DMRE REFERENCE:
GP30/5/1/1/2/10730PR

2021

DRAFT BASIC ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

WEST WITS PROSPECTING RIGHT APPLICATION

/ Solutions

WEST WITS PROSPECTING RIGHT APPLICATION: DRAFT BASIC ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT (BA&EMPR)

Conducted by

OMI SOLUTIONS (PTY) LTD

On behalf of

WEST WITS MLI (PTY) LTD

In respect of

PROSPECTING RIGHT APPLICATION ON VARIOUS PROPERTIES IN BRAM FISCHERVILLE

PROSPECTING RIGHT DMRE REFERENCE: GP30/5/1/1/2/10730PR

DATED:

OCTOBER 2021

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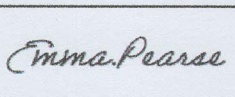
Signature		
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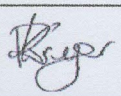
Signature		
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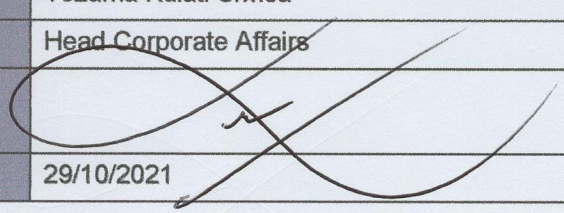
Signature		
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mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT

AND

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

WEST WITS PROSPECTING RIGHT APPLICATION PROJECT

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

NAME OF APPLICANT: West Wits MLI (Pty) Ltd

CONTACT PERSON: Mr Jac van Heerden

TEL NO: [redacted]

FAX NO: [redacted]

POSTAL ADDRESS: [redacted]

PHYSICAL ADDRESS: [redacted]

FILE REFERENCE NUMBER SAMRAD: GP30/5/1/1/2/10730PR

EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

OMI Solutions (Pty) Limited (OMI) was appointed by West Wits MLI (Pty) Ltd (West Wits) as the independent Environmental Assessment Practitioners to facilitate the Environmental Authorisation (EA) Process in support of the proposed West Wits Prospecting Right Application (PRA). West Wits has applied for a Prospecting Right (PR) for gold, silver and uranium over various farm portions and erfs targeting the potentially gold bearing conglomerates (reefs) of the Central Rand Group, Witwatersrand Supergroup. All prospecting activities are planned to be non-invasive and will include the following:

- a desktop review of historical mine information,
- concept level mine design and generating geological models,
- and conducting financial and engineering feasibility / viability studies.

The planned prospecting activities are all desktop bound studies with no invasive or physical prospecting activities taking place on site.

A PRA and EA Application was lodged with the Department of Mineral Resources and Energy (DMRE): Gauteng Region on 23 February 2021. The PRA was accepted by the DMRE on 8 September 2021 with reference number GP 30/5/1/1/2 (10730) PR.

NEED AND DESIRABILITY

Mines in the project area, namely Durban Roodepoort Deep and Rand Leases, closed prematurely in early 2000. Despite these closures, significant mineable resources still remain within the project area. Over the last few years West Wits has focussed on establishing exploration target resources using relevant historical data and have identified a feasible ore body that it believes is worth developing further within the proposed PR area, as part of its current Mining Right (MR).

It should be noted that the proposed PR area currently being applied for was included in the PR granted to Durban Roodepoort Deep (DRD) on 24 October 2006 (MPT No. 29/2016, DMRE Reference No: GP30/5/1/1/2/10035 PR). The holder of this PR was changed from DRD (Pty Ltd to Mintails SA Soweto Cluster (Pty) Ltd in 2016. In 2018 the PR was ceded from Mintails SA Soweto Cluster (Proprietary) Limited to West Wits MLI (Pty) Ltd and consent for the transfer of the PR in terms of Section 11(2) of the MPRDA was granted by the DMRE. Thereafter, West Wits submitted a Mining Right Application (MRA) to the DMRE and the MR was granted on 16 July 2021 (DMRE Reference: GP 30/5/1/2/2 (10073) MR).

The proposed MR Boundary was however reduced a number of times, following requests from objecting landowners, and a reduced MR Area exclusive of the proposed PR area was approved in the MR granted on 16 July 2021 (DMRE Reference: GP 30/5/1/2/2 (10073) MR).

As the proposed project involves non-invasive prospecting it is not foreseen that the granting of the PR would impact on the area or the environment. However, granting of the PR will allow for various potential socio-economic benefits should the project proceed to a MR in future. Impacts relating to the granting of a future MR will be subject to a separate Environmental Authorisation (EA) process and MRA process.

In the event that the proposed PR is not granted, and the mine's existing MR Area cannot be expanded in future, this may lead to social impacts related to early mine closure and possible job losses. It would also mean that any future employment opportunities as well as socio-economic benefits will not take place.

The mine currently provides the local communities with various benefits relating mainly to employment and skills development. Unemployment in the area is high and mining is seen to hold major possibilities for the area.

The granting of the proposed PR will thus result in possible future expansion of West Wits' current mining operations and is therefore in line with the New Growth Path 2021, as the mining value chain was identified as one of the seven key economic sectors for job creation.

ALTERNATIVES

The alternatives considered for the project includes non-invasive and invasive prospecting techniques.

Non-invasive prospecting is limited to desktop bound studies with no invasive or physical prospecting activities taking place on site. Non-invasive prospecting techniques will include a desktop review of historical mine information, concept level mine design, generation of geological models, and conducting financial and engineering feasibility / viability studies.

Invasive prospecting involves the exploration for minerals through the above non-invasive techniques followed by a site visit from the geologist to identify sites for drilling, drilling of prospecting boreholes using various drilling techniques, excavation of trenches for bulk sampling, establishment of temporary access roads as well as rehabilitation of the disturbed footprints once prospecting is complete.

Due to West Wits having held a PR (MPT No. 29/2016, DMRE Reference No: GP30/5/1/1/2/10035 PR) which included the proposed PR area now being applied for as well as having been granted a MR for the area immediately north of the proposed PR area, the mine is well acquainted with the geology and mineral resources of the area. In addition, the proposed area has been subject to exploration and mining in the past and therefore invasive prospecting techniques are not considered necessary. The preferred alternative is therefore non-invasive prospecting. Due to this, further discussions around the alternatives have not been included as no invasive or physical prospecting activities will take place on site.

PUBLIC PARTICIPATION

The Public Participation Process (PPP) to be undertaken will be in line with Chapter 6 of the EIA Regulations (2014) (as amended) to ensure compliance with the requirements in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (as amended) (MPRDA) and the National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended) (NEMA). The PPP to be undertaken in described in **Section 8** of this report. This Draft Basic Assessment Report and Environmental Management Programme (BA&EMPr) will be made available for public review for a period of 30 days. A public open day will also be held during the review period of the Draft BA&EMPr. The comments received and issues raised by Interested and Affected Parties (I&APs) will be included in the Final BA&EMPr which will be submitted to the DMRE.

IMPACT ASSESSMENT

It should be noted that as the proposed prospecting activities will be non-invasive, no impacts of the biophysical environment are expected from the proposed project activities. The proposed project however, has the potential to have the following negative socio-economic impacts:

- Expectation of employment by local residents;
- In-migration of job seekers resulting in increased pressure on and demands for housing and basic services, and conflict and competition between various social groups competing for employment and services.

The above impacts have been rated as of moderate significance without mitigation. However, where the project planning considers and applies the necessary mitigation to avoid, manage or mitigate impacts in line with the mitigation hierarchy, the significance of the potential negative impacts can be reduced to negligible significance.

ENVIRONMENTAL MANAGEMENT PROGRAMME

The following mitigation and management measures should be implemented to avoid, manage and mitigate the impacts and risks identified for the proposed project:

- Manage landowner relations by establishing clear communication channels and grievance mechanisms;
- Appoint a community liaison officer;
- Compile a landowner and community relations plan; and
- Develop a clear strategy to manage social and economic expectations of communities.

Provided that the above recommended mitigation and management measures are implemented, there are no fatal flaws that prevent the proposed project from proceeding.

In order to achieve appropriate environmental management standards and ensure that the findings of this assessment are implemented through practical measures, the recommendations from this BA&EMPr will need to be implemented by West Wits.

ENVIRONMENTAL AUTHORISATION

The PR must be valid for five (5) years with the potential to extend the right by a further three (3) more years. Thus the environmental authorisation is required for at least eight (8) years.

No Section 21 water uses in terms of the NWA will be applicable to the non-invasive prospecting activities and therefor no water use licence will be required for the proposed project.

FINANCIAL PROVISION

As the prospecting activities are non-invasive and no disturbance will take place on site, closure and rehabilitation of the site will not be required. The closure objectives will therefore be to leave the site in the current state. A final environmental close-out risk assessment and final performance assessment audit will however be conducted to determine if any additional actions will be required. A financial provision amount of R60 048.40 (Incl. VAT) has been allowed for this application.

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LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AEL	Atmospheric Emission Licence
BoQ	Bill of Quantities
BPEO	Best Practicable Environmental Option
BA&EMPr	Basic Assessment and Environmental Management Programme Report
CRB	Central Rand Basin
CPI	Consumer Price Index
DEA	Department of Environmental Affairs
DMRE	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
ECA	Environmental Conservation Act (Act 73 of 1989)
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme Report
GNR	Government Notice Regulation
GNR 1147	Financial Provisioning Regulations, 2015 (Government Notice R1147, as contemplated in NEMA
I&APs	Interested and Affected Parties
IEM	Integrated Environmental Management
MR	Mining Right
MRA	Mining Right Application
MPRDA	Mineral and Petroleum Resources Development Act
NEMA	National Environmental Management Act (Act 107 of 1998)
NEMAQA	National Environmental Management: Air Quality Act, 39 of 2004
NEMBA	National Environmental Management: Biodiversity Act (Act 10 of 2004)
NEMWA	National Environmental Management: Waste Act (Act 59 of 2008)
NHRA	National Heritage Resources Act (Act 25 of 1999)
NWA	National Water Act (Act 36 of 1998)
OMI	OMI Solutions (Pty) Ltd
PM10	Thoracic Particulate Matter
PM2.5	Inhalable Particulate Matter
POPIA	Protection of Personal Information Act (Act 4 of 2013)
PPP	Public Participation Process
PR	Prospecting Right

ABBREVIATION	DESCRIPTION
SANS	South African National Standard
SHE	Safety, Health and Environmental
SHERQ	Safety, Health, Environmental, Risk and Quality
WUL	Water Use License
WULA	Water Use License Application

PART A

SCOPE OF ASSESSMENT AND ENVIRONMENTAL BASIC ASSESSMENT REPORT

1 CONTACT PERSON AND CORRESPONDENCE ADDRESS

1.1 DETAILS OF THE EAP

1.1.1 DETAILS OF THE EAP

Omi Solutions (Pty) (Ltd) (OMI) assigned the environmental assessment practitioners listed in **Table 1** to undertake the required environmental authorisation process.

Table 1: Project Team Details

Consultant Name	Designation	Email
Reneé Kruger	Environmental Assessment Practitioner	renee@omisolutions.co.za
Chantal Uys	Environmental Assessment Practitioner	chantal@omisolutions.co.za
Emma Pearse	Junior Environmental Scientist	emma@omisolutions.co.za

1.2 EXPERTISE OF THE EAP

1.2.1 THE QUALIFICATIONS OF THE EAP

Please also refer to **ANNEXURE A**.

Reneé Kruger has a master's degree in Environmental Management from North-West University. Preceding this Degree, she obtained a BSc Honours in Geography and Environmental Management and BSc in Geography and Zoology. She is registered as an Environmental Assessment Practitioner at the Environmental Assessment Practitioners Association of South Africa (EAPASA) and as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP). Reneé is also a voluntary member of International Association for Impact Assessment South Africa (IAIAsa) and the Environmental Law Association.

Chantal has an Honours degree in Archaeology from the University of Pretoria; subsequent to this degree she completed qualifications in Geographical Information Systems at the University of Pretoria and Environmental Management at the University of North-West. She is a voluntary member of the IAIAsa and the Water Institute of South Africa (WISA).

Emma Pearse has a BSc (Hons) in Conservation Ecology as well as a Post Graduate Diploma in Sustainable Development. She is a voluntary member of IAIAsa and has applied as a Candidate Scientist at SACNASP.

1.2.2 SUMMARY OF THE EAP'S PAST EXPERIENCE

Please also refer to **ANNEXURE B**.

Reneé has over 13 years' experience working as an Environmental Assessment Practitioner conducting and implementing the Environmental Impact Assessment Process throughout all phases – specializing in residential, mine, industrial and commercial developments. Her experience includes water and waste licence applications, integrated waste and water management plans, and assisting with air emissions licenses. She has extensive experience in conducting public participation processes and liaison with government departments. Furthermore, her experience is complemented with geographic information systems (GIS) skills and project management experience.

Chantal has over 13 years' experience working in the environmental management field. She is experienced in the facilitation of Environmental Authorisation processes and the compilation of Environmental Management Programmes. She has experience in various other environmental authorisation processes such as Mining Right Applications, Water Use Licensing, Waste Licensing and assisting with Atmospheric Emission License Applications. She is also experienced in Geographical Information Systems (GIS) Mapping, Environmental and Legal Compliance Audits, compiling Integrated Waste and Water Management Plan, public participation processes and project management. Her project experience is extensive in scope and covers all aspects of development from structures, roads, dams, bridges, bulk water and sewerage services to industrial, residential, and mining developments. She has project experience in South Africa as well as other African countries.

Emma is currently working as a Junior Environmental Scientist and is gaining experience in the environmental management field. She is passionate about developing and implementing sustainable solutions which place social justice, economic growth, and environmental conservation at the forefront. Since joining OMI, she has been assisting with environmental monitoring and sampling, water use licence renewals, water use licence audits and environmental procedure development. More recently, she has taken on more responsibility, being involved in environmental test work both at laboratory scale and on site. She has also been promoted from intern to Junior Environmental Scientist and is getting involved in more complex projects, carrying out literature studies and drafting various documents.

2 DESCRIPTION OF THE PROPERTY

2.1 SITE LOCATION

The proposed Prospecting Right (PR) area stretches over an area in Bram Fischerville in the City of Johannesburg Metropolitan Municipality. The proposed PR area is located approximately 12 km to the south-east of Krugersdorp, approximately 4 km north of Soweto and approximately 5 km south of Roodepoort.

Table 2: Property Details

Farm Name:	Farm portions: 1. Portions1, 2, 3 and 4 of the Farm Bram Fischerville No.649-IQ. 2. Portion 411 of the Farm Roodepoort No.237 IQ. 3. The Remainder of the Farm Bram Fischerville No.663-IQ. 4. Portions 1, 2 and the Remainder of the Farm Durban Roodepoort Deep No.641-IQ. 5. Portions 9, 18, 19, 21, 32, 38, 39, 40, 41, 45, 46, 51 and the Remainder of Portion 20 of the Farm Vogelstruisfontein No.233-IQ Erfs: 6. Various erven under Meadowlands township. 7. Various erven under Mmesi park.

	8. Various erven under Bram Fischerville.
Application Area (ha):	Proposed Prospecting Right Application (PRA) area: Approximately 600 ha
Magisterial District:	City of Johannesburg Metropolitan Municipality
Distance and Direction from Nearest Town	Approximately 12 km south-east of Krugersdorp, approximately 4 km north of Soweto and approximately 5 km south of Roodepoort, Gauteng Province

2.2 LOCALITY MAP

The regional locality of the proposed PR Area is shown in **Figure 1**.

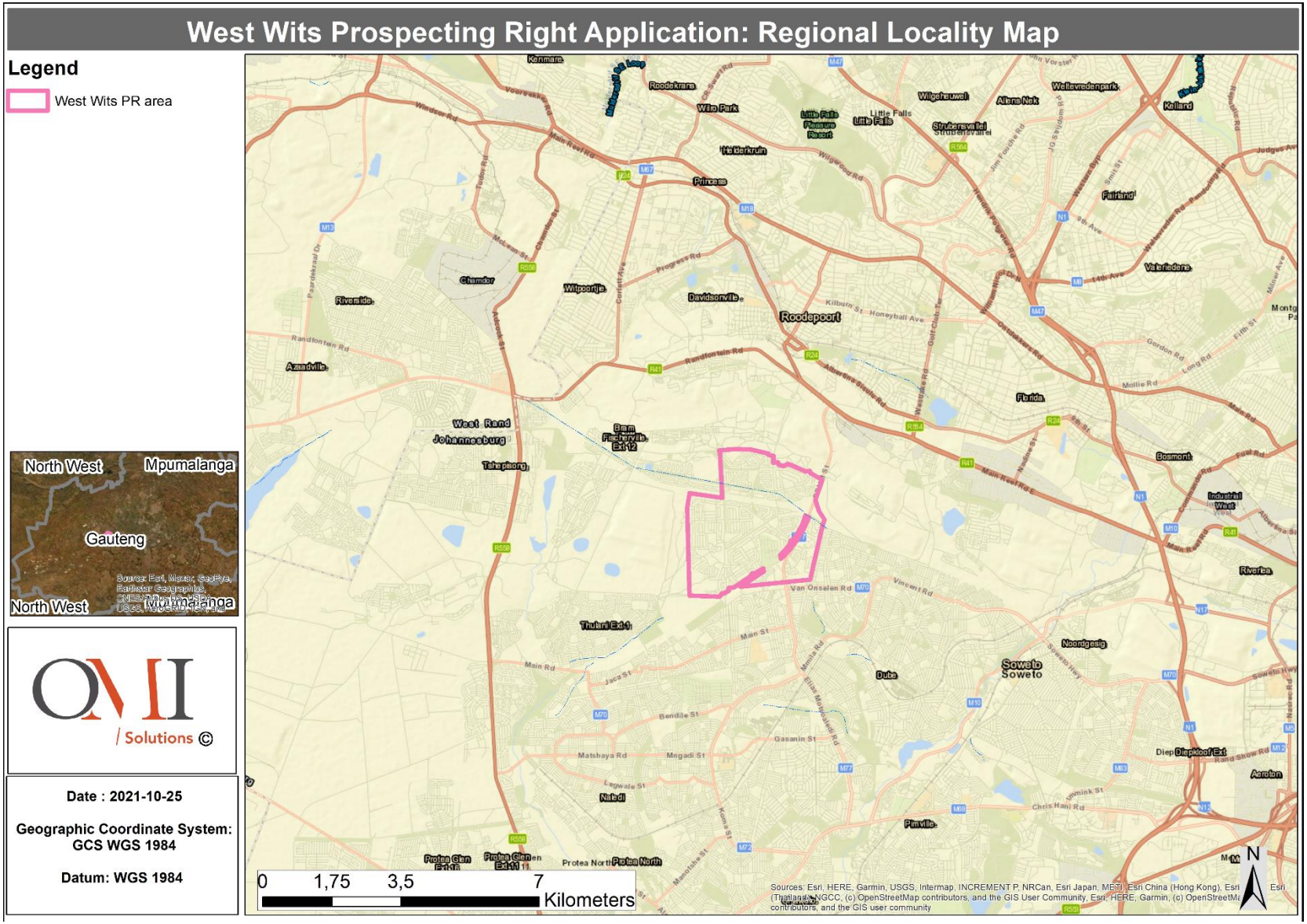

Figure 1: Regional Locality Map of the proposed PR Area

3 DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY

The site plan is shown in **Figure 2**.

3.1 LISTED AND SPECIFIED ACTIVITIES

The following listed activities in **Table 3** as per the National Environmental Management Act (107 of 1998) (NEMA) and the Environmental Impact Assessment Regulations, 2014 (as amended) (EIA Regulations) (as amended in 2021) are being applied for.

