Integrated Draft Scoping Report for Public Comment for the Proposed Future of Amandelbult (FOA) Capital and Supporting Infrastructure Project and Section 102 Amendment at the Amandelbult Mine Complex, Limpopo Province, South Africa.

Report Prepared for

Anglo American Platinum Limited

Report Number 572200/ Draft Scoping Report

Report Prepared by

srk consulting

May 2023

Integrated Draft Scoping Report for Public Comment for the Proposed Future of Amandelbult (FOA) Capital and Supporting Infrastructure Project and Section 102 Amendment at the Amandelbult Mine Complex, Limpopo Province, South Africa

Anglo America Platinum Limited

SRK Consulting (South Africa) (Pty) Ltd
265 Oxford Rd
Illovo 2196
Johannesburg
South Africa

e-mail: johannesburg@srk.co.za
website: www.srk.co.za

Tel: +27 (0) 11 441 1111
Fax: +27 (0) 11 880 8086

SRK Project Number 572200

May 2023

Compiled by:

Michelle Miles
Environmental Scientist

Email: mmiles@srk.co.za

Peer Reviewed by:

Franciska Lake
Partner and Principle Environmental Scientist

Authors:

Natasha Moodley, Giulia Barr

PURPOSE OF THE DRAFT SCOPING REPORT

The Anglo American Platinum (AAP) Rustenburg Platinum Mines (Pty) Ltd (RPM) – Amandelbult Mine Complex (AMB) proposes to apply for a new environmental authorisation at the Amandelbult Complex, near Thabazimbi, Limpopo. The purpose of the proposed environmental authorisation is to commence with four major capital projects which will allow AAP to commence with mechanising mining operations at the mine.

Before the project may go ahead, environmental authorisation is required in terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002) (MPRDA), the National Environmental Management Act (Act 107 of 1998) (NEMA) and the National Water Act (Act 36 of 1998) (NWA). This document describes the proposed project, the existing environment, the issues raised to date by Interested and Affected Parties (I&APs), and the terms of reference/scope of work for specialist studies to be carried out during the impact assessment phase of the Environmental Impact Assessment (EIA).

The first phase of an EIA is the Scoping Report. This is the phase during which public issues and concerns are identified in order that technical specialists can evaluate them during the next phase of the EIA, the Impact Assessment Phase. According to NEMA EIA Regulations, Interested and Affected Parties (I&APs) must be given the opportunity to comment on the proposed project and for this reason a Draft Scoping Report was made available to the public for review. After closure of the public review period of the Draft Scoping Report (DSR) on the 21 June 2023, the report will be updated and all comments received to date will be incorporated into the updated Comment and Response Report (CRR). Thereafter the Final Scoping Report (FSR) will be updated and the FSR and updated CRR will be produced and submitted to the authorities for comment and recommendation to proceed, or not, to the Impact Assessment Phase of the EIA.

This DSR contains:

- A background description of the proposed project,
- An overview of the EIA process, including public participation followed to date,
- A description of the existing environment in the study area,
- The potential environmental issues and impacts which have been identified,
- An overview of the specialist studies to be done during the Impact Assessment Phase, and

After the public comment period, the DSR will be submitted to the Limpopo Department of Mineral Resources and Energy (DMRE) for consideration and acceptance. I&APs will have various opportunities to comment on the findings during the Impact Assessment Phase and will be notified of these well in advance.

The environmental authorisation process for the proposed project is now in the **Scoping Phase.**

YOUR COMMENT ON THE DRAFT SCOPING REPORT

This Draft Scoping Report (DSR) will be available for comment for 30 days from **22 May 2023 to 21 June 2023**. Copies of the DSR are available at the following public places and upon request from the public participation office:

- Thabazimbi Local Municipality
- Thabazimbi Municipality Community Hall
- Smashblock Community
- Amandelbult Complex Tumela Entrance
- Amandelbult Social Performance Office
- Jabulani Community
- Moses Kotane Municipality
- Mantserre Traditional Authority Offices
- Bakgatla Ba Kgafela (BBK) Sifikile village Traditional Authority Offices

This document is also available on the following website: https://www.srk.com/en/public-documents/amandelbult-mine-complex-limpopo-south-africa

The following methods of public review of the DSR is available:

- Completing the comment sheets enclosed with the reports;
- Additional written submissions; or
- Comment by email or telephone.

DUE DATE FOR COMMENT
21 June 2023

Please submit comments to the public participation office:

SRK Consulting (Pty) Ltd

Attention: Gaynor Nel, Public Participation Office, P.O. Box 55291, Northlands, 2116,

Tel: (011) 441 1111 (Switchboard) / (011) 441 1203 (Direct); Fax: 086 296 6617 / Email: GaNel@srk.co.za

Your contributions will ensure that relevant issues are evaluated and form part of the EIA. Kindly complete and return the enclosed Comment Sheet, or write a letter, call or email the public participation office to contribute your issues, concerns and suggestions.

mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

DRAFT FOR PUBLIC COMMENT

INTEGRATED SCOPING REPORT FOR PUBLIC COMMENT FOR PROPOSED FUTURE OF AMANDELBULT (FOA) CAPITAL AND SUPPORTING INFRASTRUCTURE PROJECT AND SECTION 102 AMENDMENT AT THE AMANDELBULT MINE COMPLEX, LIMPOPO PROVINCE, SOUTH AFRICA

572200

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: Anglo American Platinum Rustenburg Platinum Mines (Pty) Ltd (RPM) – Amandelbult Complex

TEL NO: 011 373 6292

FAX NO: 086 776 3656

POSTAL ADDRESS: PO Box 62197, Marshalltown, Johannesburg

PHYSICAL ADDRESS: Corporate Office, 144 Oxford Street, Rosebank, Melrose, Johannesburg, 2196

