeting will be included into the CRR.	**Appendix C10** CRR
Broader Stakeholder Meetings: Scoping Phase	• Stakeholders will be invited to participate through online and in-person engagements. The purpose of these meetings was to discuss the Proposed Project, contents of the DSR, to provide stakeholders with an opportunity to raise their comments and to interact with the Project team members. • Minutes of these meetings will be compiled and distributed to everyone who attended these meetings. • Comments raised from the meeting will be included into the CRR.	**Appendix C8** List of Meetings and Meeting Minutes **Appendix C10** CRR

5.3.1 Consultation Undertaken as part of the Final Scoping Phase

Once the Final Scoping Report (FSR) is submitted to the DMPR, stakeholders will be notified by email of the availability of the FSR for review. Stakeholders will be provided with the opportunity to verify that their comments were captured during the Draft Scoping Phase and to review responses provided by the project team. All comments received on the FSR were incorporated into the CRR.

Table 5-4 below is a summary of the activities during the Final Scoping Phase.

Table 5-4: Summary of Activities to be Undertaken During the Final Scoping Phase

Activity	Details
Update of Stakeholder Information	• The stakeholder database will be updated with new I&APs who formally registered, participated in stakeholder meetings or submitted comments.
Placement of Final Scoping Report	• The FSR will be made available on the Kongiwe's website.
Submission to the Authorities	• The FSR will be submitted to DMPR.
Announcement of the submission of the Final Scoping Report	• A notification letter notifying stakeholders that the Final Scoping report has been submitted to DMPR will be emailed to the full stakeholder database.

Activity	Details
	• An SMS will be sent to stakeholders who have no access to the internet.

6. Consultation with Stakeholders during the Impact Assessment Phase

Consultation with stakeholders during the EIA Phase entails providing stakeholders with comments on specialist study findings, recommendations and mitigation measures proposed. These studies and recommendations were included as part of the EIA report and the EMPr, in support of the EA application. Stakeholder meetings will be held to present the findings of the specialist studies and to get comments from stakeholders. The format of stakeholder meetings will be similar to the Scoping Phase; however, it was determined on a case-by-case basis depending on stakeholders' preferences.

7. Consultation with Stakeholders during the Decision-Making Phase

Once the Competent Authority which is **DMPR** has come to a decision regarding the EA authorisation of the Proposed Project, all stakeholders will be notified of the decision made and the appeal process to be followed. The decision from the Competent Authority (CA) will be communicated to stakeholders by means of a notification letter (electronic), SMS, local newspaper advertisement, and on Kongiwe's website.

The IWULAs will be submitted to the **DWS** in terms of the NWA. Once the competent authority, which is DWS, has come to a decision regarding the IWULA, the DWS will notify the applicant and any person who has objected to the application, written reasons for decision will be given.

Appendix C1: Stakeholder Database

Environmental Authorisation for the Jelani Joint Venture (JV) Area Underground Mining Project, in the Matjhabeng Local Municipality, Free State Province

Stakeholder Database

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Agricultural Union	Afgri South Africa: National	Mr	Ernest	Botha	Afgri-Attorney	Free State
Agricultural Union	Afgri South Africa: National	Ms	Nadia	Hetzel	Legal Representative (Afgri)	Free State
Agricultural Union	Agri South Africa: National	Mr	Janse	Rabie	Head of Natural Resources	Free State
Agricultural Union	Free State Agriculture	Dr	Jane	Buys	Safety and Risk Analyst	Free State
Agricultural Union	Free State Agriculture	Mr	Christo	Doman	Mangaung Representative	Free State
Agricultural Union	TLU SA Central Region	Ms	Lynette	Du Plessis	Manager TAU SA Central Region	Free State
Agricultural Union	TLU SA Free State Region	Mr.	Jannie	Raath	Manager TAU SA Free State Region	Free State
Agricultural Union	Transvaal Agricultural Union of South Africa (TAUSA)	Mr	Henry	Geldenhuys	President	Free State
Directly Affected Landowner, Indirectly Affected Landowner	Blaauwklip Trust	Mr	Eduard	Steyn	Owner	Free State
Directly Affected Landowner, Indirectly Affected Landowner	Private Landowner	Mr	Willem	Taljaard	Landowner	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
District Municipality	Lejweleputswa District Municipality (LDM)	Cllr	Veronica	Ntakumbana	Executive Mayor	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Mr		Silone	LED Manager	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Mr	AT	Jonas	LED, Agriculture	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Mr	Dewald	Kirsten	District Manager:	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Mr	Fannie	Zim	Environmental Manager	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Mr	Motlatsi	Makhetha	Municipal Manager	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Mr	PK	Pitso	District Management	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Ms	Bogolo	Mapota	Air Pollution District Manager	Free State
District Municipality	Lejweleputswa District Municipality (LDM)	Ms	Michelle	Sello	Executive Manager of Environmental Health Services and Disaster Management	Free State
Environmental NGO's	African Wattle Crane Programme	Ms	Kerryn	Morrison	Manager	Free State
Environmental NGO's	Agricultural Research Council	Dr	Litha	Magingxa	President and CEO	Free State
Environmental NGO's	Benchmarks Foundation (BMF)	Mr	David	van Wyk	Environmental	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Environmental NGO's	Benchmarks Foundation (BMF)	Mr	Moses	Cloete	Director	Free State
Environmental NGO's	Benchmarks Foundation (BMF)	Mr	Simo	Gumede	Logistics and Administration Lead	Free State
Environmental NGO's	Benchmarks Foundation (BMF)	Ms	Busi	Thabane	General Manager	Free State
Environmental NGO's	Birdlife South Africa (BLSA)	Dr	Kirsten	Day	Policy & Advocacy Manager	Free State
Environmental NGO's	Birdlife South Africa (BLSA)	Mr	Sam Ralston	Paton	Birds & Renewable Energy Project Manager	Free State
Environmental NGO's	Centre for Environmental Rights (CER)	Mr	Brandon	Abdinor	Programme Head: Pollution & Climate Change	Free State
Environmental NGO's	Council of Geoscience: National	Dr	Thakane	Ntholi	Specialist Scientist	Free State
Environmental NGO's	Endangered Wildlife Trust (EWT)	Mr	Bradley	Gibbons	Free State Representative	Free State
Environmental NGO's	Endangered Wildlife Trust (EWT): National	Mr	Kishaylin	Chetty	Executive: Head of Sustainability	Free State
Environmental NGO's	Endangered Wildlife Trust (EWT): National	Ms	Samista	Rooplal	Biodiversity and Business Officer	Free State
Environmental NGO's	Federation for Sustainable Environment (FSE)	Ms	Mariette	Liefferink	Chief Executive Officer	Free State
Environmental NGO's	Groundwork	Mr	Bobby	Peek	Director	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Environmental NGO's	Save the Vaal Environment	Mr	Malcolm	Plant	Chairman	Free State
Environmental NGO's	Save the Vaal Environment	Mr	Michael	Gaade	Committee Member	Free State
Environmental NGO's	South African National Biodiversity Institute (SANBI)	Ms	A	Mohai	Free State Representative	Free State
Environmental NGO's	Vaal Environmental Justice Alliance	Mr	Samson	Mokoena	Coordinator	Free State
Environmental NGO's	Wildlife & Environmental Society of South Africa (WESSA)	Mr	John	Wesson	Manager: Conservation Specialist	Free State
Environmental NGO's	Wildlife & Environmental Society of South Africa (WESSA)	Mr	Morgan	Griffiths	Senior Manager: Advocacy, Membership and Governance	Free State
Farmers Association	Free State Agriculture	Mr	Francois	Wilken	President	Free State
Farmers Association	Free State Agriculture	Dr	Jack	Armour	Commercial Manager	Free State
Farmers Association	Free State Agriculture	Mr	Gernie	Botha	Chief Executive Officer	Free State
Farmers Association	Free State Agriculture	Mr	Stefan	Hanekom	Region 10 - Matjhabeng	Free State
Farmers Association	Grain SA	Mr	MJ	Swart	Regional Contact	Free State
Farmers Association	Grain SA	Mr	Werner	Vos	Regional Contact	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Indirectly Affected Landowner	Avgold Limited	Mr	Assan	Ralebona	Specialist	Free State
Indirectly Affected Landowner	Dirk Botha Trust	Mr	Christo	Nel	Landowner	Free State
Indirectly Affected Landowner	Jaco Grobbelaar Trust	Mr	Jaco	Grobbelaar	Landowner	Free State
Local Municipality	Matjhabeng Local Municipality	Adv	Lauretta	van Wyk-Williams	Municipal Manager	Free State
Local Municipality	Matjhabeng Local Municipality	Dr	Sefako	Ramphoma	Executive Director: Local Economic Development (LED)	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Adam	Pobe	Acting Executive Director	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Boipelo	Molelekoa	Area Manager: City Planning - Welkom / Virginia / Odendaalsrus / Allanridge	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Eric Sello	Senoge	Property Department	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Johannes	Theunissen	Waste Manager	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Johannes S.J.	Griesel	Acting Manager: Development Planning	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Jonathan	Ntsabo	Executive Director	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Kabelo	Masekoa	Manager: Water	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Local Municipality	Matjhabeng Local Municipality	Mr	Lennox	Rubulana	Speaker	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Lunga	Ncapai	Waste Officer	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Nico	Vorster	Manager	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Peter	Mathebula	Official	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Sello	Naniso	Manager at the Speakers Office	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Thabo	Mthombeni	Senior Manager Civil Engineering	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Thanduxolo	Khalipha	Executive Mayor	Free State
Local Municipality	Matjhabeng Local Municipality	Mr	Tsekiso	Majake	IDP Manager	Free State
Local Municipality	Matjhabeng Local Municipality	Mrs	Matshidiso	Seekoei	Legal Counsel	Free State
Local Municipality	Matjhabeng Local Municipality	Mrs	Yolette	Fransman		Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Akhona	Noholoza	Secretary to Municipal Manager	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Charlene	Smith	Official	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Local Municipality	Matjhabeng Local Municipality	Ms	Malehloa	Leballo	Acting Director: Local Economic Development (LED)	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Mapitso	Mohapi	Office of the Speaker	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Mmase	Moletsane	Spatial Planning and City Planning	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Mmase	January	Snr.Manager Planning	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Morakane	Mothekhe	Planning and Human Settlement	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Nelia	Rust	Manager Water and Effluent Water - West	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Rosy	Ramalitswe	PA (Mr Mthombeni's PA)	Free State
Local Municipality	Matjhabeng Local Municipality	Ms	Suna	Swanepoel	PA to Mr Pope	Free State
National Government	Department of Forestry, Fisheries and the Environment (DFFE)			DFFE - Biodiversity		Free State
National Government	Department of Forestry, Fisheries and the Environment (DFFE)	Mr	Ronald	Nenungwi	Acting Chief Directorate	Free State
National Government	Department of Forestry, Fisheries and the Environment (DFFE)	Mr	Seoka	Lekota	Biodiversity Conservation	Free State
National Government	Department of Forestry, Fisheries and the Environment (DFFE)	Mr	Stanley	Tshitwamulomoni	Strategic Water Source Area	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
National Government	Department of Forestry, Fisheries and the Environment (DFFE)	Ms	Lydia	Kutu	Integrated Environmental Authorisations: Priority Infrastructure Developments	Free State
National Government	Department of Forestry, Fisheries and the Environment (DFFE)	Ms	Makhosi	Yeni	Environmental Officer	Free State
National Government	Department of Forestry, Fisheries and the Environment (DFFE)	Ms	Mashudu	Mudau	Protected Areas Planning and Management Effectiveness	Free State
National Government	Department of Forestry, Fisheries and the Environment (DFFE)	Ms	Mulalo	Sundani	National Office: Directorate: Forestry Regulation and Oversight: Environmental	Free State
National Government	Department of Health (DOH): National	Ms	Belinda	Makhafola	Directorate: Environmental Health Services	Free State
National Government	Department of Land Reform and Rural Development (DLRRD)	Mr	Bushy	Ngamole	Commission on Restitution of Land Rights- Free State Supervisor	Free State
National Government	Department of Land Reform and Rural Development (DLRRD)	Mr	Clement	Modise	Commission on Restitution of Land Rights- Free State Officer	Free State
National Government	Department of Land Reform and Rural Development (DLRRD)	Mr	Khomotso	Mahlatji	Commission on Restitution of Land Rights- Free State Officer	Free State
National Government	Department of Land Reform and Rural Development (DLRRD)	Ms	Nozipho	Dlamini	Commission on Restitution of Land Rights- Free State Officer	Free State
National Government	Department of Mineral and Petroleum Resources (DMPR)	Adv	Mmadikeledi	Moloto	DDG: Mineral Regulation	Free State
National Government	Department of Mineral and Petroleum Resources (DMPR)	Mr	David	Msiza	Mine Health and Safety Inspectorate	Free State
National Government	Department of Mineral and Petroleum Resources (DMPR)	Mr	Rudzani	Mabogo	Head of Environment: Director for Compliance and Enforcement	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
National Government	Department of Mineral and Petroleum Resources (DMPR)	Mr	Siyabonga	Vezi	Acting Gauteng Regional Director	Free State
National Government	Department of Public Works and Infrastructure (DPWI)	Mr	Khumbulani	Thobani	Town Planning Services	Free State
National Government	Department of Public Works and Infrastructure (DPWI)	Mr	Lutendo	Neduvhuledza	Town Planning Services (HO)	Free State
National Government	Department of Public Works and Infrastructure (DPWI)	Mr	Zakhele	Ndebele	Real Estate Management Services	Free State
National Government	Department of Public Works and Infrastructure (DPWI)	Ms	Jabulile	Mabaso	Acting Regional Manager	Free State
National Government	Department of Public Works and Infrastructure (DPWI)	Ms	Thobile	Zulu	Official	Free State
National Government	Department of Water and Sanitation (DWS)	Mr	Ayanda	Mtetwa	National	Free State
National Government	Department of Water and Sanitation (DWS)	Mr	Luvuyo	Nqelenga	Compliance Monitoring &Enforcement (BloemWater)	Free State
National Government	Department of Water and Sanitation (DWS)	Mr	Pieter	Ackerman	Chief Landscape Architect	Free State
National Government	Department of Water and Sanitation (DWS)	Mr	Roets	Wietsche	Specialist Scientist	Free State
National Government	Department of Water and Sanitation (DWS)	Mr	C	Schrader	Dam Safety: Free State Region Representative	Free State
National Government	Department of Water and Sanitation (DWS)	Ms	Vernon	Blair		Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
National Government	Minerals Council South Africa: National	Mr	Babalwa	Matiwane	Environment Department: National	Free State
National Government	Minerals Council South Africa: National	Mr	Matome	Makwela	Environmental Advisor	Free State
National Government	Minerals Council South Africa: National	Ms	Jeannette	Hofsajer	Environment Department: National Administration	Free State
National Government	Minerals Council South Africa: National	Ms	Mpho	Thobye	Health	Free State
National Government	Minerals Council South Africa: National	Ms	Stephinah	Mudau	Head: Environmental Advisor	Free State
National Government	National Nuclear Regulator (NNR)	Mr	Patle	Mohajane	Programme Manager: NORM	Free State
National Government (Provincial Office)	Department of Agriculture and Rural Development (DARD): Free State	Mr	Hennie	Grobler	Acting Director: Rural Infrastructure Development	Free State
National Government (Provincial Office)	Department of Community Safety, Roads and Transport (DCSRT): Free State	Mr	Bennit	Ramotseoa	Road Superintendent (Lejweleputswa)	Free State
National Government (Provincial Office)	Department of Community Safety, Roads and Transport (DCSRT): Free State	Mr	Theuns	Shields	Chief Road Superintendent (Lejweleputswa)	Free State
National Government (Provincial Office)	Department of Forestry, Fisheries and the Environment (DFFE)	Mr	Qaphela	Ndabankulu	Forestry Regulation	Free State
National Government (Provincial Office)	Department of Forestry, Fisheries and the Environment (DFFE)	Mr	Shumani	Dzivhani	Deputy Director: Forestry Regulation	Free State
National Government (Provincial Office)	Department of Forestry, Fisheries and the Environment (DFFE)	Ms	Khuliso	Khomari	Environmental Officer	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
National Government (Provincial Office)	Department of Forestry, Fisheries and the Environment (DFFE)	Ms	Nompumelelo	Lekalakala	Biodiversity	Free State
National Government (Provincial Office)	Department of Health (DOH): Free State	Mr	Johannes	Mokgatle	Director	Free State
National Government (Provincial Office)	Department of Health (DOH): Free State	Mr	Lucky	Leshabane	Environmental Health Manager	Free State
National Government (Provincial Office)	Department of Mineral and Petroleum Resources (DMPR): Free State	Mr	Cedrick	Fhedzisani	Deputy Director: Mine Environmental Management	Free State
National Government (Provincial Office)	Department of Mineral and Petroleum Resources (DMPR): Free State	Mr	Tuwani	Monyai	Assistant Director: Mine Environmental Management	Free State
National Government (Provincial Office)	Department of Mineral and Petroleum Resources (DMPR): Free State	Ms	Tshifhiwa	Makhokha	Mine Environmental Management	Free State
National Government (Provincial Office)	Department of Minerals and Petroleum Resources (DMPR): Free State	Ms	Kalipa	Kewuti	Regional Manager: Free State	Free State
National Government (Provincial Office)	Department of Public Works and Infrastructure (DPWI): Free State	Mr	SP	Menye	Acting Chief Director: Property Management	Free State
National Government (Provincial Office)	Department of Public Works and Infrastructure (DPWI): Free State	Ms	A	Ntilane	Director: Strategic Immovable Asset Management	Free State
National Government (Provincial Office)	Department of Public Works and Infrastructure (DPWI): Free State	Ms	Anneke	Flemming	Official	Free State
National Government (Provincial Office)	Department of Public Works and Infrastructure (DPWI): Free State	Ms	Anneke	Barnard	Infrastructure Services	Free State
National Government (Provincial Office)	Department of Public Works and Infrastructure (DPWI): Free State	Ms	Lebohang	Khumalo	Chief Director: Property Management	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
National Government (Provincial Office)	Department of Rural Development and Land Reform (DRDLR): Free State	Dr	Wayne	Alexandra	Acting Chief Director	Free State
National Government (Provincial Office)	Department of Rural Development and Land Reform (DRDLR): Free State	Ms	Cynthia	Wessels	Chief Director	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS)	Mr	Mzukisi	Maneli		Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS)	Mr	Terrence	Ngilande	Case Officer	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS)	Ms	Phuti	Mabotja	Case Officer	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Dr	Tseliso	Ntili	Provincial Manager	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Mr	Kereemang	Maseloane	Director: Water Services Infrastructure, Development, and Refurbishment Program	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Mr	Mfundi	Biyela	Bloemfontein Representative	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Mr	Pule	Lenong	Secretary	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Mr	Pule	Liatile	Assessor	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Ms	Barbara	Kalembo	(c) and (i) Water Use Specialist	Free State
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Ms	Maureen	Letloenyane	Deputy Director and Office Manager for the Provincial Head	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
National Government (Provincial Office)	Department of Water and Sanitation (DWS): Free State	Ms	Thembekile	Dlamini	Assessor	Free State
Other Landowner	De Jager Boerdery	Mr	Frans	De Jager	Landowner	Free State
Other Landowner	De Jager Boerdery	Mr	Johan	De Jager	Landowner	Free State
Other Landowner	Grootspruit Familie Trust (De Jager Boerdery)	Mr	Tertius	De Jager	Landowner	Free State
Other Landowner	Private Landowner	Mr	Pieter	Haasbroek	Landowner	Free State
Parastatal	Eskom	Mr	Jason	Kasper	Land and Rights Manager	Free State
Parastatal	Eskom	Ms	Charmaine	Mare	Environmental Manager	Free State
Parastatal	Eskom Transmission Land and Rights: Free State	Mr	Gerrie	van Schalkwyk	Senior Environmental Advisor	Free State
Parastatal	National Transmission Company South Africa (NTCSA)	Mr	Khululwa	Matshoba	Senior Environmental Advisor	Free State
Parastatal	South African National Roads Agency Limited (SANRAL)	Mr	Dudley	Mbambo	ER	Free State
Parastatal	South African National Roads Agency Limited (SANRAL)	Ms	Lungile	Sibanyoni	Environmental Assistant - (KZNP)	Free State
Parastatal	South African National Roads Agency Limited (SANRAL)	Ms	Nqobile	Mabaso	Stautory Control Administrator	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Parastatal	South African National Roads Agency Limited (SANRAL)	Ms	Ntsepo	Mkhize	Environmental Co-ordinator	Free State
Parastatal	Transnet Freight Rail Ltd	Mr	Johannes	Jonkers	Infrastructure Worker	Free State
Parastatal	Transnet Freight Rail Ltd	Mr	Samuel	Fiff	Free State Environmental Manager	Free State
Parastatal	Transnet Freight Rail Ltd	Ms	Keneuwe	Mabe	Geo-Spatial, Transnet Property	Free State
Parastatal	Transnet Freight Rail Ltd	Ms	Yolanda	Potgieter		Free State
Parastatal	Transnet Freight Rail Ltd	Ms	Zanele	Manyathi	Environmental Manager	Free State
Parastatal	Transnet Freight Rail Ltd: Gauteng	Ms	Annalize	Harmse	Chief Admin Official	Free State
Provincial Government	Department of Agriculture and Rural Development (DARD): Free State	Dr	Nhlonipho	Nhlabatsi	Manager: Agricultural Support and Livelihoods	Free State
Provincial Government	Department of Economic (DESTEA): Free State	Dr	Sandile	Fuku	Environmental Affairs and Conservation	Free State
Provincial Government	Department of Economic (DESTEA): Free State	Mr	DJ	Hagen	Director: Strategic	Free State
Provincial Government	Department of Economic (DESTEA): Free State	Mr	Pule	Motsoetla	Biodiversity Manager	Free State
Provincial Government	Department of Economic (DESTEA): Free State	Mr	T	Makhele	Integrated Economic Development	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Provincial Government	Department of Economic (DESTEA): Free State	Ms	BJ	Molefe	Environmental Officer	Free State
Provincial Government	Department of Economic (DESTEA): Free State	Ms	Gontse	Sebetlele		Free State
Provincial Government	Department of Economic (DESTEA): Free State	Ms	Grace	Mkhosana		Free State
Provincial Government	Department of Economic (DESTEA): Free State	Ms	Lerato	Kelly	Olievenkloof Private Nature Reserve	Free State
Provincial Government	Department of Economic (DESTEA): Free State	Ms	Nomasomi	Tshingo		Free State
Provincial Government	Department of Economic (DESTEA): Free State	Ms	Nozi	Nkwe	Environmental Manager	Free State
Provincial Government	Department of Economic (DESTEA): Free State	Ms	RP	Likholele	Control Environmental	Free State
Provincial Government	Free State Provincial Heritage Resources Authority (FSPHRA)	Ms	Ntando PZ	Mbatha	Heritage Coordinator	Free State
Ward Committee Member	Matjhabeng Local Municipality	Mr	Isaac	Velebayi	Ward 36	Free State
Ward Committee Member	Matjhabeng Local Municipality	Mr	Mildred	Faro	Ward 35	Free State
Ward Councillor	Matjhabeng Local Municipality	Mr	Clement	Hanisi	Ward 36	Free State
Ward Councillor	Matjhabeng Local Municipality	Ms	Estelle	Dansey	Ward 35	Free State