Table 3: Listed and Specified Activities

Activity	Aerial Extent of Activity (ha or m²)	Listed Activity	Applicable Listing Notice	Waste Management Authorisation
Non-invasive prospecting activities (desktop review of historical mine information, concept level mine design and generating geological models, and conducting financial and engineering feasibility / viability studies)	±600 ha	Activity 20 of Listing Notice 1 (GNR 983 as amended in GNR 517 of 2021)	Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), as well as any other applicable activity as contained in Listing Notice 1 or in Listing Notice 3 of 2014, required to exercise the prospecting right.	N/A

4 DESCRIPTION OF THE ACTIVITIES TO BE UNDERTAKEN

4.1 BACKGROUND

West Wits MLI (Pty) Ltd (West Wits) has applied for a PR for gold, silver and uranium over various farm portions and erfs targeting the potentially gold bearing conglomerates (reefs) of the Central Rand Group, Witwatersrand Supergroup. All prospecting activities are planned to be non-invasive and will include the following:

- a desktop review of historical mine information,
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The planned prospecting activities are all desktop bound studies with no invasive or physical prospecting activities taking place on site.

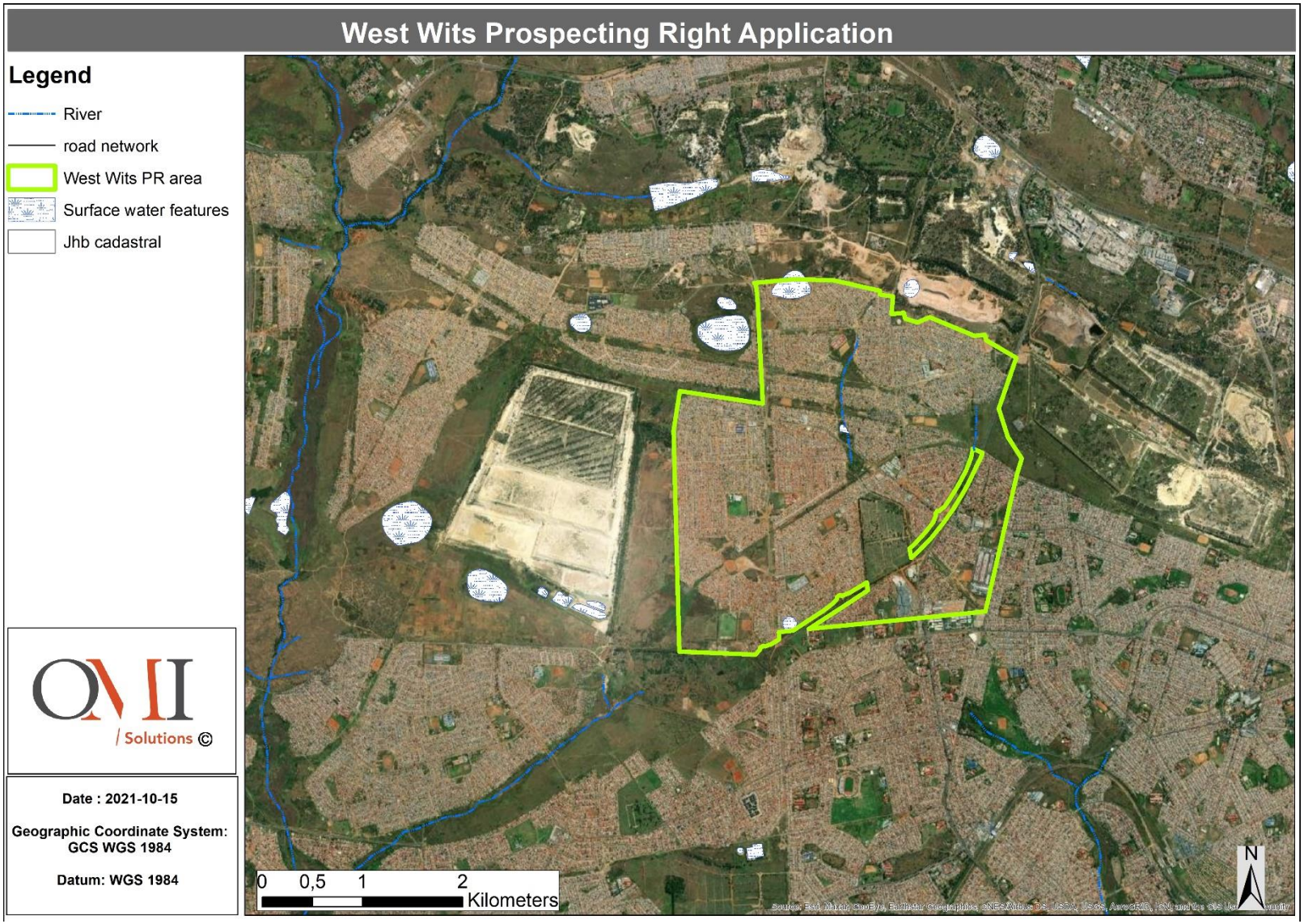

Figure 2: Site Layout indicating the proposed PR Boundary

4.1.1 MINERAL RIGHTS

The following is a summary of the mineral rights applicable to West Wits' current operations

Table 4: Mineral Rights Applicable to the West Wits Current Operations

Mining Right	Region	Location	Minerals
MR10073	Magisterial district of Johannesburg	Various portions of the Farms Glenlea 228 IQ; Randglen 229 IQ; Vogelstruisfontein 231IQ; Witpoortjie 245IQ; Dobsonville 386IQ; Soweto 387IQ; 641IQ; 649IQ; 633IQ; 677IQ; 710IQ	Gold, silver and uranium

4.1.2 PROSPECTING METHOD

Phase	Activity	Timeframe
1	Desktop geological data collation and studies to define possible exploration targets to delineate areas for future mining	12 months
2	Concept level mine design	12 months
3	Geological modelling - generation of feasibility level resource models refining of exploration level models	12 months
4	Feasibility related geological and mining studies to determine financial viability, engineering studies and design of feasibility mine plan	24 months

5 POLICY AND LEGISLATIVE CONTEXT

The following table summarises some of the important legislative requirements for this assessment

Table 5: Legislative and Policy Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
The Constitution of the Republic of South Africa (Act 108 of 1996) Section 2 of the Constitution of the Republic of South Africa (Act 108 of 1996) (CA) states that: "This Constitution is the supreme law of the Republic; law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled." Section 24 of the CA, states that everyone has the right to an environment that is not harmful to their health or well-being and 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. Section 24 guarantees the protection of the environment through reasonable legislative (and other measures), and such legislation is continuously in the process of being promulgated. Section 33(1) concerns administrative justice which includes the constitutional right to administrative action that is lawful, reasonable and procedurally fair.	The report was accordingly prepared, submitted and considered within the constitutional framework set by inter alia section 24 and 33 of the Constitution.
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002) (MPRDA) Previously South African mineral rights were owned either by the State or the private sector. This dual ownership system represented an entry barrier to potential new investors. The current Government's objective is for all mineral rights to be vested in the State, with due regard to constitutional ownership rights and security of tenure. The MPRDA was passed in order to make provision for equitable access to and sustainable development of the nation's mineral and petroleum resources, and to provide for matters connected therewith. The Preamble to the MPRDA inter alia affirms the State's obligation to: • protect the environment for the benefit of present and future generations; • ensure ecologically sustainable development of mineral and petroleum resources; and • promote economic and social development. The aforesaid preamble affirms the general right to an environment provided for in section 24 of the Constitution (as set out hereinabove). The objects of the MPRDA, as set out in section 2 thereof serve as a guide to the interpretation of the Act. The objects of the MPRDA are as follows: • recognise the internationally accepted right of the State to exercise sovereignty over all the mineral and petroleum resources within the Republic;	The Prospecting Right Application was prepared and submitted according to the provisions of this legislation. The legislation will be heeded throughout the proposed prospecting activities and will be considered in the compilation of this EMPr.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
• give effect to the principle of the State's custodianship of the nation's mineral and petroleum resources; • promote equitable access to the nation's mineral and petroleum resources to all the people of South Africa; • substantially and meaningfully expand opportunities for historically disadvantaged persons, including women, to enter the mineral and petroleum industries and to benefit from the exploitation of the nation's mineral and petroleum resources; • promote economic growth and mineral and petroleum resources development in the Republic; • promote employment and advance the social and economic welfare of all South Africans; • provide for security of tenure in respect of prospecting, exploration, mining and production operations; • give effect to section 24 of the Constitution by ensuring that the nation's mineral and petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development; and • ensure that holders of mining and production rights contribute towards the socio-economic development of the areas in which they are operating. The national environmental management principles provided for in section 2 of the NEMA apply to all prospecting and mining operations and any matter relating to such operation. These principles apply throughout the Republic to the actions of all organs of state including inter alia the Department of Mineral Resources that may significantly affect the environment. Any prospecting or mining operation must be conducted in accordance with generally accepted principles of sustainable development by integrating social, economic and environmental factors into the planning and implementation of prospecting and mining projects in order to ensure that exploitation of mineral resources serves present and future generations. Section 38 of the MPRDA states that the holder of inter alia, a prospecting right, mining right or mining permit: • Must at all times give effect to the general objectives of integrated environmental management laid down in Chapter 5 of NEMA; • Must consider, investigate, assess and communicate the impact of his or her prospecting or mining on the environment as contemplated in section 24(7) of NEMA; • Must manage all environmental impacts – o In accordance with an environmental management plan or approved environmental management programme, where appropriate, and o As an integral part of the prospecting or mining operations, unless the Minister directs otherwise. • Must as far as reasonably practicable, rehabilitate the environment affected by the prospecting or mining operations to its natural or	

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
predetermined state or to a land use which conforms to the generally accepted principle of sustainable development; and • Is responsible for any environmental damage, pollution or ecological degradation as a result of prospecting or mining operations and which may occur inside and outside the boundaries of the area to which such right, permit or permission relates.	
The National Environmental Management Act (107 of 1998) (NEMA) and the Environmental Impact Assessment Regulations, 2014 (as amended) (EIA Regulations) The overarching principle of the National Environmental Management Act 1998 (Act 107 of 1998) (NEMA) is sustainable development. It defines sustainability as meaning the integration of social, economic and environmental factors into planning, implementation and decision making so as to ensure the development serves present and future generations. Section 2 of NEMA (Act no 107 of 1989) provides for National Environmental Management Principles. These principles include: • Environmental management must place people and their needs at the forefront of its concern. • Development must be socially, environmentally and economically sustainable. • Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated. • Environmental justice must be pursued. • Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing must be pursued. • Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle. • The participation of all Interested and Affected Parties (I&APs) in environmental governance must be promoted. • Decisions must take into account the interests, needs and values of all I&APs. • The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment. • Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law. • The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage. • The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or	An application for Environmental Authorisation in line with the provisions contained in the EIA Regulations 2014 (as amended in 2021) was submitted to the Department of Mineral Resources and Energy: Gauteng Region (DMRE), in terms of section 24 of the NEMA for consideration. The activities specified above in **Table 3** were identified as being applicable to the proposed prospecting activities. The Draft Basic Assessment and Environmental Management Report (BA&EMPr) will be distributed for public review for a period of 30 days as part of the EIA process.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment. The EIA process to be undertaken in respect of the authorsation process of the proposed Prospecting Right is in compliance with the MPRDA, as well as the NEMA read with the Environmental Impact Assessment Regulations of 2014 (Government Notice Regulation (GNR) 982, 983, 984 and 985 as amended in GNR 517 on 11 June 2021).	
National Water Act (Act No 36 of 1998) (NWA) In terms of the NWA, the national government, acting through the Minister of Water and Environmental Affairs (previously the Minister of Water Affairs and Forestry), is the public trustee of South Africa's water resources, and must ensure that water is protected, used, development, 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 under certain circumstances. All other use, provided that such use qualifies as a use listed in section 21 of the Act, require a water use license. 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 indicates that "water use" includes: • taking water from a water resource (section 21(a)); • storing water (section 21(b)); • impeding or diverting the flow of water in a water course (section 21(c)); • engaging in a stream flow reduction activity contemplated in section 36 (section 21(d)); • engaging in a controlled activity which has either been declared as such or is identified in section 37(1) (section 21(e)); • discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit (section 21(f)); • disposing of waste in a manner which may detrimentally impact on a water resource (section 21(g); • disposing in any manner of water which contains waste from, or which has heated in, any industrial or power generation process (section 21 (h)); • altering the bed, banks, course or characteristics of a water course (section 21(i));	No water use activities are proposed as part of the non-invasive prospecting activities and a Water Use Licence (WUL) will not be required.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
• 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 (section 21(j)); and • using water for recreational purposes (section 21(k)). In addition to the above and in terms of section 26 of the NWA, Regulations on the Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources were published in GNR 704 of 4 June 1999 (GNR 704). The aforesaid GNR 704 provides for inter alia the capacity requirements of clean and dirty water systems (regulation 6), the protection of water resources by a person in control of a mine (regulation 7), security and addition measures (regulation 8) and temporary or permanent cessation of a mine or activity (regulation 9). According to GNR 704 “no person in charge of a mine may carry on any underground or opencast mining, prospecting or any other operation or activity under or within the 1:50 year flood-line or within a horizontal distance of 100 metres from any watercourse or estuary, whichever is the greatest”.	
National Heritage Resources Act (Act 25 of 1999) (NHRA) The NHRA established the South African Heritage Resources Agency (SAHRA) as well as provincial heritage resources agencies. In terms of the NHRA, no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any heritage site without a permit issued by the heritage resources authority responsible for the protection of such site. No person may damage, disfigure, alter, subdivide or in any other way develop any part of a protected area unless, at least 60 days prior to the initiation of such changes, he/she/it has consulted with the relevant heritage resources authority. Section 34 of the NHRA provides for the protection of immovable property by providing for a prohibition on altering or demolishing any structure or part of any structure, which is older than 60 years, without a permit issued by the relevant provincial heritage resources authority. Accordingly, should the proposed activities, prospecting or mining activities or the closure and rehabilitation of mined land involve the altering or demolishing of any structure or part of any structure, which is older than 60 years, a permit issued by the relevant provincial heritage resources authority is required. No person may, without a permit issued by the responsible heritage resources authority destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite; destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite; trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.	The application relates to non-invasive prospecting and thus no prospecting activities will take place on site. Therefore, no impacts on heritage resources will occur.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
No person may, without a permit issued by SAHRA or a provincial heritage resources authority destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves; destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or bring onto or use at the burial ground or grave referred to above any excavation equipment or any equipment which assists in the detection or recovery of metals. Section 38 of the NHRA states that any person who intends to undertake developments categorised in Section 38 of the NHRA must at the very earliest stages of initiating such development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development. By way of example, the developments referred to in Section 38 of the NHRA include: • the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 metres in length; • the construction of a bridge or similar structure exceeding 50 metres in length; • any development or other activity which will change the character of a site as specified in the regulations; • any other category of development provided for in regulations by SAHRA or the provincial heritage resources authority. However, the abovementioned provisions are subject to the exclusion that section 38 does not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act 73 of 1989 (now presumably the NEMA in view of the repeal of the listed activities under the ECA): Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent.	
National Environmental Management: Biodiversity Act (Act 10 of 2004) (NEMBA) The NEMBA aims to provide for the management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute; and for matters connected therewith. The NEMBA provides for the publishing of various lists of species and ecosystems by the Minister of Environmental Affairs and Tourism (now the Minister of Water and Environmental Affairs) as well as by a Member of the	The application relates to non-invasive prospecting and thus no prospecting activities will take place on site. Therefore, no impacts on natural ecosystems will occur.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
Executive Council responsible for the conservation of biodiversity of a province in relation to which certain activities may not be undertaken without a permit. In terms of Section 57 of the NEMBA, no person may carry out any restricted activity involving any species which has been identified by the Minister as "critically endangered species", "endangered species", "vulnerable species" or "protected species" without a permit. The NEMBA defines "restricted activity" in relation to such identified species so as to include, but not limited to, "hunting, catching, capturing, killing, gathering, collecting, plucking, picking parts of, cutting, chopping off, uprooting, damaging, destroying, having in possession, exercising physical control over, moving or translocating". The Minister has made regulations in terms of section 97 of the NEMBA with regards to Threatened and Protected Species which came into effect on 1 June 2007. Furthermore, the Minister published lists of critically endangered, endangered, vulnerable and protected species in terms of section 56(1) of the NEMBA. Additional Notices published in terms of the NEMBA which may find application to the proposed mine, and which will be considered include: • National list of ecosystems that are threatened and in need of protection – GNR 1002 of 9 December 2011; • Alien and Invasive Species Lists, 2020 – GNR 1020 in GG 43735 of 25 September 2020.	
National Forests Act (Act 84 of 1998) The project may involve the cutting, disturbing, damaging or destroying of any protected trees declared in terms of section 12 of the National Forest Act (NFA) (Act 84 of 1998). Should the presence of these trees on site be confirmed after receipt of the ROD, a licence in terms of section 15 of the NFA will be required.	The application relates to non-invasive prospecting and thus no prospecting activities will take place on site. Therefore, no impacts on any protected trees will occur.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEMAQA) The NEMAQA came into power on the 24th of February 2005. Additionally, the amendment to the Minimum Emission Standards (GNR 893) also came into effect on the 12 June 2015. This Notice provides a list of activities that may cause atmospheric emissions which have or may have a significant detrimental effect on the environment as well as the minimum emission standards ("MES") for these activities as contemplated in section 21 of NEMAQA. The effect of the commencement of the NEMAQA and the listed activities, listed in GNR 964 is that an atmospheric emission licence (AEL) is now required for conducting these listed activities. Some regulations that however will be considered include:	There are no listed activities that require registration/permitting according to the NEMAQA for the proposed non-invasive prospecting activities.

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• National Dust Control Regulations (GNR 827 in Government Gazette 36974 dated 1 November 2013); • National Ambient Air Quality Standards applicable to PM10 (GNR 1210 of 24 December 2009); • National Ambient Air Quality Standard for PM 2.5 (GNR 486 of 29 June 2012).	
National Environmental Management: Waste Act (Act 59 of 2008) (NEMWA) The NEMWA commenced on 1 July 2009 and as a result of its commencement the relevant provisions in the Environment Conservation Act 73 of 1989 (ECA) in respect of waste management, were repealed. The NEMWA sets out to reform the law regulating waste management and deals with waste management and control more comprehensively than was dealt with in the ECA. It also introduces new and distinct concepts never before canvassed within the realm of waste management in South Africa, such as the concept of contaminated land and extended producer responsibility. It also provides for more elaborate definitions to assist in the interpretation of the Act. Section 19 of the NEMWA provides for listed waste management activities and states in terms of section 19(1), the Minister may publish a list of waste management activities that have or are likely to have a detrimental effect on the environment. Such a list was published in GNR 921 of 29 November 2013. In accordance with section 19(3), the Schedule to GNR 921 provides that a waste management licence is required for those activities listed therein prior to the commencement, undertaking or conducting of same. In addition, GNR 921 differentiates between Category A, B, and Category C waste management activities. Category A waste management activities are those which require the conducting of a basic assessment process as stipulated in the EIA Regulations, 2014 (as amended) promulgated in terms of the NEMA as part of the waste management licence application and Category B waste management activities are those that require the conducting of a scoping and environmental impact assessment process stipulated in the EIA Regulations, 2014 (as amended) as part of the waste management licence application. Category C waste management activities do not require a waste management licence, however a person who wished to commence, undertake or conduct a waste management activity listed under this category, must comply with the relevant requirements and standards, Section 20 of the NEMWA pertains to the consequences of listing waste management activities and states that no person my commence, undertake or conduct a waste management activity, except in accordance with the requirements or standards for that activity as determined by the Minister or in accordance with a waste management licence issued in respect of that activity, if a licence is required. In terms of the current statutory framework with regards to waste management, a waste management licence is required for those waste	No waste activities are proposed as part of the non-invasive prospecting activities and a Waste Management Licence will not be required.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
management activities identified in the Schedule to GNR 921. Certain of the waste management activities listed in the Schedule are governed by specific thresholds. Where any process or activity falls below or outside the thresholds stipulated, a waste management licence is not required. With effect from 2 June 2014 the definition of "waste" has been amended in terms of the National Environmental Management: Waste Amendment Act (Act 26 of 2014) (NEMWAA).[1] In addition section 4(b) of the NEMWA has been deleted in terms of the National Environmental Laws Amendment Act (NEMLAA, Act 25 of 2014) with effect from 2 September 2014. As a result, the NEMWA finds application to residue stockpiles and residue deposits generated at a mine. Government agreed that the aforesaid amendments and the One Environmental System will only be implemented as from 8 December 2014. Together with the aforesaid amendments, Schedule 3: Defined Wastes to the NEMWA commenced on 2 June 2014. In terms of the aforesaid Schedule 3, residue stockpiles and residue deposits, which include wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals are listed in Category A and accordingly defined as hazardous waste. On 23 August 2013 the following Regulations were published in terms of the NEMWA which requires waste to be classified: Waste Classification and Management Regulations (GNR 634 of 23 August 2013) and the National Norms and Standards for the Assessment of Waste for Landfill Disposal (GNR 635 of 23 August 2013). In order to conduct the waste classification, leach tests and a total analysis needs to be conducted. The leach test entails the leaching of a solid sample of waste with reagent water and the	

1 In terms of section 1 of the NEMWA, "Waste" means:

"(a) any substance, material or object, that is unwanted, rejected, abandoned, discarded or disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to this Act; or

(b) any other substance, material or object that is not included in Schedule 3 that may be defined as a waste by the Minister by notice in the Gazette,

but any waste or portion of waste, referred to in paragraphs (a) and (b), ceases to be a waste-

(i) once an application for its re-use, recycling or recovery has been approved or, after such approval, once it is, or has been re-used, recycled or recovered;

(ii) where approval is not required, once a waste is, or has been re-used, recycled or recovered;

(iii) where the Minister has, in terms of section 74, exempted any waste or a portion of waste generated by a particular process from the definition of waste; or

(iv) where the Minister has, in the prescribed manner, excluded any waste stream or a portion of a waste stream from the definition of waste."