DMRE REFERENCE NUMBER: LP 30/5/1/2/3/2/1(048)EM and LP30/5/1/2/2/48 MR

IMPORTANT NOTICE

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

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

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

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

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

OBJECTIVE OF THE INTEGRATED SCOPING PROCESS

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

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

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

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

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

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

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

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

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Disclaimer

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

List of Abbreviations

AAP	Anglo American Platinum Limited
AMB	Amandelbult Mine Complex
AQSRs	Air Quality Sensitive Receptors
AST	Anemometer starting threshold
B&P	Board and Pillar
BA	Basic Assessment
BAC	Bulk Air Coolers
BIC	Bushveld Igneous Complex
BID	Background Information Documents
CA	Competent Authority
CBAs	Critical Biodiversity Areas
CMU	Catchment Management Unit
CRD	Cumulative Rainfall Departure
CRM	Cultural Resource Management
CRR	Comment and response report
CVs	Curricula Vitae
DEA	Department of Environmental Affairs
DEAT	Department of Environmental Affairs and Tourism
DFFE	Department of Forestry, Fisheries and Environment
DMRE	Department of Mineral Resources and Energy
DSR	Draft Scoping Report
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EAPASA	Environmental Assessment Practitioners Association of South Africa
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
EMS	Environmental Management System
EPCM	Engineering, Procurement, Management and Construction
ESA	Ecological Support Areas
ESMF	Environmental, Social Management Framework
FSR	Final Scoping Report
GNR	Government Notice Regulation
GQM	Groundwater Quality Management
HDD	Haakdoorndrift
I&AP’s	Interested and Affected Parties
IAP	Invasive Alien Plant
IBA	Important Bird and Biodiversity Areas

IDP	Integrated Development Plan
IEM	Integrated Environmental Management
IFC	International Finance Corporation
IRMA	Initiative for Responsible Mining Assurance
IUCN	International Union for Conservation of Nature
LC	Least Concern
LEDET	Limpopo Department of Economic Development Environment and Tourism
LoM	Life of Mine
MAE	Mean annual evaporation
mamsl	Meters above mean sea level
MAP	Mean annual precipitation
mbs	meters below surface
MHSA	Mine Health Safety Act, 1996 (Act No. 29 of 1996)
MP	Moderately Protected
MPRDA	Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)
MSA	Middle Stone Age
NAAQS	National Ambient Air Quality Standards
NEM:AQA	National Environmental Management Air Quality Act (Act No. 39 of 2004)
NEM:BA	The National Environmental Management: Biodiversity Act (Act No.10 of 2004)
NEMA	National Environmental Management Act (Act No. 107 of 1998)
NEW:WA	National Environmental Management :Waste Act (Act No. 36 of 1998)
NFA	National Forests Act, 1998 (Act No. 84 of 1998)
NHRA	National Heritage Resources Act 25 of 1999
NNR	No Natural Remaining
NRE	Narrow Reef Equipment
NWA	National Water Act (Act 36 of 1998)
OHL	Overhead Line
ONA	Other Natural Area
PAIA	The Promotion of Access to Information Act, (Act No. 2 of 2000)
PAJA	The Promotion of Administrative Justice Act, (Act No. 3 of 2000)
PCD	Pollution Control Dam
PGM	Platinum Group Metal
PM	Particulate matter
PMR	Precious Metals Refinery
POPIA	Protection of Personal Information Act 4 of 2013
POSA	Plants of Southern Africa
PPP	Public Participation Process
PS	Performance Standard
RBMR	Rustenburg Base Metals Refinery
RLS	Rustenburg Layered Suite
RO	Reverse Osmosis

RPM	Rustenburg Platinum Mines
RWD	Return Water Dam
S&EIA	Scoping and Environmental Impact Assessment
S&EIR	Scoping and Environmental Impact Reporting
SABS	South African Scientific Standards
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SANS	South African National Standard
SAWS	South African Weather Station
SCC	Species of Conservation Concern
SEAT	Anglo American Socio-economic Assessment Toolbox
SHE	Safety, Health and Environmental
SIB	Stay in Business
SLP	Social Labour Plan
SO2	Sulphur Dioxide
SO4	Sulfate
SPLUMA	Spatial Planning and Land Use Management Act, (Act No. 16 of 2013)
SRK	SRK Consulting (South Africa) Pty) Ltd
STP	Sewage Treatment Plant
TAs	Traditional Authorities
TDS	Total Dissolved Solids
ToR	Terms of Reference
TSF	Tailings Storage Facility
VAC	Visual Absorption Capacity
WMA	Water Management Area
WRD	Waste Rock Dump
WUL	Water Use Licence
WULA	Water Use Licence Application
ZoI	Zone of Influence
ZW2L	Zero Waste to Landfill

1 Introduction and scope of report

The Anglo American Platinum Rustenburg Platinum Mines (Pty) Ltd (RPM) – Amandelbult Mine Complex (AMB) has been operating since the 1970s and is situated in the Thabazimbi Magisterial District, within the Thabazimbi Local Municipality and Waterberg District Municipality and extends over some 20 km from east to west. The mine is a wholly owned subsidiary of Anglo American Platinum Limited (AAP) and is approximately 15 km north northeast of Northam and 30 km south west of Thabazimbi on the northern limb of the Platinum Belt.

The main activity at AMB is the mining from both the Merensky and UG2 reefs using underground and open pit mining methods. The mine area is divided into western, central and eastern sections. The mine consists of four different operational units:

- **Tumela Mine** consisting of a vertical shaft (Tumela shaft, previously known as No. 1 shaft) and a number of other incline and decline shafts, located north of the main vertical shaft;
- **Dishaba Mine** consisting of a vertical shaft (Dishaba shaft, previously known as No. 2 Shaft) and number of other incline and decline shafts, located north of the main vertical shaft;
- **The Concentrator** and associated tailings storage facility (TSF) complex; and
- **Support services** including offices, workshops, hospital, village, fridge plant, salvage yard, grouting plant and Game Reserve.

Numerous roads provide access between these sections of the mine, with several roads and railway lines traversing the AMB mining rights area, connecting the main provincial railway line to the western, central and eastern sections of the mine.

Ore mined from the reserves is processed at the AMB Concentrator before being transported to various AAP smelters for smelting and further refining at the Rustenburg Base Metals Refinery (RBMR) and Precious Metals Refinery (PMR). The main metal produced is platinum with other metals in the platinum group metal (PGM) suite that being chrome, rhodium, palladium, ruthenium, iridium, osmium, and including gold. Base metals produced, include copper, nickel and cobalt.