I&AP Sector	Organisation	Mr/Ms	First Name	Last Name	Position	Province
Water Bodies -Institution	Sand-Vet Water Users Association	Mr	Andries	Labuscagne	CEO	Free State
Water Bodies -Institution	Sand-Vet Water Users Association	Ms	Moipone	Maoba	P.A to the CEO	Free State
Water Bodies -Institution	Vaal Central Water (formerly Bloem Water)	Mr	Aphumle	Mnyaka	Executive & Project	Free State
Water Bodies -Institution	Vaal Central Water (formerly Bloem Water)	Mr	Maruping	Rapudungoane	Operations and Maintenance	Free State
Water Bodies -Institution	Vaal Central Water (formerly Bloem Water)	Ms	Charmaine	Dladla	Project Coordinator	Free State
Water Bodies -Institution	Vaal Central Water (formerly Bloem Water)	Ms	NP	Silevu	Secretary	Free State
Water Bodies -Institution	Water Research Commission	Dr	Shafick	Adams	Senior Research Manager	Free State
Water Bodies -Institution	Water Research Commission	Mr	Bennie	Mokgonyana	Water Use & Waste Management	Free State
Water Bodies -Institution	Water Research Commission	Mr	Jay	Bhagwan	Research Manager	Free State
Water Bodies -Institution	Water Research Commission	Ms	Penny	Jaca	Water Resource Management	Free State
Water Bodies -Institution	Water Research Commission	Ms	Shirley	Machelisi	Water Use & Waste Management	Free State

Environmental Authorisation for the Jelani Joint Venture (JV) Area Underground Mining Project, in the Matjhabeng Local Municipality, Free State Province

Landowners Database

Directly Affected Landowners

Farm Name & Number	Farm ID	Farm Portion	Owner-Windeed	Farm owner	Contact Person
Welvaart 63	RD	0(RE)	Blaauwklip Trust	Blaauwklip Trust	Mr Eduard Steyn
Welvaart 63	RD	1	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard
Welvaart 63	RD	2	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard
Diamant 37	RD	0	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard
Graspan 40	RD	0(RE)	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard
Graspan 40	RD	1	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard
Swartpan 436	RD	0(RE)	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard

Indirectly Affected Landowners

Farm Name & Number	Farm ID	Farm Portion	Owner-Windeed	Farm owner	Contact Person
Onrust 377	RD	0	Jaco Grobbelaar Trust	Jaco Grobbelaar Trust	Mr Jaco Grobbelaar
Nooitgedacht 378	RD	0(RE)	EDU-HAN Trust	EDU-HAN Trust	Mr Eduard Steyn
Kromdraai 386	RD	0(RE)	Avgold Limited	Avgold Limited (Harmony Gold)	Mr Assan Ralebona
Kromdraai 386	RD	1	Matjhabeng Local Municipality	Matjhabeng Local Municipality	Mr Eric Sello Senoge
Kromdraai 386	RD	3	Free State Provincial Government	Department of Public Works and Infrastructure (DPWI)	Ms Thobile Zulu
Allanridge 425	RD	4	Matjhabeng Local Municipality	Matjhabeng Local Municipality	Mr Eric Sello Senoge
Welgeluk 214	RD	0	Blaauwklip Trust	Blaauwklip Trust	Mr Eduard Steyn
Swartpan 436	RD	0(RE)	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard
Elim 336	RD	0	Goldstein Samuel Trustees	Goldstein Samuel Trustees	Mr Christo Nel
Genoeg 330	RD	0(RE)	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard
Genoeg 330	RD	1	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard

Farm Name & Number	Farm ID	Farm Portion	Owner-Windeed	Farm owner	Contact Person
Welgevonden 183	RD	1	Willem Hendrik Taljaard	Willem Hendrik Taljaard	Mr Willem Taljaard

Appendix C2: Land Claims

Vanessa Viljoen

From: Vanessa Viljoen
Sent: Thursday, 14 May 2026 09:50
To: nozipho.dlamini@dalrrd.gov.za; khomotso.mahlatji@dlrrd.gov.za
Cc: Jean-Mari Williams
Subject: Land Claims Enquiry: EA and IWUL Application for the Jelani Joint Venture (JV) Area Underground Mining Project, Free State Province
Attachments: JELA#001_LC_Final_2.pdf

Dear Mr Khomotso Mahlatji

Kongiwe Environmental (Pty) Ltd ("Kongiwe") has been appointed to undertake the Environmental Authorisation and Integrated Water Use Licence for the Jelani Joint Venture (JV) Area Underground Mining Project, Free State Province.

The project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 2,5km west of Allanridge, and 22km east of Wesselsbron, in the Free State Province of South Africa. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality.

We would appreciate it, if you could assist us with the attached Land Claims enquiry.

Much appreciated.

Kind Regards,

Vanessa Viljoen | Principal Stakeholder Engagement Consultant | Kongiwe Environmental (Pty) Ltd.
Tel: +27 (10) 140 1725 | Cell: +27 (71) 485 5388 | Fax: +27 (86) 476 6438 | Email: vviljoen@kongiwe.com
150 Bryanston Drive, Bryanston, Sandton, 2191, South Africa.
PostNet Suite no 163, Private Bag X21, Bryanston, 2021, South Africa.

www.kongiwe.com

Environmental Authorisation and Integrated Water Use Licence Application for Jelani Joint Venture (JV) Area Underground Mining Project, Free State Province

DMPR reference number: FS30/5/1/2/3/2/1(10098) EM
DWS reference number: WU50090

Date	Thursday, 14 May 2026
Attention	Mr Khomotso Mahlatji
Government Body	Free State Department of Land Reform and Rural Development (DLRRD) Office of the Regional Land Claims Commissioner
Email	nozipho.dlamini@dalrrd.gov.za; khomotso.mahlatji@dlrrd.gov.za

Notice is hereby given that Jelani Resources (Pty) Ltd ("Jelani"), a joint venture (JV) between White Rivers Exploration (WRE) and Harmony Gold, proposes to develop and commence underground mining activities within the joint venture (JV) area. This area is made up of areas within the existing Harmony Target mining right (Harmony contribution) and Prospecting Rights (PR) areas to the west of Harmony Gold's existing Target Mine (WRE contribution).

The primary mineral resource targeted is gold, with additional potential resources including silver, uranium, sulphur, platinum group metals, rare earth elements, diamonds (alluvial), and a range of base and ferrous metals such as copper, cobalt, manganese, molybdenum, nickel, lead, tungsten, zinc, and iron.

Kongiwe Environmental (Kongiwe) has been tasked with conducting the Scoping and Environmental Impact Assessment (S& EIA) and the Integrated Water Use Licence application (IWULA) process which is aimed at critically evaluating the potential environmental and social impacts of the Project.

The project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 2,5km west of Allanridge, and 22km east of Wesselsbron, in the Free State Province of South Africa. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality.

The Project area impacts the farm portions listed in the table below:

Farm Name and Number	Farm ID	Farm Portion	Landowner
Welvaart No. 63	RD	0 (RE)	Blaauwklip Trust
Welvaart No. 63	RD	1	Willem Hendrik Taljaard
Welvaart No. 63	RD	2	Willem Hendrik Taljaard
Diamant No. 37	RD	0	Willem Hendrik Taljaard
Graspan No. 40	RD	0 (RE)	Willem Hendrik Taljaard

Kongiwe Environmental (Pty) Ltd
Registration Number 2016/135562/07
Telephone: +27 (10) 140 6508, Email: info@kongiwe.com
Registered Address: 150 Bryanston Drive, Bryanston, Sandton, 2191, South Africa
Mailing Address: PostNet Suite No 163, Private Bag X21, Bryanston, 2021, South Africa
www.kongiwe.com

Farm Name and Number	Farm ID	Farm Portion	Landowner
Graspan No. 40	RD	1	Willem Hendrik Taljaard
Swartpan No. 436	RD	0 (RE)	Willem Hendrik Taljaard

Kongiwe wishes to enquire if there are any land claims on any of the farms listed above.

Please could you revert to us as a matter of urgency.

Yours faithfully,

Vanessa Viljoen
Stakeholder Engagement Consultant

Appendix C3: Consultation Materials

Environmental Authorisation and Integrated Water Use Licence Application for Jelani Joint Venture (JV) Area Underground Mining Project, Free State Province

Background Information Document

DMPR reference number: FS30/5/1/2/3/2/1(10098) EM
DWS reference number: WU50090

Purpose of the Document

This Background Information Document aims to provide you with important information regarding:

- Project background of the Jelani Joint Venture (JV) Underground Mining Project ("Project"), located in the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality, Free State Province.
- The independent Environmental Impact Assessment (EIA) and the Public Participation Process (PPP) to be undertaken as part of the Environmental Authorisation process.
- Integrated Water Use Licence (IWUL) approval requirements.
- The Public Participation Process (PPP) that will be undertaken as part of the IWULA process.
- How can you register as an Interested and Affected Party (I&AP) and be kept informed about the Project's developments?
- Public review and comment period for the Draft Scoping Report.

Project Background

Jelani Resources (Pty) Ltd is a joint venture (JV) company established by White Rivers Exploration (WRE) and Harmony Gold. The JV was formed to conduct underground mining operations within the Joint Venture (JV) area, which is made up of areas within the existing Harmony Target mining right (Harmony contribution) and Prospecting Rights (PR) areas to the west of Harmony Gold's existing Target Mine (WRE contribution) in the Free State Province of South Africa. Following the exploration and licensing phases, Jelani intends to initiate underground mining operations within the same area.

The Proposed Project entails licensing the underground mining of the following potential mineral resources:

- Gold ore (primary target),
- Silver ore,
- Uranium ore,
- Sulphur,
- Platinum Group Metals,
- Rare earths,
- Diamonds (alluvial),
- Copper ore,
- Cobalt ore,
- Manganese ore,
- Molybdenum ore,
- Nickel ore,
- Lead ore,
- Tungsten ore,
- Zinc ore, and
- Iron ore.

Jelani's underground mining operations initially will target shallower mineral resource deposits at the project site (approximately 1 200 mbs). As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of mined ore per month.

Two mining methods have been identified as the most practical for exploiting the mineral resources: conventional breast mining and shrinkage stoping. The selection of each method is primarily based on the dip of the mineralised reef, with the shrinkage stoping being used for the steeper slopes (3% of the total stope tonnage). Where the orebody dips below 55°, conventional breast mining will be used.

Conventional Breast Mining

Where the orebody dips below 55°, conventional breast mining will be used. Footwall drives will be developed in the strike direction, between 40 to 48m below the mining horizon. Crosscuts will subsequently be developed perpendicularly to the footwall drives, towards the reef horizon. Access to the reef horizon will be by travelling way, developed from the crosscut. Ore passes will be developed between the reef horizon and the crosscut for the removal of blasted ore from the stope. On the stope horizon, a raise or centre gully will be developed between levels up the centre of the mining block. Breast mining panels will be established off the centre gully. The panels will be mined approximately in the strike direction away from the centre gully to the stope block limit. An advanced strike gully (ASG) will be carried on the down dip side of each mining panel for access to the stope face and for clearing of blasted ore from the face. Typically, two stope ore passes will be situated in the centre gully which will connect the stoping areas to the footwall infrastructure. All ore produced in the stopes will be scraped into the ore passes for loading in the crosscut. Figure 1 shows a plan of a typical stope block.

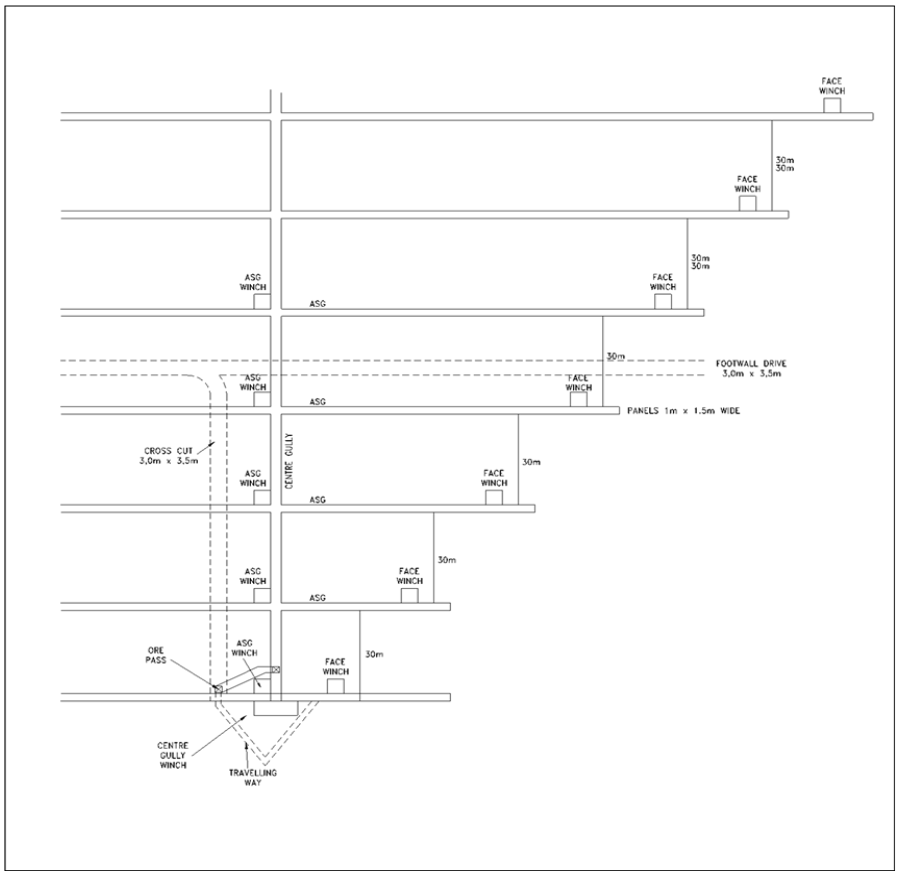


Figure 1: Schematic plan view of a conventional stope block

The breast faces will be drilled using hand-held, hydro-powered rock drills and airlegs. Blast holes will be charged with packaged emulsion explosives. Scraper cleaning will be used in the stope horizon. Ore will be scraped from the face, into the ASG and then into the centre gully. From the centre gully the rock is scraped over a stope grizzly into the ore pass. The bottom of the ore pass is equipped with a boxfront with a hydraulically operated gate.

Where multiple reefs occur, and both are payable and are planned to be mined, the order of mining will be to extract the uppermost reef first, working downwards.

Shrinkage Stoping

Shrinkage stoping is an overhand mining method that relies on broken material being left in the stope to be used as the "working floor" and to support the walls. The shrinkage stope is accessed via a travelling way. The stope is established and accessed by the development of two raises, one on each end of the stope panel.

Two drives, separated by a sill pillar, are established at the bottom of the stope. Draw points are developed between the two drives for loading ore from the stope. Once the stope preparation development and equipping has been completed stoping commences by advancing the stope face up-dip from the sill drive. After each blast sufficient ore is drawn out to allow access between the new stope face and the top of the muckpile. Once the stope face reaches the upper limit, which is normally defined by a crown pillar, all men and equipment are withdrawn from the stope and the remaining ore is drawn from the stope. Ore is drawn out of the stope by operating the scraper winch in the reef drive. This clears rock from the draw points and allows the ore to continue to flow.

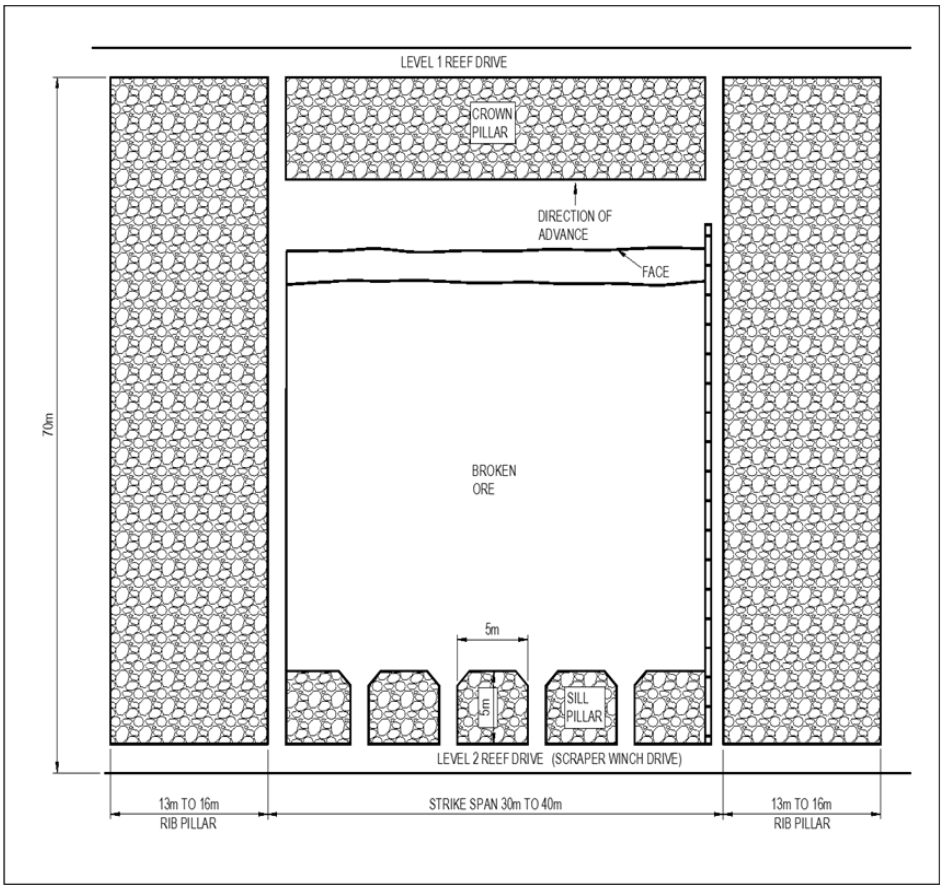


Figure 2: Schematic long section illustrating a typical shrinkage stope

Ore will be transported to the shaft ore pass system using a conveyor system loaded by a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump.

Existing underground access (shafts and level access) will be refurbished and re-equipped. Target No 2 and Target No 3 shafts will, over the course of the mine's life, be used for the movement of men, material and rock depending on which phase the mine is in.

Infrastructure Requirements

All operational mining infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area. No new operational mining infrastructure is planned within the project area. Underground access infrastructure will either consist of refurbished facilities at Target Shafts No. 3, 4 and 5 or newly constructed infrastructure at the Target No. 2 Shaft site, all within the existing mining right.

The infrastructure requirements are intended to support the managerial, supervisory, and operational functions associated with the respective underground mining operations/targets. A layout of the proposed Target 3 shaft surface infrastructure which either needs to be refurbished or constructed is presented in Figure 3. Target 3 shaft will be used to access the underground workings during Phase 1 of the project whilst Target 2 shaft is refurbished. Mining activities during this phase will take place between 57 Level and 48 Level (Figure 4).

Figure 3: Target No 3 shaft surface infrastructure layout

The No 3 shaft surface infrastructure will compromise of the following (as numbered):

1. No 3 shaft
2. Shaft facilities
   (a) Lamp repair
   (b) Proto room
   (c) Lamp room
3. Change house facilities
   (a) Main laundry
   (b) Main change house
4. Compressor house
5. Waste rock dump
6. Surface rock handling
7. Main substation
8. Parking area
9. Offices
   (a) Management, administration and technical services
   (b) Mining
   (c) Engineering
10. Man winder
11. Barlow winder
12. Rock winder
13. Fridge plant
14. Store building
15. Services/fitting workshops
16. Dirty water dam & pump station
17. Sewerage plant
18. Evaporation plant
19. Change house
20. No 4 shaft ventilation fans
21. Security office
22. Explosives store
23. Conveyors
24. Laydown area and salvage yard
25. Walkway
26. Marshalling yard
27. Drop off area
28. Ablution block
29. Laundry
30. Change houses
31. Offices
32. Lapa
33. Parking
34. Parking
35. Turnstiles
36. Waiting area
37. Lean to roof
38. Underground store
39. Pump house
40. Service boiler shop
41. Services boiler store
42. Rail line
43. Pipeline
44. Security
45. Timber yard
46. Electrical workshop
47. Flammable store
48. Old oil store

An overview of the Target 3 Shaft with level elevations, is shown in Figure 4.

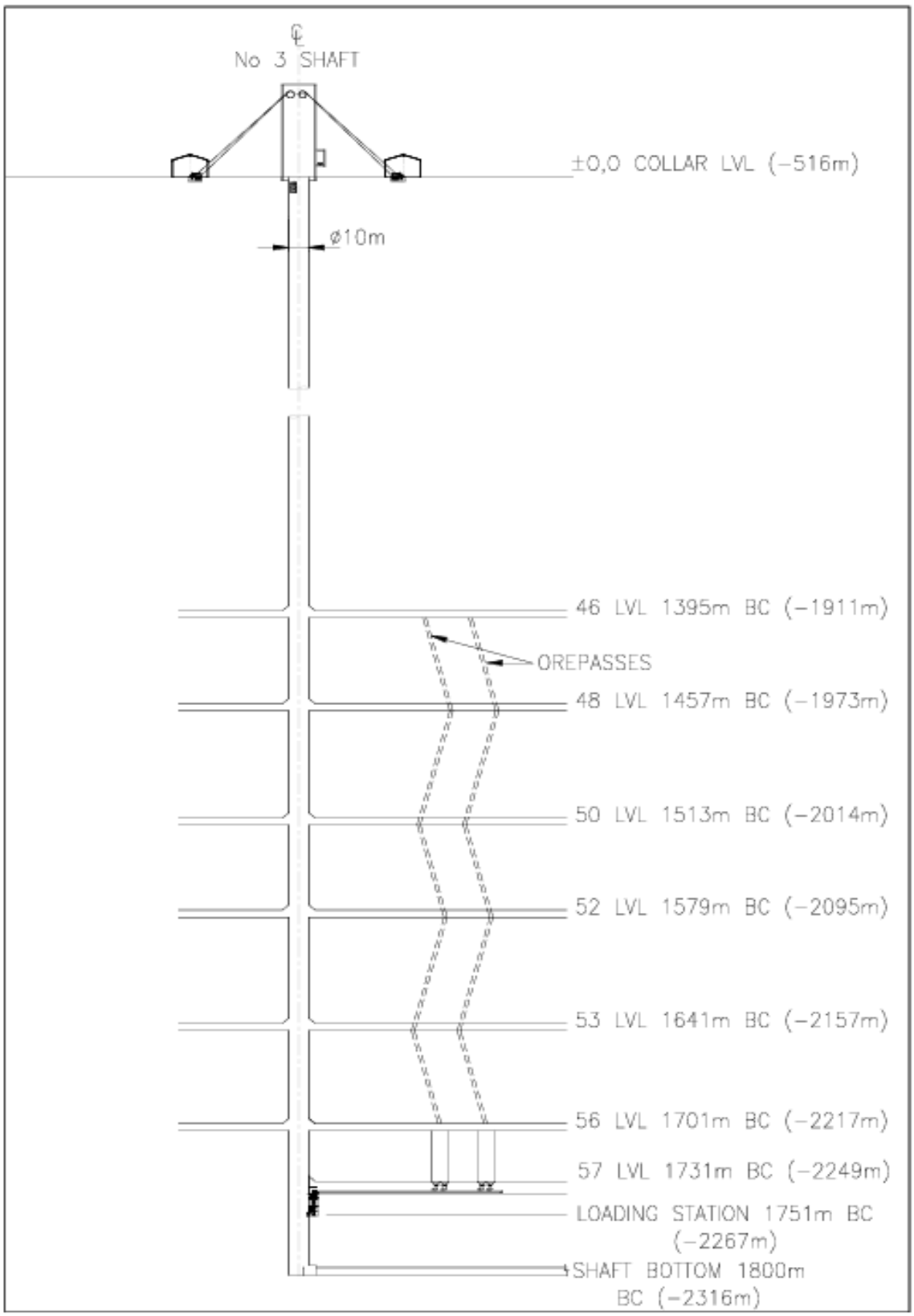


Figure 4: Target 3 shaft longitudinal arrangement

Figure 5: Harmony Target No 3 Shaft

The Target No 2 shaft will be used as the main access to the underground orebody and workings in Phase 2, and Target No 3 shaft will be maintained as a second outlet. Mining activities in this phase are planned to occur above 48 Level and below 57 Level.