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
subsequent analysis of the leachate for specific components. The total analysis entails the analysis of the solid material for the total concentration of specific components that are present in the waste sample. The results of these two tests are compared to regulatory criteria and a classification is done based on the results of this comparison. Residue stockpiles and residue deposits must be managed in the prescribed manner on any site demarcated for that purpose in the environmental management programme for the mining operation (section 43A of the NEMWA). On 24 July 2015 the Regulations regarding the Planning and Management of Residue Stockpiles and Residue Deposits, 2015 (GNR 632) were published in terms of the NEMWA. The purpose of GNR 632 is to regulate the planning and management of residue stockpiles and residue deposits from, amongst others, a mining operation. GNR 632 further provides for the characterisation and classification of residue stockpiles, the investigation and site selection and the design of residue stockpiles, impact management and monitoring and reporting systems for residue stockpiles.	
City of Johannesburg Draft Integrated Development Plan (IDP) 2020/21 The ten strategic priorities of the Draft IDP are: • Financial Sustainability • Good Governance • Sustainable Service Delivery • Economic development • Job Opportunity and Creation • Integrated Human Settlements • Safer City • Active and Engaged Citizenry • Sustainable environmental development • Smart City The IDP states that “over the past couple of years, growth in crucial job creating industries such as manufacturing and mining has declined significantly. This, compounded with the low economic growth in the city has contributed to the high rate of unemployment. This requires the City to pursue inter alia extensive investment in old and new infrastructure to support economic growth and create jobs”.	The proposed PR Application is in line with the IDP with regards to economic development.
City of Johannesburg Spatial Development Framework (SDF) 2040 The seeks to address five major issues in the City’s spatial and social landscape: • Increasing pressure on the natural environment and green infrastructure; • Urban sprawl and fragmentation; • Spatial inequalities and the job-housing mismatch;	The proposed project is deemed consistent with the SDF as the PR area is located inside the urban edge, and thus consideration must be given to the integration of the

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED

• Exclusion and disconnection emanating from;
  ○ high potential underused areas (the mining belt and the Modderfontein area);
  ○ securitisation and gated developments, and disconnected street networks (high cul-de-sac ratios and low intersection densities).
• Inefficient residential densities and land use diversity.
	future post mining land use (subject to a separate Mining Right Application process) into local town planning. The relevant town planning application will be undertaken for mining beneath a residential area should the prospecting establish the feasibility for mining and the Applicant proceed to with a Mining Right Application which will require a separate EIA process to be undertaken.

Gauteng Provincial Environmental Management Framework (GPEMF) The GPEMF is seen as part of a pro-active framework that will inform planning on provincial and municipal level. The Environmental Management Zones (EMZ) were derived from the desired state, the environmental sensitivity as well the unique control areas as identified in sections 1, 2 and 3. The EMZs were presented to the Gauteng Planning Forum where it was generally accepted as a suitable contribution to facilitate appropriate development in Gauteng. The EMZs also took the Gauteng Growth and Management Perspective, 2014, into account and is therefore aligned to the general development policy for Gauteng. Five EMZs were identified and overlaying those a further six Special Management Areas were identified where specific planning and policy measures are necessary to achieve the development objective of those areas. The PR area falls partly in Zone 1: Urban development zone <u>Intention</u> The intention with Zone 1 is to streamline urban development activities located in these areas and to promote development infill, densification and concentration of urban development within the urban development zones as defined in the Gauteng Spatial Development Framework (GSDF), in order to establish a more effective and efficient city region that will minimise urban sprawl into rural areas. Certain currently listed activities (see section 5) may be exempted from environmental assessment requirements at the discretion of the competent authority. <u>Conditions</u>	The GPEMF was heeded during the compilation of this BA&EMPr

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	EXPLANATION OF HOW IT HAS BEEN APPLIED
• Development in this area must be sustainable in respect to the capacity of the environment and specifically the hydrological system to absorb additional sewage and stormwater loads as a result of increased densities; • Existing open spaces and urban parks should be retained as open space to cater for the open space needs of the foreseen increased densities; and • Stormwater drainage must be in accordance with the Water Research Commission Report, 2012 and the South African Guidelines for Sustainable Drainage Systems. The PR area is also partially located within Zone 5: Industrial and large commercial focus zone Intention The intention with Zone 5 is to streamline non-polluting industrial and large-scale commercial (warehouses etc.) activities in areas that are already used for such purposes and areas that are severely degraded but in close proximity to required infrastructure (such as old and even current mining areas). Certain currently listed activities, in addition to those intended for Zone 1 may be excluded from environmental assessment requirements in this zone in future. Conditions • Development in this area must be sustainable in respect to the capacity of the environment and specifically the hydrological system to absorb additional sewage and stormwater loads of increased densities; • Development in this area must identify any unmapped wetlands, especially seep areas that may occur on any site and when necessary apply for the required water use licence; and • Non-polluting Industrial promotion areas where selected activities are to be excluded from EIA processes in addition to those excluded in Zone 1.	
Gauteng Conservation Plan 3.3 According to the Gauteng C-Plan the PR area is located partially in an Ecological Support Area (ESA), as well as a Critical Biodiversity Area (CBA), categorized as “Important”.	The C-Plan was heeded during the compilation of this BA&EMPr

6 NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES

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

6.1 NEED AND DESIRABILITY

Mines in the project area, namely Durban Roodepoort Deep and Rand Leases, closed prematurely in early 2000. Despite these closures, significant mineable resources still remain within the project area. Over the last few years West Wits has focussed on establishing exploration target resources using relevant historical data and have identified a feasible ore body that it believes is worth developing further within the proposed PR area, as part of its current Mining Right (MR).

It should be noted that the proposed PR area currently being applied for was included in the PR granted to Durban Roodepoort Deep (DRD) on 24 October 2006 (MPT No. 29/2016, DMRE Reference No: GP30/5/1/1/2/10035 PR). The holder of this PR was changed from DRD (Pty Ltd to Mintails SA Soweto Cluster (Pty) Ltd in 2016. In 2018 the PR was ceded from Mintails SA Soweto Cluster (Proprietary) Limited to West Wits MLI (Pty) Ltd and consent for the transfer of the PR in terms of Section 11(2) of the MPRDA was granted by the DMRE. Thereafter, West Wits submitted a Mining Right Application (MRA) to the DMRE and the MR was granted on 16 July 2021 (DMRE Reference: GP 30/5/1/2/2 (10073) MR).

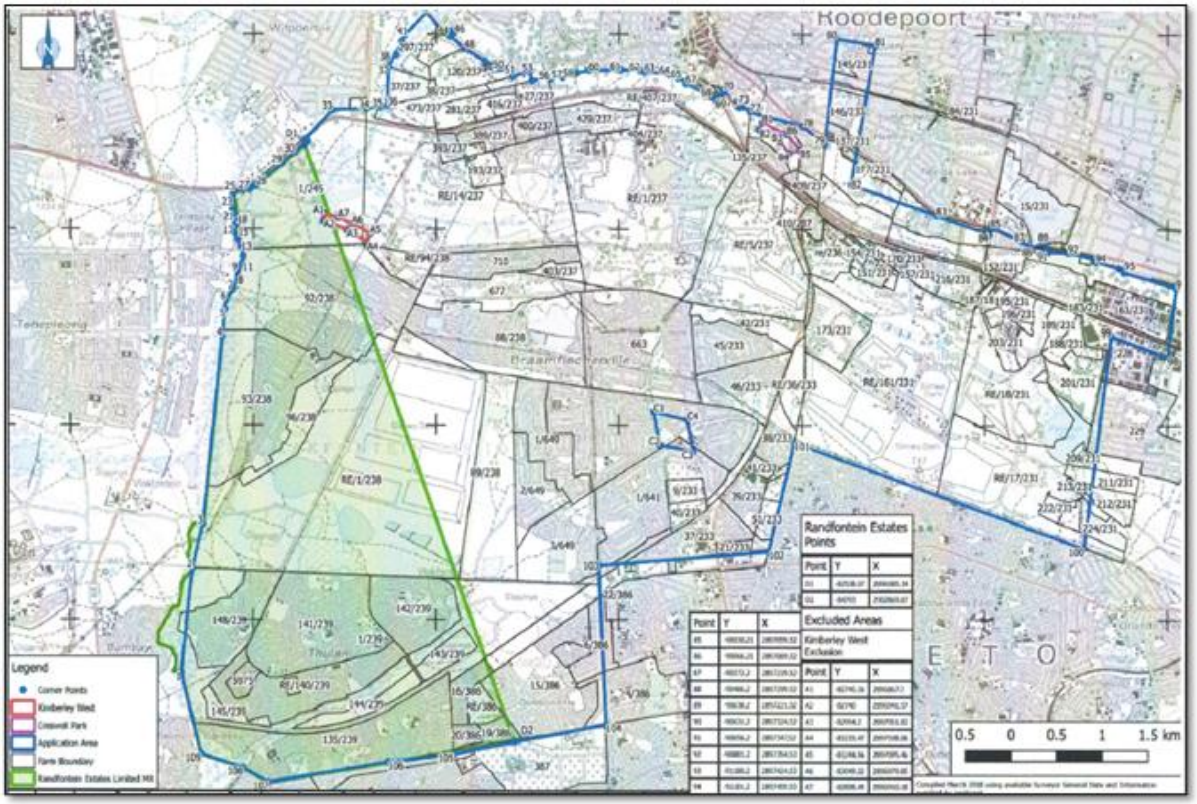

Figure 3: Initial Regulation 2.2 Plan submitted to the DMRE

The proposed MR Boundary as provided in **Figure 3**, was however reduced a number of times, following requests from objecting landowners, and the MR Area indicated in **Figure 4** was in the end approved in the MR granted on 16 July 2021 (DMRE Reference: GP 30/5/1/2/2 (10073) MR).

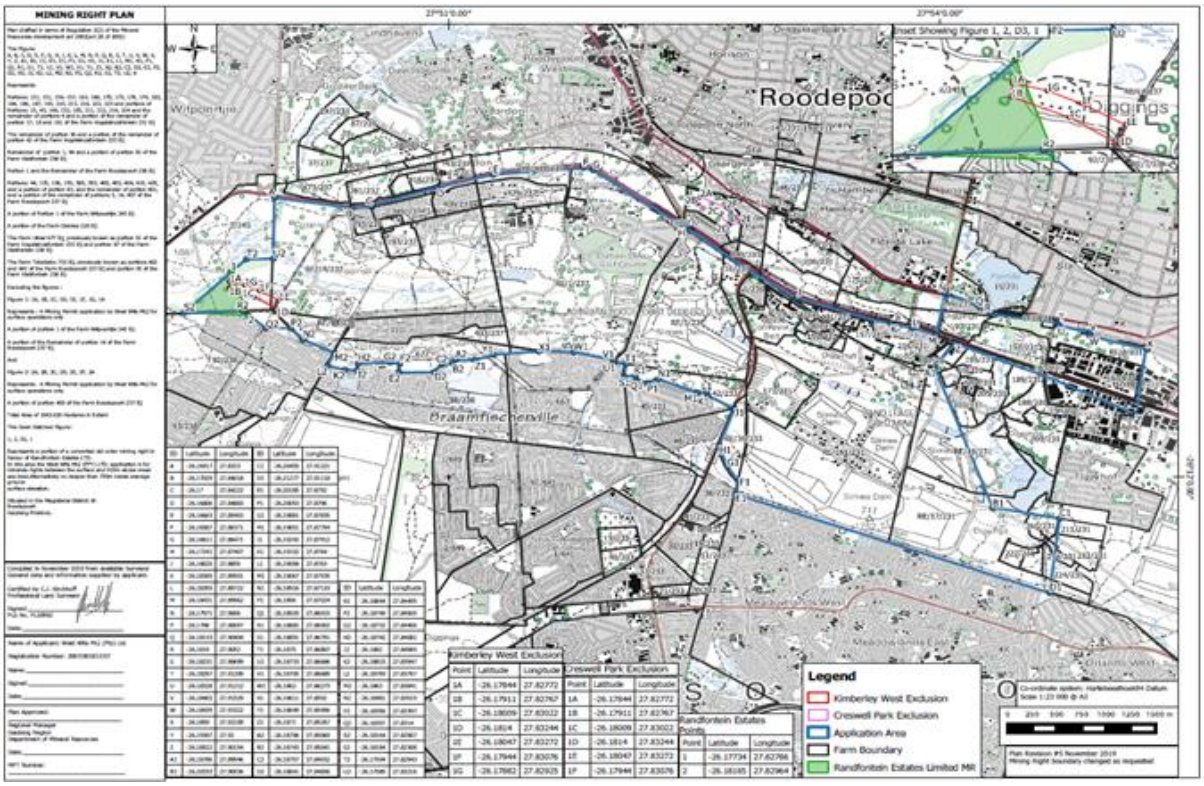

Figure 4: Final Regulation 2(2) Plan submitted to the DMRE

As per the New Growth Path 2021, South Africa has embarked on a new economic growth path in a bid to reduce unemployment from 25% to 15% over the next ten years by creating 5 million jobs. The aim is to address unemployment, inequality and poverty by unlocking employment opportunities in South Africa's private sector and identifies seven job drivers which will create jobs on a large scale, and include:

- infrastructure development and extension: Public works and housing projects;
- agricultural development with a focus on rural development and specifically “Agro-Processing”;
- mining value chains;
- manufacturing and industrial development (IPAP);
- knowledge and green economy;
- tourism and services; and
- informal sector of economy.

The granting of the proposed PR will result in possible future expansion of West Wits’ current mining operations and is therefore in line with the New Growth Path as the mining value chain was identified as one of the seven key economic sectors for job creation.

The proposed project has also been evaluated against the criteria presented in the Department of Environmental Affairs (DEA) Guideline on Need and Desirability (DEA, 2017) in **Table 6** below.

Table 6: Need and Desirability Questions

How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	Please explain
Please refer to **Section 13.2.6** of this report for impacts on biodiversity (fauna and flora).	
How were the following ecological integrity considerations taken into account? :	
Threatened Ecosystems	Please explain
Please refer to **Section 9.8** of this report.	
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	Please explain
Please refer to **Section 11** of this report.	
Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs")	Please explain
Please refer to **Section 9.8** of this report.	
Conservation targets	Please explain
Please refer to **Section 9.8** of this report.	
Ecological drivers of the ecosystem	Please explain
Please refer to **Section 9.8** of this report.	
Environmental Management Framework	Please explain
Please refer to **Section 5** of this report.	
Spatial Development Framework	
Please refer to **Section 5** of this report.	
Global and international responsibilities relating to the environment (e.g., RAMSAR sites, Climate Change, etc.)	Please explain
There are no RAMSAR wetlands on the site and as the prospecting activities are non-invasive, the project will not result in any climate change impacts.	
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, 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?	Please explain
Please refer to **Section 13.2.6** of this report for impacts on biodiversity (fauna and flora).	
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?	Please explain
Please refer to **Section 13.2.1** to **13.2.6** of this report for impacts on the biophysical environment.	
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 been explored to safely treat and/or dispose of unavoidable waste?	Please explain
Not applicable – the project will not generate any waste.	
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?	Please explain
Please refer to **Section 27.1.2** of this report.	
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	Please explain

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?			
No non-renewable resources will be used for the project as the prospecting activities is non-invasive.			
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?			Please explain
Refer to **Section 9.6, 9.7** and **13.2.5** for a description of and the potential impact on water resources.			
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)?	**YES**	NO	Please explain
There will be no dependency on natural resources due to the proposed non-invasive prospecting activities.			
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 proposed development alternative?)	**YES**	NO	Please explain
There will be no use of natural resources due to the proposed non-invasive prospecting activities.			
Do the proposed location, type and scale of development promote a reduced dependency on resources?	YES	**NO**	Please explain
There will be no dependency on natural resources due to the proposed non-invasive prospecting activities.			
How were a risk-averse and cautious approach applied in terms of ecological impacts			Please explain
Refer to **Section 13.2.6** of the report.			
What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?			Please explain
Refer to **Section 21** of the report.			
What is the socio-economic context of the area based on, amongst other considerations, the following considerations?			
What is the level of risk associated with the limits of current knowledge?			Please explain
Refer to **Section 21** of the report.			
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?			Please explain
Please refer to **Table 11** of the report.			
How will the ecological impacts resulting from this development impact on people's environmental right in terms following:			
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?			Please explain
Please refer to **Section 13.2** of the report.			
Positive impacts: e.g., improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?			
The prospecting project will not result in any positive impacts.			
Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological			Please explain

impacts will result in socio-economic impacts (e.g., on livelihoods, loss of heritage site, opportunity costs, etc.)?	
Please refer to **Section 13.2.6** of the report.	
Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	Please explain
Please refer to **Section 13.2.6** of the report.	
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 (BPEO)" in terms of ecological considerations?	Please explain
Please refer to **Section 7** of the report.	
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 existing and other planned developments in the area?	Please explain
Please refer to **Section 13.2.8** of the report.	

7 ALTERNATIVES ASSESSMENT

7.1 PROCESS TO ASSESS ALTERNATIVES

The Department of Environmental Affairs and Tourism (DEAT) guidelines for Integrated Environmental Management (IEM) procedure requires that an environmental investigation needs to consider feasible alternatives for any proposed development. Also, according to the DEA Guideline on Need and Desirability (DEA, 2017), feasible and reasonable alternatives must be identified for a (new) development as required by the NEMA EIA Regulations. 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 biophysical and socio-economic environment. Therefore, the EIA Regulations require that a number of possible proposals or alternatives for accomplishing the same objectives should be considered.

7.2 DETAILS OF THE ALTERNATIVES CONSIDERED

The alternatives considered for the project includes non-invasive and invasive prospecting techniques.

Non-invasive prospecting is limited to desktop bound studies with no invasive or physical prospecting activities taking place on site. Non-invasive prospecting techniques will include a desktop review of historical mine information, concept level mine design, generation of geological models, and conducting financial and engineering feasibility / viability studies.