The AMB is in the Limpopo Province of South Africa 250 km northwest of Johannesburg, see Figure 1-1.

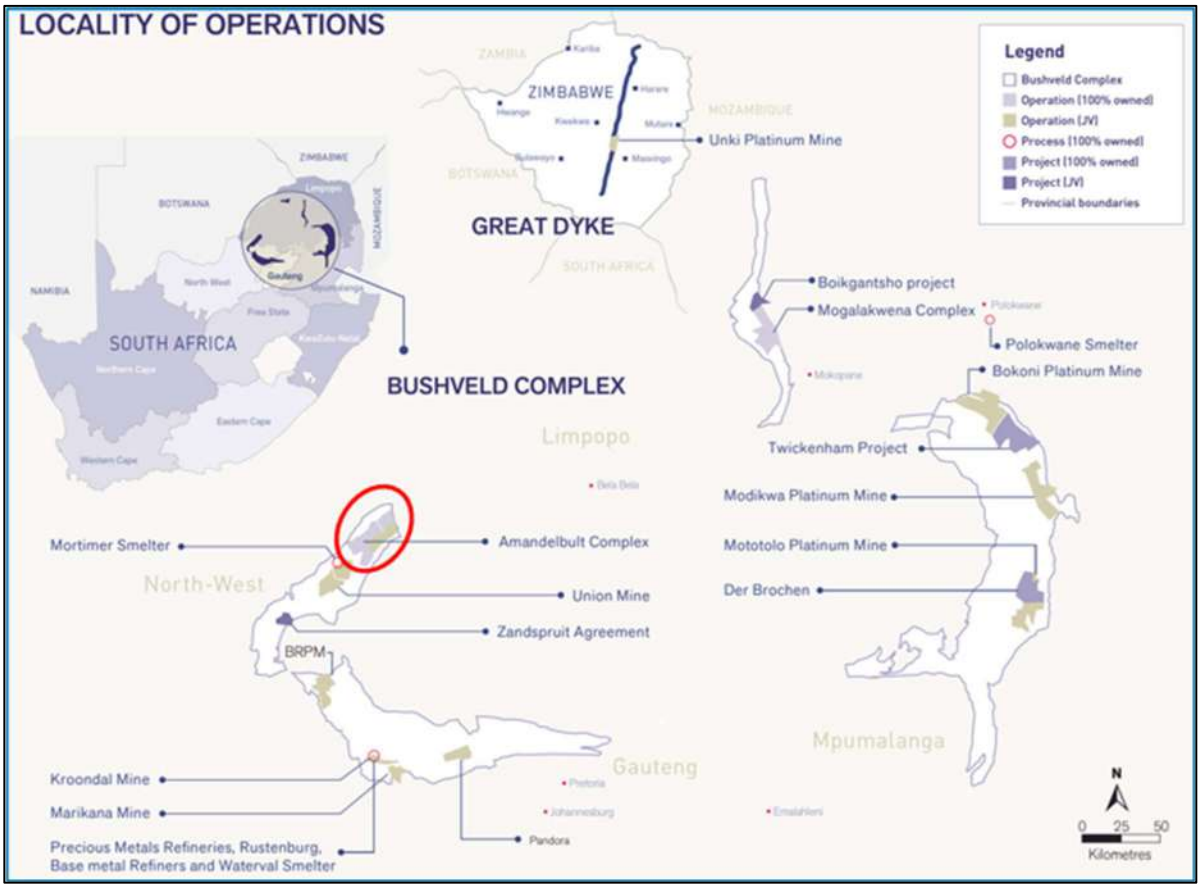
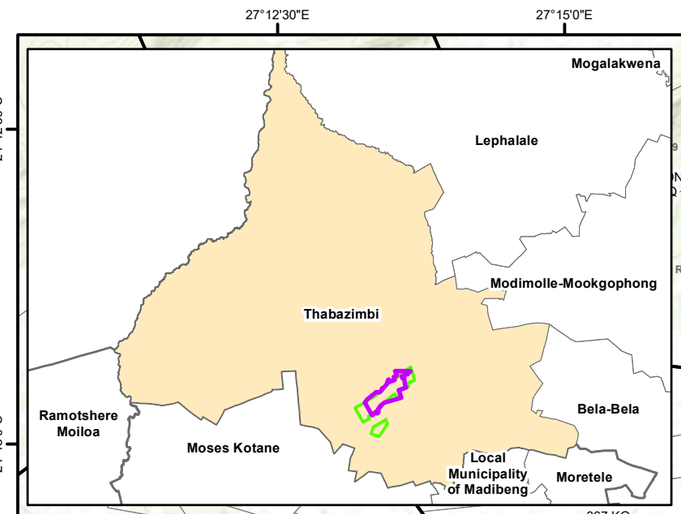


Figure 1-1: Tumela and Dishaba Mine (Amandelbult Complex) Locality Plan

The AMB is the holder of the mining right for the properties within the mining right area, which are listed in Table 1-1 below and illustrated in Figure 1-2.

Table 1-1: List of properties within the mining right area of AMB

Property	Surface Owner
Schilpadnest 385 KQ RE	Bophalane Ba Montserre Community Development Trust
Elandsfontein 386 KQ RE	Rustenburg Platinum Mines Ltd
Amandelbult 383 KQ RE	Rustenburg Platinum Mines Ltd
Elandskuil 378 KQ Portion 1	Rustenburg Platinum Mines Ltd
Elandskuil 378 KQ Portion 2	Rustenburg Platinum Mines Ltd
Haakdoorndrift 374 KQ Portion 4	Rustenburg Platinum Mines Ltd
Middellaagte 382 KQ RE	Rustenburg Platinum Mines Ltd
Zwartkop 369 KQ Portion 17	Rustenburg Platinum Mines Ltd
Zwartkop 369 KQ Portion 24	Rustenburg Platinum Mines Ltd



Legend

- Mining Rights
- Amended Mining Right
- Surface Rights
- Parent Farm
- Farm Portion
- Major Roads
- Proposed Infrastructure

Data Source: Esri Basemap SG Cadastre 2021	
Scale: 1:90 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 30/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 1-2
Revision:	Date:

srk consulting

AMB INTEGRATED EA FOR THE PROPOSED OPERATIONAL CAPITAL PROJECTS

LOCALITY MAP OF PROPOSED CAPITAL PROJECTS AND ASSOCIATED INFRASTRUCTURE

Path: J:\Proj\572200_EIA_Middlelaagte\8GIS\GISPROJ\MXD\Capex_EA_2023\572200_A3L_AMB_Integrated_EA_Capex_PreferredInfrastructure_RegionalLocality_20230130.mxd

The AMB intends to commence with several mining capital projects and Stay in Business (SIB) supporting infrastructure projects across its operations over the next few years. These projects will be placed within various locations across the AMB mining right area.