The Target No 2 shaft is currently not utilised for mining production activities. Instead, it acts as the emergency exit for Target No. 1 Shaft with only a limited amount of infrastructure remaining in place. Once the shaft has been refurbished and surface infrastructure is completed and the shaft commissioned, mining operations associated with the Proposed Project will be relocated to this shaft.

Figure 6: Harmony Target No 2 Shaft

A layout of the current Target No 2 Shaft surface infrastructure as well as the proposed new infrastructures which are required to be constructed are presented in Figure 7.

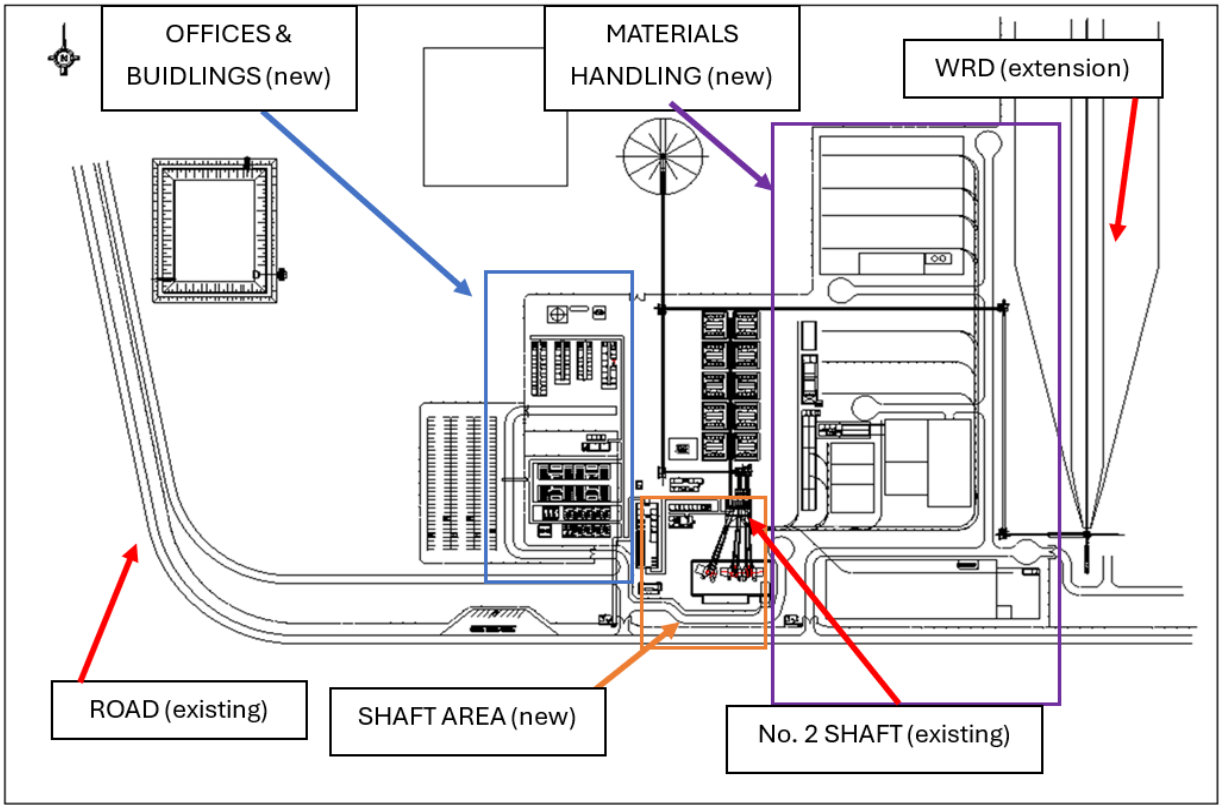


Figure 7: Target No 2 Shaft new and existing infrastructure

To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary, with short gravel access tracks provided for each station. These installations represent the only surface infrastructures on the JV project area.

Additionally, a new Tailings Storage Facility (TSF) will be constructed to the west of the existing Target metallurgical plant and north of the existing Target TSF. The total area required for this new facility is approximately 69 Hectares (Ha). This TSF is a separate project being undertaken by Harmony Gold.

Project Location

The Proposed Project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 1,5km west of Allanridge town, and 22km east of Wesselsbron, in the Free State Province of South Africa. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality. Refer to Figure 8 for the Proposed Project local orientation. Below is a summary of the location of the Project Site (Table 1).

Table 1: Summary of the Location of the Project Site

Province	Free State Province
Municipality	Matjhabeng Local Municipality
Ward Number	36
Nearest Town	Allanridge

Table 2 below shows the properties that are directly affected by the Proposed Project.

Table 2: Description of Directly Affected Properties

Farm Name	Farm ID	Farm Portion	SG Code
Welvaart No. 63	RD	0 (RE)	F02400000000006300000
Welvaart No. 63	RD	1	F02400000000006300001
Welvaart No. 63	RD	2	F02400000000006300002
Diamant No. 37	RD	0	F02400000000003700000
Graspan No. 40	RD	0 (RE)	F02400000000004000000
Graspan No. 40	RD	1	F02400000000004000001
Swartpan No. 436	RD	0 (RE)	F02400000000043600000

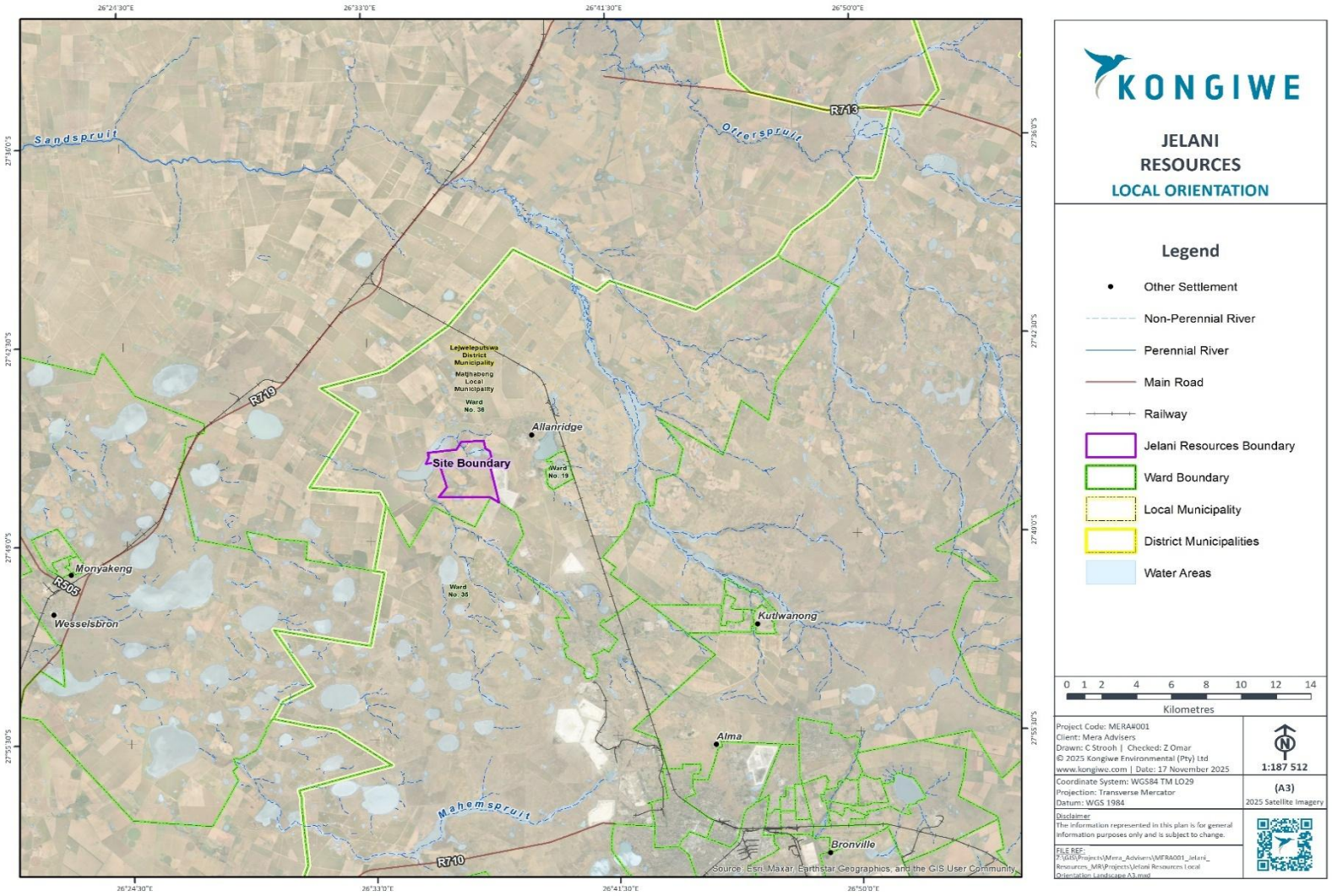


Figure 8: Local Orientation of the proposed JV Area Underground Mining Project

Area Extent

The total extent of the application area is 956.76 hectares (ha).

Depth of Mineral below Surface

The orebodies extend between 1 500m and 2 600m below surface.

Proposed Beneficiation Process

All ore produced from the underground mining operations will be transported to the existing Target 1 metallurgical plant for processing.

Life of Operation

10 340 Mt of ore is expected to be mined over the Life of Mine (LOM), which is 14 years.

Project Schedule

Prior to the initiation of mine implementation and construction activities, various stages of design work will be required to be undertaken. It is expected that these activities will take approximately four years before implementation can be initiated. Active mining can commence during year 7. The key timelines are listed in Table below:

Table 3: Project timelines

Period	Description
Year 1 - 3	Site data gathering and feasibility studies
Year 4	Detailed engineering design
Year 5 - 8	Implementation and construction activities
Year 7	Hiring of employees
Year 7	Initiation of mining activities underground

The production build-up is planned to occur in two phases:

In Phase 1, which is planned to last for four years starting in Year 5, with construction and refurbishment with mining starting in Year 7. The first two years are required for level access and refurbishment, after which Target No 3 shaft will be used for hoisting of men, material and rock.

Phase 2 commences in Year 9, whereby access to the underground workings is via Target No 2 shaft, with Target No 3 shaft being reserved as a second outlet.

As mine development progresses over the first four years, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of ore per month, which is achieved in Year 10.

10 340 Mt of ore is expected to be mined over the Life of Mine (LOM), which is 14 years.

Access, Access Control and Security

The Proposed Project is located within an area served by an established road network. Public routes in close proximity to the site include existing roads currently used for Harmony Target Mine operations as well as gravel roads used by the local farmers.

Only the development of gravel access tracks to facilitate the monitoring of potential mining-induced seismicity and boundary interactions is anticipated at the project site.

Vehicle access to the shaft site is via the R30 public road, connecting to the existing mine access roads, that will continue to be used. No additional refurbishments are required on these roads other than possibly cutting back the overhanging branches of the two rows of trees that run along the entire length of the road.

The shaft site perimeter is already fenced and assumed to be according to the Harmony Standard, as no other security measures or devices were observed. Access to the shaft complex is controlled through the main access security gate. Provision has been made to refurbish the system.

Legislative Requirements and Good-Practice Guidelines

Applicable Legislation and International Best Practice

The Public Participation Process (PPP), as required by the environmental law and regulations specified therein, is being undertaken in line with the statutory requirements for public participation. The following legislation was considered when developing and implementing the PPP:

- National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).
- The Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) (EIA 2014 Regulations).
- Public Participation guideline in terms of NEMA.
- The National Water Act, 1998 (Act No. 36 of 1998) (NWA).
- National Environmental Management: Waste Act, 2008 (Act No 59 of 2008) (NEM:WA) and the List of Waste Management Activities (GN R921 of 29 November 2013, as amended).
- Protection of Personal Information Act, 2013 (Act No. 4 of 2013) (POPIA).
- Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA).

NEMA mandates public participation for environmental decision-making, ensuring affected communities have a voice in development projects through the EIA Regulations, 2014. The NEMA Public Participation Guideline (in terms of the EIA Regulations) is a mandatory part of the (EA process, aiming for transparent, informed decisions that promote sustainable development by integrating social, economic, and environmental factors.

The POPIA regulates the processing of personal information by both public and private bodies, aiming to protect individuals' constitutional right to privacy.

The PAIA gives effect to the constitutional right to access information held by both the state and private bodies. The Act establishes procedures for individuals to request information for the protection or exercise of their rights

In addition to the above legislation, the PPP needs to be aligned to International good-practice guidelines for public participation, particularly in regard to the following Core Values of the International Association for Public Participation (IAP2):

- Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
- Public participation includes the promise that the public's contribution will influence the decision.
- Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.
- Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
- Public participation seeks input from participants in designing how they participate.
- Public participation provides participants with the information they need to participate in a meaningful way.
- Public participation communicates to participants how their input affected the decision.

POPIA: Safeguarding Registered Person's Personal Information
In terms of section 19 of the Protection of Personal Information Act, 2013 (Act No. 4 of 2013) (POPIA), a responsible party must, subject to Sections 9 and 11 of the Act, ensure the integrity and confidentiality of personal information in its possession or under its control by taking appropriate, reasonable technical and organisational measures to prevent loss of, damage to or unauthorised destruction of personal information, unlawful access to or processing of personal information. POPIA requires that personal information should be adequately protected to avoid unauthorised access. Therefore, Kongiwe continuously reviews security controls and procedures to ensure that personal information is secured. It should be noted that in terms of Section 11, personal information may be processed to the extent that this is necessary for pursuing the legitimate interests of the responsible party or parties to whom the information is supplied.

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

Kongiwe Environmental (Kongiwe) has been tasked with conducting the Scoping and Environmental Impact Assessment (S&EIA)/Integrated Water Use Licence application (IWULA) process which is aimed at critically evaluating the potential environmental and social impacts of the Project.

The steps involved in the EIA process are outlined in Figure 9.

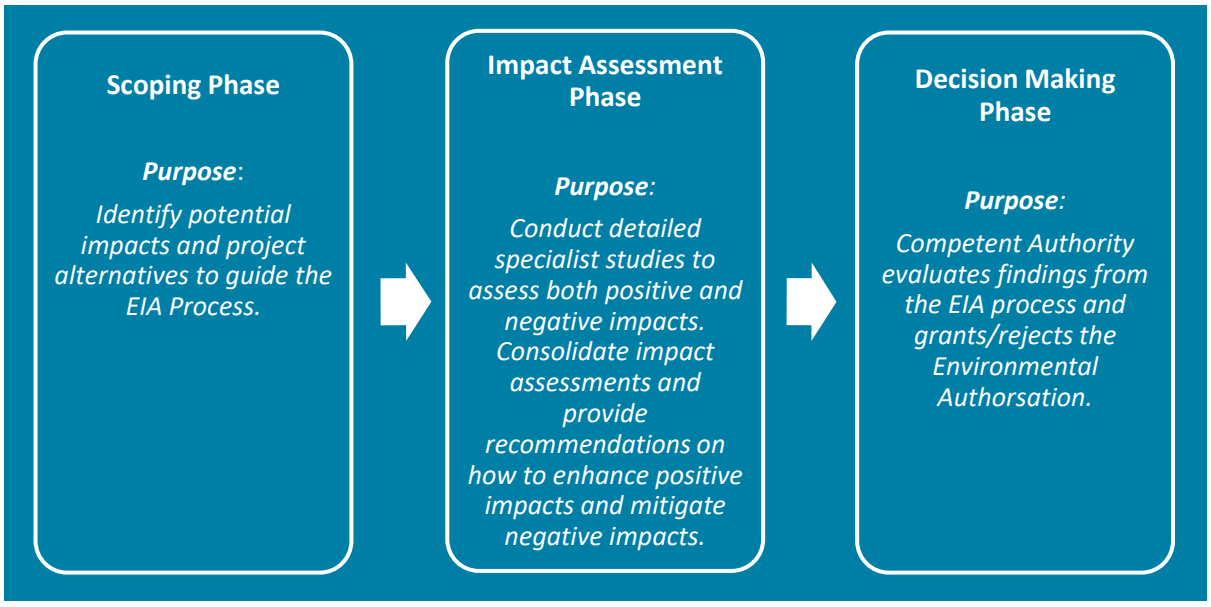


Figure 9: S&EIA Process

INTEGRATED WATER USE LICENCE

An IWULA will be undertaken for water uses associated with Section 21 of the National Water Act, 1998 (Act No.36 of 1998) (NWA). Section 21 (c) and (i) activities are activities that impede or divert the flow of water in a watercourse; or which alter the bed, banks, course or characteristics of a watercourse.

Specialist Studies

Various specialist studies are being undertaken as part of the S&EIA/IWULA process to assess the potential impacts associated with the proposed project. Specialist studies being undertaken include:

- Social Impact Assessment
- Desktop Heritage/Cultural and Palaeontology Assessments
- Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM,) Soils and Agricultural Potential
- Air Quality Impact Assessment
- Climate Change Impact Assessment
- Financial Provision Calculation, Environmental Risk and Final Rehabilitation and Closure Plan
- Hydrological Assessment
- Hydrogeological Assessment
- Blasting and Vibrations

The findings of the specialist studies will be incorporated into the EIA/EMPr and the IWWMP.

Public Participation Process

The Public Participation Process (PPP) will form part of the EIA/EMPr and IWULA process. The PPP offers stakeholders an opportunity to be informed about the Project, to raise issues and to make suggestions for enhanced Project benefits. It also outlines the ways in which the Project team will communicate with stakeholders.

The PPP has been developed to ensure compliance with the relevant legislation and facilitate meaningful stakeholder engagement for the EIA/EMPr and IWULA process.

Availability of the Draft Scoping Report for Public Review and Comment

As part of the Scoping Process, the applicant is required to compile a **Draft Scoping Report (DSR)** for mining-related activities. The DSR will be available for public review and comment for a period of 30 days from **Thursday, 21 May 2026 to Monday, 22 June 2026.**

A notification of the availability of the DSR for public review and comment was distributed on **Thursday, 14 May 2026,** to all stakeholders on the database.

The DSR will be made available as follows:

- An electronic copy on Kongiwe's website: https://kongiwe.com/projects/.
- A hard copy at the **Allanridge Public Library**. Contact details are shown in Table 4.

The non-technical summaries of the **DSR** will be available electronically to all stakeholders on the stakeholder database and distributed in hard copy at the Open Day (discussed below).

Table 4: Libraries with Hard Copies of the Draft Scoping Report

Location	Physical Address	Contact Person
Allanridge Public Library	53 Caledon St, Allanridge	Ms Anna Matjelo, Librarian (078) 713 2063) Monday - Friday Open: 08:00 Close: 15:30

Availability of the EIA/EMPr and IWWMP for Public Review and Comment

During the EIA phase of the project, the Draft Environmental Impact Assessment and Draft Environmental Management Programme (DEIA/EMPr) will be made available for public review for **30 days.**

Once the information required for the IWULA has been finalised, a technical report, in support of the IWULA process, will be made available for a public review and commenting period of **60 days**. It is anticipated that the IWULA report will be made available during the impact assessment phase. Information regarding the availability of the IWULA technical report and how stakeholders can provide their comments will be communicated to all stakeholders.

Stakeholder Engagement Meetings

Stakeholders are invited to participate through online and in-person engagements. Consultation meetings will be held using platforms like Microsoft Teams, and Open Days. The purpose of these meetings is to discuss the Project and the contents of the Draft Scoping Report, and to provide Interested and Affected Parties (I&APs) with the opportunity to raise their comments and to interact with the project team.

Table 5 provides details of the proposed stakeholder meetings. Please confirm your attendance for the meeting *(Confirmation of attendance may be submitted via the stakeholder's email address or telephonically*).

Table 5: Schedule of Stakeholder Meeting

Proposed Dates	Available Time Slots	Method of Engagement
Online Meeting		
Wednesday, 27 May 2026	10H00 – 11H00	Microsoft Teams
In-Person Meetings: Open Day		
Saturday, 30 May 2026	11H00 – 13H00	S.A. Mokhothu Primary School 3073 Nyakallong, Allanridge, 9490

Invitation to be Involved as a Stakeholder

Kongiwe has put measures in place to ensure that all stakeholders are meaningfully consulted by using a wide range of media, documents and online tools. The proposed methods of engagement for the Project are as follows:

- Telephonic consultations.
- Short Message Services (SMSes).

- Email correspondence:
  - Stakeholders with access to emails are requested to send their comments/queries via email.
  - Stakeholders can email their Registration and Comment Forms.
- Online engagements:
  - Project information will be timeously uploaded on Kongiwe's website.
  - Microsoft Teams meetings.
- In-person Engagements:
  - One-on-one consultation meetings.
  - Open Day.

The purpose of the above-mentioned methods of engagement is to encourage dialogue with stakeholders and provide stakeholders with opportunities to raise their comments. Minutes of all meetings with stakeholders will be compiled and recorded in the Comments and Responses Report (CRR). Stakeholders are encouraged to indicate their preferred method of engagement on the Registration Form below the BID.

For consultation to be Inclusive, it is the Responsibility of Stakeholders to

- Register or ensure you are registered as an I&AP.
- Inform others whom you think may be interested and/or affected by the Project.
- Provide comments on the Project.
- Ensure comments are submitted within the allowed timeframes and received by the Stakeholder Engagement office.
- Contribute information and/or knowledge of the Project area's environment.
- Attend meetings that are scheduled throughout the process to participate and access information.

Comments and Queries

Any person affected by or who may be interested in the Project are encouraged to complete the Registration and Comments Form provided below this document (BID) should they have any comments / queries.