Invasive prospecting involves the exploration for minerals through the above non-invasive techniques followed by a site visit from the geologist to identify sites for drilling, drilling of prospecting boreholes using various drilling techniques, excavation of trenches for bulk sampling, establishment of temporary access roads as well as rehabilitation of the disturbed footprints once prospecting is complete.

Due to West Wits having held a PR (MPT No. 29/2016, DMRE Reference No: GP30/5/1/1/2/10035 PR) which included the proposed PR area now being applied for as well as having been granted a MR for the area immediately north of the proposed PR area, the mine is well acquainted with the geology and mineral resources of the area. In addition, the proposed area has been subject to exploration and mining in the past and therefore invasive prospecting techniques are not considered necessary. The preferred alternative is therefore non-invasive prospecting. Due to this, further discussions around the alternatives have not been included as no invasive or physical prospecting activities will take place on site.

7.3 "NO-GO" ALTERNATIVE

The assessment of the "no-go" alternative is a legal requirement according to NEMA and the EIA Regulations. In this scenario no PR would be granted. The environment would be left as is and the impact on the area and potential benefits would remain unchanged.

As the project involves non-invasive prospecting it is not foreseen that the granting of the PR would impact on the area or the environment. However, granting of the PR will allow for various potential socio-economic benefits should the project proceed to a MR in future. Impacts relating to the granting of a future MR will be subject to a separate Environmental Authorisation (EA) process and MRA process.

In the event that the proposed PR is not granted, and the mine's existing MR Area cannot be expanded in future, this may lead to social impacts related to early mine closure and possible job losses. It would also mean that any future employment opportunities as well as socio-economic benefits will not take place. The status quo would therefore be maintained.

The mine currently provides the local communities with various benefits relating mainly to employment and skills development. Unemployment in the area is high and mining is seen to hold major possibilities for the area.

The realization of the outcome of the Mining Charter (2004), within the context of the MPRDA (2002), would therefore also not be reached and this has potentially significant negative impacts on local and national economic growth and social well-being. The Mining Charter's main objectives, which the proposed project will assist in achieving, are:

- to promote equitable access to South Africa's Mineral Resources for all South Africans;
- to substantially and meaningfully expand opportunities for historically disadvantaged South Africans (HDSAs);
- to utilize the existing skills base for the empowerment of HDSAs;
- to expand the skills base of HDSAs to serve the community;
- to promote employment and advance the social and economic welfare of mining communities and areas supplying mining labour; and
- to promote beneficiation of South Africa's mineral commodities beyond mining and processing, including the production of consumer products.

8 DETAILS OF THE PUBLIC PARTICIPATION PROCESS FOLLOWED

This section describes the public participation process (PPP) to be undertaken in line with Chapter 6 of the EIA Regulations (2014) (as amended). The process will be undertaken to ensure compliance with the requirements in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (as amended) (MPRDA) and the Environmental Impact Assessment Regulations (2014) (as amended).

8.1 SITE NOTICES

In order to inform surrounding communities and adjacent landowners of the proposed project, notice boards (in accordance with regulation 41(2) (a) of the EIA Regulations) in English, isiZulu and Setswana will be erected at key locations surrounding the proposed PR area and within the project area. Currently

around twenty (20) proposed sites have been identified for placement of these notices. This will be confirmed upon placement of the notices in the final BA&EMPr.

8.2 NEWSPAPER ADVERTISEMENT

An advertisement, notifying the public of the submission of the Environmental Authorisation Application and PRA, as well as the process to be followed, will be placed in English in the Daily Sun and Roodepoort Record in accordance with regulation 41(2)(c) and (d) of the EIA Regulations. The notice will also request Interested and Affected Parties (I&AP's) to register their comments with the Environmental Assessment Practitioner (EAP).

In addition, the availability of the Draft Basic Assessment Report and Environmental Management Programme (BA&EMPr) for public review as well as details of the Public Open Day to be held during the review period of the Draft BA&EMPr, will also be mentioned in the advertisement.

8.3 DIRECT NOTIFICATION OF IDENTIFIED I&AP'S

The following identified stakeholders inter alia will be directly informed of the proposed project via hand delivery, registered post, email, fax or SMS:

- The owners and occupiers within the PR area;
- The owners and occupiers of land adjacent to the PR area;
- City of Johannesburg (CoJ) Metropolitan Municipality;
- CoJ ward councilors for Ward 44, 49 and 70;
- Gauteng Department of Agriculture and Rural Development (GDARD);
- Department of Water and Sanitation (DWS);
- Department of Agriculture, Land Reform and Rural Development (DALRRD);
- Department of Land Affairs;
- Department of Cooperative Governance Human Settlements and Traditional Affairs (CoGHSTA);
- South African Heritage Resources Agency (SAHRA);
- Gauteng Provincial Heritage Resources Agency (GPHRA);
- ESKOM;
- Transnet;
- Rand Water; and
- Other mines in the area.

Notification letters will be distributed in English, isiZulu and Setswana.

8.4 DRAFT REPORT FOR REVIEW

The Draft BA&EMPr will be subjected to a public participation process of at least 30 days in terms of Regulation 40 of the EIA Regulations of 2014 (as amended). The Draft BA&EMPr will be distributed for comment as follows:

- Electronic copies will be made available on the OMI website; and

- Hard copies will be made available at the Dobsonville Library and the Moses Kotane Primary School.

Identified I&AP's and state departments will be notified of the availability of the Draft BA&EMPr via hand delivery email, fax, registered post and/or SMS. Comments received will be responded to telephonically and via email as far as possible.

8.5 OPEN DAY

A public open day will be held during the review period of the Draft BA&EMPr on 18 November 2021; to provide I&APs with the opportunity to raise issues and comments and ask specific questions in the presence of the relevant consultants on the project as well as to explain the authorisation process and associated timelines. The public open day will be advertised in the local newspapers as per **Section 8.2** above. All issues raised by the I&APs during the public open day will be included to the Final BA&EMPr which will be submitted to the DMRE. The public open day will take place as follows:

- Thursday, 18 November 2021 from 15h00 to 18h00 at the Moses Kotane Primary School Hall.

8.6 FINAL REPORT

The Final BA&EMPr will be updated following the public review period of the Draft BA&EMPr, to incorporate the comments received and issues raised by I&AP's. The Final BA&EMPr will be submitted to the DMRE on/or before the 8th of December 2021.

8.7 PROTECTION OF PERSONAL INFORMATION ACT 4 OF 2013

In compliance with the Protection of Personal Information Act (Act No. 4 of 26 November 2013) (POPIA), any personal information provided to OMI will be exclusively used as part of the public participation process and will therefore not be utilised for any other purpose, other than that for which it was provided. No additional copies will be made of documents containing personal information unless consent has been obtained from the owner of said information. Records of personal information will be retained no longer than reasonably required for lawful purposes. OMI's privacy statement is available to view on www.omisolutions.co.za.

8.8 SUMMARY OF ISSUES RAISED BY I&APS

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

The following table includes comments and response as well as the identified interested and affected parties for the proposed prospecting project. The completed final table will be made available to the DMRE as part of the decision-making process.

Table 7: Comments and Response Table[2]

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Local Authority							
City of Johannesburg (CoJ) Metropolitan Municipality	Ndibhoniswani Lukhwareni - Municipal Manager						
	Lebo Ntswelengwe						
	Tshilidzi Tshimange						
	Nozipho Maduse DD - Impact Management Sub-Unit						
	Gift Mabasa						

[2] Please note that the table will be completed after the public review of the report

[3] Contact details will only be provided in the Final Report to be submitted to the Competent Authority in compliance with the POPIA

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
	Environmental Infrastructure Service Department (admin)						
	Lebo Molefe Environmental Regulatory Services						
	Ephraim Pooe Stakeholder Engagement						
	Siphokazi Ncume						
	Lufono Maise						
	Justice Netshandama						
Ward 44	Lekgetho George						
Ward 49	Mhlangeni Mandla						
Ward 70	Dewes Dave						
Government Departments							
Gauteng Department of Agriculture and Rural Development (GDARD)	Loyiso Mkwana						
	Jacob Legadima						
	Eric Mulibana						
	Marcelle Johnson						
	Dan Motaung						

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
	Amanda Ndeleni						
	Teboho Leku						
	Faith Mlambo						
	Nhlakanipho Nkontwana						
Department of Human Settlements, Water & Sanitation	M Keet Acting Chief Director: Gauteng Region						
	Director General Trevor Belzaer						
	Vongani Mhinga						
	Information Officer Mpho Ratshisusu						
	Ouma Muthambi						
	M Musekene						
Department of Agriculture, Land Reform and Rural Development (DALRRD)	Solomon Maruma						
	Amukelani Shiburi						
	Ilze Hayward						
	Nkokhelo Mshengy						
	Desiree Kgole						

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Commission of Restitution of Land Rights Office of the Regional Land Claims Commissioner, Gauteng	Edith Mokgoko						
Department of Land Affairs	Mdu Shabane						
	Debbie Khan						
Department of Public Works	Director General-Advocate Sam Vukela						
	Head Office: Public Works Office of the DG DG: Mziwonke Dlabantu						
	Mbuyi Dondashe (Acting)						
	Thabang Tshilwane Pretoria Regional Office						
Department of Roads and Transport	Zodwa Koalepe Ernest Sibeko Gloria Legwabe						

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
	Sub Directorate: Development facilitation						
	Maurice Mogane						
	Nhlanhla Njatje						
Department of Public Transport, Roads and Works	Dennis Emmet						
Department of Cooperative Governance Human Settlements and Traditional Affairs (CoGHSTA)	Bongani Gxilishe						
Department of Economic Development	Khulu Radebe						
	Phindile Mbanjwa						
Gauteng Department of Health and Social Development	Simon Zwane						
	Nandi Mayathula-Khoza						

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Gauteng Department of Social Development	MEC for Social Development						
	Shoki Tshabalala Head of Department: Social Development						
South African Heritage Resources Agency (SAHRA)	Natasha Higgit						
Provincial Heritage Resources Authority Gauteng (PHRAG)	Oupa Monakhisi						
	Maphata Ramphele						
	Tebogo Molokomme						
	Cembi Noluthando						
Landowners							
Ptn 1 of BramFischerville 649-IQ: Now Bram Fischerville Ext 3-RT							
Ptn 2 of BramFischerville 649-IQ: Now Bram							

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Fischerville Ext 4-RT							
Ptn 3 of BramFischerville 649-IQ: Now Bram Fischerville Ext 5-RT							
Ptn 4 of BramFischerville 649-IQ: Now Bram Fischerville Ext 6-RT							
RE of BramFischerville 663-IQ							
Provinsie van Gauteng Ptn 1 of Doornkop 239-IQ	DALRRD						
Ptn 1 of Durban Roodepoort Deep 641-IQ: Now RTR Bram Fischerville							

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Ptn 2 of Durban Roodepoort Deep 641-IQ: Now RTR Bram Fischerville EXT							
RE of Durban Roodepoort Deep 641-IQ:							
Dino Prop Pty Ltd Ptn 1 of Roodepoort 237-IQ	Deon Meyer Etienne Meyer						
Dino Prop Pty Ltd Ptn 5 of Roodepoort 237-IQ	Apie Cronje						
Ptn 411of Roodepoort 237-IQ							
City of Johannesburg Metropolitan Municipality RE Soweto 387-IQ							

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Rand Leases Prop Pty Ltd RE, Ptn 1, 2, 3, 5 of Vogelstruisfontein 233-IQ: Now consolidated into Ptn 42 of Vogelstruisfontein 233	Celeste Ross						
Rand Leases Prop Pty Ltd Ptn 42 of Vogelstruisfontein 233-IQ	Oliver Jones						
Rand Leases Securitisation Pty Ltd Ptn 161 of Vogelstruisfontein 231-IQ	Violet Beyers Celeste Ross Oliver Jones						
Roodepoort Municipality	CoJ Metropolitan Municipality						

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Ptn 9 of Vogelstruisfontein 233-IQ							
Provincial Government of Gauteng Ptn 18, 19 and 20 of Vogelstruisfontein 233-IQ	DALRRD						
Putprop Ltd Ptn 21 Vogelstruisfontein 233-IQ	Anna Lucia Carleo-Novello						
Ptn 22 of Vogelstruisfontein 233-IQ now consolidated into Ptn 41 of Vogelstruisfontein 236							
Ptn 23 of Vogelstruisfontein 233-IQ now consolidated into							

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Ptn 41 of Vogelstruisfontein 236							
Ablesun Inv Pty Ltd Ptn 36 and 38 of Vogelstruisfontein 233-IQ	Daniel Nicolaas Hermanus (Daan) Mostert						
Ptn 37, 39, 40, 41, 45, 46 and 51 of Vogelstruisfontein 233-IQ							
Adjacent Landowners							
DRD Gold Ptn 1 of Vlakfontein 238 IQ	Greg Ovens						
Rand Leases Prop Pty Ltd Ptn 42 of Vogelstruisfontein 233-IQ Ptn 88 of Vlakfontein 238 IQ	Oliver Jones Tebogo Kaga Mokgata						

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
Ptn 92 of Vlakfontein 238 IQ							
Others							
ESKOM	Dave Tunniclif Priscilla Mogomotsi Gerrie van Schalkwyk Environmental Manager						
Transnet	Suzan Aidelomo Environmental Specialist Risk Management-Transnet Freight Rail-BU SAC Phumelela Ndyawe Cynthia Nong Priya Naidoo Environmental Specialist Muzi Zulu Nqobile Mdhladhla						
Federation for a Sustainable Environment	Ms Mariette Liefferink Chief Executive Officer (CEO)						
Rand Water	Marc De Fontaine						

Interested and Affected Parties/ Affected Properties	Contact Person[3]	Consulted	Interest/ Capacity	Notification/ Consultation	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus, dispute, ongoing, etc.)
	Peter Hoge						
Johannesburg Water	Johanna Coetzee						
SANRAL	Izak van der Linde						

9 THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE DEVELOPMENT FOOTPRINT ALTERNATIVES

9.1 CLIMATE

9.1.1 Regional Climate

According to the Koppen and Geiger climate classification, the proposed prospecting area falls between within the Cwb (warm temperate) climate group (Conradie, 2012). This region experiences typical Highveld conditions, which are warm, wet summers and cold, dry winters.

Temperatures in this region are generally mild, however low temperatures can be experienced during winter months with frost occurring (SLR, 2019). The mean monthly mid-day temperatures in this area range between 18°C and 25°C and the mean monthly night temperatures range between 3°C and 14°C (Stevens, et al., 2014). The historic data suggests that the highest temperatures occur between October and March. The average annual temperatures are 18°C (SLR, 2019).

Rainfall for the site was considered from available South African Weather Services (SAWS) and Department of Water and Sanitation (DWS) stations. The mean annual precipitation (MAP) in the region is 683 mm (SLR, 2019) with November and March experiencing the highest rainfall in the year. July is considered the driest month. January experiences the highest relative humidity (68.47%) with September experiencing the lowest (35.13%) (Climate-Data.org, 2021)

Historic Evaporation data suggests that the mean annual evaporation (1266 mm) exceeds the average rainfall (SLR, 2019). Thunderstorms are common in summer months and of the mean annual precipitation, 85% falls during these storms (SLR, 2019). Prolonged droughts lasting for several years are a regular phenomenon in this region (Stevens, et al., 2014).

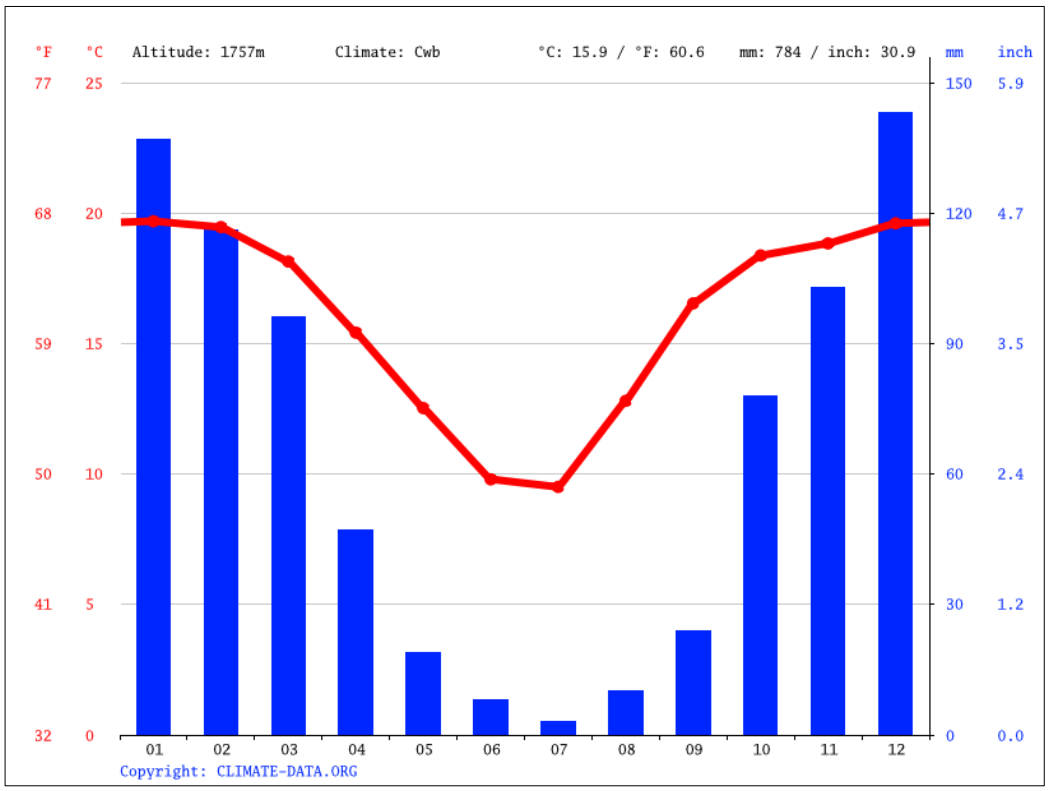

Figure 5: Monthly Climate Graph for Johannesburg (Climate-Data.org, 2021)

9.1.2 Wind and atmospheric stability

The wind regime for the area is dominated by north-north-easterly flows. The northerly wind flow is more dominant during day-time conditions and during the summer and spring months. The north-north-easterly wind flow occurs more at night (SLR, 2019).