It is important to note the AMB is embarking on two separate environmental authorisations, namely a Basic Assessment (BA) process for the SIB projects and supporting infrastructure and a full Scoping and Environmental Impact Assessment (S&EIA) process for the proposed Operational Capital Projects. Refer to Figure 1-3 for schematic which visually represents the AMB permitting strategy.

The BA process for the SIB projects and supporting infrastructure was undertaken during August 2022 – November 2022 with the Final Basic Assessment Report (FBAR) for the SIB and supporting infrastructure and the associated impacts submitted to DMRE in November 2022 for decision making.

Before the AMB can commence with the Operational Capital Projects, environmental authorisation in terms of the following national legislation needs to be obtained:

- The Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA): For any amendments EMPr in accordance with Section 102 of the MPRDA;
- The National Environmental Management Act (Act No. 107 of 1998) (NEMA): For any project-related listed activities stipulated in the NEMA Environmental Impact Assessment (EIA) Regulations of 2014, as amended in 2021; and
- The National Water Act (Act No. 36 of 1998) (NWA): For any project related water uses stipulated under Section 21 of NWA.

In line with the requirements of the above legislation, the proposed Capital Projects requires an S&EIA process to be undertaken in line with the EIA Regulations of 2014, as amended in 2021. An application has been lodged through the Limpopo Province's Department of Mineral Resources and Energy (DMRE) as the competent authority (CA). In addition to this, some of the projects proposed require a Water Use License Application (WULA) to be undertaken in line with NWA. It is important to note, that only one WULA will be conducted for both the BA SIB projects as well as the S&EIA Operational Capital projects in line with the requirements of the Department of Water and Sanitation (DWS).

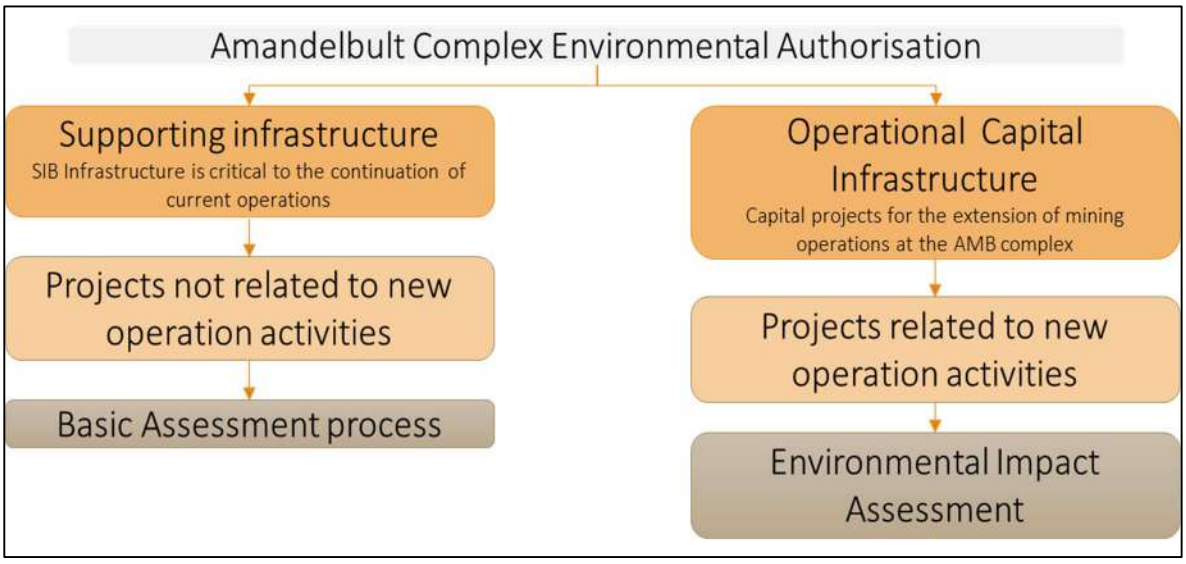


Figure 1-3: AMB Environmental authorisation strategy

1.1 Proposed project activities

The AMB currently employs a labour-intensive conventional mining methodology for the mining of its narrow tabular ore body. In line with the broader AAP strategy to adopt mechanised mining methods in their underground operations, AMB has finalised transformative plans for mechanising selected

mining operations in its portfolio. The mechanisation projects consist of the following Operational Capital Projects:

- Middellaagte Upper & Middellaagte Lower;
- Tumela 1 Sub Shaft;
- Tumela 15E Extension; and
- Dishaba East Upper and Dishaba East Lower.

Each project is being developed as a strategic portfolio as part of the AMB mechanisation strategy. The production profiles demonstrate AMB's strategic intent to transform from conventional to mechanised mining by 2032.

The following sections provide a brief overview of each of the four major Operational Capital Projects. Refer to Section 0 for the detailed project description.

1.1.1 Middellaagte project

The Middellaagte Project focus area is on the Eastern border of Tumela Mine, with surface access and infrastructure located on both the AMB and Limberg properties. Negotiations are currently taking place to purchase and/ or lease the surface area, and a transaction has been concluded for the underground mining rights, which transfer will take effect once the EIA has been approved for the mining right area and associated projects over the area.

The Middellaagte Project is a greenfield project and will require the implementation of new infrastructure to access and support underground operations.