Contact Details		
Ms Jean-Mari Williams	+27 (10) 140 1726	stakeholders@kongiwe.com
Ms Vanessa Viljoen	+27 (10) 140 1725	stakeholders@kongiwe.com

Our team welcomes your participation and looks forward to your involvement throughout this process

Environmental Authorisation and Integrated Water Use Licence Application for Jelani Joint Venture (JV) Area Underground Mining Project, Free State Province

DMPR reference number: FS30/5/1/2/3/2/1(10098) EM

DWS reference number: WU50090

Stakeholder Registration and Comment Form

Please return a completed registration form to the Stakeholder Engagement Team:

Ms Jean-Mari Williams / Phone: (010) 140 1726 / Ms Vanessa Viljoen / Phone: (010) 140 1725 or E-mail: stakeholders@kongiwe.com

Postal Address: PostNet Suite No 163, Private Bag X21, Bryanston, 2021

Please provide your complete contact details:							
Landowner	Property						
Land Occupier	Property			Property Owner			
Title	Mr	Mrs	Ms	Dr	Prof	Other	
First Name							
Surname							
Organisation							
Position in Organisation							
Contact Details	Cell			Tel			
Email Address							
Postal Address							
Please indicate your preferred method of communication	Email	☐	SMS	☐	Post	☐	

I intend attending the stakeholders' meeting (Please indicate your preference)

Meeting Dates	Available Time Slots	Method of Engagement	Yes	No
Online Meeting:				
Wednesday, 27 May 2026	10H00 – 11H00	Microsoft Teams	Yes	No
In-Person Meeting: Open Day				
Saturday, 30 May 2026	11H00 – 13H00	S.A. Mokhothu Primary School 3073 Nyakallong, Allanridge, 9490	Yes	No

Do you have any comments/suggestions regarding the proposed project? If so, please complete the section below/ send your comments to the stakeholder engagement team- please see details above.

Comments/Suggestions							
Please provide contact details of any other stakeholders we should consult:							
Title	Mr	Mrs	Ms	Dr	Prof	Other	
First Name							
Surname							
Organisation/ Property / Business							
Cell Phone							
Email							
Title	Mr	Mrs	Ms	Dr	Prof	Other	
First Name							
Surname							
Organisation/ Farm / Business							
Cell Phone							
Email							

Please note that the information supplied herein constitutes Personal Information as contemplated in Protection of Personal Information Act, 2013 (POPIA). All your rights as set out in the Act will continue to be protected and Kongiwe will be accountable to ensure that all conditions for lawful processing are met. Your signature will be regarded as granting consent for the processing of the information strictly in accordance with the provisions of the Act. It must be noted that POPIA does not prevent any private body from exercising or performing its powers, duties and functions in terms of the law and accordingly the EAP and any appellant may perform its duties under the National Appeal Regulations provided the processing is in accordance with POPIA and meets the requirements of the National Appeal Regulations.

Signature		**Date**	

Appendix C4: Newspaper Advertisement

Environmental Authorisation and Integrated Water Use Licence Application for the Jelani Joint Venture (JV) Underground Mining Project, Free State Province

DMPR reference number: FS30/5/1/2/3/2/1(10098) EM • DWS reference number: WU50090

Applicant: **Jelani Resources (Pty) Ltd**
Project Name: **Jelani Joint Venture (JV) Underground Mining Project), Free State Province**

Jelani Resources (Pty) Ltd ("Jelani") is a joint venture (JV) between White Rivers Exploration (WRE) and Harmony Gold, formed to conduct underground mining operations within the JV area in the Free State Province of South Africa. The joint venture area includes portions of Harmony Gold's existing Target Mine mining right area (Harmony contribution) and prospecting right areas located west of the Target Mine (WRE contribution).

Jelani is proposing to develop and to commence with underground mining within the same area (the Proposed Project). The primary mineral resource targeted is gold, with additional potential resources including silver, uranium, sulphur, platinum group metals, rare earth elements, diamonds (alluvial), and a range of base and ferrous metals such as copper, cobalt, manganese, molybdenum, nickel, lead, tungsten, zinc, and iron.

Mining will initially focus on shallower ore bodies at approximately 1,200 metres below surface. As mine development progresses, further mining areas will be opened, allowing production to gradually increase to a planned steady-state rate of 60,000 tonnes of ore per month.

Two underground mining methods have been identified as most suitable: conventional breast mining and shrinkage stoping. The selection of method is primarily determined by the dip of the mineralised reef, with shrinkage stoping applied to steeper reef sections, representing approximately 3% of the total stope tonnage. Where the orebody dips below 55°, conventional breast mining will be used.

All operational mining infrastructure required for the Proposed Project will be located within Harmony's existing Target Mine mining right area. No new operational mining infrastructure planned within the JV project area. Underground access infrastructure will comprise either refurbished facilities at Target Shafts No. 3, 4, and 5 or newly constructed infrastructure at the Target No. 2 Shaft site, all within the existing mining right.

To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary, with short gravel access tracks provided for each station. These installations represent the only surface infrastructures on the JV project area.

Additionally, a new Tailings Storage Facility (TSF) will be constructed to the west of the existing Target metallurgical plant and north of the existing Target TSF. The total area required for this new facility is approximately 69 Hectares (Ha). This TSF is a separate project being undertaken by Harmony Gold.

The project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 2,5km west of Allanridge, and 22km east of Wesselsbron, in the Free State Province of South Africa. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality.

Availability of the Draft Scoping Report (DSR) for Public Review and Comment: The DSR for the Project will be made available for public review and comment for **30 days**, from **Thursday, 21 May 2026 to Monday, 22 June 2026**.

The **DSR** will be made available on Kongiwe's website **https://kongiwe.com/projects/**, and an electronic copy will be made available upon request. In addition, non-technical summaries of the **DSR** will also be available electronically.

A hard copy of the DSR will be made available at the following public place: **Allanridge Public Library** (53 Caledon St, Allanridge),
Contact: Ms Anna Matjelo, Librarian - (078) 713 2063.

Stakeholder Meetings: Consultation meetings will be held using platforms like Microsoft Teams (Online Meeting) and an Open Day. The purpose of these meetings is to discuss the Project and the contents of the **DSR**, and to provide Interested and Affected Parties (I&APs) with the opportunity to raise their comments and interact with the Project team. Please see below the proposed stakeholder meeting details:

Proposed dates	Available time slots	Method of Engagement/Venue
Online Meeting		
Wednesday, 27 May 2026	10H00 – 11H00	Microsoft Teams
In-Person Meeting: Open Day		
Saturday, 30 May 2026	11H00 – 13H00	S.A. Mokhothu Primary School, 3073 Nyakallong, Allanridge, 9490

To register as an I&AP please contact: Kongiwe Environmental Stakeholder Engagement Team
Ms Jean-Mari Williams - Phone: (010) 140 1726 / Ms Vanessa Viljoen - Phone: (010) 140 1725 or
E-mail: stakeholders@kongiwe.com

KONGIWE

Our team welcomes your participation and looks forward to your involvement throughout this process.

Appendix C5: Site Notice

Environmental Authorisation and Integrated Water Use Licence Application for the Jelani Joint Venture (JV) Underground Mining Project, Free State Province

DMPR reference number: FS30/5/1/2/3/2/1(10098) EM

DWS reference number: WU50090

Jelani Resources (Pty) Ltd ("Jelani") is a joint venture between White Rivers Exploration (WRE) and Harmony Gold, formed to conduct underground mining operations in the Free State Province of South Africa. The joint venture area includes portions of Harmony Gold's existing Target Mine mining right area (Harmony contribution) and prospecting right areas located west of the Target Mine (WRE contribution).

Jelani is proposing to develop and to commence underground mining within the same area (the Project). The primary mineral resource targeted is gold, with additional potential resources including silver, uranium, sulphur, platinum group metals, rare earth elements, diamonds (alluvial), and a range of base and ferrous metals such as copper, cobalt, manganese, molybdenum, nickel, lead, tungsten, zinc, and iron.

Mining will initially focus on shallower ore bodies at approximately 1,200 metres below surface. As mine development progresses, further mining areas will be opened, allowing production to gradually increase to a planned steady-state rate of 60,000 tonnes of ore per month.

Two underground mining methods have been identified as most suitable: conventional breast mining and shrinkage stoping. The selection of method is primarily determined by the dip of the mineralised reef, with shrinkage stoping applied to steeper reef sections, representing approximately 3% of the total stope tonnage. Where the orebody dips below 55°, conventional breast mining will be used.

All operational mining infrastructure required for the Proposed Project will be located within Harmony's existing Target Mine mining right area. No new operational mining infrastructure planned within the JV project area. Underground access infrastructure will comprise either refurbished facilities at Target Shafts No. 3, 4, and 5 or newly constructed infrastructure at the Target No. 2 Shaft site, all within the existing mining right.

To monitor potential mining-induced seismicity and boundary interactions with the adjacent Harmony Gold operations, four seismographic monitoring stations will be installed, spread equally along the shared boundary, with short gravel access tracks provided for each station. These installations represent the only surface infrastructures on the JV project area.

Additionally, a new Tailings Storage Facility (TSF) will be constructed to the west of the existing Target metallurgical plant and north of the existing Target TSF. The total area required for this new facility is approximately 69 Hectares (Ha). This TSF is a separate project being undertaken by Harmony Gold.

The project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 2,5km west of Allanridge, and 22km east of Wesselsbron, in the Free State Province of South Africa. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality.

Availability of the Draft Scoping Report (DSR) for Public Review and Comment:

The **DSR** for the Project will be made available for public review and comment for 30 days, from **Thursday, 21 May 2026 to Monday, 22 June 2026.**

The **DSR** will be made available on Kongiwe's website https://kongiwe.com/projects/, and an electronic copy will be made available upon request. In addition, non-technical summaries of the **DSR** will also be available electronically.

A hard copy of the **DSR** will be made available at the following public place: **Allanridge Public Library** (53 Caledon St, Allanridge, Contact: Ms Anna Matjelo, Librarian - (078) 713 2063).

Stakeholder Meetings:

Consultation meetings will be held using platforms like Microsoft Teams (online meetings) and Open Days. The purpose of these meetings is to discuss the Project and the contents of the **DSR,** and to provide Interested and Affected Parties (I&APs) with the opportunity to raise their comments and to interact with the Project team. Please see below the proposed stakeholder meeting details:

Proposed Dates	Available Time Slots	Method of Engagement / Venue
Online Meeting		
Wednesday, 27 May 2026	10H00 – 11H00	Microsoft Teams
In-Person Meeting: Open Day		
Saturday, 30 May 2026	11H00 – 13H00	S.A. Mokhothu Primary School, 3073 Nyakallong, Allanridge, 9490

To register as an I&AP, contact:
Kongiwe Environmental Stakeholder Engagement Team
Ms Jean-Mari Williams - Phone: (010) 140 1726
Ms Vanessa Viljoen - Phone: (010) 140 1725
E-mail: stakeholders@kongiwe.com

Our team welcomes your participation and looks forward to your involvement throughout this process.

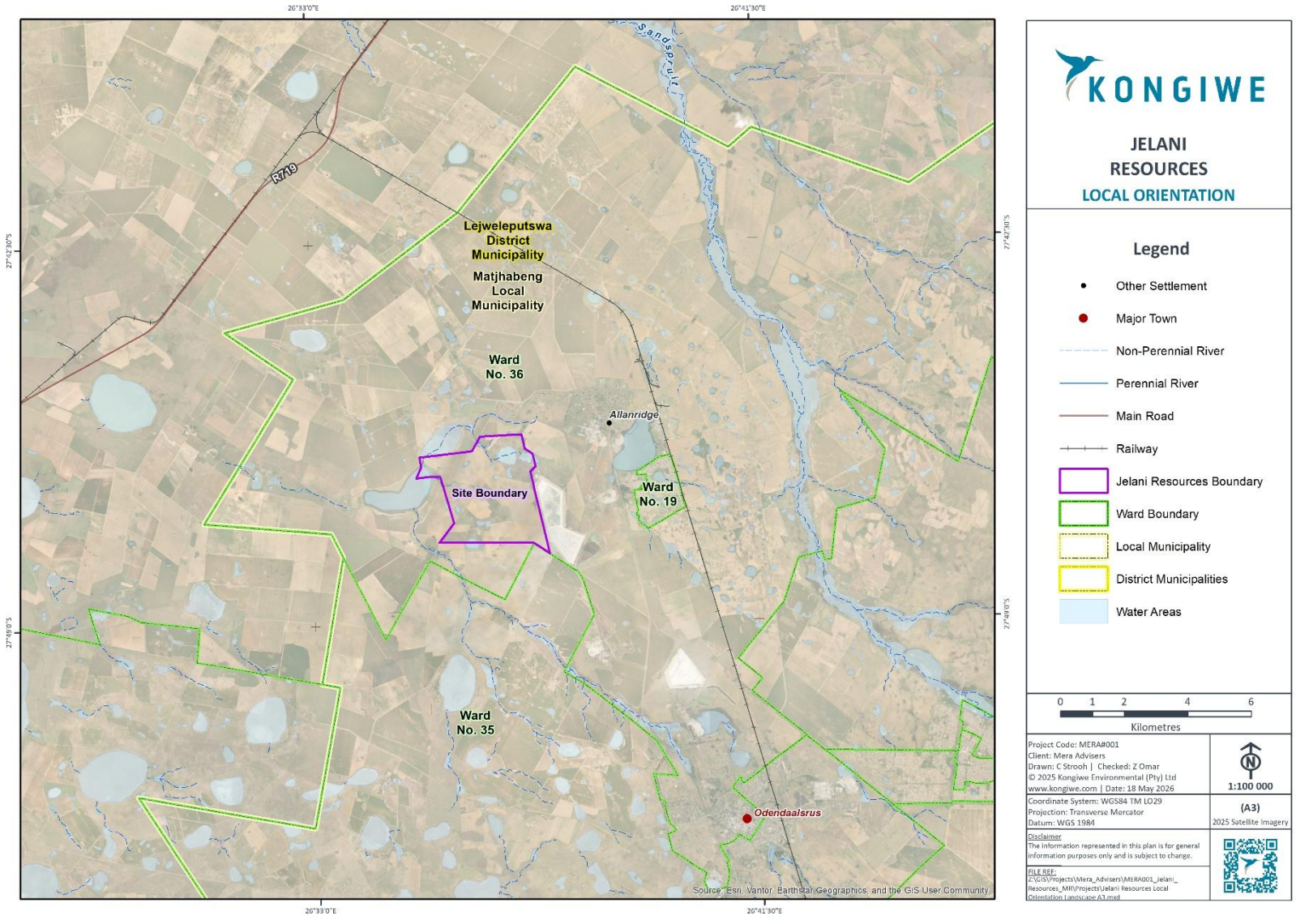


Figure 1: Locality Map

Appendix C6: Correspondence

Vanessa Viljoen

From: Kongiwe Stakeholder Engagement
Sent: Thursday, 14 May 2026 09:12
To: Vanessa Viljoen
Subject: Environmental Authorisation and Integrated Water Use Licence Application for Jelani Joint Venture (JV) Area Underground Mining Project, Free State Province
Attachments: JELA_001_BID_13052026.pdf; JELA_001_REG_FRM_V1.pdf

Dear Stakeholder

Kongiwe Environmental (Pty) Ltd ("Kongiwe") hereby gives notice that the **Draft Scoping Report (DSR)** for the Environmental Authorisation and Integrated Water Use Licence (IWULA) of the Jelani Joint Venture (JV) Underground Mining Project ("Proposed Project"), located in the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality, Free State Province, is available for public review and comment.

Availability of the Draft DSR for Public Review and Comment
The **DSR** for the Proposed Project will be made available for public review and comment for **30 days**, from **Thursday, 21 May 2026 to Monday, 22 June 2026**.

The DSR will be made available as follows:

- An electronic copy on Kongiwe's website: https://kongiwe.com/projects/.
- A hard copy at the **Allenridge Public Library (please see details in table below).**

Location	Physical Address	Contact Person
Allanridge Public Library	53 Caledon St, Allanridge	Ms Anna Matjelo, Librarian (078) 713 2063) Monday - Friday Open: 08:00 Close: 15:30

Invitation to Online Meeting and Open Day:
Interested and Affected Parties (I&APS) are invited to attend an **Online Meeting and Open Day** as per indicated in the table below:

Proposed Dates	Available Time Slot	Method of Engagement
Online Meeting		
Wednesday, 27 May 2026	10H00 – 11H00	Microsoft Teams (once stakeholders have registered a Microsoft Teams link will be sent)
Open Day		
Saterday, 30 May 2026	11H00 -13H00	S.A. Mokhothu Primary School 3073 Nyakallong, Allanridge, 9490

The purpose of the meeting is to discuss the Proposed Project and the contents of the **DSR** and to provide I&APs with the opportunity to raise their comments and to interact with the Project Team.

Please do not hesitate to contact us if you have any queries.

Kind Regards,

Stakeholder Engagement Team | Kongiwe Environmental (Pty) Ltd.
Tel: +27 (10) 140 1725 | Email: stakeholders@kongiwe.com
150 Bryanston Drive, Bryanston, Sandton, 2191, South Africa.
PostNet Suite no 163, Private Bag X21, Bryanston, 2021, South Africa.
www.kongiwe.com

Appendix C7: Authority Correspondence

Appendix C8: Meeting Minutes

Environmental Authorisation Application for Jelani Joint Venture (JV) Underground Mining in Matjhabeng Local Municipality, Free State Province

Stakeholder Meeting Schedule – Draft Scoping Report (DSR)

Date of the meeting	Time	Meeting Type / Format	Organisation / Address	Invited / Attended / Apologies	Resources Used	Who Presented (EAP / Jelani)	Project Team Attendance (Jelani and Kongiwe)
Monday, 15 December 2025	**10H00 – 11H00**	**Landowner Consent Meeting** **Online Meeting (Microsoft Teams)**	**Indirectly Affected Landowners**	**Invited:** ❖ Mr Tertius De Jager, Landowner ❖ Mr Christo Nel, Landowner ❖ Mr Trompie Fouche, Landowner ❖ Mr Jaco Grobbelaar, Landowner **Attended:** ❖ Mr Tertius De Jager, Landowner ❖ Mr Johan De Jager, Landowner **Apologies:** ❖ Mr Christo Nel, Landowner ❖ Mr Trompie Fouche, Landowner ❖ Mr Jaco Grobbelaar, Landowner	❖ Presentation ❖ Attendance Register	Mr Ripfumelo Macevele, Kongiwe	Ms Vanessa Viljoen, Kongiwe Ms Umeshree Naicker, Kongiwe Ms Jean-Mari Williams, Kongiwe
Friday, 6 February 2026	**08H00 – 09H00**	**Pre – Application Meeting** **Online Meeting (Microsoft Teams)**	**Competent Authority Free State:** ❖ Department of Mineral and Petroleum Resources (DMPR)	**Invited:** ❖ Mr Tuwani Monyai, Assistant Director: Mine Environmental Management (DMPR) ❖ Mr Cedrick Fhedzisani, Deputy Director: Mine	❖ Presentation ❖ Attendance Register	Ms Umeshree Naicker, Kongiwe	Mr Neels Hoek, Jelani Mr Ripfumelo Macevele, Kongiwe Ms Thuli Phakathi, Kongiwe

Date of the meeting	Time	Meeting Type / Format	Organisation / Address	Invited / Attended / Apologies	Resources Used	Who Presented (EAP / Jelani)	Project Team Attendance (Jelani and Kongiwe)
				Environmental Management (DMPR) **Attended:** ❖ Mr Tuwani Monyai, Assistant Director: Mine Environmental Management (DMPR) ❖ Mr Cedrick Fhedzisani, Deputy Director: Mine Environmental Management (DMPR) **Apologies:** None			

MINUTES OF MEETING			
Date	Monday, 15 December 2025	**Time**	10:00 – 11:00
Venue	Online Meeting (Microsoft Teams)		
Subject	**Meeting with Indirectly Affected Landowners**		

List of Attendees		
Organisation	**Name of Attendee**	**Designation**
Zuurbron No. 444 Portion 1	Mr Tertius De Jager	Indirectly Affected Landowner
Zuurbron No. 444 Portion 1	Mr Johan De Jager	Indirectly Affected Landowner
Kongiwe Environmental (Pty) Ltd	Mr Ripfumelo Macevele	Environmental Consultant
Kongiwe Environmental (Pty) Ltd	Ms Vanessa Viljoen	Principal Stakeholder Engagement Consultant
Kongiwe Environmental (Pty) Ltd	Ms Jean-Mari Williams	Project Co-Ordinator
Kongiwe Environmental (Pty) Ltd	Ms Umeshree Naicker	Principal Environmental Consultant

Apologies		
Organisation	**Name of Attendee**	**Designation**
Modderfontein N0. 343 Portion 1	Mr Christo Nel	Indirectly Affected Landowner
Uitkyk N0. 258 Portion 4	Mr Trompie Fouche	Indirectly Affected Landowner
Onrust No. 377 Portion 0	Mr Jaco Grobbelaar	Indirectly Affected Landowner

Note: These minutes are not intended as a verbatim transcript of the meeting, but rather as a summary of the salient discussions which took place

No	Item	Responsible Person
1	**Welcome and Introductions**	
1.1	Ms Vanessa Viljoen (Ms Viljoen) welcomed all attendees to the meeting.	Ms Viljoen
2	**Meeting Purpose**	
2.1	Present and discuss the proposed Jelani Joint Venture (JV) Underground Mining Operations.	Mr Ripfumelo Macevele (Mr Macevele)
2.2	Provide an overview of the Proposed Project.	
2.3	Provide an opportunity to raise comments/seek clarity as well as provide input.	
2.4	Record comments raised and included them in the Comments and Responses Report (CRR)	
2.5	Landowner consent for specialist to access properties	
3	**Meeting Agenda**	
3.1	Introductions	(Mr Macevele)
3.2	Project Background	
3.3	Project Location	
3.4	Project Description	
3.5	Infrastructure Requirements	
3.6	Proposed Mining Methods	
3.7	Environmental Permitting Processes	
3.8	Landowner consent for specialist to access properties	
3.9	Comments and Discussion	

4	Discussion		
STAKEHOLDERS		**COMMENT**	**RESPONSE**
4.1	Mr Tertius De Jager (Mr De Jager)	Mr De Jager thanked (Mr Macevele)for his presentation. He stated that he did not understand why this was being presented as a new project, as he was under the impression that Harmony had owned the land for approximately 20 years and that exploration had already been conducted to depths of about 3,000 metres. The tunnels must be present throughout the area.	Mr Macevele explained that the blue area indicated on the map presented is the proposed project site. He clarified that the land does not belong to Harmony and that WRE has only acquired prospecting rights to search for minerals in the area.
4.2	Mr De Jager	Mr De Jager requested that Mr Macevele indicate the location of the existing operational underground tunnels. He noted that, to his knowledge, the underground tunnels are significantly wider than had been explained.	Mr Macevele indicated that they do not have drawings of the underground tunnels and only have information relating to the surface area. He further noted that the existing operational area is Target, which is currently operational. Ms Umeshree Naicker (Ms Naicker) added that the details relating to the underground activities, design, shaft usage, and the condition of the underground facilities are still under consultation. The appointed consultants are in the process of finalising the designs. She further acknowledged that Kongiwe understands the information Mr De Jager is requesting and confirmed that Kongiwe also requires the same information. The information will be shared with all relevant parties once it has been received.
4.3	Mr De Jager	Mr De Jager stated that, from a farming perspective, their primary concern relates to the potential impact of the proposed mining operation on their existing water supply. He noted that an irrigation stream runs along the outer boundary of the property and is used for crop production and pecan trees. He asked what would happen to the water supply should the mining operation proceed as indicated.	Ms Naicker informed the meeting that, as part of the process, several specialist studies have been identified and will be undertaken. These include a groundwater assessment, which incorporates a hydro census component. Information will be obtained from existing boreholes and will form part of the groundwater impact assessment. She added that additional specialist studies such as surface water assessment, biodiversity assessment and others will also be conducted and that more detailed information will be available at a later stage once the studies have progressed.