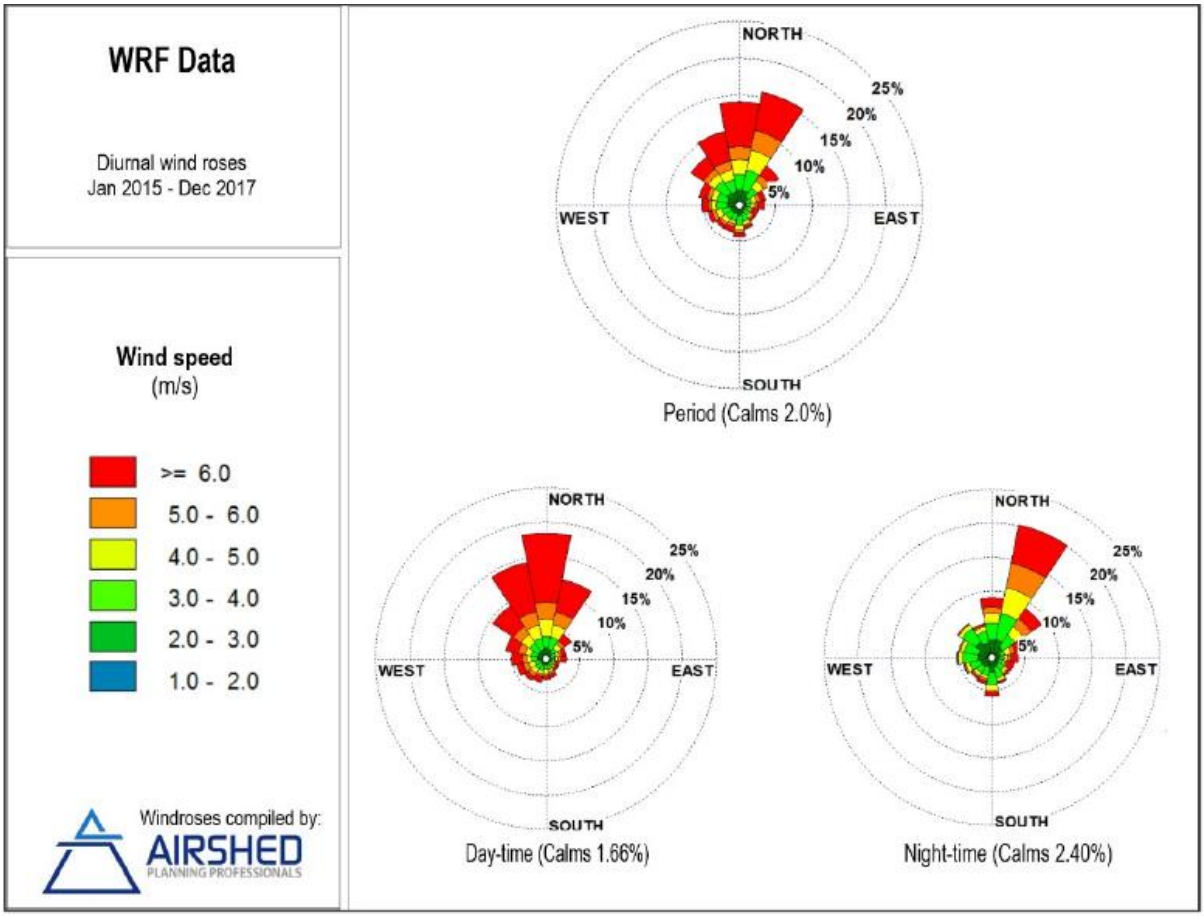

Figure 6: Period, day-, and night-time wind roses (WRF Data, January 2015 to December 2017) (SLR, 2019)

9.2 AIR QUALITY

Ambient air quality in the project area is likely to be influenced by local sources as well as emissions from various remote sources. The most significant of these sources within the Soweto and Roodepoort region include:

- fugitive dust emissions from neighboring mining operations and nearby historical dumps;
- vehicle tailpipe emissions;
- blasting operations at neighboring mines;
- vehicle entrained dust from paved and unpaved roads;
- household fuel combustion by means of coal, wood and paraffin;
- biomass and veld burning; and
- various miscellaneous fugitive dust sources including agricultural activities, and wind erosion of open areas.

Dust fallout data from a dustfall monitoring network within the prospecting area for 2017 exceeded the limits for non-residential and residential areas. Refer to **Table 8** and **Figure 7**. The National Dust Control Regulations (NDCR) has dustfall limits for residential areas (600 mg/m2/day) and non-residential areas (1200 mg/m2/day) and allows for two exceedances in a year for non-sequential months. The results suggested that because the dustfall has high variability between sites, that each sample was mainly influenced by local sources. During the windy spring months (September to November), high dust fallout rates were experienced at all sampling locations. This indicated that wind entrainment and wind erosion could be a significant source of dust emissions in the study area (SLR, 2019).

Table 8: Dust Fallout Data for 2017 (SLR, 2019)

SAMPLING SITE	SAMPLING MONTH											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Modise	424	573	182	233	97	447	997	543	6492	5327	4588	2029
Mashilane	123	214	111	108	No data	No data	No data	No data	No data	No data	No data	No data
Moreroa	366	211	277	292	227	410	211	247	3308	1114	1640	730
Maswanganyi	195	340	295	175	193	376	No data	266	2495	2792	2172	1843
George Thengwani	482	342	185	328	551	373	442	356	6193	3243	1888	1118
Yvonne Meno	167	342	147	109	383	196	332	269	1681	803	952	202
Anna Doornkop	204	324	246	217	259	198	66	63	No data	675	378	327

Figure 7: Dustfall Monitoring Network (SLR, 2019)

The PRA area falls within the Vaal Triangle Airshed Priority Area (VTAPA). The VTAPA was declared a first priority area on 21 April 2006. Therefore, any new developments within the VTAPA which are associated with atmospheric emissions are being subject to intense scrutiny by national air pollution control officers.

9.3 GEOLOGY

9.3.1 Regional Geology

The project area falls within the Central Rand Basin (CRB) which has historically consisted of underground gold mines. The regional surface geology consists of the following features:

- Halfway House Granite Suite;
- Witwatersrand Supergroup;
- Ventersdorp Supergroup;
- Transvaal Supergroup.

The Witwatersrand supergroup can be divided into two major units, a lower unit known as the West Rand Group and the upper unit, which is almost entirely quartzite and conglomerates is known as the Central Rand Group (CRG). The CRG is divided into two Subgroups, the older Johannesburg and the younger Turffontein. Both are dominated by quartzites and contain numerous conglomerates. The major conglomerate zones in the CRG are the North Reef, Main Reef, Main Reef Leader, South Reef, Livingstone Reef, Bird Reef, Monarch Reefs, Kimberley Reefs and the Ventersdorp Contact Reef.

The Ventersdorp Supergroup is younger and overlies the Witwatersrand Supergroup. It consists of the Platberg Group and the Klipriviersberg group. However, the Kliprivierberg group is the dominant group in the project area.

The other supergroup that is prominent in this area is the Transvaal supergroup. This formation consists of Black Reef quartzite and dolomite layers. The Transvaal dolomite formations are well known for their high yielding aquifer potential (MvB Consulting, 2020).

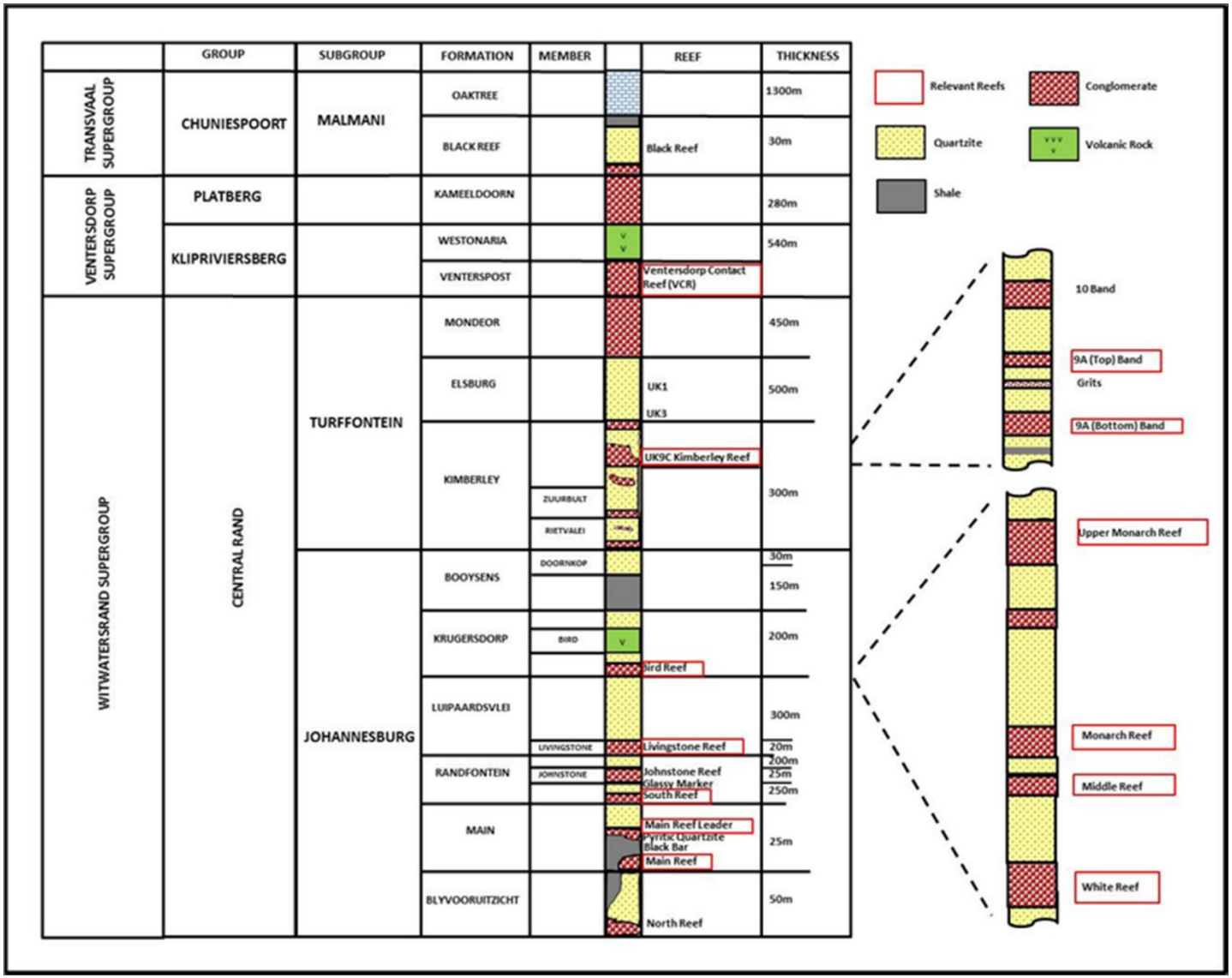

Figure 8: Stratigraphic column of the geology of the prospecting area

9.4 LAND CAPABILITY AND SOILS

The dominant soil forms in the project area are anthrosols, which are defined as soils which have been heavily transformed due to long-term anthropogenic activity. The majority of the area is made up of Witbank/Industria/Johannesburg anthrosols. These soils are known to have wildlife or wilderness land capability (Class VIII). Built-up areas occupy a large part of the project area and have non-arable soils. Hutton/Clovelly, Mispah/ Glenrosa, Westleigh/Avalon and Kroonstad/Longlands soils make up a small percentage of the project area and are classified as arable and grazing capabilities (SLR, 2019).

9.4.1 AGRICULTURAL POTENTIAL

Soils analysis done in the area have showed that the majority of the soils have a low pH. The acidity of the soils can be due to the historic mining activities in the area. Soil pH influences the concentration of macro and micro nutrients and their availability for plant uptake and in the project area the pH is not within the desired range for plant growth and thus are susceptible to erosion. The soil analysis also indicated elevated concentrations of heavy metals thus resulting in low agricultural potential (SAS, 2019; SLR, 2019)

The majority of the soils are not suitable for agriculture. There are some areas which are suitable for wildlife or wildness land use. However, this land use is not practical since the surrounding areas are largely urbanised (SAS, 2019).

The following are additional factors which suggest the project area is unsuitable for agriculture (SAS, 2019):

- Shallow effective rooting depth due to shallow indurated bedrock of the Mispah and Glenrosa soil types. As such, these soils are not considered to contribute significantly to agricultural productivity;
- Limited root growth as a result of anoxic conditions due to periodic waterlogging of the Kroonstad/Longlands soil forms associated with the watercourses; and
- Lack of soil medium for plants and crop growth as a result of historic mine infrastructure, residential, commercial and industrial areas, and anthrosols not suited for cultivation.

9.5 TOPOGRAPHY AND DRAINAGE

The topography of the project area slopes to the south-west and the elevation ranges between 1600 to 1780 meters above mean sea level (mamsl). The Klip River, a perennial watercourse flows along the western boundary of the PR area and drains the catchment to the south, towards the Vaal River system (SLR, 2021). Refer to **Figure 9** below.

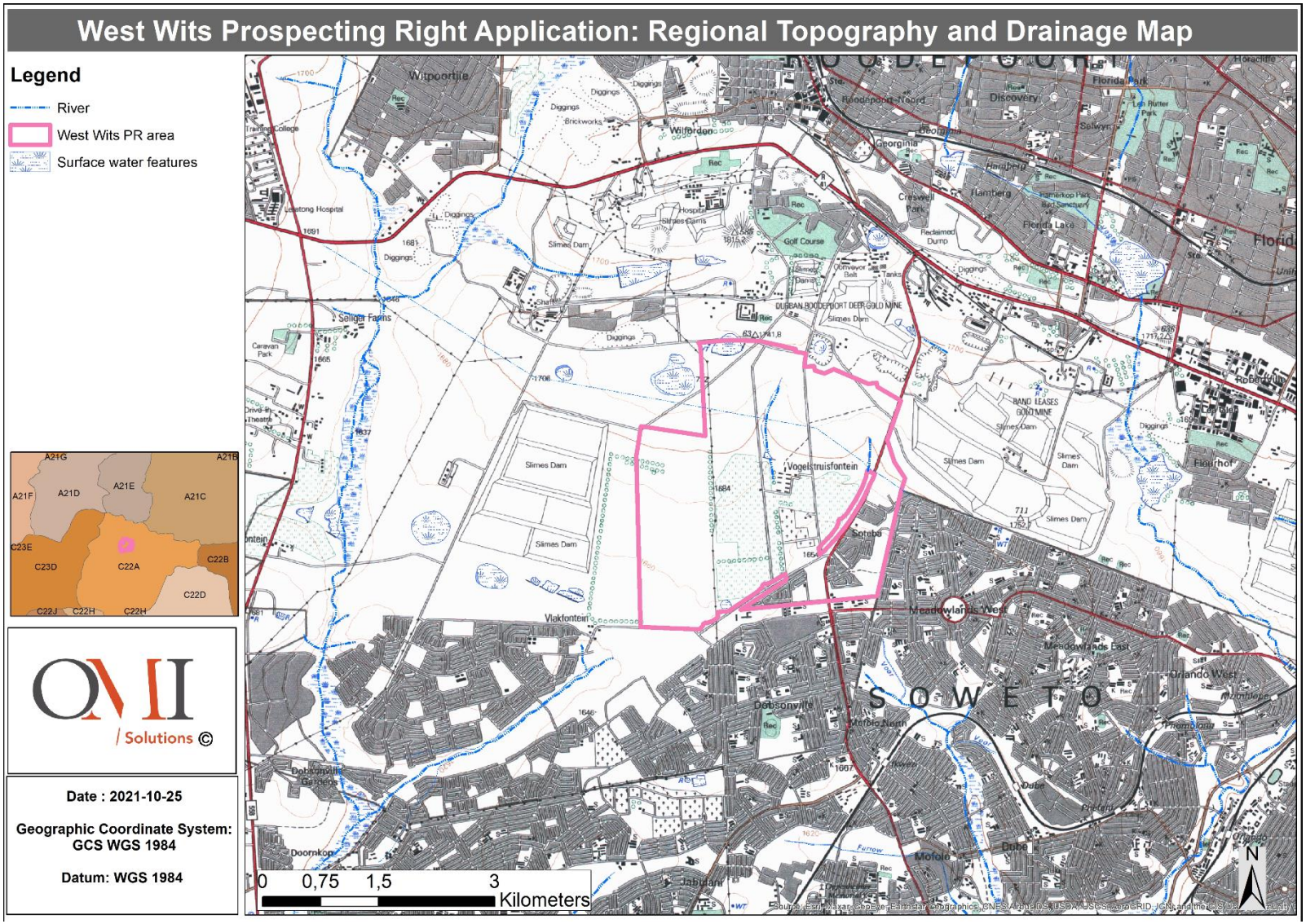

Figure 9: Regional Topography and Drainage Map

9.6 HYDROGEOLOGY

9.6.1 HYDROCENSUS

A hydrocensus was conducted in 2020 by MvB Consulting for the West Wits MR area just north from the proposed PR area. Due to the close proximity of the two areas the hydrocensus information can be considered representative of the project area. The hydrocensus included a total of 9 boreholes.

9.6.2 AQUIFER TYPE

Due to the regions dolomite geology the aquifer system is generally defined as major, high yielding and of good quality. The surrounding Witwatersrand and Ventersdorp aquifer systems are considered minor aquifers with a low susceptibility to contamination. However, the dolomite geology to the south is considered to be highly susceptible to contamination (SLR, 2019).

There are two distinct aquifers relevant to the study area. The first is a shallow perched aquifer that is restricted to the weathered and fractured Witwatersrand rocks It is considered to be semi-confined as it has an impermeable quartzite and shale base with a permeable top that is the surface topography. The weathering is relatively shallow (<6m). The second aquifer is classified as a deeper fractured rock aquifer and includes an artificial aquifer which was created by historic mining activities. It is considered to have fractured flow and a slower recharge rate compared to the shallow weathered aquifer. This aquifer is classified as confined. This means that the transmissivity and storativity of the aquifer is low resulting in slow groundwater movement (MvB Consulting, 2020).

9.6.3 GROUNDWATER GRADIENTS AND FLOW

Typically, a linear relationship exists between the depth to groundwater and the site topography since groundwater normally drains under gravity towards streams and rivers. The regional groundwater flow mimics the site topography and flows in a southerly to south-west flow direction towards the Klip River (MvB Consulting, 2020).

Based on the 2020 hydrocensus survey, the groundwater levels for the project area varies from 0.30 meters below surface (mbs) to a maximum depth of 36.63 mbs, apart from the DRD Shaft where water levels measure at 195.77 mbs. Refer to **Table 9** below.

Table 9: Groundwater levels (MvB Consulting, 2020)

Borehole	Coordinates		Topographic Elevation (mamsl)	Water Level (mbs)	Water Level (mamsl)
	Longitude	Latitude			
BH1	27.84031	-26.17592	1701	2.46	1698.54
BH2	27.84336	-26.17925	1681	0.30	1680.70
BH3	27.82878	-26.17842	1669	12.95	1656.05
BH4	27.90097	-26.20094	1691	20.90	1670.10
WITBH1	27.85678	-26.18314	1733	36.63	1696.37
WITBH3	27.82192	-26.17092	1667	-	-
WITBH5	27.88625	-26.17111	1703	10.10	1692.90
WITBH7	27.86125	-26.17853	1721	7.87	1713.13
DRD Shaft	27.86283	-26.17631	1728	195.77	1532.23

9.6.4 GROUNDWATER QUALITY

Groundwater samples were collected during the hydrocensus and analysed by a SANAS accredited laboratory and compared to the SANS 241 (2015) guidelines which define acceptable limits for drinking water quality. The water quality analysis results suggest that the groundwater has significantly been impacted by mining activities in the region. The groundwater has a strong dominance of alkaline earths over alkali (Ca+Mg> Na+K) and strong acidic anions over weak acidic anions ($Cl+SO_4>HCO_3$). This indicated that the groundwater could be contaminated due to mining activities. In general, the groundwater is not suitable for human consumption (MvB Consulting, 2020).

The existing anthropogenic impacts in the catchment have modified the natural water quality over most of the dolomitic areas. The favourable aquifer characteristics of high transmissivity, storability and rapid recharge mean that the dolomite aquifers located downstream from the project area are vulnerable to contamination (SLR, 2019).

9.7 SURFACE WATER

9.7.1 WATER MANAGEMENT AREA

The project area falls entirely within quaternary catchment C22A and is located within the Upper Vaal Water Management Area. Refer to **Figure 10**.

The perennial Klip River originates approximately 6 km north and 3 km west of the proposed PR area. Two watercourses are located within the PR area boundary. According to the National Freshwater Ecological Priority Areas (NFEPA) wetlands GIS metadata, there are several wetlands and pans within the surrounding project area, and some wetlands occur within the PR area boundary. Refer to **Figure 11**.

9.7.2 SURFACE WATER QUALITY

Surface water monitoring and analysis was undertaken by SLR in 2020 for the MR area to the north of the prospecting site. Due to the close proximity of the sites, the results can be considered as representative of the project area. The surface water monitoring programme was completed over three months and included eight monitoring points. Six water samples were collected, and the water quality was analysed and compared against the DWS guidelines for irrigation, livestock watering and aquatic ecosystems as well as SANS 241 drinking water standards. The results indicated that the surface water exceeded limits of Ammonia, Lead, Zinc and Nitrate (SLR, 2021).