1.1.2 Tumela 1 Sub Shaft

The Tumela 1 Sub Shaft Project is a mechanised operation below the current conventional mine. The Project is a volume replacement for the depleting traditional and modernised production areas within Tumela 1 Lower Shaft. The project is brownfield and will leverage the existing infrastructure at Tumela 1 to support the underground operation. The current Tumela hoisting infrastructure will be used to access the project area. The existing rock hoisting infrastructure is earmarked to support development and production from Tumela 1 Sub Shaft operation. New surface infrastructure includes a personnel & material shaft from surface to 16 Level and ventilation shafts

1.1.3 Tumela 15E Extension

The Tumela 15E Extension Project is a deeper 'extension' of the exiting 15E dropdown project and continues the 15E Mechanisation Dropdown project that commenced in 2019 (separate environmental authorisation). The project will primarily be supported by the existing Tumela 15E infrastructure for personnel and material. However, new surface infrastructure will be required for ventilation and rock handling to support the increase in tonnages from the current 75ktpm to more than 110ktpm.

1.1.4 Dishaba East Mechanisation Project

The Dishaba East Mechanisation project is on the north eastern boundary of the AMB. The area where the Dishaba East Mechanisation project will take place is a brownfields area and will include the areas previously used as part of the Haakdoorndrift (HDD) open pit project. Additional surface infrastructure will be required for the proposed project such as offices and workshops, however, this will remain within the already disturbed area.

1.2 Appointed environmental assessment practitioner

SRK Consulting (South Africa) (Pty) Ltd (SRK) was appointed by AAP as the independent environmental assessment practitioner (EAP) to manage and facilitate the integrated EA process and undertake the associated public participation process associated with the S&EIA in accordance with NEMA, NWA and MPRDA.

1.3 Draft scoping report purpose

The specific objectives of the scoping phase of the project are to:

- Contextually understand the proposed project with respect to the local and regional environment;
- Identify and engage with representative stakeholders and authorities providing them with details of the proposed project;
- Identify key issues that require investigation;
- Identify potential fatal flaws associated with the proposed developments;
- Consider project alternatives; and
- Set the Terms of Reference (ToR) for the impact assessment phase and EMP (the detailed environmental impact assessment).

Based on the need to meet the above-mentioned objectives, an approach for the Scoping Phase has been developed which:

- Took cognizance of the regulatory requirements in terms of the NEMA, MPRDA and NWA;
- Allowed for a flexible and appropriate public consultation process;
- Made use of existing and new information (i.e. existing EMPs, EIAs and specialist studies);
- Allowed for public comment on the Draft Scoping Report prior to finalisation and submission of the Final Scoping Report to DMRE; and
- The involvement of key specialists early in the project (during the Scoping Phase) so as to facilitate the identification of fatal flaws and inform project alternative decisions.

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

This report is titled “Integrated scoping report for public comment for proposed Future of Amandelbult (FOA) capital and supporting infrastructure project and Section 102 amendment at the Amandelbult Mine Complex, Limpopo Province, South Africa” and fulfils the requirements for a scoping report as contemplated in the NEMA EIA Regulations. All comments received during the commenting period of the Draft Scoping Report (DSR) will be incorporated into the Final Scoping Report (FSR), which will be submitted to the DMRE, as the competent authority, for consideration.

Table 1-2: Structure of the Integrated Draft Scoping Report

Regulation requirement	Section addressed
(a) Details of – (i) The EAP who prepared the report and; (ii) The expertise of the EAP, including a CV;	**2**
(b) The location of the activity, including – (i) The 21 digit Surveyor General code of each cadastral land parcel (ii) Where available, the physical address and farm name; (iii) Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	**4**

Regulation requirement	Section addressed
(c) A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is – (i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken;	**5**
(d) A description of the scope of the proposed activity, including – (i) All listed and specified activities triggered; (ii) A description of the activities to be undertaken, including associated structures and infrastructure;	**5**
(e) A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;	**6**
(f) A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;	**8**
(g) Period of environmental authorisation	**7**
(h) A full description of the process followed to reach the proposed preferred activity, site and location within the site, including -	**9**
(i) details of the alternatives considered	**10**
(ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copes of the supporting documents and inputs;	**11**
(iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	**11.3**
(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	**12**
(v) the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts – (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed or mitigated;	**13**
(vi) the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	**14**
(vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	**15**
(viii) the possible mitigation measures that could be applied and level of residual risk;	**16**
(ix) the outcome of the selection matrix	**18**
(x) if no alternatives, including alternative locations for the activity were investigated, the motivation for no considering such; and	**17**
(xi) a concluding statement indicating the preferred alternatives, including preferred locations of the activity;	**18**
(i) a plan of study for undertaking the environmental impact assessment process to be undertaken, including -	**19**
(i) A description of the alternatives to be considered and assessed within the preferred site;	**19.1**
(ii) A description of the aspects to be assessed as part of the environmental impact assessment process;	**19.2**

Regulation requirement		Section addressed
(iii)	Aspects to be assessed by specialists;	**19.3**
(iv)	A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;	**19.4**
(v)	A description of the proposed method assessing duration significance;	**19.5**
(vi)	An indication of the stages at which the competent authority will be consulted;	**19.6**
(vii)	Particulars of the public participation process that will be conducted during the environmental impact assessment process;	**20**
(viii)	A description of the tasks that will be undertaken as part of the environmental impact assessment process;	**20.3**
(ix)	Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	**21**
(j)	**An undertaking under oath or affirmation by the EAP in relation to –** (i) The correctness of the information provided in the report; (ii) The inclusion of comments and inputs from stakeholders and interested and affected parties; (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties	**24**
(k)	**An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment;**	**25**
(l)	**Where applicable, any specific information required by the competent authority; and**	**22**
(m)	**Any other matter required in terms of section 24(4)(a) and (b) of the Act.**	**23**

2 Details and expertise of the Environmental Assessment Practitioner

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

2.1 Details of EAP who prepared the report

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

Table 2-1: EAP contact details

EAP Name	Contact Number	Fax Number	Email Address
Natasha Moodley	011 441 1174	086 296 6617	NMoodley@srk.co.za
Michelle Miles	011 441 1111	086 503 1222	MMiles@srk.co.za

2.2 Expertise of the EAP

The section below provides the qualifications of the EAP, summary of EAP project experience and AMB contact details.