4	Discussion		
STAKEHOLDERS		**COMMENT**	**RESPONSE**
			Ms Vanessa Viljoen (Ms Viljoen) informed Mr De Jager that the project is still in its initial stages and that a Scoping Report and an Environmental Impact Assessment (EIA) Report will be made available at a later stage. She explained that the purpose of the current meeting was to inform stakeholders of what is planned for the proposed project and to request permission/access for specialists to conduct their studies on the identified properties, she further added that detailed responses would be provided once additional information is received from the specialist studies.
4.4	Mr De Jager	Mr De Jager enquired about the scope of the specialists' work in relation to the boreholes, specifically what information they require and what activities will be undertaken.	Ms Naicker explained that a letter had been sent to all landowners outlining the scope of the specialist's site activities. She indicated that these activities include the identification and recording of the location of borehole(s), documenting their usage, measuring water levels within the borehole(s), and taking a preliminary water quality sample, should landowner agree.
4.5	Mr De Jager	Mr De Jager asked how the groundwater specialist would take water samples if a pump were already installed. He further indicated that, for the specialist to conduct a proper study, they would need assistance from the farmer (landowner), noting that the specialist should visit the site when the landowner is available.	Ms Naicker responded by stating that Kongiwe would engage with the specialist regarding the method for taking the samples, and that the specialist could provide a procedure to address this specific request. Ms Viljoen acknowledged the comment and indicated that she would request Jean, the Hydro Senses specialist, to contact the stakeholders directly to explain the scope of his work in more detail and what is required from the study. Post note: Jean contacted Mr De Jager to inform him that site access has been arranged for 12 January 2026. He also provided further details regarding the study he intends to conduct.

4	Discussion			
STAKEHOLDERS		**COMMENT**	**RESPONSE**	
4.6	Mr De Jager	Mr De Jager expressed concern that not all relevant information had been presented and that the meeting seemed rushed, appearing to prioritise the commencement of the specialist study. He stated that he felt more preparation was needed from Kongiwe to adequately address questions regarding the scope and objectives of the study.	Ms Viljoen acknowledged the comment and explained that the project is still in its initial phase of the Scoping and Environmental Impact Assessment process. She further clarified that the purpose of the meeting was to provide an overview of the proposed Project, to provide an opportunity to raise initial comments and to inform landowners about the planned upcoming activities for the proposed project and to request permission or access for specialists to conduct their studies on the identified properties.	
5	**Closing**			
5.1	Ms Vanessa Viljoen thanked everyone for their time and the meeting was adjourned at 10:50AM.		ALL	-

Jelani Resources (Pty) Ltd

Exploration Joint Venture (EJV) Underground Mining Operations

Indirectly Affected Landowner Meeting

Monday, 15 December 2025

Agenda

1. Introductions
2. Project Background
3. Project Location
4. Project Description
5. Infrastructure Requirements
6. Proposed Mining Methods
7. Environmental Permitting Processes
8. Comments & Discussion

Introductions

- Indirectly affected landowner(s)
- Kongiwe Environmental (Pty) Ltd (Kongiwe):
  - Ms Umeshree Naicker: Environmental Consultant
  - Mr Ripfumelo Macevele: Environmental Consultant
  - Ms Vanessa Viljoen: Stakeholder Engagement Consultant
  - Ms Jean-Mari Williams: Stakeholder Engagement Consultant

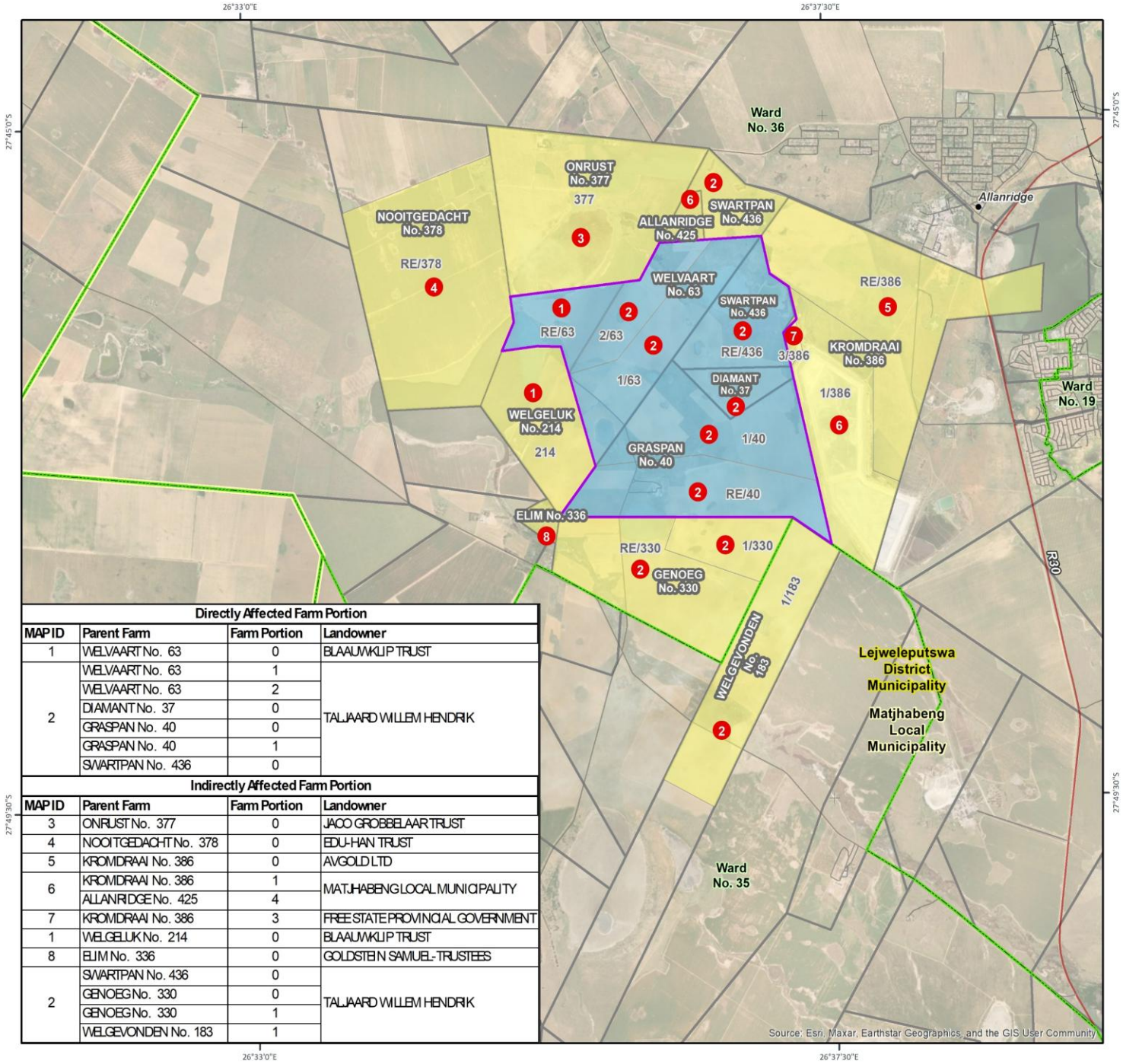
Project Background

- **Proponent**: Jelani Resources (Pty) Ltd
- **Activity**: EJV Underground Mining Operations
- **Life of Operation**: 23 years
- **Location**: The project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 2,5km west of Allanridge, and 22km east of Wesselsbron. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality.
- Jelani Resources (Pty) Ltd ("Jelani") is a joint venture (JV) company established by White Rivers Exploration and Harmony Gold.
- The JV was formed to conduct underground mining operations within the Exploration Joint Venture (EJV) area, situated adjacent to and west of Harmony Gold's existing Target Mine.

Project Background

- Jelani initially secured a Prospecting Right (PR) for various minerals within the EJV area. Following the exploration and licensing phases, Jelani intends to initiate underground mining operations within the same area.

Project Background



Directly Affected Farm Portion

MAP ID	Parent Farm	Farm Portion	Landowner
1	WELVAART No. 63	0	BLAAUWKLIP TRUST
2	WELVAART No. 63	1	TALJAARD WILLEM HENDRIK
	WELVAART No. 63	2	
	DIAMANT No. 37	0	
	GRASPAN No. 40	0	
	GRASPAN No. 40	1	
	SWARTPAN No. 436	0	

Indirectly Affected Farm Portion

MAP ID	Parent Farm	Farm Portion	Landowner
3	ONRUST No. 377	0	JACO GROBBELAAR TRUST
4	NOOITGEDACHT No. 378	0	EDU-HAN TRUST
5	KROMDRAAI No. 386	0	AVGOLD LTD
6	KROMDRAAI No. 386	1	MATJHABENG LOCAL MUNICIPALITY
	ALLANRIDGE No. 425	4	
7	KROMDRAAI No. 386	3	FREE STATE PROVINCIAL GOVERNMENT
1	WELGELUK No. 214	0	BLAAUWKLIP TRUST
8	ELIM No. 336	0	GOLDSTEIN SAMUEL - TRUSTEES
2	SWARTPAN No. 436	0	TALJAARD WILLEM HENDRIK
	GENOEG No. 330	0	
	GENOEG No. 330	1	
	WELGEVONDEN No. 183	1	

KONGIWE

JELANI RESOURCES

LAND TENURE

Legend

- Other Settlement
- Local Roads
- Main Road
- Railway
- Jelani Resources Boundary
- Parent Farm
- Ward Boundary
- Local Municipality
- District Municipalities
- Directly Affected
- Indirectly Affected

0 0.5 1 2 3

Kilometres

Project Code: JELA#001
Client: Jelani Resources
Drawn: C Strooh | Checked: Z Omar

www.kongiwe.com | Date: 04 December 2025

1:45 000

Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

(A3)
2025 Satellite Imagery

Disclaimer
The information represented in this plan is for general information purposes only and is subject to change.

FILE REF:
Z:\GIS\Projects\Jelani_Resources\JELA001_Jelani_Resources_MR\Projects\Jelani Resources Land Tenure Landscape A3.mxd

Project Description

Jelani intends to initiate underground mining operations to extract the following potential mineral resources:

- Gold ore (primary target),
- Silver ore,
- Uranium ore,
- Sulphur,
- Platinum Group Metals,
- Rare earths,
- Diamonds (alluvial),
- Copper ore,
- Cobalt ore,
- Manganese ore,
- Molybdenum ore,
- Nickel ore,
- Lead ore,
- Tungsten ore,
- Zinc ore, and
- Iron ore.

Project Description

- The proposed underground mining operations initially will target shallower mineral resource deposits at the project site.
- As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased.

Infrastructure Requirements

- All infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area.
- Underground access infrastructure will either consist of refurbished facilities at Target Shafts No. 3, 4, and 5 or newly constructed infrastructure at the Target No. 2 Shaft site, all within the existing Harmony Target mining right.
- No new infrastructure is planned within the project area.
- New Tailings Storage Facility (TSF) will be constructed to the west of the existing Target metallurgical plant and north of the existing Target TSF. The total area required for this new facility is approximately 69 Hectares (Ha). **TSF is a separate project being undertaken by Harmony Gold.**
- The infrastructure requirements are intended to support the managerial, supervisory, and operational functions associated with the respective underground mining operations.

Proposed Mining Methods

- The proposed underground mining operations initially will target shallower mineral resource deposits at the project site.
- As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased.
- Two mining methods have been identified as the most practical for exploiting the mineral resources: **conventional drill-and-blast breast mining** and **shrinkage stoping**.
- The selection of each method is primarily based on the dip of the mineralised reef, with the shrinkage stoping being used for the steeper slopes (3% of the total stope tonnage). Where the orebody dips below 55°, conventional breast mining will be used.
- Ore will be transported to the shaft ore pass system using a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump.

Environmental Permitting Processes

- The Proposed Project requires authorisation (Environmental Authorisation and Water Use Licence) for full scale mining and associated activities.
- **Application for EA** for listed activities triggered in Listing Notices GN R983, GN R984 and GN R985 published pursuant to the EIA Regulations 2014 (as amended), promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA);
- **Application for a Waste Management Licence (WML)** authorising waste management activities listed in GN 921 of 29 November 2013 published in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (as amended) (NEM:WA).
- **Integrated Water Use Licence Application (IWULA)** in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA).

Comment & Discussion

- Discussion
- Closing

Contact

Name: Umeshree Naicker/Ripfumelo Macevele

Tel: 010 140 6508

Email: unaicker@kongiwe.com

Kongiwe Environmental
150 Bryanston Drive, Bryanston, Sandton, 2191, South Africa.
PostNet Suite no 163, Private Bag X21, Bryanston, 2021, South Africa.

info@kongiwe.com
www.kongiwe.com

MINUTES OF MEETING			
Date	Friday, 6 February 2026	**Time**	08:00 – 09:00
Venue	Microsoft Teams		
Subject	**Online Meeting Minutes: Pre-Application Meeting** **Department of Mineral and Petroleum Resources (DMPR)**		

List of Attendees **Organisation**	**Name of Attendee**	**Designation**
Department of Mineral and Petroleum Resources (DMPR)	Mr Tuwani Monyai	Assistant Director: Mine Environmental Management
DMPR	Mr Cedrick Fhedzisani	Deputy Director: Mine Environmental Management
Jelani Resources (Pty) Ltd	Mr Neels Hoek	Project Manager
Kongiwe Environmental (Pty) Ltd	Ms Umeshree Naicker	Principal Environmental Consultant
Kongiwe Environmental (Pty) Ltd	Mr Ripfumelo Macevele	Environmental Consultant
Kongiwe Environmental (Pty) Ltd	Ms Thuli Phakathi	Stakeholder Engagement Consultant

Apologies **Organisation**	**Name of Attendee**	**Designation**
None		

Note: These minutes are not intended as a verbatim transcript of the meeting, but rather as a summary of the salient discussions which took place

No	Item
1	**Welcome and Introductions**
1.1	Ms Naicker welcomed all online meeting attendees.
2	**Meeting Purpose**
2.1	Present and discuss the Project details.
2.2	Provide an overview of the Environmental Process and Procedure.
2.3	Provide an overview of the Specialist studies.
2.4	Provide an overview of the Public Participation Process.
2.5	Present and discuss the Project Timeframes.
3	**Meeting Agenda**
3.1	Introductions
3.2	Purpose of the Meeting
3.3	Kongiwe's Role as an independent EAP
3.4	Project Background
3.5	Project Description
3.6	Infrastructure Requirements
3.7	Baseline Environment
3.8	Specialist Studies
3.9	Legislative Framework
3.10	Listed and Specified Activity
3.11	Public Participation Process
3.12	The Project to Date
3.13	The Way Forward
3.14	Comments and Discussion
4	**Discussion**
4.1	Refer to the table below

STAKEHOLDERS		COMMENT	RESPONSE
4.1	Mr Tuwani Monyai (Mr Monyai)	Mr Monyai enquired as to whether Harmony Target Shafts 2 and 3 form part of an existing Mining Right. Mr Monyai advised that a Memorandum of Understanding would be required between Harmany Gold and Jelani Recourses, given that all infrastructure required for the Proposed Project will be located within the existing Harmony Target Mine mining right area and Jelani would be utilising Harmony Gold's shafts to access its underground mining area. This was noted as necessary to address operational and coordination challenges associated with multiple parties using the same infrastructure.	Ms Naicker explained that all existing infrastructure proposed to be included in the application falls under Harmony's Mining Right. No new operational mining infrastructure is planned within the project area. Mr Hoek clarified that Harmony Gold is a shareholder in the project through a joint venture arrangement. He further noted that, in terms of the joint venture agreement, no new infrastructure is required for the proposed project.
4.2	Mr Ripfumelo Macevele (Mr Macevele)	Mr Macevele sought clarification regarding the requirement for a Memorandum of Understanding between Jelani Resources and Harmony Gold. It was queried whether such an agreement would be necessary, given that Harmony Gold is a shareholder in Jelani Resources and that the parties have entered into a joint venture agreement.	Mr Fhedzisani advised that a Memorandum of Understanding (MoU) would be required to clearly set out how the two parties would work together as well as to address the project's development plan which includes utilising the available spare capacity within Harmony's existing infrastructure at the Target Mine. He noted that this information should be sufficiently detailed and accessible for inclusion in the public participation process and is therefore not only relevant to the competent authority or the proponent. Mr Hoek reiterated that a Joint Venture Agreement is in place, which would be reviewed to determine whether it adequately

STAKEHOLDERS		COMMENT	RESPONSE
			addresses matters relating to shared infrastructure. It was further noted that, should the agreement not provide sufficient detail, a memorandum of agreement would be prepared for submission as part of the application
4.3	Mr Monyai	Mr Monyai stated that the specialist studies to be undertaken should not be informed solely by the screening tool. He further noted that, should any additional aspects be identified that require specialist input, these should also be included in the scope of studies.	Ms Naicker noted that any additional aspects identified that require specialist assessment will be undertaken as required.
4.4	Mr Monyai	Mr Monyai stated that EAPASA registration is a prerequisite for conducting the EIA. He further emphasised the importance of undertaking a robust cumulative impact assessment as part of the EIA process. It was noted that this is necessary to avoid situations where responsibility for cumulative impacts may be disputed, particularly where Harmony and Jelani could potentially attribute impacts to one another.	Ms Naicker confirmed that both herself and Mr Macevele are registered EAPs under EAPASA. She further confirmed that the relevant certificates would be included in the application. Ms Naicker also noted that, with regard to cumulative impacts, the S&EIA process will be conducted in accordance with NEMA, which includes the assessment of cumulative impacts. Mr Hoek acknowledged Mr Monyai's point and advised that Bara Engineering, who are responsible for the Mining Plans and associated engineering designs, are also involved in Harmony's operations. He noted that cumulative impacts are being considered within the engineering design process, including an assessment of whether the existing infrastructure is capable of accommodating the anticipated additional load associated with the Jelani project.
4.5	Mr Fhedzisani	Mr Fhedzisani enquired if a new Tailings Storage Facility would be constructed or if they would make use of existing Tailing Storage Facilities.	Ms Naicker stated that the application does not include a Tailings Storage Facility and that an existing facility would be utilised for deposition which falls under Harmony's Target Mining right infrastructure.

STAKEHOLDERS		COMMENT	RESPONSE
4.6	Mr Fhedzisani	Mr Fhedzisani emphasised the importance of the Memorandum of Understanding, noting that it should include clear information regarding Tailings storage, specifically confirming that Jelani would be depositing onto Harmony's infrastructure. He referred to a precedent at Jagersfontein, where a storage facility failure was attributed to infrastructure not having been designed to accommodate increased deposition from a second operation. In this context, he stated that the Memorandum of Understanding would need to explicitly confirm that the Tailings Storage Facility is suitably designed and capable of receiving the additional load associated with the proposed Jelani operation.	Ms Naicker acknowledged this point and confirmed that the Memorandum of Understanding will be submitted as part of the application form.
4.7	Mr Fhedzisani	Mr Fhedzisani advised that the DWS should be consulted so that the DMPR and DWS can run the application process in parallel.	Ms Naicker acknowledged this point and added that a Water Use Licence Application (WULA) for the proposed underground mining project will be submitted to DWS.
4.8	Mr Monyai	Mr Monyai expressed support for Mr Fhedzisani's comments, with the view that, in order to streamline the licensing process, the applications should be undertaken concurrently. This would allow the proponent to obtain the Environmental Authorisation and Water Use Licence simultaneously. He further emphasised the importance of engagement with SAHRA, noting that formal comments should be actively sought from SAHRA rather than merely informing them of the project, which he observed to be common industry practice.	Ms Naicker stated that Kongiwe has included engagement with SAHRA within the project timeline and that the Water Use Licencing process would be aligned with the EIA application.
4.9	Ms Naicker	Ms Naicker enquired whether the department is happy to receive one hard copy and one soft copy for both the scoping and EIA reports?	Mr Monyai stated that they would provide confirmation after the application has been received as they do not know who the project manager for the DMPR will be. He stated that once the application

STAKEHOLDERS		COMMENT	RESPONSE
			has been submitted, details relating to submission requirements would be communicated. Mr Hoek Stated that he would submit all the soft copies on to SAMRAD system and should any hard copies be required, Kongiwe would submit those.
4.10	Mr Monyai	Mr Monyai highlighted an issue with regard to climate change impacts, advicing that the proposed project would be required to consider how it may contribute to or impact climate change. He further noted that the Department has observed EIAs being challenged and appealed where insufficient consideration has been given to the potential climate change impacts of proposed developments.	Ms Naicker stated that a climate change impact assessment has been included as a specialist study for the project.
4.11	Mr Monyai	Mr Monyai stated that the EAP must consider the Financial Provision Regulations 2015 as they relate to mining project as well as relevant Environmental Regulations. He emphasised the importance of complying with these regulations and requested that the EAP take these requirements into account and ensure that they are included in the documentation.	Ms Naicker thanked Mr Moyai for his input and stated that this would be considered in the EIA process and will also be included in the submissions.
4.12	Mr Fhedzisani	Mr Fhedzisani stated that once an application has been lodged for the Water and waste use licences, that information can be forwarded to the relevant person from the DMPR.	Ms Naicker confirmed that they would forward this information once it is available.
4.13	Mr Monyai	Mr Monyai stated that the application would be subjected to the regulations of the MPRDA and therefore the application would need to be lodged simultaneously with the application in terms of NEMA. He stated that the timeline would only begin counting for the NEMA process once the application has been submitted in terms of the MPRDA.	Ms Naicker noted this comment.