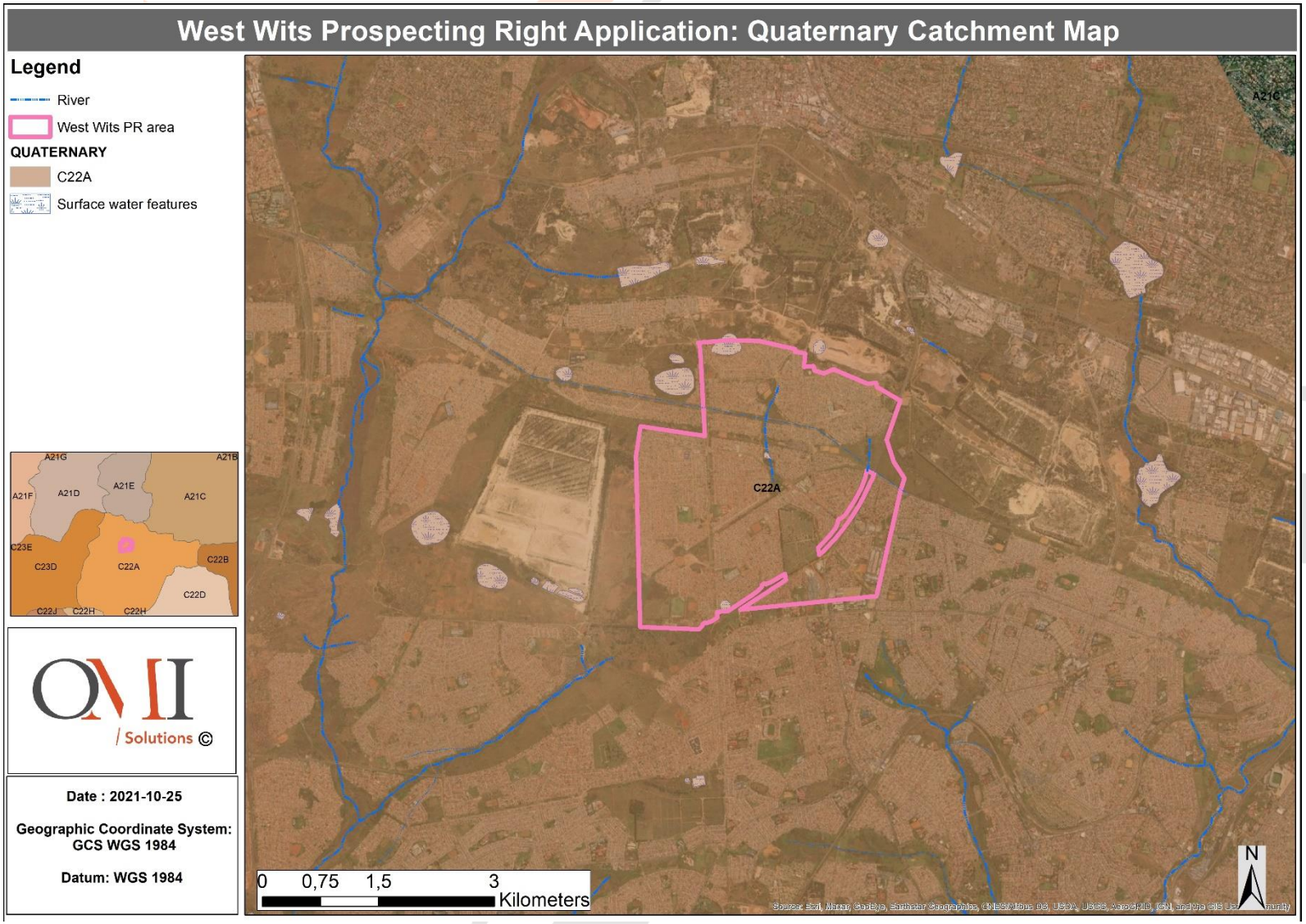

Figure 10: Quaternary Catchment Map

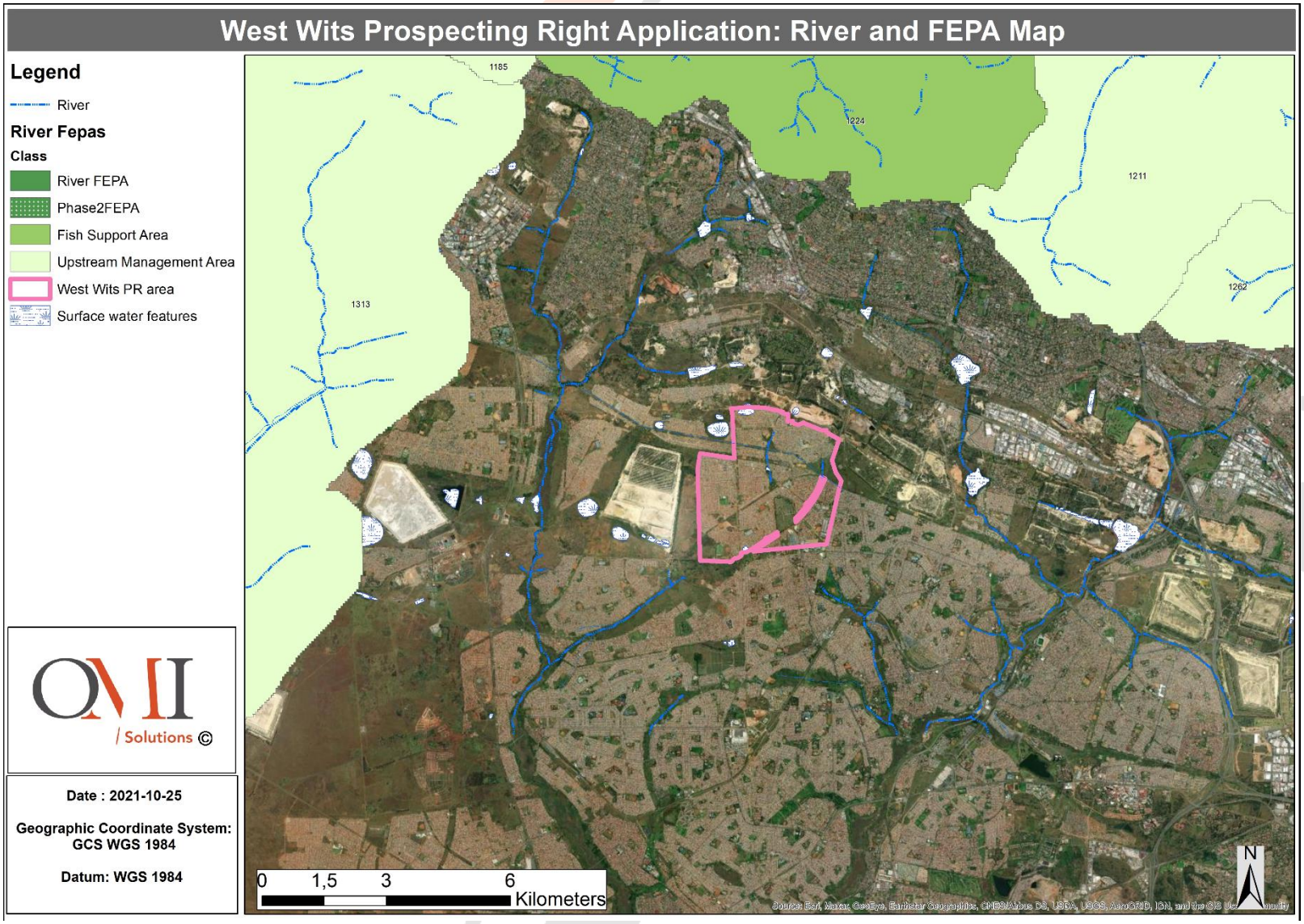

Figure 11: NFEPA River and Wetlands Map

9.8 BIODIVERSITY

9.8.1 VEGETATION TYPE

According to the 2012 Vegetation Map of South Africa, Lesotho and Swaziland metadata (SANBI, 2021) the PR area lies within the Grassland Biome and the Mesic Highveld Grassland Bioregion. The vegetation type of the project area is classified as Soweto Highveld Grassland vegetation as indicated in **Figure 12**. This vegetation type is classified as endangered as only a few of patches are currently conserved. It is dominated by tufted grasses, mainly *Themeda triandra,* and accompanied by a variety of other grasses such as *Elionurus muticus*, *Eragrostis racemosa, Heteropogon contortus* and *Tristachya leucothrix*. The natural vegetation has however been largely transformed by current and historic anthropogenic activities (SLR, 2019).

According to the National List of Threatened Ecosystems 2011 GIS (SANBI, 2021), the Soweto Highveld Grassland ecosystem is a threatened ecosystem which is considered vulnerable. Refer to **Figure 13**. There are also Critical Biodiversity Areas (CBAs) categorised as “Important” as well as Ecological Support Areas (ESAs) within the PR area. Refer to **Figure 14**.

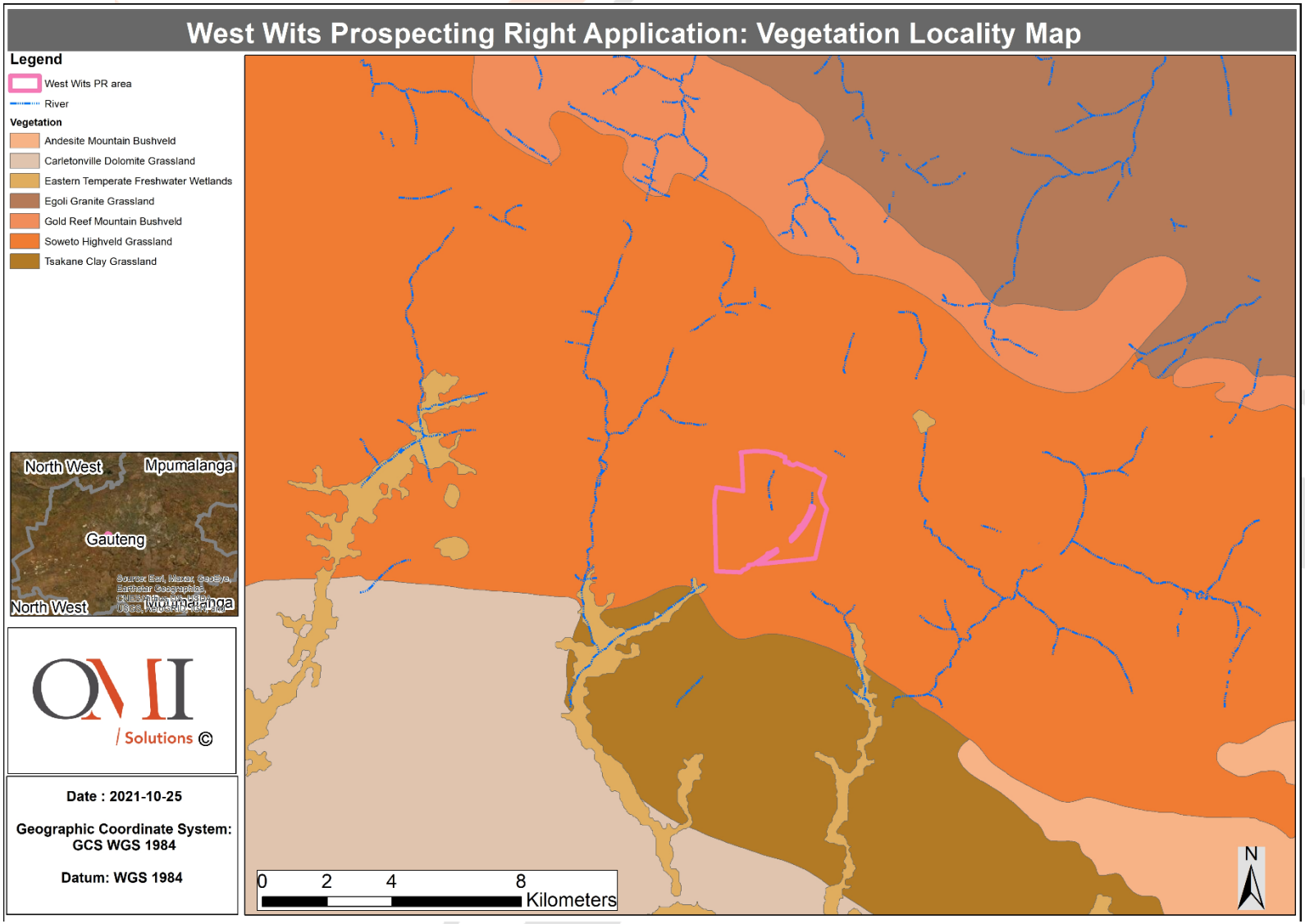

Figure 12: Vegetation Map

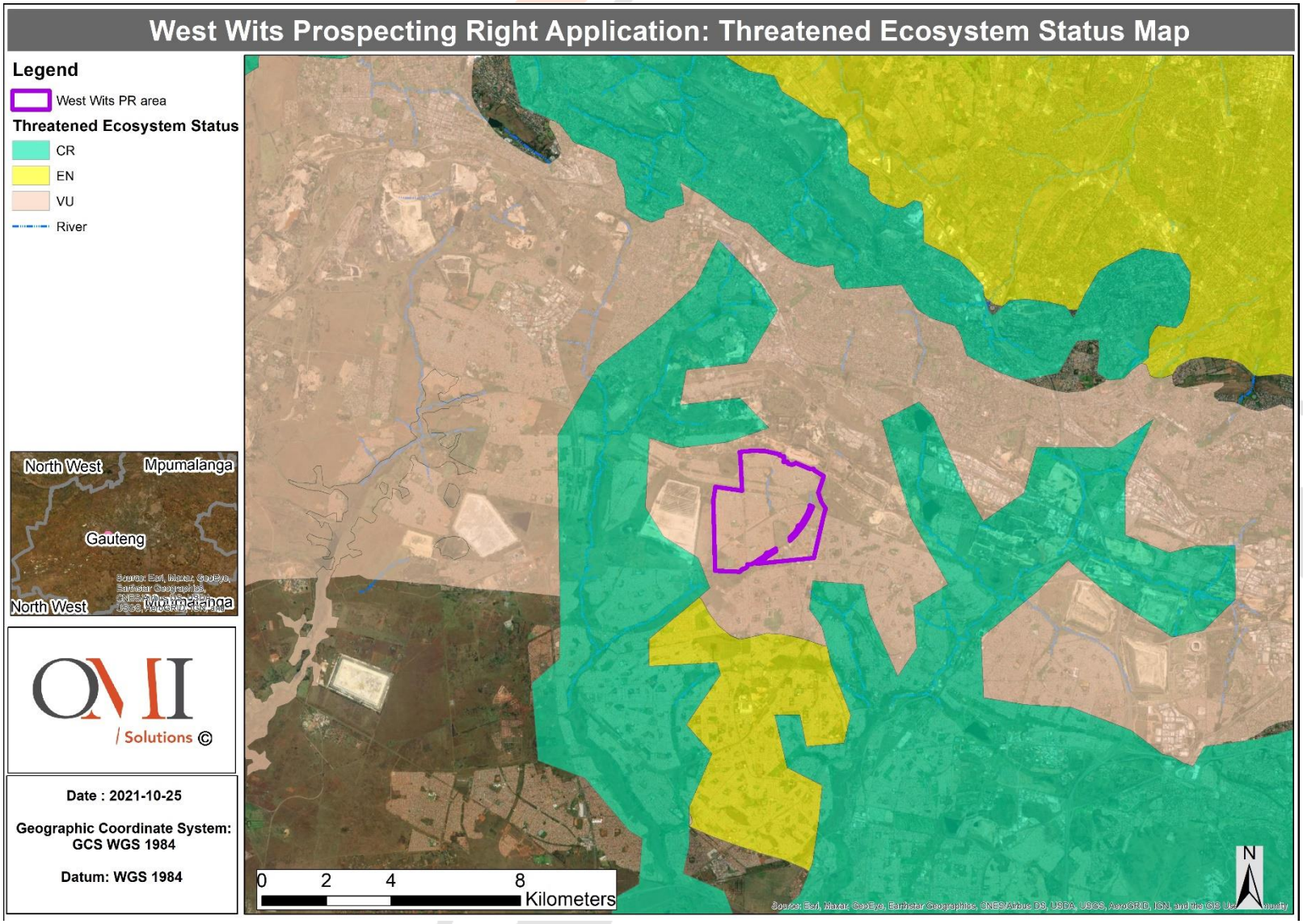

Figure 13: Threatened Ecosystem Map

9.8.2 FAUNA

Almost all of the PR area has been transformed due to current and historic anthropogenic activities, and the subsequent habitat transformation has negatively impacted on the faunal diversity in the area. However, the faunal species in **Table 10** below were found to occur within the MR area to the immediate north of the project site (SLR, 2019).

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

Fauna Species	Finding
Mammals	Only signs (i.e., spoor and faeces) of common mammal species, e.g., *Cryptomys hottentotus* (Common Mole Rat) and *Canis mesomelas* (Black Backed Jackal) were observed during the field assessments. Common species, such as domestic dogs etc. also occur in the project area.
Avifauna	Avifaunal diversity was intermediate and comprised mainly of common species adapted to high levels of anthropogenic activities/change. Species include *Streptopelia capicola* (Cape Turtle Dove), *Ardea melanocephala* (Black-headed Heron) and *Ploceus velatus* (Southern Masked-weaver).
Amphibians	No amphibians were observed during the field assessment. Species likely to inhabitat the riverine areas include *Cacosternum boettgeri* (Common Caco) and *Schismaderma carens* (Red Toad).
Reptiles	A low reptile diversity was observed during the field assessment. Only common species, e.g., *Trachylepsis punctatissima* (Montane Speckled Skink) was observed during the summer and winter field assessments.
Insecta	Overall, insect diversity is considered to be intermediate. This may be attributed to the anthropogenic activities such as alien and invasive plant proliferation and uncontrolled veld fires. Only common insect species of the area were observed.
Arachnids	While very few arachnid species were observed, this is likely due to the secretive nature of many arachnid species. It is expected that the project area is likely to be inhabited by a number of common arachnid species, such as *Olurunia ocellate* (Grass Funnel-web Spider).

No faunal species of conservation concern were identified during the field assessment for the MR application in 2019. It should however be noted that *Atelerix frontalis* (Southern African Hedgehog) is listed as Protected and Near Threatened by the Red Data Book of the Mammals of South Africa (Child et al., 2016). This species is likely to use the riverine and surrounding grassland areas that act as a

corridor linkage to more favourable habitat within the immediate surrounding areas. Thus, habitat for this species needs to be conserved as it is facing increasing threats due to habitat degradation and the illegal pet trade (SLR, 2019).

9.9 SOCIO-ECONOMIC ENVIRONMENT

9.9.1 REGIONAL CONTEXT

The PR area is located in the Gauteng province. The local authority is the City of Johannesburg Metropolitan Municipality (CoJ) and comprises of the Roodepoort Magisterial District. The proposed PR area stretches over an area in Bram Fischerville and is located approximately 12 km to the south-east of Krugersdorp, approximately 4 km north of Soweto and approximately 5 km south of Roodepoort.

The PR area falls within Wards 44, 49 and 70.

9.9.2 DEMOGRAPHICS AND POPULATIONS STATISTICS

The City of Johannesburg (CoJ) has a total population of approximately 4.4 million making it the largest metro in South Africa by population size. There are approximately 1 850 035 households in Johannesburg housing 9.76% of South Africa's total population. 40% of Johannesburg's population falls within the young working age (25-44 years) category. Formal employment accounts for 81.1% of total employment figures while the informal sector accounts for 18.9% of total employment. In 2019, approximately 33% of the city's population lived in poverty. The unemployment rate for the CoJ increased to 32.7% by May 2020.

Approximately 1.4 million (75%) of all households in the CoJ consist of formal dwellings. There is however a housing backlog which has in part led to the development of over 190 informal settlements. Provision of basic services within the CoJ is comparatively high with the majority of households (both formal and informal) enjoying access to piped water (98.4%), sanitation (95.1%), refuse removal (92.9%), and electricity (90.8%). However, there continues to be a backlog, particularly in informal settlements, due to high population densities and local in-migration contributing to the proliferation of informal settlements.