2.2.1 Qualifications of the EAP

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

Table 2-2: EAP Qualifications

EAP Name	Qualifications	Professional registration	Years' Experience
Natasha Moodley	B Soc Sc Hons (Environmental Management)	EAPASA (2020/596)	16
Michelle Miles	BSc Hons (Environmental Water Management)	EAPASA (2020/1057)	6

2.2.2 Summary of EAPs past experience

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

Table 2-3: EAP expertise

EAP Name	Expertise
Natasha Moodley	Natasha Moodley is a Principal Environmental Scientist at SRK Consulting South Africa. She holds a BSoc Sc (Hons) (Environmental Management) and BSoc Sc (Geography and Environmental Management) from University of KwaZulu-Natal, Howard College. Natasha has over 16 years of experience in the environmental science and management field. She has successfully completed training in Project Management and Internal Auditing of Environmental Management System (EMS). Natasha is a Registered Environmental Assessment Practitioner of South Africa and is also a member of the Golden Key Society, the International Association of Impact Assessments and the Society for Human Geographers of South Africa. Natasha has been involved in numerous mining (gold, cola, platinum), petroleum, linear, energy, cement and industrial environmental impact assessments throughout South Africa and the Africa (DRC, Sierra Leone, Zambia and Guinea). She has also been involved in large-scale mining, energy and cement related projects for various

EAP Name	Expertise
	clients such as Anglo-American Platinum, Anglo Gold Ashanti, Anglo Thermal Coal, Mopani Copper Mine, ENRC, NYA, PPC Cement, Southern African Development Groundwater Management Institute (SADC GMI) and the South African Power Pool (SAPP). Most recently Natasha has been involved on the development of the Environmental, Social Management Framework (ESMF) tool for the SAPP and SADC GMI. She has also undertaken many environmental, social impact assessments to meet various financial institutions requirements of the International Finance Cooperation, Equator Principles, World Bank and African Development Bank. Natasha has also been project managing a large scale environmental, social and health baseline study throughout Southern Africa. She has extensive experience in drafting management plans, undertaking stakeholder engagement, implementation processes for various petroleum, industrial and mining projects. She has also been involved in environmental control officer, auditing and due diligence work within the industrial, petrochemical, mining, motor industry and linear related projects. Natasha has written many articles that have been published in various mining and engineering publications
Michelle Miles	Michelle has 6 years' experience within the environmental science and management field. She has been involved in a various aspects of projects ranging from concept studies all the way through to environmental construction management. Michelle has experience in conducting environmental legal reviews as well as environmental permitting processes such as Environmental Impact Assessments and Basic Assessments. Her experience includes environmental permitting, environmental advisor such as environmental design requirements, environmental screenings and environmental compliance auditing. Michelle has work on large infrastructure and mining projects throughout her work life. This includes working on various Engineering, Procurement, Management and Construction (EPCM) projects ranging from concept level projects to execution project. Michelle is a registered Environmental Assessment Practitioner with Environmental Assessment Practitioners Association of South Africa (EAPASA).

2.3 Amandelbult complex details

The physical and postal address of AMB is provided in Table 2-4 and details of the responsible persons at AAP are presented in Table 2-5.

Table 2-4: Physical and postal address for AMB

Address	Details
Physical address:	Schilpadnest Farm, Amandelbult, 0362
Postal address:	P O Box 2, Chromite, 0362, South Africa

Table 2-5: AAP responsible persons

Name	Designation
Saligh Cader	Project Engineer Amandelbult Projects
Hazel Fiehn	Environmental Authorisations Principal AAP
Ursula Marvey	Senior Environmental Coordinator - Amandelbult
Jacques Yssel	Permit Compliance Coordinator for Amandelbult
Hercules Sandenbergh	Senior Project Manager - AMB
Roshaan De Jager	Project Manager - AMB
Michael Fox-Martin	Senior Project Manager – AMB

2.1 Details of specialists

The EAP has worked closely with specialists to determine the baseline conditions which will assist in identifying risks and impacts associated with this project. The EAP therefore has extensive knowledge of the site as well as the relevant studies required to inform the S&EIA process. The specialists and their associated specialist fields who undertook the specialist studies, specific to the project areas, is shown in Table 2-6. The areas which will potentially be impacted on by the proposed infrastructure and activities associated with the projects is shown in Section 5.

Table 2-6: Specialist studies undertaken for the BA process

Specialist study	Specialist
Air Quality	Airshed Planning Professionals
Blasting and vibration opinion	Blast Management & Consulting
Terrestrial and aquatic biodiversity	The Biodiversity Company
Wetland	Wetland Consulting Services
Noise	Acusolv
Closure	SRK Consulting (Pty) Ltd
Heritage	Beyond Heritage
Socio-Economic	SRK Consulting (Pty) Ltd
Visual	Eco Elementum

The specialists complied their reports in accordance with the requirements stipulated in Appendix 6 of the NEMA EIA Regulations of 2014 (as amended). Specialist baselines and impact assessments will be provided in more detail in the S&EIR.

It is important to note, the specialist investigations, fieldwork and reporting were undertaken for the projects associated with this S&EIA and the BA. Due to this, the specialist studies assess the areas surrounding S&EIA projects as well as the BA projects.

The reason for this was to identify the baseline conditions of the whole AMB. This would allow for the specialist studies to be utilised as part of future projects in identifying the overall sensitivity of the area as well as allowing engineering teams to understand the overall impact potential projects would have on the environment.

2.2 Provincial authorities' details

Environmental authorisation is required from the DMRE. The official who has been assigned to this project's details are provided in Table 2-7. An application for environmental authorisation was submitted on 12 May 2023. It is anticipated that the application form acknowledgement letter will be received within 10 days of submitting the application. The screening report is included in Appendix C.