STAKEHOLDERS		COMMENT	RESPONSE		
4.14	Mr Fhedzisani	Mr Fhedzisani stated that any further information requirements would be communicated in writing once the application has been lodged. Mr Fhedzisani further advice that in future the team should include all the relevant mining right reference numbers (specifically Harmony Target Mining Right), particularly where an application may require or involve infrastructure already authorised under other Mining Rights so that the department can include all the relevant project managers in the meetings.	Ms Naicker acknowledged that in future the team would include those reference numbers.		
5	**Closing**				
5.1	Ms Naicker thanked everyone for their time and the meeting was adjourned at 09:00 AM.			ALL	-

Jelani Resources (Pty) Ltd

Environmental Authorisation for the Proposed Jelani Underground Mining Project

Pre-Application Meeting – Department of Mineral and Petroleum Resources (DMPR)

DMPR reference number: To be Assigned

06 February 2026

Agenda

1. Introductions
2. Purpose of the Meeting
3. Kongiwe's Role as an independent EAP
4. Project Background
5. Project Description
6. Infrastructure Requirements
7. Baseline Environment
8. Specialist Studies
9. Legislative Framework
10. Listed and Specified Activity
11. Public Participation Process
12. The Project to Date
13. The Way Forward
14. Comments and Discussion

Introductions

- Competent Authority : Department of Mineral and Petroleum Resources
- Proponent : Jelani Resources (Pty) Ltd
- EAP : Kongiwe Environmental (Pty) Ltd

Purpose of the Meeting

- Project Details
- Environmental Process and Procedure
- Specialist Studies
- Public Participation Process
- Project Timeframes
- Way forward

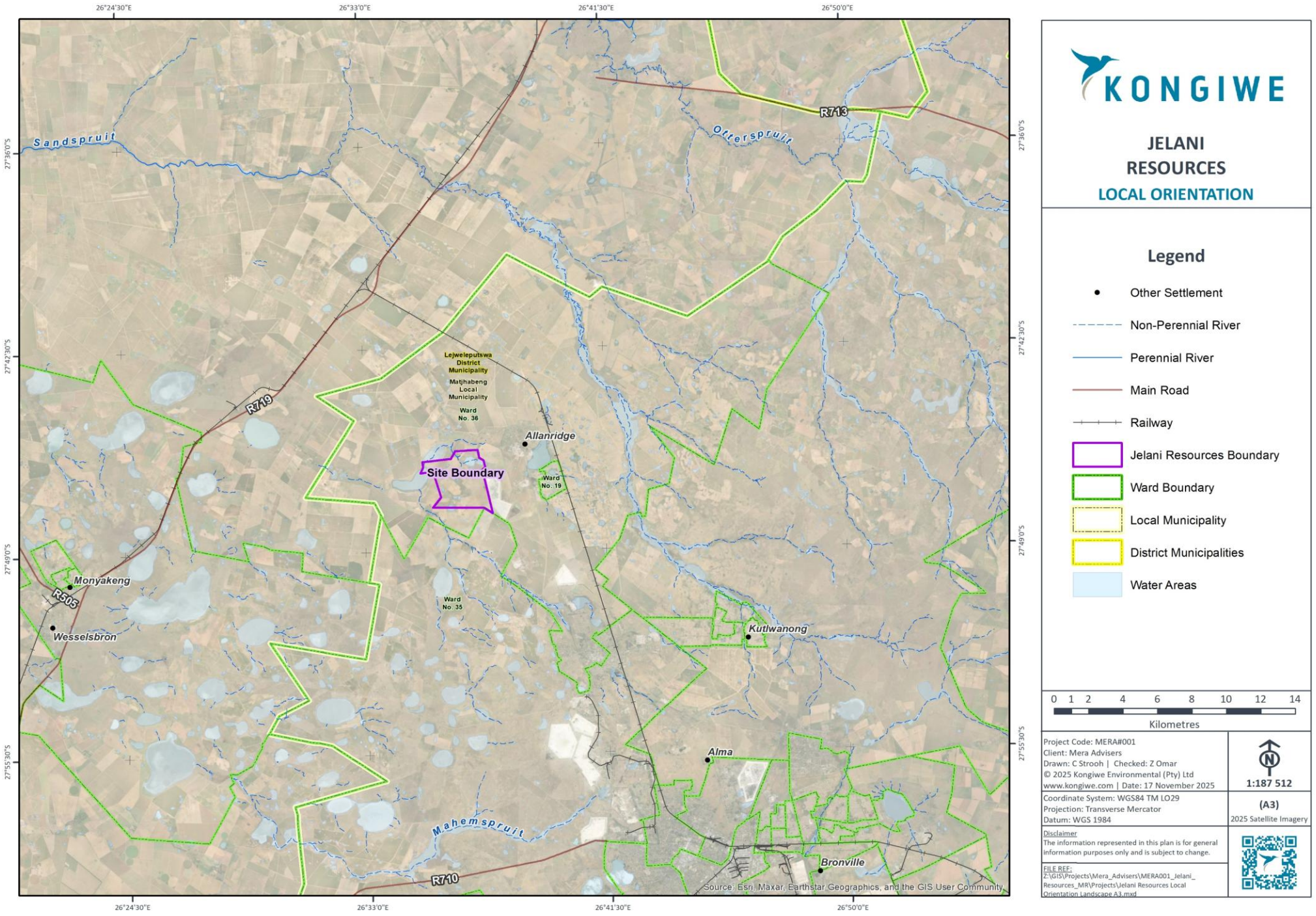
Kongiwe's Role as an EAP

As an independent Environmental Assessment Practitioner, it is our role to perform an objective assessment of what the positive and negative environmental impacts of the Proposed Project may be, to quantify these, describe possible mitigations, collect public comment and supply DMPR with the documentation so that it can determine if the project should proceed or not.

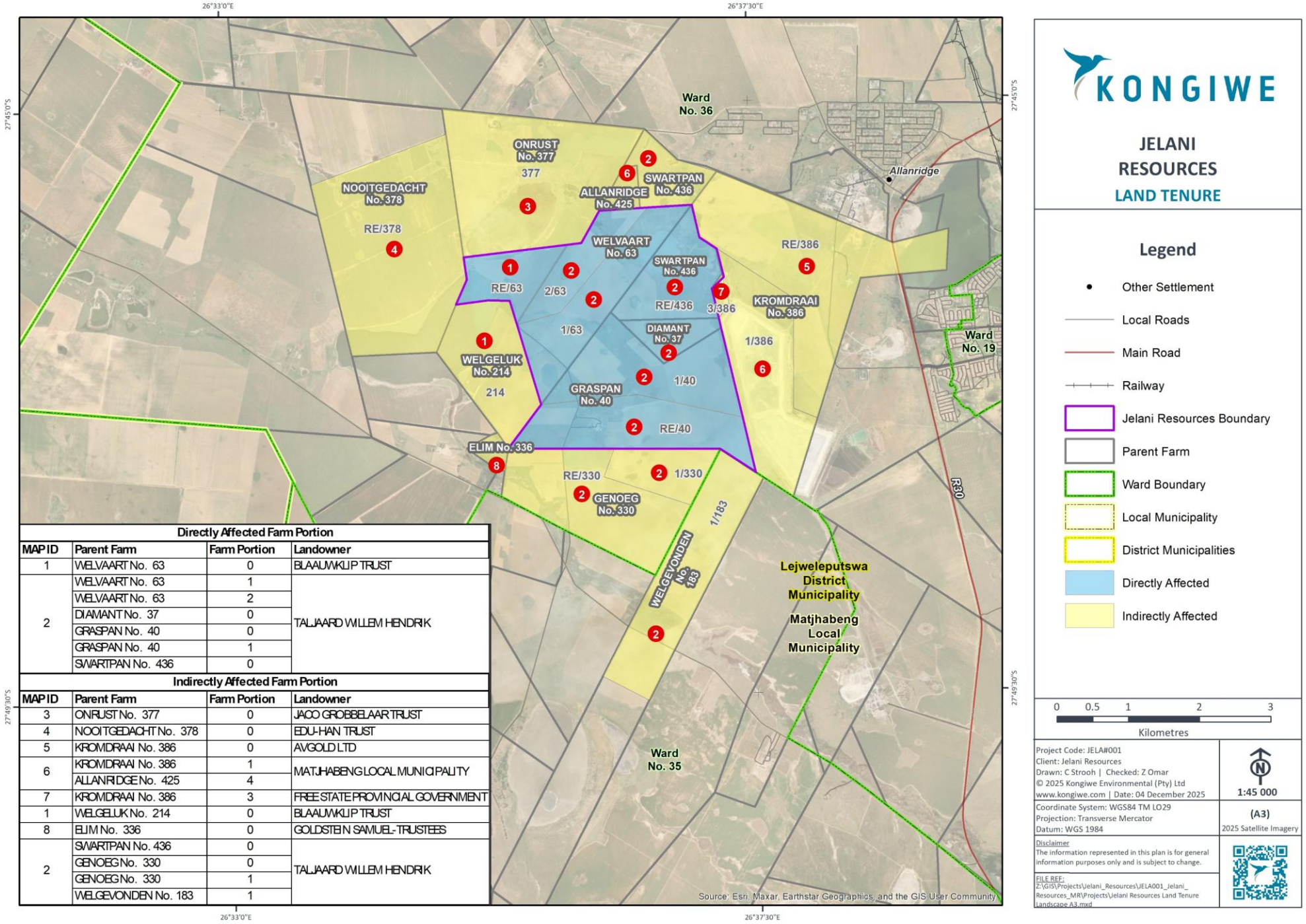
Project Background

- **Proponent**: Jelani Resources (Pty) Ltd
- **Activity**: Underground Mining Operation
- **Life of Operation**: 14 years
- **Location**: The project area is situated immediately adjacent to and west of the Harmony Gold Target Mine, approximately 11km northwest of Odendaalsrus, 2,5km west of Allanridge, and 22km east of Wesselsbron. It lies within Ward 36 of the Matjhabeng Local Municipality, under the jurisdiction of the Lejweleputswa District Municipality.
- Jelani Resources (Pty) Ltd ("Jelani") is a joint venture (JV) company established by White Rivers Exploration and Harmony Gold.
- The JV was formed to conduct underground mining operations within the joint venture (JV) area, which is made up of areas within the existing Harmony Target mining right (Harmony contribution) and Prospecting Rights (PR) areas to the west of Harmony Gold's existing Target Mine (WRE contribution).
- Following the exploration and licensing phases, Jelani intends to initiate underground mining operations within the same area.

Project Location



Property Map



Directly Affected Farm Portion			
MAP ID	Parent Farm	Farm Portion	Landowner
1	WELVAART No. 63	0	BLAAUWKLIP TRUST
2	WELVAART No. 63	1	TALJAARD WILLEM HENDRIK
	WELVAART No. 63	2	
	DIAMANT No. 37	0	
	GRASPAN No. 40	0	
	GRASPAN No. 40	1	
	SWARTPAN No. 436	0	

Indirectly Affected Farm Portion			
MAP ID	Parent Farm	Farm Portion	Landowner
3	ONRUST No. 377	0	JACO GROBBELAAR TRUST
4	NOOITGEDACHT No. 378	0	EDU-HAN TRUST
5	KROMDRAAI No. 386	0	AVGOLD LTD
6	KROMDRAAI No. 386	1	MATJHABENG LOCAL MUNICIPALITY
	ALLANRIDGE No. 425	4	
7	KROMDRAAI No. 386	3	FREE STATE PROVINCIAL GOVERNMENT
1	WELGELUK No. 214	0	BLAAUWKLIP TRUST
8	ELIM No. 336	0	GOLDSTEIN SAMUEL - TRUSTEES
2	SWARTPAN No. 436	0	TALJAARD WILLEM HENDRIK
	GENOEG No. 330	0	
	GENOEG No. 330	1	
	WELGEVONDEN No. 183	1	

KONGIWE

JELANI RESOURCES

LAND TENURE

Legend

- Other Settlement
- Local Roads
- Main Road
- Railway
- Jelani Resources Boundary
- Parent Farm
- Ward Boundary
- Local Municipality
- District Municipalities
- Directly Affected
- Indirectly Affected

0 0.5 1 2 3

Kilometres

Project Code: JELA#001
Client: Jelani Resources
Drawn: C Strooh | Checked: Z Omar

www.kongiwe.com | Date: 04 December 2025

1:45 000

Coordinate System: WGS84 TM LO29
Projection: Transverse Mercator
Datum: WGS 1984

(A3)

2025 Satellite Imagery

Disclaimer
The information represented in this plan is for general information purposes only and is subject to change.

FILE REF:
Z:\GIS\Projects\Jelani_Resources\JELA001_Jelani_Resources_MR\Projects\Jelani Resources Land Tenure Landscape A3.mxd

Project Description

Jelani intends to initiate underground mining operations to extract the following potential mineral resources:

- Gold ore (primary target),
- Silver ore,
- Uranium ore,
- Sulphur,
- Platinum Group Metals,
- Rare earths,
- Diamonds (alluvial),
- Copper ore,
- Cobalt ore,
- Manganese ore,
- Molybdenum ore,
- Nickel ore,
- Lead ore,
- Tungsten ore,
- Zinc ore, and
- Iron ore.

Project Description

- Jelani's underground mining operations initially will target shallower mineral resource deposits at the project site (approximately 1 200 mbs).
- As mine development progresses, new mining areas will be developed which will allow for the production rate to be steadily increased to the targeted full production rate of 60 000 tonnes of mined ore per month.
- Two mining methods have been identified as the most practical for exploiting the mineral resources: **conventional drill-and-blast breast mining** and **shrinkage stoping**.
- The selection of each method is primarily based on the dip of the mineralised reef, with the shrinkage stoping being used for the steeper slopes (3% of the total stope tonnage). Where the orebody dips below 55°, conventional breast mining will be used.

Project Description

- Ore will be transported to the shaft ore pass system using a fleet of 30-tonne dump trucks which are loaded by 10-tonne loaders (LHD). Subsequently, the broken rock will be loaded into hoisting bins and will be hoisted to surface, where the rock will either be sent to the processing plant or to the waste rock dump.
- The total surface area assessed is 956,76 hectares (ha). A total area required for mining is 80.64 km2 (8064 ha).
- The orebodies extend between 1 500m and 2 600m below surface.
- All ore produced from the underground mining operations will be transported to the existing Target 1 metallurgical plant for processing.

Infrastructure Requirements

- All infrastructure required for the Proposed Project will be located within Harmony's existing Target Mine mining right area. No new infrastructure planned within the JV project area.
- Underground access infrastructure will comprise either refurbished facilities at Target Shafts No. 3, 4, and 5 or newly constructed infrastructure at the Target No. 2 Shaft site, all within the existing mining right.
- The infrastructure requirements are intended to support the managerial, supervisory, and operational functions associated with the respective underground mining operations.

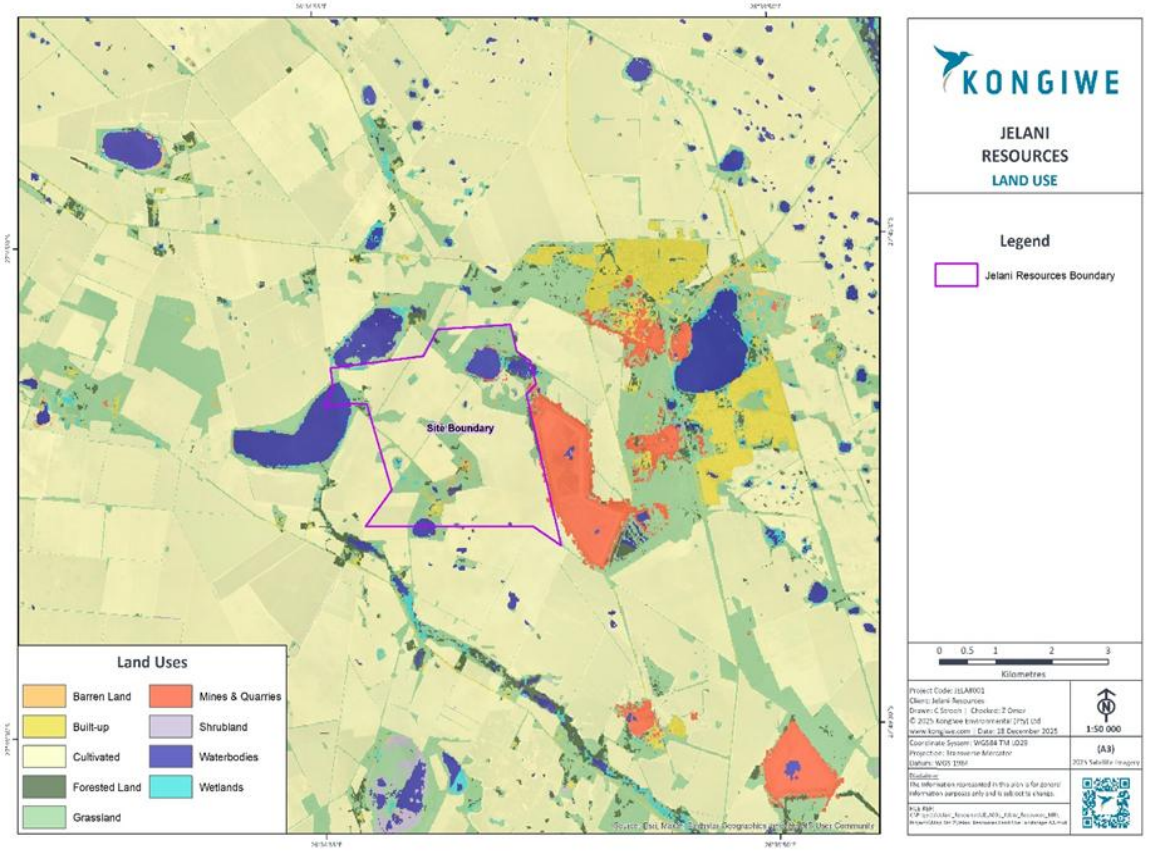
Underground Access Infrastructure Photos

Photo 1: Harmony Target No 3 Shaft

Photo 2: Harmony Target No 2 Shaft

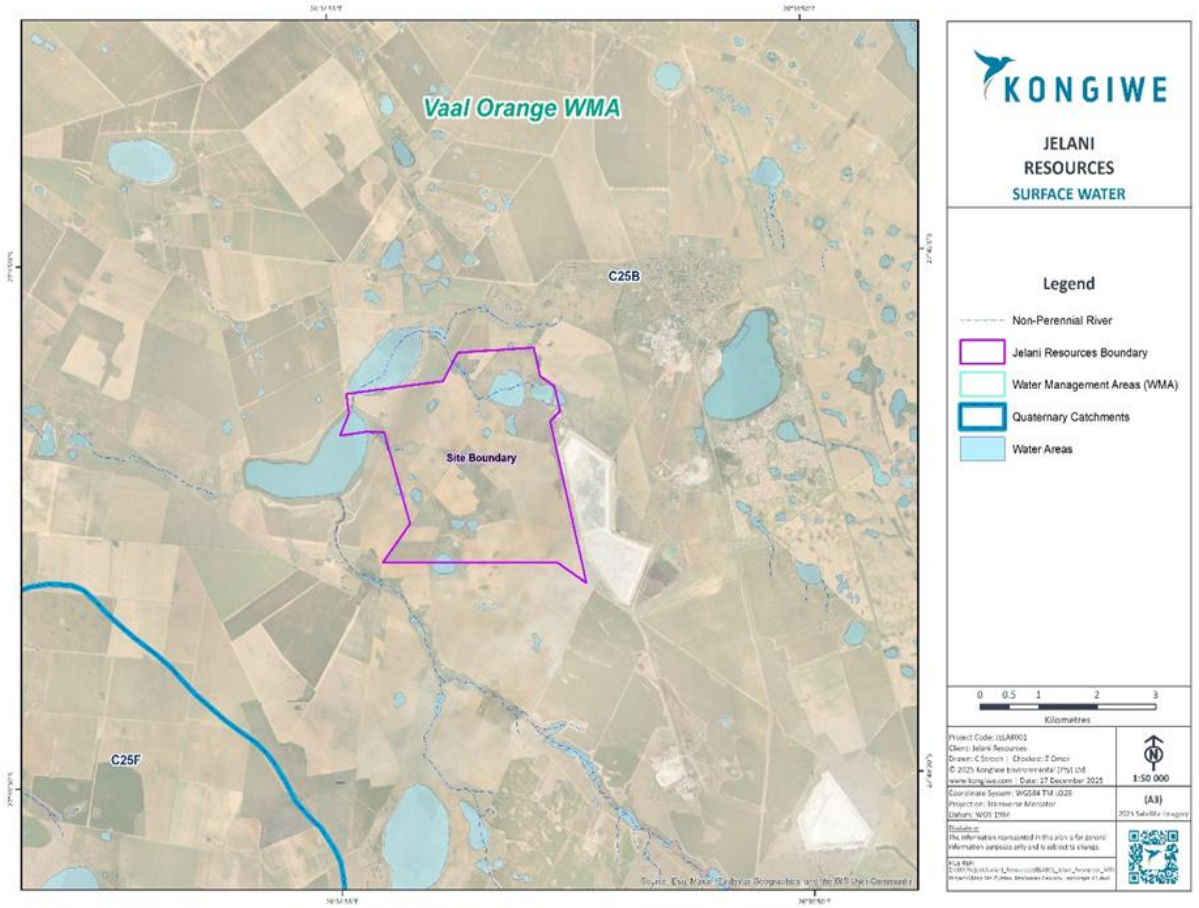
Current Land Use

- The project boundary is currently utilised for agricultural purposes.
- Land uses within the immediate project boundary consist predominantly of cultivated fields, grassland, forested areas, waterbodies, and wetlands.
- The immediate surrounding landscape also includes existing mines and tailings storage facilities (TSFs), as well as transport infrastructure, electricity infrastructure, water supply infrastructure and various farming operations.
- Furthermore, the Proposed Project area is situated immediately adjacent to, and west of, the Harmony Gold Target Mine.