Agriculture and mining contribute the least to the CoJ's Gross Value Add (GVA). It is anticipated that mining will be the slowest growing sector with a negative annual growth rate of -0.85% (CoJ, 2019/20).

10 DESCRIPTION OF THE CURRENT LAND USES

The current land uses of the project area mainly include a combination of informal settlements, low-cost and high-cost residential areas, community and municipal facilities, recreational areas, industrial areas, manufacturing and distribution facilities, commercial businesses, vacant land, historical infrastructure (slimes dam to the west of the PR area), as well as current mining activities (West Wits mining operations immediately to the north of the PR area). Refer to **Figure 15**.

11 DESCRIPTION OF SPECIFIC ENVIRONMENTAL FEATURES AND INFRASTRUCTURE ON THE SITE

In terms of the Department of Environmental Affairs and Tourism (DEAT) guidelines for Integrated Environmental Management (IEM), "sensitive landscapes" is a broad term applying to Nature conservation or ecologically sensitive areas – indigenous plant communities (particularly rare communities or forests), wetlands, rivers, river banks, lakes, islands, lagoon, estuaries, reefs, inter-tidal zones, beaches and habitats of rare animal species; Unstable physical environments, such as unstable

soil and geo-technically unstable areas; Important nature reserves – river systems, groundwater systems, high potential agricultural land; Sites of special scientific interest; Sites of social significance or interest – including sites of archaeological, historic, cultural spiritual or religious importance and burial sites; and green belts or public open space in municipal areas.

Sensitive landscapes in terms of the above definition are discussed in more detail in **Section 9** and shown in **Figure 14** and include:

- Ecological Sensitive areas (including CBA's and ESA's); and
- Surface Water features- The perennial Klip River approximately 6 km north and 3 km west of the proposed PR area. Two watercourses and some wetlands occur within the PR area boundary. Refer to **Figure 11**.

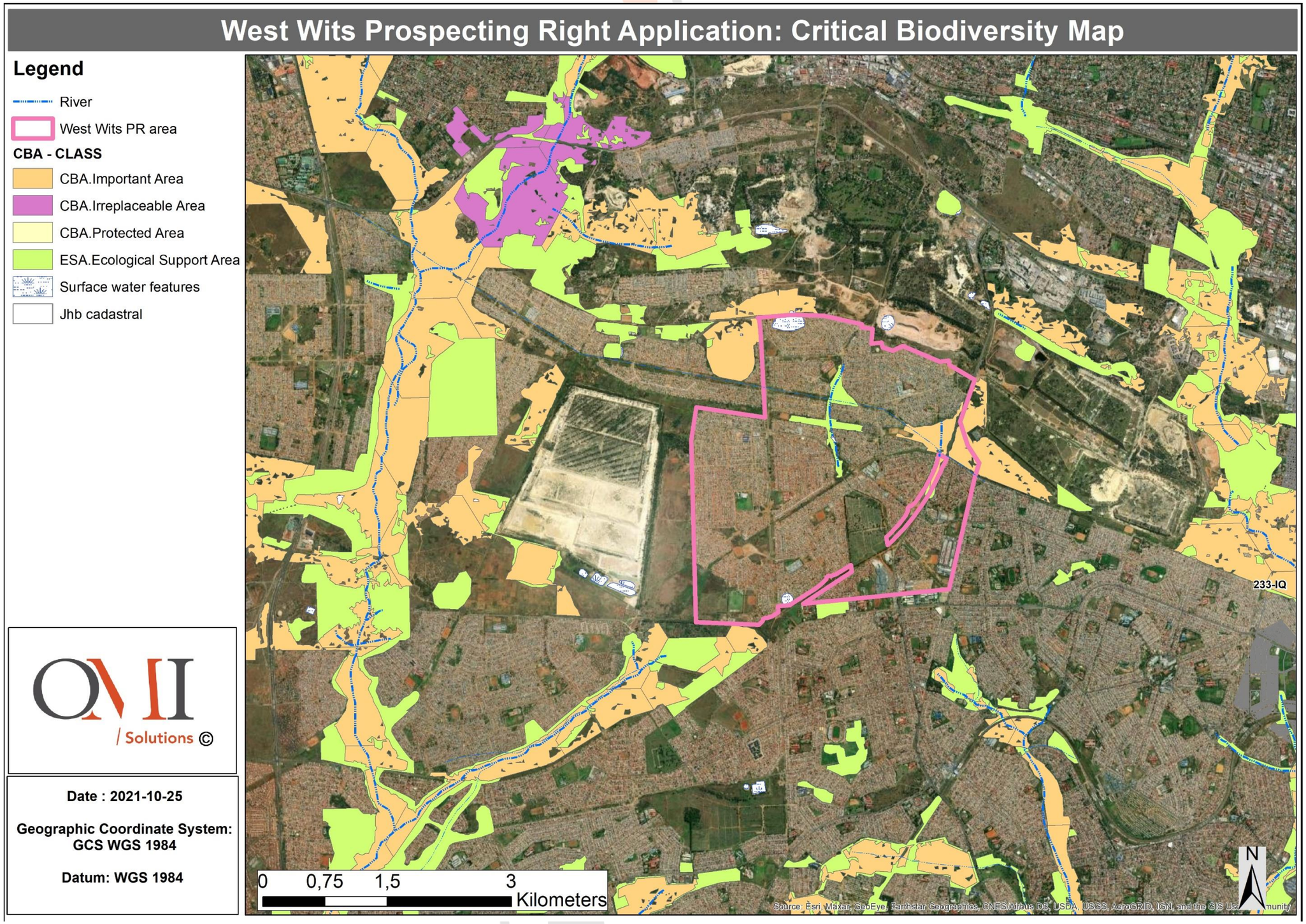

Figure 14: Ecological Sensitivity Map

12 ENVIRONMENTAL AND CURRENT LAND USE MAP

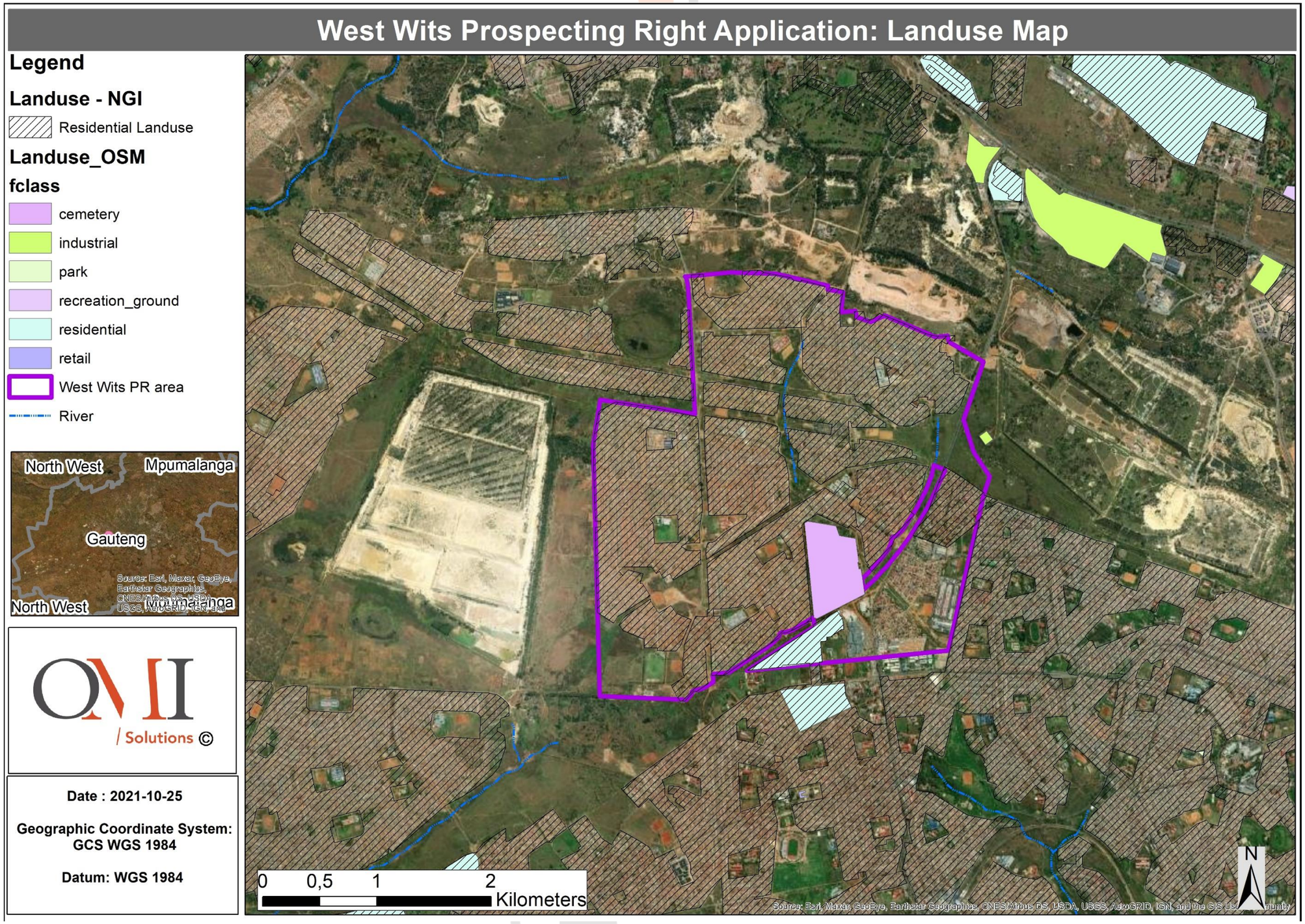

Figure 15: Current Land use Map

13 IMPACTS AND RISKS IDENTIFIED INCLUDING THE NATURE, SIGNIFICANCE, CONSEQUENCE, EXTENT, DURATION AND PROBABILITY OF THE IMPACTS, INCLUDING THE DEGREE TO WHICH THESE IMPACTS

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

13.1 METHODOLOGY USED IN DETERMINING THE SIGNIFICANCE OF ENVIRONMENTAL IMPACTS

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

The EIA 2014 Regulations (as amended) promulgated in terms of Sections 24 (5), 24(m) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended) (NEMA), require that all identified potential impacts associated with the project be assessed in terms of their overall potential significance on the natural, social and economic environments. The criteria identified in the EIA Regulations (2014) include the following:

- Nature of the impact;
- Extent of the impact;
- Duration of the impact
- Probability of the impact occurring;
- Degree to which impact can be reversed;
- Degree to which impact may cause irreplaceable loss of resources;
- Degree to which the impact can be mitigated; and
- Cumulative impacts.

The significance of the aspects/impacts of the process will be rated by using a matrix derived from Plomp (2004) and adapted to some extent to fit this process. These matrixes use the consequence and the likelihood of the different aspects and associated impacts to determine the significance of the impacts.

Aspect	Description	Weight
Probability. This describes the likelihood of the impact actually occurring.		
Improbable:	The possibility of the impact occurring is very low, due to the circumstances, design or experience.	1
Probable:	There is a probability that the impact will occur to the extent that provision must be made therefore.	2
Highly Probable:	It is most likely that the impact will occur at some stage of the development.	4
Definite:	The impact will take place regardless of any prevention plans, and there can only be relied on mitigatory actions or contingency plans to contain the effect.	5
Duration. The lifetime of the impact		
Short term:	The impact will either disappear with mitigation or will be mitigated through natural processes in a time span shorter than any of the phases.	1
Medium term:	The impact will last up to the end of the phases, where after it will be negated.	3
Long term:	The impact will last for the entire operational phase of the project but will be mitigated by direct human action or by natural processes thereafter.	4
Permanent:	Impact that will be non-transitory. Mitigation either by man or natural processes will not occur in such a way or in such a time span that the impact can be considered transient.	5
Scale. The physical and spatial size of the impact		
Local:	The impacted area extends only as far as the activity, e.g., footprint	1
Site:	The impact could affect the whole, or a measurable portion of the above-mentioned properties.	2
Regional:	The impact could affect the area including the neighbouring residential areas.	3
Magnitude/ Severity. Does the impact destroy the environment or alter its function.		
Low:	The impact alters the affected environment in such a way that natural processes are not affected.	2
Medium:	The affected environment is altered, but functions and processes continue in a modified way.	6
High:	Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.	8

Significance. This is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. **Sum (Duration, Scale, Magnitude) x Probability**		
Negligible:	The impact is non-existent or unsubstantial and is of no or little importance to any stakeholder and can be ignored.	<20
Low:	The impact is limited in extent, has low to medium intensity; whatever its probability of occurrence is, the impact will not have a material effect on the decision and is likely to require management intervention with increased costs.	<40
Moderate:	The impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.	<60
High:	The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation.	>60

13.2 THE POSITIVE AND NEGATIVE IMPACTS THAT THE PROPOSED ACTIVITY (IN TERMS OF THE INITIAL SITE LAYOUT) AND ALTERNATIVES WILL HAVE ON THE ENVIRONMENT AND THE COMMUNITY THAT MAY BE AFFECTED.

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

13.2.1 IMPACT ON AIR QUALITY

It should be noted that as the proposed prospecting activities will be non-invasive, no impacts on ambient are quality is expected from the proposed project activities.

13.2.2 IMPACT ON GEOLOGY

It should be noted that as the proposed prospecting activities will be non-invasive, no impacts on geology are expected from the proposed project activities.

13.2.3 IMPACT ON AGRICULTURAL POTENTIAL, LAND USE AND SOIL POTENTIAL

It should be noted that as the proposed prospecting activities will be non-invasive, no impacts on soils, agricultural potential and land use are expected from the proposed project activities.

13.2.4 IMPACT ON TOPOGRAPHY AND SURFACE DRAINAGE

It should be noted that as the proposed prospecting activities will be non-invasive, no impacts on the topography or drainage patterns of the project area are expected from the proposed project activities.

13.2.5 IMPACT ON HYDROGEOLOGY AND SURFACE WATER

It should be noted that as the proposed prospecting activities will be non-invasive, no impacts on surface- and groundwater resources is expected from the proposed project activities.

13.2.6 BIODIVERSITY IMPACTS

It should be noted that as the proposed prospecting activities will be non-invasive, no impacts on fauna and flora are expected from the proposed project activities.

13.2.7 IMPACTS ON SOCIO-ECONOMIC ENVIRONMENT

The proposed PR project has the potential to have the following negative impacts:

- Expectation of employment by local residents;
- In-migration of job seekers resulting in increased pressure on and demands for housing and basic services, and conflict and competition between various social groups competing for employment and services.

In the absence of mitigation that focuses on reducing negative impacts, the significance of unmitigated impacts would be moderate. Where the project planning considers and applies the necessary mitigation to avoid, manage or mitigate impacts in line with the mitigation hierarchy, the significance of potential negative impacts can be reduced to negligible significance.

Currently, the PR application is for non-invasive prospecting activities and therefore is not resulting in the positive socio-economic benefits it could be having on the surrounding communities and CoJ. This could, however, change once the current West Wits mining operations are extended in future, resulting in additional socio-economic benefits for the project area.

13.2.8 CUMULATIVE IMPACTS

A cumulative impact may result from an additive impact i.e. where it adds to the impact which is caused by other similar impacts or an interactive impact i.e. where a cumulative impact is caused by different impacts that combine to form a new kind of impact. Interactive impacts may either be countervailing (net adverse cumulative impact is less than the sum of the individual impacts) or synergistic (net adverse cumulative impact is greater than the sum of the individual impacts).

The assessment of cumulative impacts on a study area is complex; especially if many of the impacts occur on a much wider scale than the site being assessed and evaluated. It is often difficult to determine at which point the accumulation of many small impacts reaches the point of an undesired or unintended cumulative impact that should be avoided or mitigated. There are often factors which are uncertain when potential cumulative impacts are identified.

The anticipated cumulative impacts resulting from the West Wits PR would relate to an additional in-migration as the current West Wits mining operations to the north was expected to result in an influx of job seekers to the area (SLR, 2019).

13.3 ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISK

The impact assessment details is listed below in **Table 11**.

Table 11: Impact assessment table

Activity	Aspect affected	Potential Impact	Without or With Mitigation	Nature (Negative or Positive Impact)	Probability		Duration		Scale		Magnitude/ Severity		Significance		Potential for residual risk
					Magnitude	Score	Magnitude	Score	Magnitude	Score	Magnitude	Score	Score	Magnitude	
Operational Phase															
Desktop review of historical mine information and acquisition of historic data	Socio-economic	Expectation of employment for local residents	WOM	Negative	Highly Probable	4	Long term	4	Site	2	Medium	6	48	Moderate	No
Data inventory and capturing															
Concept level mine design			WM	Negative	Probable	2	Long term	4	Site	2	Low	2	16	Negligible	No
Generation of geological models		In-migration of job seekers resulting in increased pressure on and demands for housing and basic services, and conflict and competition between various social groups competing for employment and services	WOM	Negative	Highly Probable	4	Long term	4	Regional	3	Medium	6	52	Moderate	No
Resource estimation															
Financial and engineering feasibility/viability studies			WM	Negative	Probable	2	Long term	4	Regional	3	Low	2	18	Negligible	No

13.4 THE POSSIBLE MITIGATION MEASURES THAT COULD BE APPLIED AND THE LEVEL OF RISK

The following mitigation measures should be implemented to avoid, manage and mitigate the impacts and risks identified in **Table 14** above:

- Manage landowner relations by establishing clear communication channels and grievance mechanisms;
- Appoint a community liaison officer;
- Compile a landowner and community relations plan; and
- Develop a clear strategy to manage social and economic expectations of communities.

14 MOTIVATION WHERE NO ALTERNATIVE SITES WERE CONSIDERED

Refer to **Section 7** for alternatives considered.

15 STATEMENT MOTIVATING THE ALTERNATIVE DEVELOPMENT LOCATION WITHIN THE OVERALL SITE

Refer to **Section 7** for alternatives considered.

16 FULL DESCRIPTION OF THE PROCESS UNDERTAKEN TO IDENTIFY, ASSESS AND RANK THE IMPACTS AND RISKS THE ACTIVITY WILL IMPOSE ON THE PREFERRED SITE (IN RESPECT OF THE FINAL SITE LAYOUT PLAN) THROUGH THE LIFE OF THE ACTIVITY

Refer to the EIA methodology in **Section 13.1**.

17 SUMMARY OF SPECIALIST REPORTS

The following Specialist Studies are required according to the Department of Forestry, Fisheries and Environment (DFFE) EIA Screening Tool Report (attached in **ANNEXURE H**):

- Agricultural Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Palaeontology Impact Assessment
- Terrestrial Biodiversity Impact Assessment
- Aquatic Biodiversity Impact Assessment
- Noise Impact Assessment
- Radioactivity Impact Assessment
- Plant Species Assessment
- Animal Species Assessment

However, as the planned prospecting activities are all desktop bound studies with no invasive or physical prospecting activities taking place on site, no specialist studies were undertaken for the proposed project. Use was made of the specialist studies conducted for the West Wits MR project (DMRE Reference: GP 30/5/1/2/2 (10073) MR), immediately to the north of the proposed project.

18 ENVIRONMENTAL IMPACT STATEMENT

18.1 SUMMARY OF THE KEY FINDINGS OF THE ENVIRONMENTAL IMPACT ASSESSMENT

The prospecting activities are non-invasive and hence will have no environmental impact and a negligible socio-economic impact if the recommended mitigation measures are implemented.

Refer to **Table 11** for a summary of the impacts identified before and after mitigation. All of the identified impacts can be suitably mitigated with no residual risk. The findings conclude that, provided that the recommended mitigation and management measures are implemented, there are no fatal flaws that prevent the proposed project from proceeding.

In order to achieve appropriate environmental management standards and ensure that the findings of this assessment are implemented through practical measures, the recommendations from this BA&EMPr will need to be implemented by West Wits. The implementation of this BA&EMPr is considered to be fundamental in achieving the appropriate environmental management standards as detailed for this project.