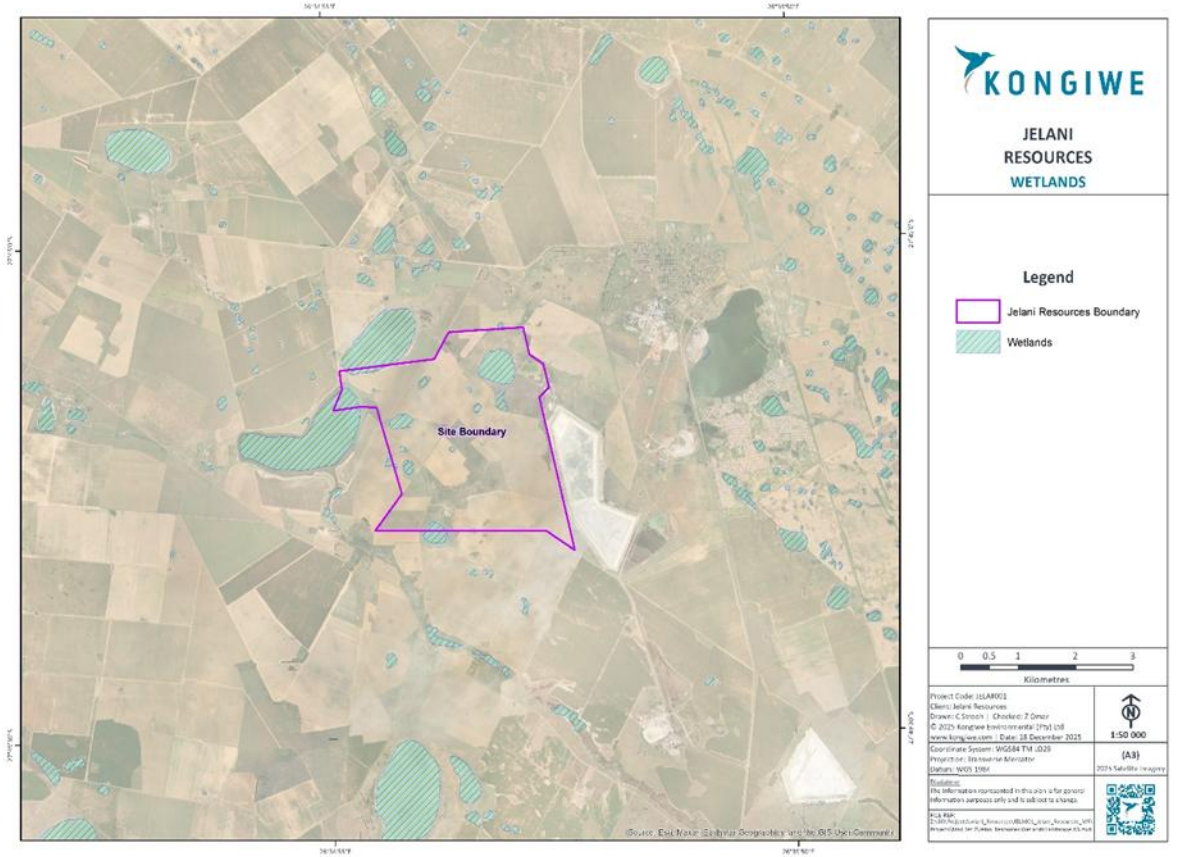
Surface Water

- The project is located within the Vaal Orange Water Management Area (WMA), specifically in quaternary catchment C25B.
- The surface water resource within the site boundary include a non-perennial river located to the north of the project area. Another non-perennial river is situated to the west of the site boundary.
- The surface water map indicates that the project area contains surface water areas, including wetlands.



Wetland

- Several wetlands (wetlands depression and unchannelled valley-bottom (UVB) were identified and delineated occurring inside the project footprint with additional wetlands to the west, north, and south-central parts of the site.



Biodiversity

- The Free State Conservation Plan (2024) classified areas on the basis of their contribution to reach the conservation targets within the province.
- These areas are classified as Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) to ensure sustainability in the long term. The CBAs are classified as either ‘Irreplaceable’ (must be conserved), or ‘Important’.
- Proposed Project falls within a CBA 1 and an ESA 2.

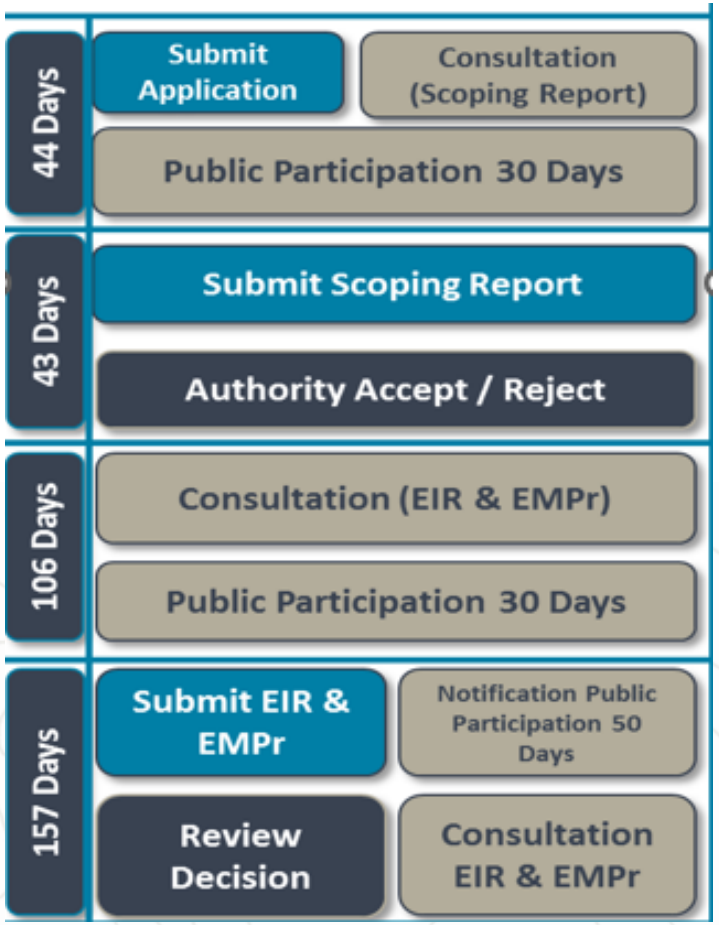
Specialist Studies

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

Specialist Studies	
Biodiversity, Freshwater, including a Risk Assessment Matrix (RAM,) Soils and Agricultural Potential.	Mine Closure Plan
Desktop Heritage and Palaeontology	Hydrogeological Assessment
Hydrological Assessment	Climate Change Impact Assessment
Air Quality Impact Quality Assessment	Blasting and Vibrations
Noise Impact Assessment	Socio-Economic Impact Assessment

Legislative Framework

- An Environmental Authorisation (EA) application will be submitted to DMPR as the Competent Authority.
  - EA application for listed activities triggered in Listing Notices GN R983, GN R984 and GN R985 published pursuant to the EIA Regulations 2014 (as amended), promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).
- An Integrated Water Use Licence Application (IWULA) in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA) will be submitted to the Department of Water and Sanitation (DWS) for any potential impact to water resources by the Proposed Project.



Listed and Specified Activities

Name of Activity	Aerial Extent of the Activity (ha) Ha or m²	Applicable Listing Notice GNR 983, 984 and 985 as amended by GNR 327, GNR 325 or GNR 324	Listed Activity	Waste Management Authorisation
Underground Mining Operation	956,76 Hectares	GNR 325 - Activity 17	Any activity including the operation of that activity which requires a mining right in terms of section 22 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice, in Listing Notice 1 of 2014 or Listing Notice 3 of 2014, required to exercise the mining right	No Waste Management License (WML) activities are triggered by the proposed underground mining operation

Submission to DMPR

- Application form
  - DFFE Screening Tool
  - Regulation 2(2) Plan
  - Mining Work Programme
  - Company Registration Documents
  - Certified ID Copies of Directors
  - Financial and Technical Ability
- Draft Scoping Report
- Social Labour Plan

Public Participation Process

- Announcement of the Proposed Project: Advertisement, distribution of the Background Information Document (BID) and placement of site notices.
- The Application Form and Draft Scoping Report (DSR) will be submitted to DMPR (one hardcopy and one soft copy).
- The draft reports (Scoping Report and EIA Report) will be made available to various stakeholders and placed for public review at public venues and on the Kongiwe website for a period of 30 days.
- An Online meeting (via Teams) and an Open Day.
- Indirectly affected landowner and stakeholder meetings are ongoing.
- Comments will be recorded in a Comments and Response Report and submitted as part of the Final Scoping Report and Final EIA Report.

Project to Date

- Conducting specialist studies that will contribute to the Water Use Licence Application and EIA Report.
- Engaging with landowners.
- Concluding the Social Labour Plan.
- Compiling the Application Form and Draft Scoping Report.

The Way Forward

Timeframes	
Conclude SLP	Estimated to be complete by end of March 2026
Project Announcement	27 March 2026
Application Form and Draft Scoping Report	31 March 2026
Draft Scoping Report – 30 days comment period	1 April 2026 to 05 May 2026
Final Scoping Report to CA	29 May 2026
Acceptance of Scoping Report	13 July 2026
Draft EIA Report – 30 days comment period	12 August 2026 to 11 September 2026
Final EIA Report to CA	27 October 2026
CA Decision	January 2027

Comment & Discussion

- Discussion
- Action Points
- Closing

Contact

- **Name: Umeshree Naicker**
- **Tel: 010 140 1725/26**
- **Email: unaicker@kongiwe.com**

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Appendix C9: Written Comments

Appendix C10: Comment and Response Report

Appendix D: Environmental Screening Tool

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

EIA Reference number:

Project name: Jelani Underground Mining Operation

Project title: Underground Mining Project

Date screening report generated: 16/03/2026 15:01:34

Applicant: Jelani Resources (Pty) Ltd

Compiler: Kongiwe Environmental (Pty) Ltd

Compiler signature: .....

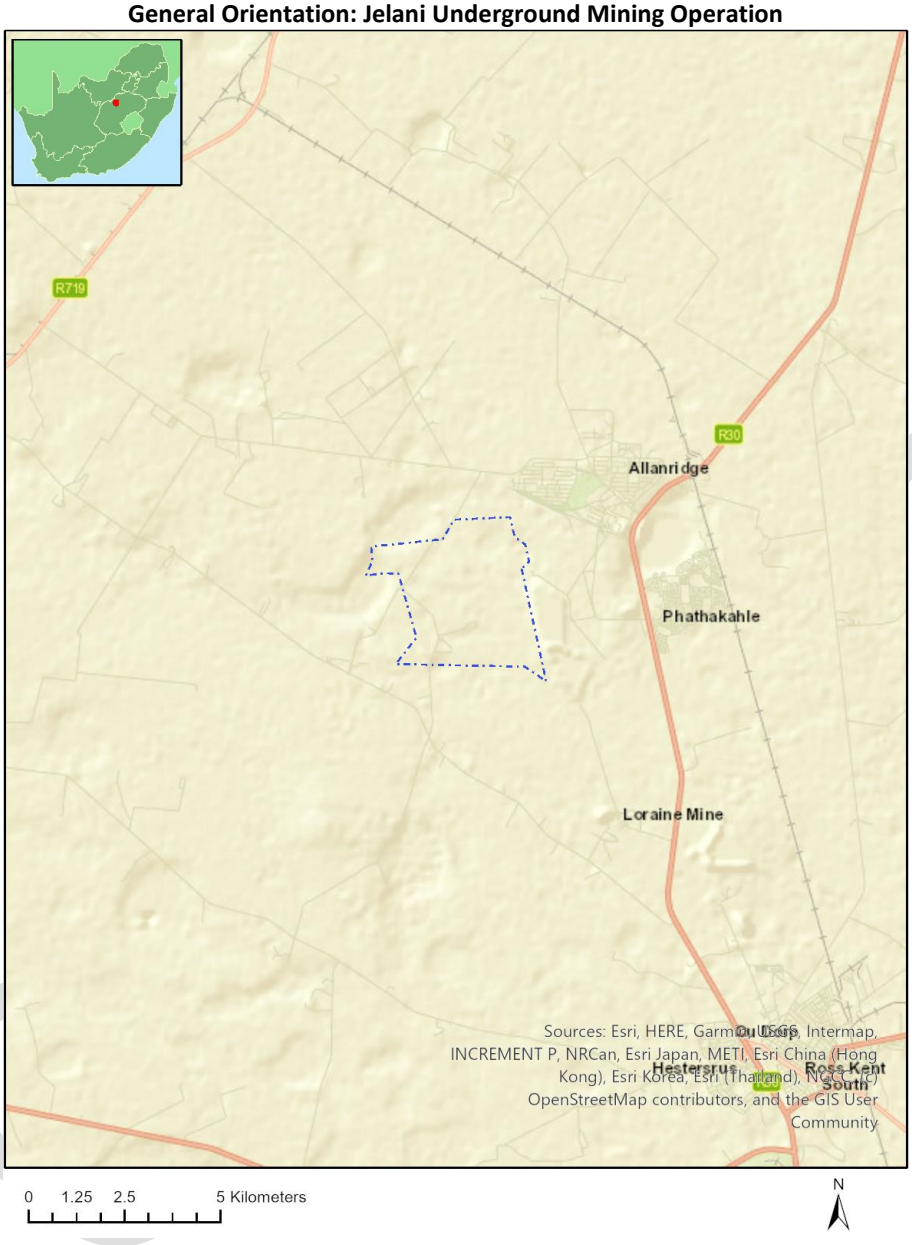
Application Category: Mining|Mining Right

Table of Contents

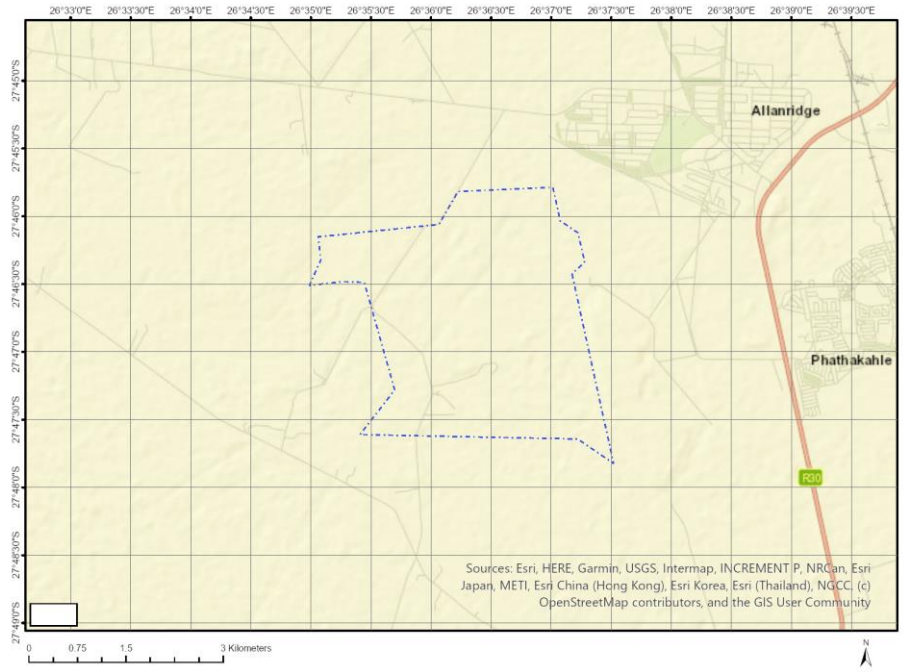
Proposed Project Location

Orientation map 1: General location

General Orientation: Jelani Underground Mining Operation



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	SWARTPAN	436	0	27°46'21S	26°36'51.72E	Farm
2	KROMDRAAI	386	0	27°46'35.86S	26°37'49.31E	Farm
3	WELVAART	63	0	27°46'22.49S	26°35'57.64E	Farm
4	GRASPAN	40	0	27°47'15.48S	26°36'33.59E	Farm
5	DIAMANT	37	0	27°46'46S	26°36'49.36E	Farm
6	KROMDRAAI	386	0	27°46'16.35S	26°37'59.48E	Farm Portion
7	KROMDRAAI	386	1	27°47'4.3S	26°37'36.89E	Farm Portion
8	KROMDRAAI	386	3	27°46'28.95S	26°37'14.75E	Farm Portion
9	SWARTPAN	436	0	27°46'21S	26°36'51.72E	Farm Portion
10	GRASPAN	40	1	27°47'3.01S	26°36'37.73E	Farm Portion
11	GRASPAN	40	0	27°47'27.95S	26°36'29.45E	Farm Portion
12	DIAMANT	37	0	27°46'46S	26°36'49.36E	Farm Portion
13	WELVAART	63	2	27°46'12.37S	26°36'3.66E	Farm Portion
14	WELVAART	63	1	27°46'29.6S	26°36'9.99E	Farm Portion
15	WELVAART	63	0	27°46'18.36S	26°35'26.72E	Farm Portion

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

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

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	14/12/16/3/3/2/376	Solar PV	Approved	16.6
2	14/12/16/3/3/1/2410	Solar PV	Approved	1.1
3	14/12/16/3/3/2/515	Solar PV	Approved	10.3
4	14/12/16/3/3/2/2218	Solar PV	Approved	25.5
5	14/12/16/3/3/1/1472	Solar PV	Approved	13.4
6	14/12/16/3/3/2/2221	Solar PV	Approved	27.8
7	14/12/16/3/3/2/376/2	Solar PV	Approved	16.6
8	14/12/16/3/3/2/376/2/AM6	Solar PV	Approved	16.6
9	14/12/16/3/3/1/1471	Solar PV	Approved	15
10	14/12/16/3/3/2/2220	Solar PV	Approved	25.5
11	14/12/16/3/3/2/2091	Solar PV	Approved	7.1
12	14/12/16/3/3/3/1/644/AM1	Solar PV	Approved	16.6
13	14/12/16/3/3/2/376/1	Solar PV	Approved	16.6
14	14/12/16/3/3/2/376/AM2	Solar PV	Approved	16.6
15	14/12/16/3/3/1/2499	Solar PV	Approved	16.6
16	14/12/16/3/3/3/1/644	Solar PV	Approved	16.6
17	14/12/16/3/3/2/2219	Solar PV	Approved	26.6
18	14/12/16/3/3/1/1444	Solar PV	Approved	11.7
19	14/12/16/3/3/1/1471/AM1	Solar PV	Approved	15

Environmental Management Frameworks relevant to the application

No intersections with EMF areas found.

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-Central 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
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

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

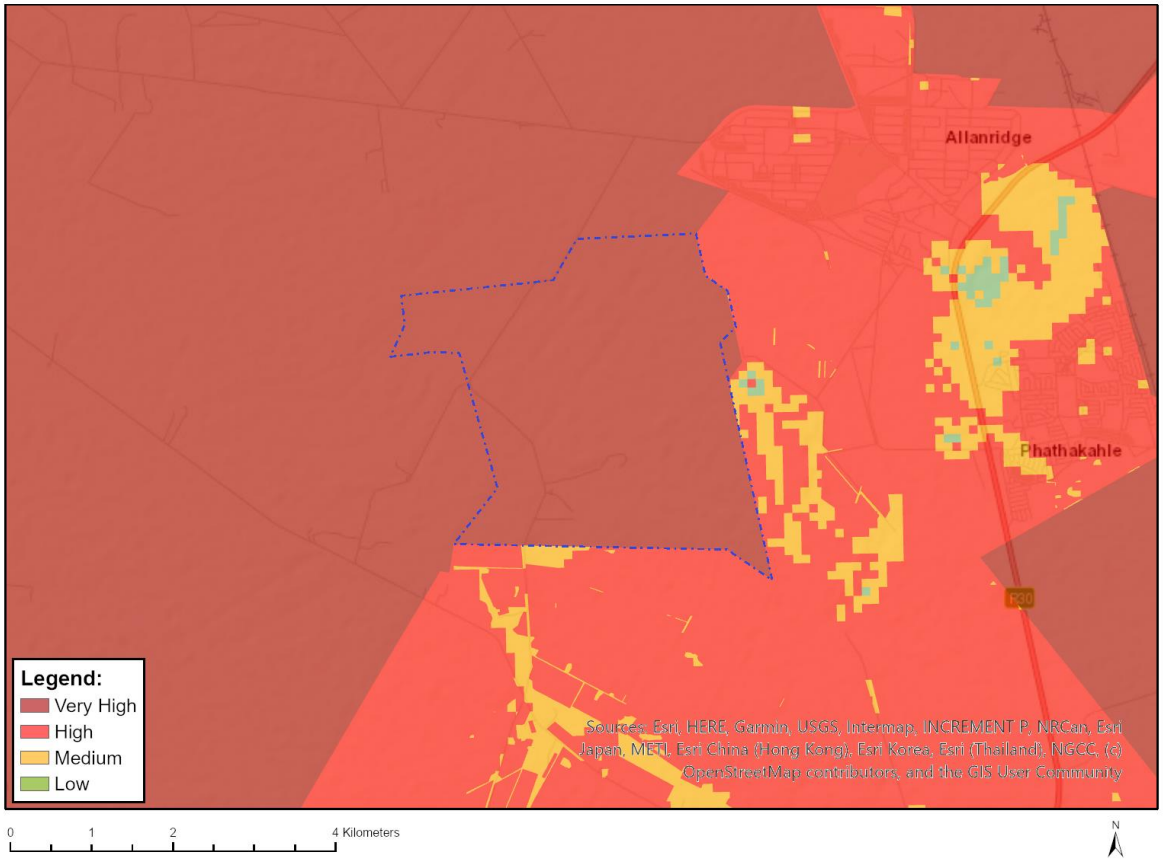
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.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
7	Hydrology Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
8	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Noise_Impacts_Assessment_Protocol.

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

Results of the environmental sensitivity of the proposed area.