18.2 FINAL SITE MAP

A layout map is included in **ANNEXURE D**.

18.3 SUMMARY OF THE POSITIVE AND NEGATIVE IMPLICATIONS AND RISKS OF THE PROPOSED ACTIVITY AND IDENTIFIED ALTERNATIVES

Refer to **Section 7** and **Section 13.2**.

18.4 PROPOSED IMPACT MANAGEMENT OUTCOMES FOR INCLUSION IN THE EMPR

The management measures provided in **Table 14** form part of the EMPr and should be included as conditions of the Environmental Authorisation.

19 FINAL PROPOSED ALTERNATIVES

Refer to **Section 7** for alternatives considered.

20 ASPECTS FOR INCLUSION AS CONDITIONS OF AUTHORISATION

The management measures provided in **Table 14** form part of the EMPr and should be included as conditions of the Environmental Authorisation.

21 DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

No specialist studies were conducted for the project. Use was made of the specialist studies conducted for the West Wits MR project (DMRE Reference: GP 30/5/1/2/2 (10073) MR), immediately to the north of the proposed project.

It is assumed that all prospecting activities will be non-invasive and that no biophysical environmental impacts will occur from the proposed project.

22 REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED

22.1 REASONS WHY THE ACTIVITY SHOULD BE AUTHORIZED OR NOT

Please refer to **Section 18**. The findings of this EMPr conclude that, provided that the recommended mitigation and management measures are implemented, there are no fatal flaws which should prevent the project from continuing.

23 CONDITIONS THAT MUST BE INCLUDED IN THE AUTHORISATION

23.1 SPECIFIC CONDITIONS TO BE INCLUDED INTO THE COMPILATION AND APPROVAL OF EMPR

Please refer to **Section 20** for specific conditions to be included in the approval.

23.2 REHABILITATION REQUIREMENTS

As the prospecting activities are non-invasive and no disturbance will take place on site, closure and rehabilitation of the site will not be required.

24 PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

The PR must be valid for five (5) years with the potential to extend the right by a further three (3) more years. Thus the environmental authorisation is required for at least eight (8) years.

25 FINANCIAL PROVISION

A financial provision amount of R 60 048.40 (Incl. VAT) has been allowed for this application.

25.1 EXPLAIN HOW THE AFORESAID AMOUNT WAS DERIVED

The costs for both unscheduled and scheduled closure are required, where unscheduled cost would be the requirement if the operation closed unplanned in year 1. The scheduled closure cost is that which would be required if the mine closes when it is planned to do so.

This project involves no invasive prospecting such as drilling or bulk sampling, nor does it require any infrastructural development or construction of roads or site preparation for Drill rigs, therefore as part of the Financial Provision / Quantum estimation the costs associated with applying for a Closure Certificate have been included in the cost estimation..

The scheduled closure would be in 2025 / 2026 (year 5 of the prospecting right's validity) and would thus require the 2021 rates to be escalated. In this case, the costs involved would be escalated by CPI, which was taken as 6%.

25.2 DESCRIBE THE CLOSURE OBJECTIVES AND THE EXTENT TO WHICH THEY HAVE BEEN ALIGNED TO THE BASELINE ENVIRONMENT DESCRIBED UNDER REGULATION 22 (2) (D) AS DESCRIBED IN 2.4 HEREIN

As the prospecting activities are non-invasive and no disturbance will take place on site, closure and rehabilitation of the site will not be required. The closure objectives will therefore be to leave the site in

the current state. A final environmental close-out risk assessment and final performance assessment audit will however be conducted to determine if any additional actions will be required.

25.3 CONFIRM SPECIFICALLY THAT THE ENVIRONMENTAL OBJECTIVES IN RELATION TO CLOSURE HAVE BEEN CONSULTED WITH LANDOWNER AND INTERESTED AND AFFECTED PARTIES

The Draft BA&EMPr will be made available to I&APs for comment. All comments received will be included to this report.

25.4 PROVIDE A REHABILITATION PLAN THAT DESCRIBES AND SHOWS THE SCALE AND AERIAL EXTENT OF THE MAIN MINING ACTIVITIES, INCLUDING THE ANTICIPATED MINING AREA AT THE TIME OF CLOSURE

The prospecting site covers an area of approx. 600 ha. Prospecting activities proposed in the prospecting works programme are non-invasive and no disturbance will take place on site, therefore a rehabilitation plan for the project will not be required. A final environmental close-out risk assessment and a final performance assessment audit report will be conducted to determine if any additional actions will be required.

25.5 EXPLAIN WHY IT CAN BE CONFIRMED THAT THE REHABILITATION PLAN IS COMPATIBLE WITH THE CLOSURE OBJECTIVES

Refer to **Section 25.2** and **Section 25.4** above.

25.6 CALCULATE AND STATE THE QUANTUM OF THE FINANCIAL PROVISION REQUIRED TO MANAGE AND REHABILITATE THE ENVIRONMENT IN ACCORDANCE WITH THE APPLICABLE GUIDELINE

As noted in **Section 25.2**, no closure cost would be required for this project, as there will be no disturbance on site. A final environmental close-out risk assessment and audit will, however, be done. The calculation of the quantum was done for two scenarios: scheduled and unscheduled closure.

Unscheduled closure would be in year 1 (2021), and was determined to be R 60 048.40 (Incl. VAT). This is shown in **Table 12.**

Table 12: Unscheduled Closure Cost Provision Calculation

CALCULATION OF THE QUANTUM

Applicant: **West Wits MLI (Pty) Ltd**
Evaluators: **OMI Solutions (Pty) Ltd**

Ref No.: GP30/5/1/1/2/10730 PR / Class B
Date: October 2021

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (Including overland conveyors and powerlines)	m3	0	R17.21	1	1	0.00
2 (A)	Demolition of steel buildings and structures	m2		R239.74	1	1	0.00
2 (B)	Demolition of reinforced concrete buildings and structures	m2	0	R353.30	1	1	0.00
3	Rehabilitation of access roads	m2	0	R42.90	1	1	0.00
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	R416.39	1	1	0.00
4 (B)	Demolition and rehabilitation of non-electrified railway lines	m	0	R227.12	1	1	0.00
5	Demolition of housing and/or administration facilities	m2	0	R479.48	1	1	0.00
6	Opencast rehabilitation including final voids and ramps	ha	0	R251 348.16	1	1	0.00
7	Sealing of shafts adits and inclines	m3	0	R128.70	1	1	0.00
8 (A)	Rehabilitation of overburden and spoils	ha	0	R167 565.44	1	1	0.00
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	R208 699.73	1	1	0.00
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	R606 162.93	1	1	0.00
9	Rehabilitation of subsided areas	ha	0	R140 310.82	1	1	0.00
10	General surface rehabilitation	ha	0	R132 740.09	1	1	0.00
11	River diversions	ha	0	R132 740.09	1	1	0.00
12	Fencing	m	0	R151.41	1	1	0.00
13	Water management	ha	0	R50 471.52	1	1	0.00
14	2 to 3 years of maintenance and aftercare	ha	0	R17 665.03	1	1	0.00
15 (A)	Specialist study	Sum	0	R0.00	1	1	0.00
	Quarterly Dust Monitoring		1	R12 000.00	1	1	12 000.00
	Risk Assessment		1	R8 000.00	1	1	8 000.00
	EMP Performance Assessment		1	R19 000.00	1	1	19 000.00
15 (B)	Application Form P and Closure Plan	Sum	1	R3 800.00	1	1	3 800.00

			Sub Total 1	42 800.00
1	Preliminary and General	0.12	**weighting factor 2** 1	5 136.00
2	Contingencies		0.10	4 280.00
			Subtotal 2	52 216.00
			VAT (15%)	7 832.40
			Grand Total	**60 048.40**

The scheduled closure would be in 2025 / 2026 (year 5 of the prospecting right's validity) and would thus require the 2021 rates to be escalated. In this case, the costs involved would be escalated by CPI, which was taken as 6%. The calculation is shown in **Table 13**. This value represents the total financial provision amount required for this project.

Table 13: Scheduled Closure Cost Provision Calculation

Description	Year 1 [2021]	Year 2 [2022]	Year 3 [2023]	Year 4 [2024]	Year 5 [LOM = 2025]
QUANTUM	**R42 800.00**	**R45 368.00**	**R48 090.08**	**R50 975.48**	**R54 034.01**
Quarterly Dust Monitoring	R12 000.00	R12 720.00	R13 483.20	R14 292.19	R15 149.72
Risk Assessment	R8 000.00	R8 480.00	R8 988.80	R9 528.13	R10 099.82
EMP Performance Assessment	R19 000.00	R20 140.00	R21 348.40	R22 629.30	R23 987.06
Application Form P & Closure Plan	R3 800.00	R4 028.00	R4 269.68	R4 525.86	R4 797.41
SUB-TOTAL 1	**R42 800.00**	**R45 368.00**	**R48 090.08**	**R50 975.48**	**R54 034.01**
P&G's	R5 136.00	R5 444.16	R5 770.81	R6 117.06	R6 484.08
Contingencies	R4 280.00	R4 536.80	R4 809.01	R5 097.55	R5 403.40
SUB-TOTAL 2	**R52 216.00**	**R55 348.96**	**R58 669.90**	**R62 190.09**	**R65 921.50**
Vat 15%	R7 832.40	R8 302.34	R8 800.48	R9 328.51	R9 888.22
TOTAL	**R60 048.40**	**R63 651.30**	**R67 470.38**	**R71 518.61**	**R75 809.72**

25.7 CONFIRM THAT THE FINANCIAL PROVISION WILL BE PROVIDED AS DETERMINED

The stated financial provision that is required to both manage and rehabilitate the environment will be provided by means of either a) a financial bank guarantee, b) insurance backed guarantee or c) by direct payment to the DMRE. The preferred method is being assessed and will be in place prior to the right being granted and provided to the DMRE for consideration.

26 DEVIATIONS FROM THE METHODOLOGY USED IN DETERMINING THE SIGNIFICANCE OF POTENTIAL ENVIRONMENTAL IMPACTS AND RISKS

Refer to the EIA methodology in **Section 13.1**. No deviations occurred.

26.1 MOTIVATION FOR THE DEVIATION

Not applicable.

27 OTHER INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

27.1 COMPLIANCE WITH THE PROVISIONS OF SECTIONS 24(4)(A) AND (B) READ WITH SECTION 24 (3) (A) AND (7) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) THE EIA REPORT MUST INCLUDE THE

27.1.1 IMPACT ON THE SOCIO-ECONOMIC CONDITIONS OF ANY DIRECTLY AFFECTED PERSON

No updated Socio-Economic Assesment was done or required for the compilation of this report. Socio-Economic aspects have been adequetly assessed and addressed within this document.

It is important to keep in mind that the planned prospecting activities are all desktop bound studies with no invasive or physical prospecting activities taking place on site.

27.1.2 IMPACT ON ANY NATIONAL ESTATE REFERRED TO IN SECTION 3(2) OF THE NATIONAL HERITAGE RESOURCES ACT

No Heritage Impact Assessment was done for the project as the planned prospecting activities are all desktop bound studies with no invasive or physical prospecting activities taking place on site and does not constitute a development categorised in Section 38 of the NHRA.

27.1.3 OTHER MATTERS REQUIRED IN TERMS OF SECTIONS 24(4)(A) AND (B) OF THE ACT.

Please refer to **Section 7** where alternatives are discussed.

28 UNDERTAKING

The signed undertaking is included in **Section 37** of Part B and is valid for both the Environmental Impacts Assessment (Part A) and the Environmental Management Programme (Part B).

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

29 DETAILS OF THE EAP

Please refer to **Section 1.1**.

30 DESCRIPTION OF THE ASPECTS OF THE ACTIVITY

Please refer to **Section 3** in Part A above for the description of the activities.

31 COMPOSITE MAP

Please refer to **ANNEXURE D** of this report.

32 DETERMINATION OF CLOSURE OBJECTIVES

As the prospecting activities are non-invasive and no disturbance will take place on site, closure and rehabilitation of the site will not be required. The closure objectives will therefore be to leave the site in the current state. A final environmental close-out risk assessment and final performance assessment audit will however be conducted to determine if any additional actions will be required.

32.1 THE PROCESS FOR MANAGING ANY ENVIRONMENTAL DAMAGE, POLLUTION, PUMPING AND TREATMENT OF EXTRANEOUS WATER OR ECOLOGICAL DEGRADATION AS A RESULT OF UNDERTAKING A LISTED ACTIVITY

No impacts on biodiversity (fauna and flora) or surface- and groundwater resources if foreseen as the project involves non-invasive prospecting activities. Refer to **Sections 13.2.5** and **13.2.6.**

33 WATER USE

33.1 VOLUMES AND RATE OF WATER USE REQUIRED FOR THE MINING, TRENCHING OR BULK SAMPLING OPERATION

No water will be used for the non-invasive prospecting activities.

33.2 HAS A WATER USE LICENCE HAS BEEN APPLIED FOR?

No Section 21 water uses in terms of the NWA will be applicable to the non-invasive prospecting activities and therefor no water use licence will be required for the proposed project.

34 IMPACTS TO BE MITIGATED IN THEIR RESPECTIVE PHASES

Table 14: Management measures

Activity	Aspect affected	Potential Impact	Management Measures	Management objective	Mitigation Effect	Compliance with Standards (where applicable)
Operational Phase						
Desktop review of historical mine information and acquisition of historic data	Socio-economic	Expectation of employment for local residents	•Manage landowner relations by establishing clear communication channels and grievance mechanisms. •Appoint a community liaison officer. •Compile a landowner and community relations plan. •Develop a clear strategy to manage social and economic expectations of communities.	Manage community expectations	Can be avoided, managed or mitigated	Prescribed environmental management standards and the Mine Health and Safety Act (Act 29 of 1996)
Data inventory and capturing						
Concept level mine design					Can be avoided, managed or mitigated	
Generation of geological models		In-migration of job seekers resulting in increased pressure on and demands for housing and basic services, and conflict and competition between various social groups competing for employment and services			Can be avoided, managed or mitigated	
Resource estimation						
Financial and engineering feasibility/viability studies					Can be avoided, managed or mitigated	

35 FINANCIAL PROVISION

35.1 DETERMINATION OF THE AMOUNT OF FINANCIAL PROVISION

Refer to comments made within **Section 25**.

35.1.1 DESCRIBE THE CLOSURE OBJECTIVES AND THE EXTENT TO WHICH THEY HAVE BEEN ALIGNED TO THE BASELINE ENVIRONMENT DESCRIBED UNDER REGULATION 22 (2) (D) AS DESCRIBED IN 2.4 HEREIN

Refer to comments made within **Section 25**.

35.1.2 CONFIRM SPECIFICALLY THAT THE ENVIRONMENTAL OBJECTIVES IN RELATION TO CLOSURE HAVE BEEN CONSULTED WITH LANDOWNER AND INTERESTED AND AFFECTED PARTIES

Refer to comments made within **Section 25**.

35.1.3 PROVIDE A REHABILITATION PLAN THAT DESCRIBES AND SHOWS THE SCALE AND AERIAL EXTENT OF THE MAIN MINING ACTIVITIES, INCLUDING THE ANTICIPATED MINING AREA AT THE TIME OF CLOSURE

Refer to comments made within **Section 25**.

35.1.4 EXPLAIN WHY IT CAN BE CONFIRMED THAT THE REHABILITATION PLAN IS COMPATIBLE WITH THE CLOSURE OBJECTIVES.

Refer to comments made within **Section 25**.

35.2 CONFIRM THAT THIS AMOUNT CAN BE PROVIDED FOR FROM OPERATING EXPENDITURE

Refer to comments made within **Section 25**.

36 MECHANISMS FOR MONITORING COMPLIANCE WITH AND PERFORMANCE ASSESSMENT AGAINST THE ENVIRONMENTAL MANAGEMENT PROGRAMME AND REPORTING THEREON

36.1 ENVIRONMENTAL MONITORING AND AUDITING

The previous Department of Environmental Affairs and Tourism (DEAT) (now DFFE) defines environmental auditing as “a process whereby an organisation’s environmental performance is tested against its environmental policies and objectives.” Monitoring and auditing is an essential environmental management tool which is used to assess, evaluate and manage environmental and sustainability issues in order to ensure that the objectives of sustainable development and integrated environmental management are met and in order to obtain data which can inform continuous improvement of environmental practices at the site (adaptive management) Monitoring and reporting is an essential component of the operations.

However, as the planned prospecting activities are all desktop bound studies with no invasive or physical prospecting activities taking place on site, no monitoring or auditing apart from that required for the Performance Assessment Report as well as quarterly dust monitoring is proposed for the prospecting activities. Quarterly dust monitoring will be required should site visits be undertaken as part

of the desktop verification. The need for water bowsers as part of the site visits should also be monitored. Monitoring of all the environmental management procedures and mitigation measures must be carried out by the Applicant in order to ensure that the provisions of this EMPr are adhered to.

A final environmental close-out risk assessment and final performance assessment audit should also be conducted once the non-invasive prospecting activities are concluded.

36.2 INDICATE THE FREQUENCY OF THE SUBMISSION OF THE PERFORMANCE ASSESSMENT REPORT

Yearly performance assessment reports are recommended for the duration of the prospecting activities. The report should be compiled by an independent environmental consultant (Environmental Control Officer - ECO).

36.3 ENVIRONMENTAL AWARENESS PLAN

Environmental awareness training is critical for two primary reasons:

- The workforce must understand how they can play a role in achieving the objectives specified in the EMPr; and
- The workforce must understand their obligations in terms of the implementation of the EMPr and adherence to environmental-legislative requirements.

This environmental awareness plan is aimed at ensuring that employees, contractors, subcontractors and other relevant parties are aware of and able to meet their environmental commitments. This plan is to be updated on a yearly basis during the phases of the project in light of operational changes, learning experiences and identified training needs.

All full-time staff and contractors are required to attend an induction session when they start, which session should include environmental aspects.

As West Wits has existing mining operations to the north of the proposed PR area, it is recommended that the existing Environmental Awareness Plan, Environmental Emergency Response Plan and Emergency Preparedness Plan be updated to include the PR area.

36.4 MANNER IN WHICH RISKS WILL BE DEALT WITH IN ORDER TO AVOID POLLUTION OR THE DEGRADATION OF THE ENVIRONMENT

Refer to **Table 14** for the recommended mitigation measures to limit impacts from the proposed non-invasive prospecting activities. A suitable risk matrix must be used to evaluate risks during the final close-out risk assessment. Ensure compliance with all existing procedures and update these to include the PR area.

36.5 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

The Financial Provision, as calculated, will be updated yearly as part of the annual liability assessment required by the MPRDA and GNR 1147 of 25 November 2015 in terms of the NEMA, once prospecting activities commence.

37 UNDERTAKING

The EAP herewith confirms

- the correctness of the information provided in the reports ☒
- the inclusion of comments and inputs from stakeholders and I&APs ; ☐
- the inclusion of inputs and recommendations from the specialist reports where relevant; ☒and
- the acceptability of the project in relation to the finding of the assessment and level of mitigation proposed; ☒

37.1 UNDERTAKING REGARDING CORRECTNESS OF INFORMATION

I Reneé Kruger herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected Parties has been correctly recorded in the report.

Signature of the EAP	29/10/2021 Date

37.2 UNDERTAKING REGARDING LEVEL OF AGREEMENT

I Reneé Kruger 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 the EAP	29/10/2021 Date

-END-

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ANNEXURE A EAPs QUALIFICATIONS

ANNEXURE B COMPANY PROFILE

ANNEXURE C LOCALITY MAPS OF THE PROJECT AREA

ANNEXURE D LAYOUT MAPS

ANNEXURE E PUBLIC PARTICIPATION

WILL BE ATTACHED TO THE FINAL BA&EMPr

ANNEXURE F PREVIOUS AUTHORISATIONS

ANNEXURE G FINANCIAL PROVISION REPORT

ANNEXURE H DFFE EIA SCREENING TOOL REPORT