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

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

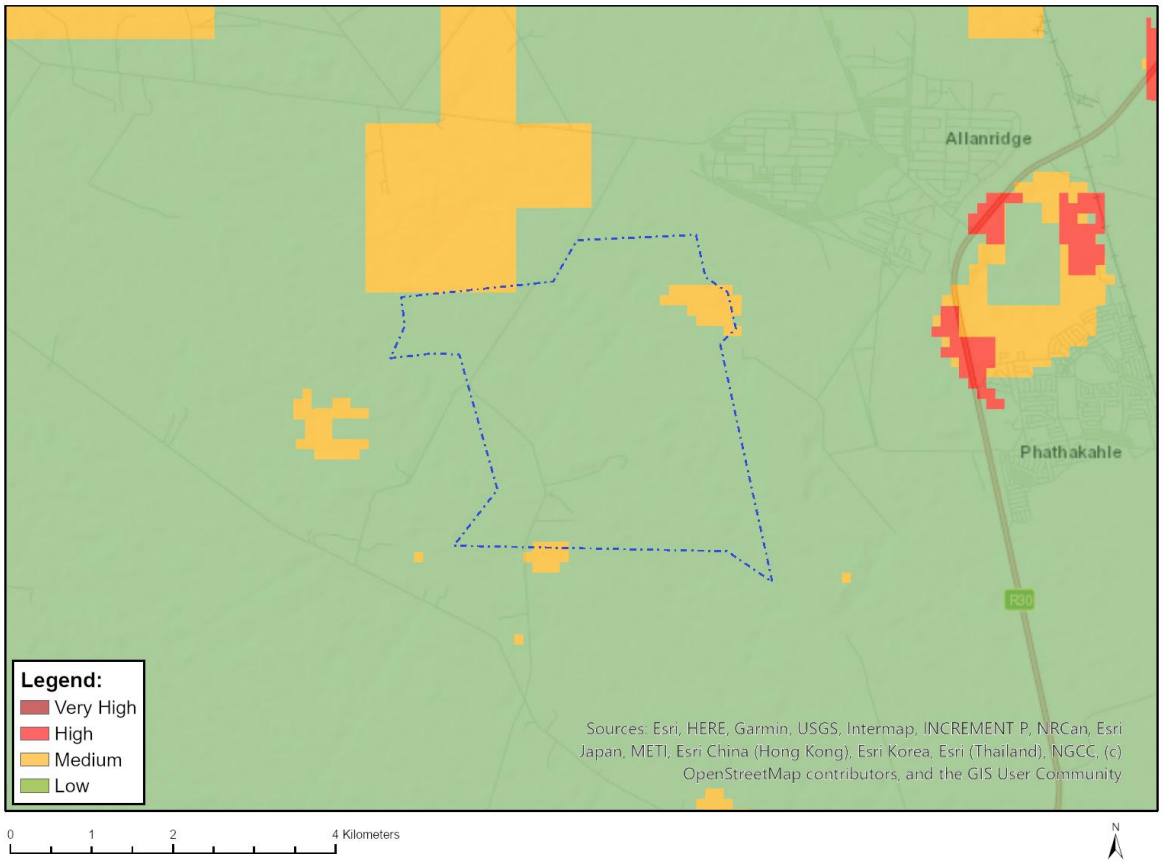


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Old_Fields
High	Rainfed Annual Crop Cultivation / Planted Pastures
High	08. Moderate
High	09. Moderate-High
High	10. Moderate-High
Low	05. Low
Medium	06. Low-Moderate
Medium	07. Low-Moderate
Very High	Bothaville PAA

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



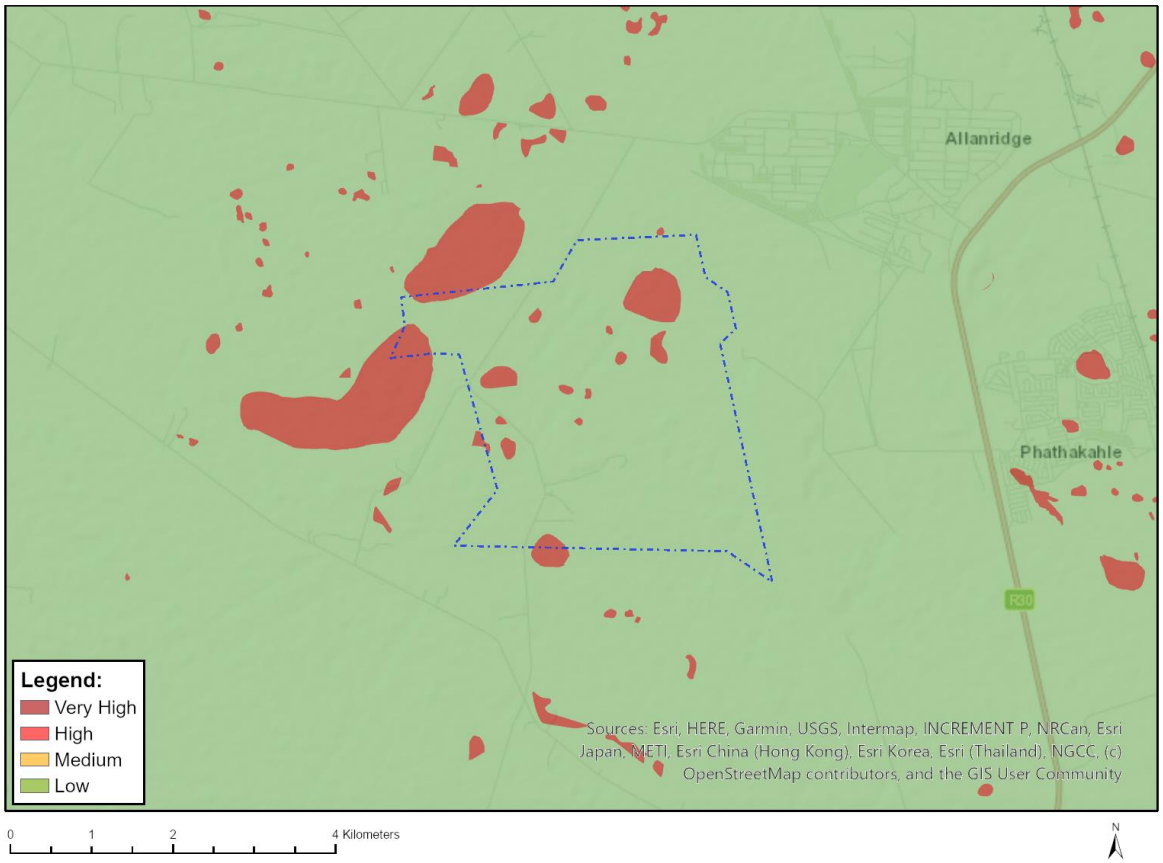
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their 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)
Low	Subject to confirmation
Medium	Aves-Hydroprogne caspia
Medium	Mammalia-Hydrictis maculicollis

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

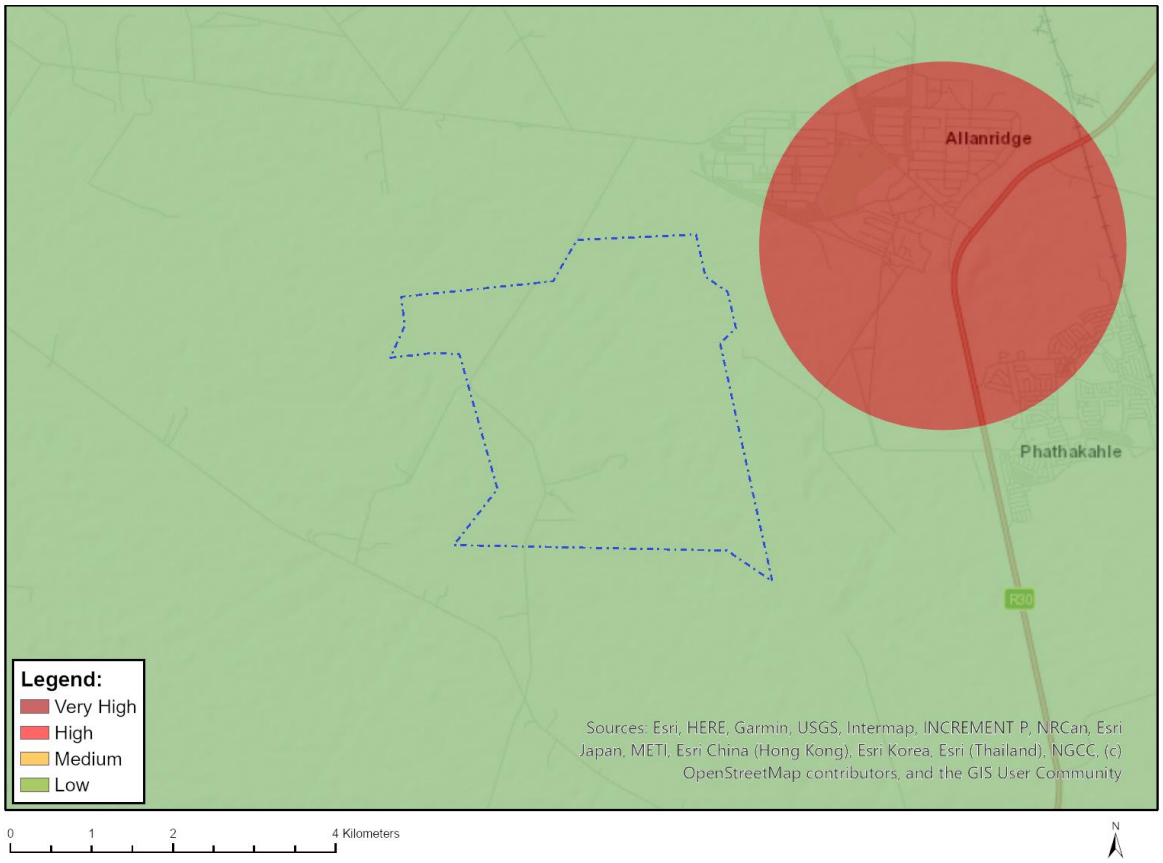


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Wetlands_Depression
Very High	Wetlands_Unchannelled valley-bottom

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

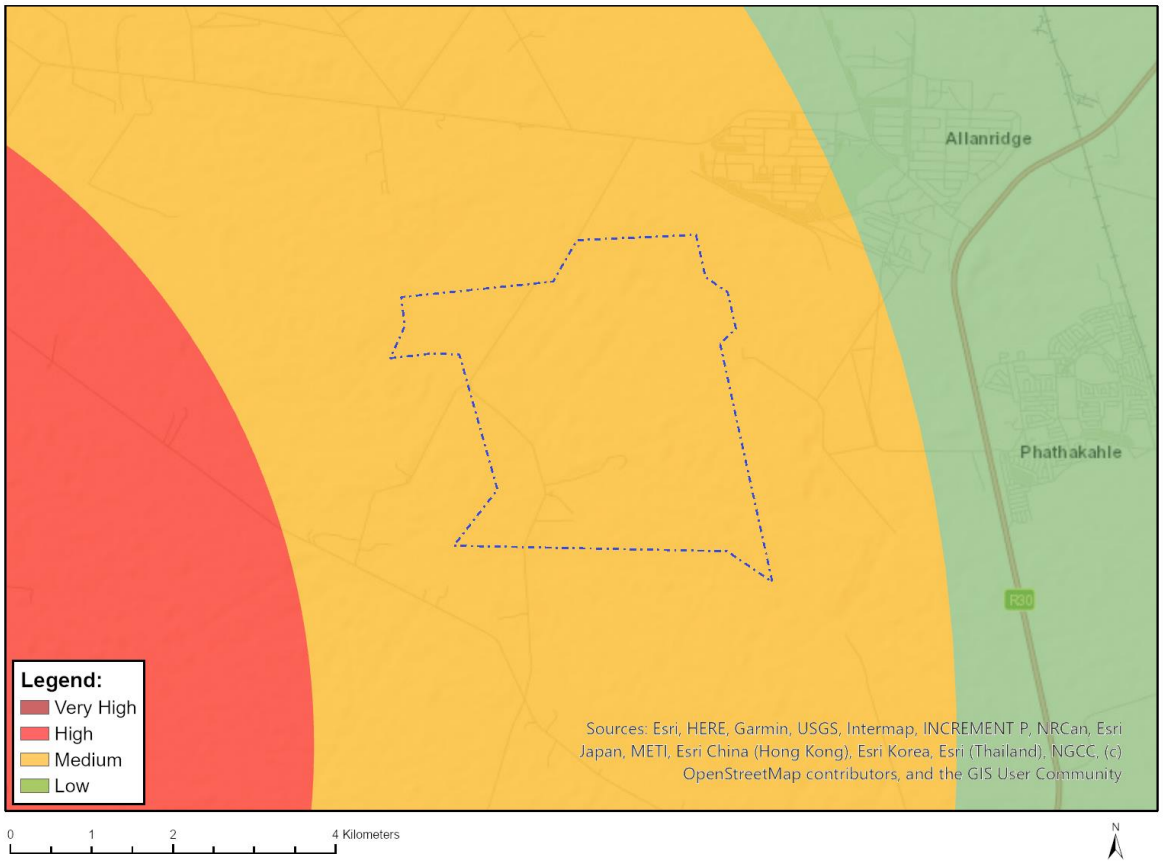


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

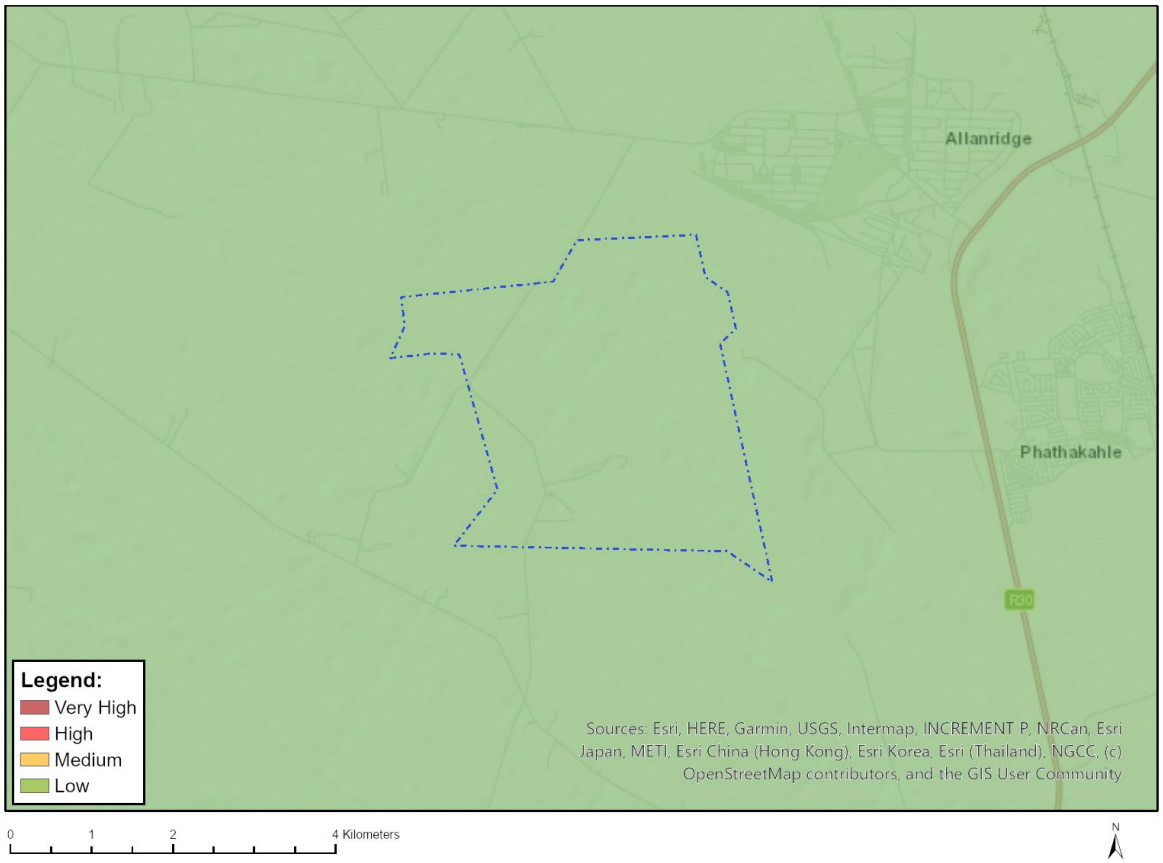


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

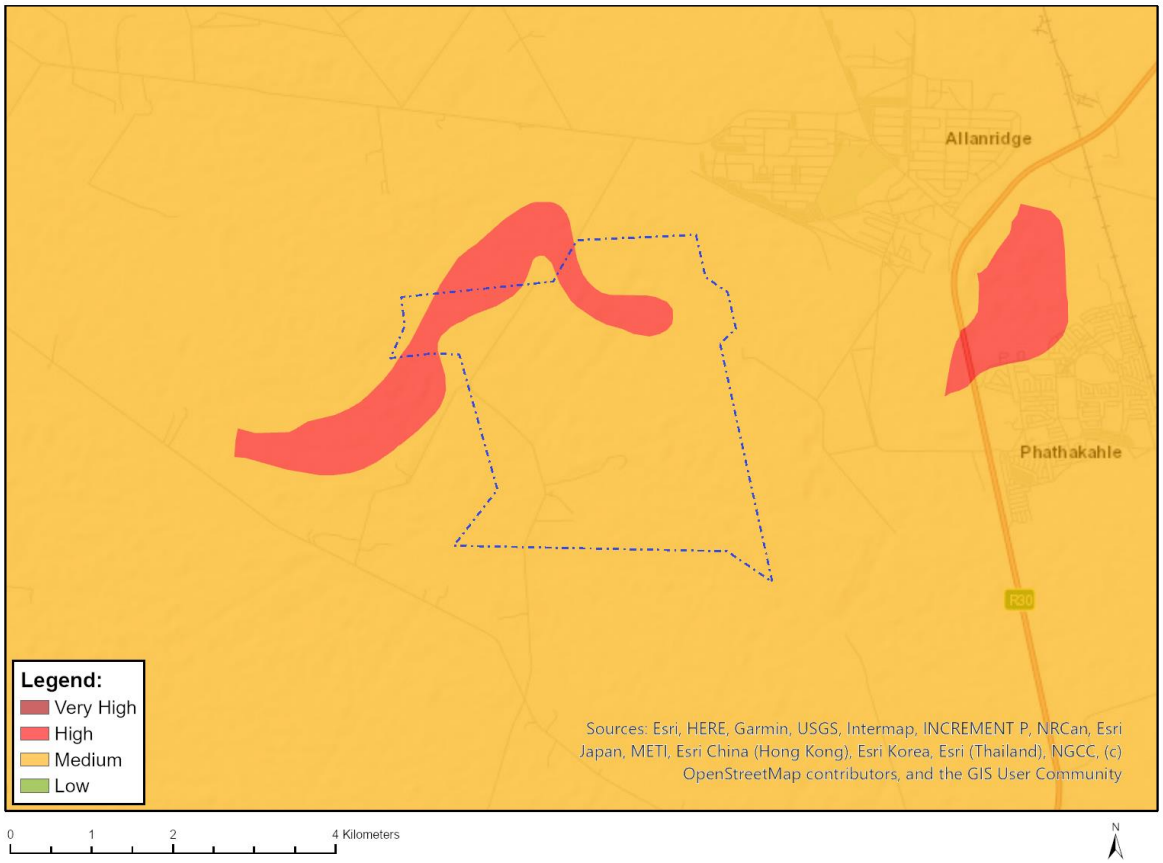


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

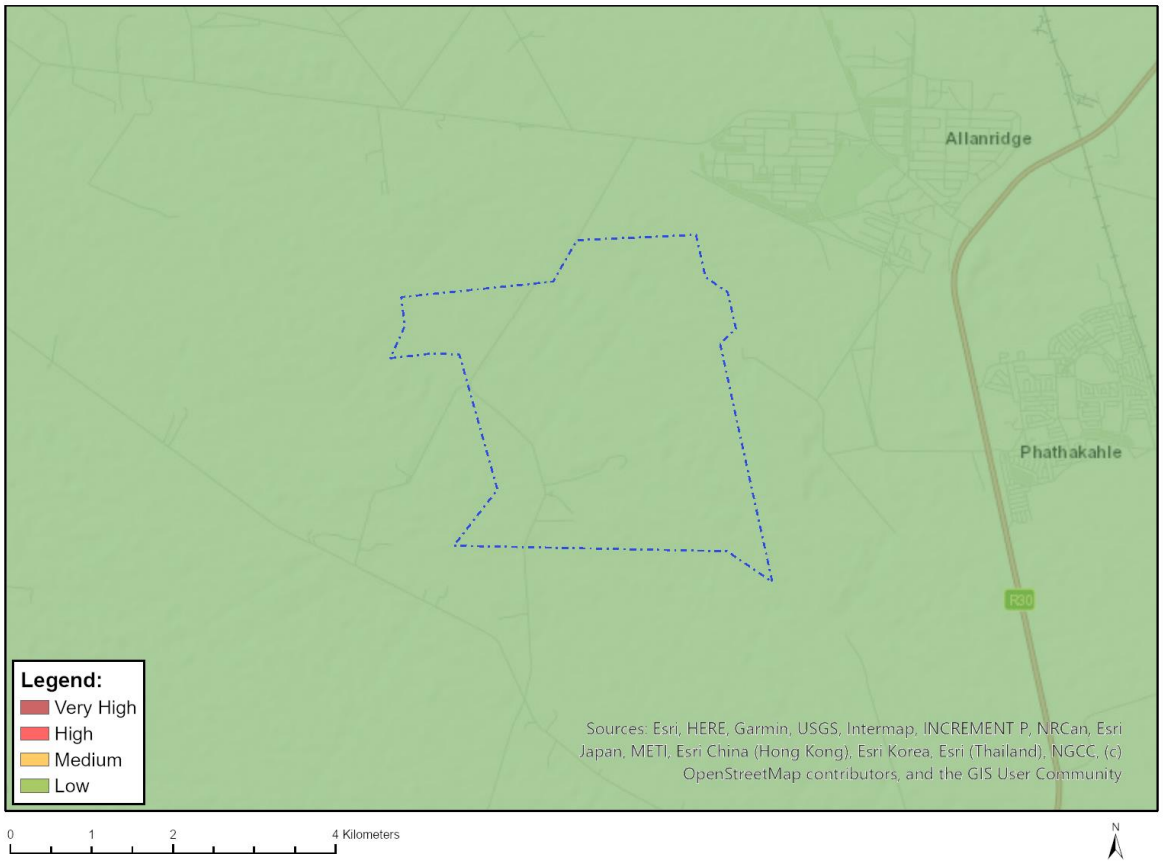


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

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

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



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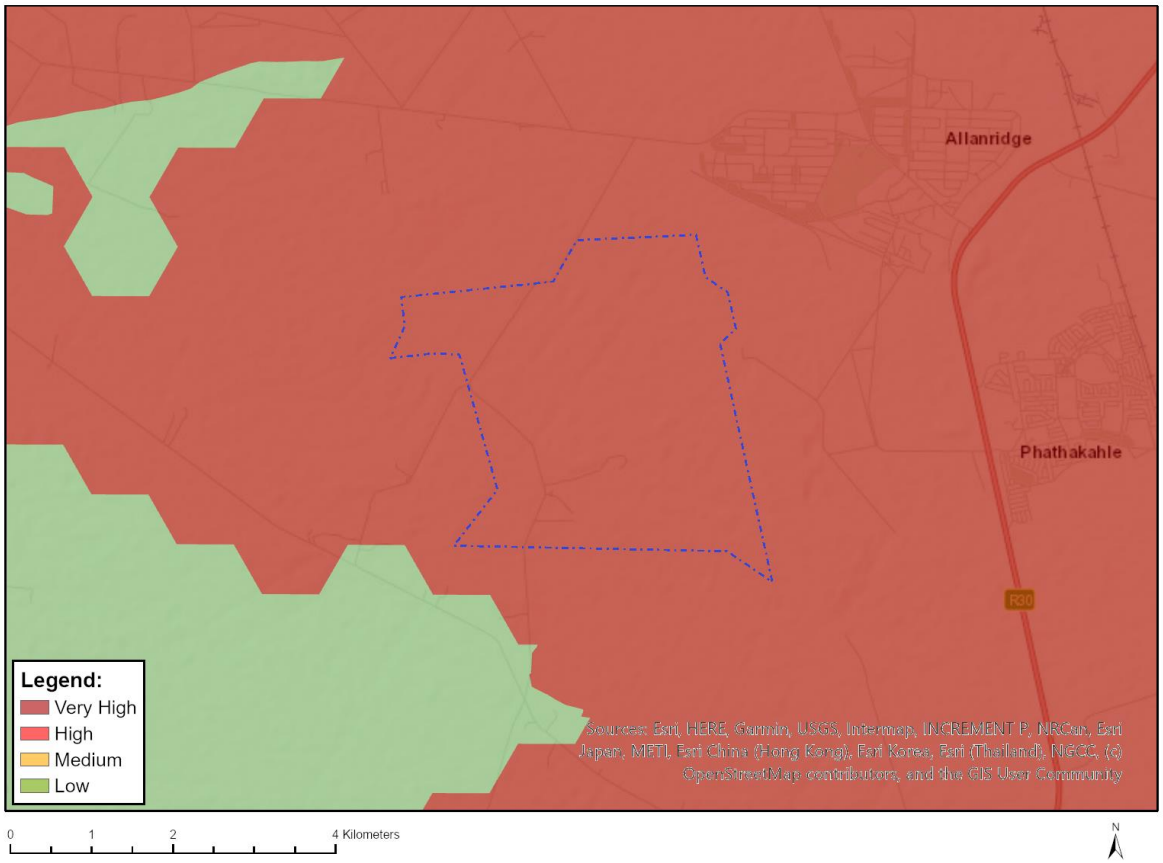
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	CBA 1
Very High	ESA 1
Very High	ESA 2
Very High	EN_Vaal-Vet Sandy Grassland