Table 2-7: Competent authority details

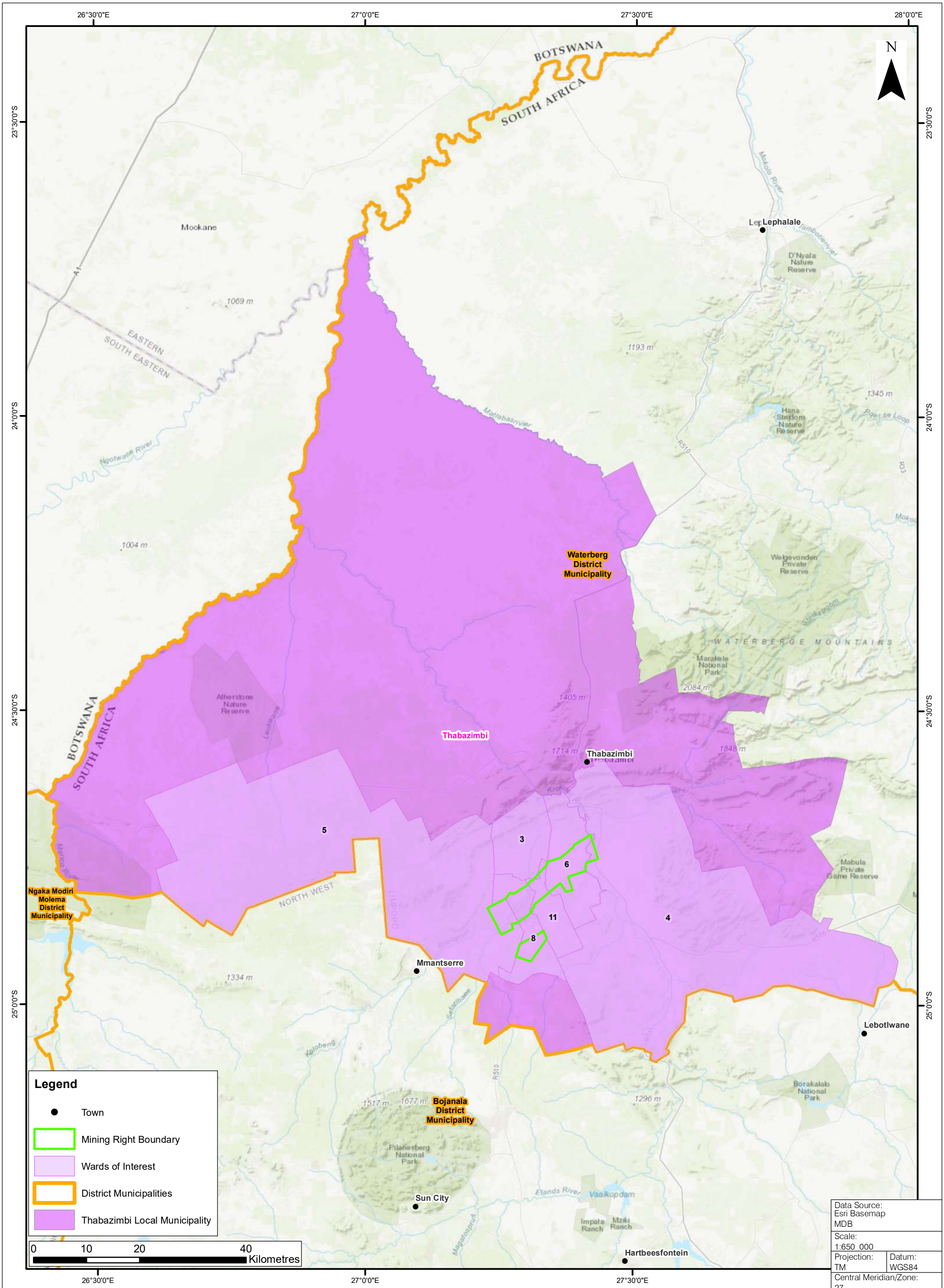
Department	Contact Person
DMRE: Limpopo Province	Thivhulawi Kolani

2.3 Municipality and ward details

The AMB is situated within the Thabazimbi Local Municipality, which forms part of the Waterberg District Municipality in the Limpopo Province. Details of the relevant municipalities, wards and contact persons are provided Table 2-8 and shown in Figure 2-1.

Table 2-8: Local and district municipality details

Municipality	Contact Person	Designation
Thabazimbi Local Municipality	Lindiwe Makaya	Municipal Manager
Thabazimbi Local Municipality	Tokkie Swanepoel	Mayor
Waterberg District Municipality	Gladwin Tloubatla	Acting Municipal Manager
Waterberg District Municipality	S. Mafa	Environmental Management
Ward 3	Cllr D Mampeule	Ward councillor
Ward 4	Cllr T Hearne	Ward councillor
Ward 5	Cllr F Kokonyane	Ward councillor
Ward 6	Cllr I Nengwekulu	Ward councillor
Ward 8	Cllr T Ramoabi	Ward councillor
Ward 11	Cllr X Nozozo	Ward councillor



Data Source: Esri Basemap MDB	
Scale: 1:650_000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 09/01/2023	Compiled by: LOUA
Project No. 572200	Fig No. 2-1

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AMB INTEGRATED EA FOR THE PROPOSED OPERATIONAL CAPITAL PROJECTS

WARDS, DISTRICT AND LOCAL MUNICIPALITY RELEVANT TO AMB COMPLEX

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Revision: Date:

3 Background and overview of Amandelbult Complex operations

As indicated in Section 1,AMB is divided into four operational units:

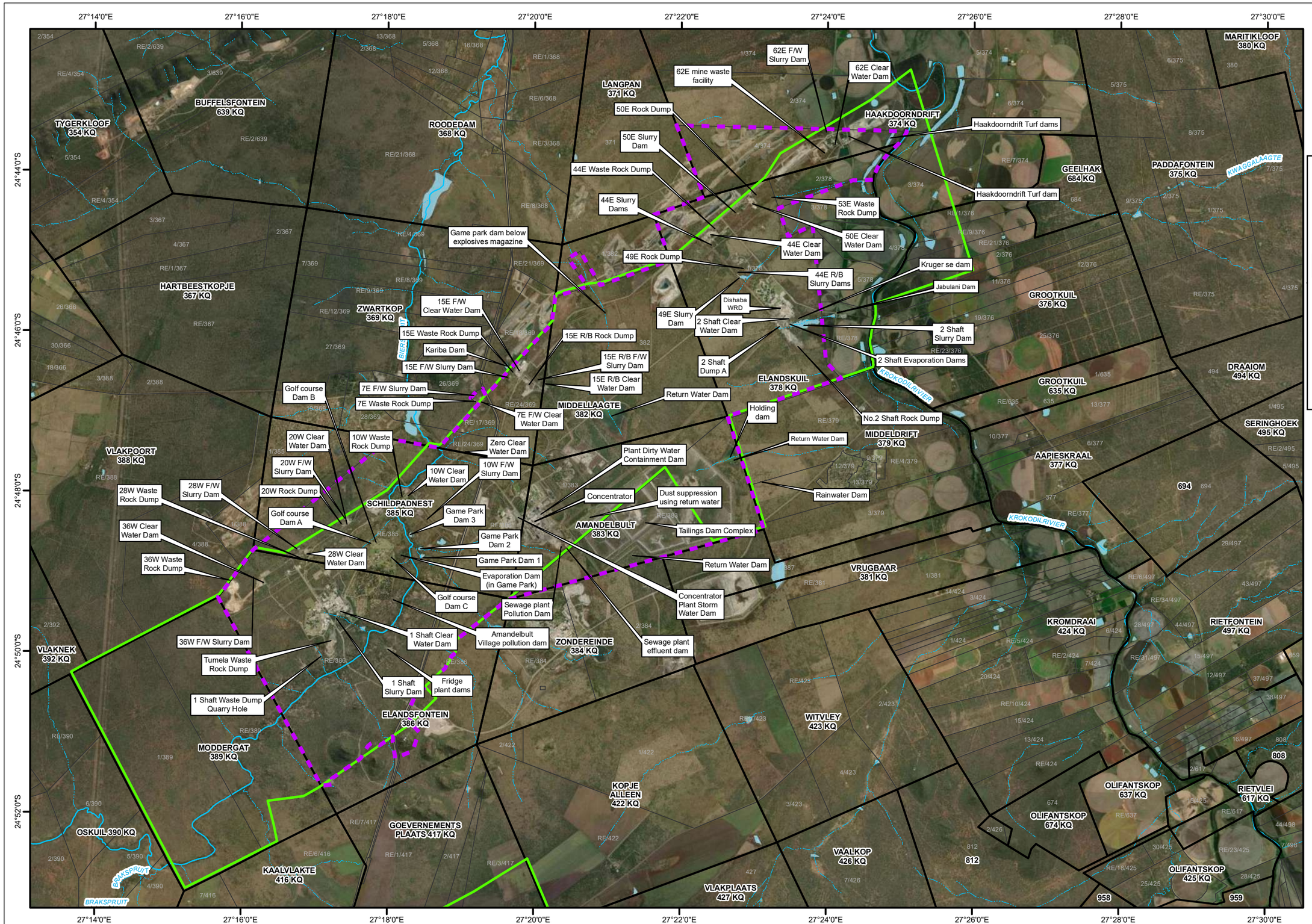
- **Tumela Mine** consisting of a vertical shaft (Tumela shaft, previously known as No. 1 shaft) and a number of other incline and decline shafts, located north of the main vertical shaft;
- **Dishaba Mine** consisting of a vertical shaft (Dishaba shaft, previously known as No. 2 Shaft) and number of other incline and decline shafts, located north of the main vertical shaft;
- **The Concentrator** and associated (TSF) complex; and
- **Support services** including offices, workshops, hospital, township, fridge plant, salvage yards grouting plant and Game Reserve.
- **Open pit mining** was initiated in 2015 at Tumela and Dishaba. Historic open pits have been rehabilitated in accordance with the relevant approved Environmental Management Programme (EMPr).

Table 3-1 provides a summary of the current (authorised but not yet constructed/developed) mining and process operations as well as the water and waste management systems at the AMB. The location of the various infrastructure and activities is presented in Figure 3-1.

Table 3-1: Overview of the AMB operations

Aspect	Description
Mining Operations	
Target minerals	Platinum Group Metals
Ore body	UG2 and Merensky Reef
Products	Platinum concentrate which is transported off site to the various smelter complexes for smelting
Life of mine	• Operations are 365 days per year, 24 hours per day • Life of Mine (LoM) extends well beyond 2060
Mining method	**Open Pit** Open pit mining includes a number of small operational opencast operations as well as historic open pits which have been rehabilitated. Open pit mining is located along the northern boundary of the mine site, which lies adjacent to the Merensky and UG2 reef outcrops where the various Dishaba and Tumela inclines and declines are situated as follows: • Open cast mining was initiated in 2015 at Tumela (pits 1, 2, 4, 5, 13a and 36W) and Dishaba (Pits 6, 7, 62E, 37E and HDD). These pits have been rehabilitated, and only 37E and HDD will be fully rehabilitated by 2024. • The historical open cast mining that was initiated in 1998 ceased in 2005 and the land has been rehabilitated in accordance with the approved EMPr, dated 1995 and subsequent approved EMPr amendments. **Underground** • Underground mining occurs via two complexes, namely Tumela Mine (western section of the mine) and Dishaba Mine (north eastern section of the mine) • The conventional breast mining method is widely used with mechanised mining recently introduced at Tumela 15E • The ore is scraped into stope ore passes and then hauled (footwall haulages) by battery powered locomotives to the main hoisting shafts • From surface the ore is transported to the concentrator by rail • Conventional mining is currently being undertake at the AMB
Concentrator operations	
Concentrator complex	• The concentrator complex is capable of processing 600 ktpm. The ore undergoes several processes, including milling and concentrating, to extract the target minerals • The concentrate is transported to off-site smelters for further refinement

Aspect	Description
Waste and residue disposal	
Mine residues and waste	• Mining and related mineral waste generated at AMB includes overburden waste rock, tailings and water containing waste including process water and contaminated stormwater within dirty water management areas
Waste rock	• There are a number of developed waste rock dumps (WRDs) at the various shafts • Reuse of waste rock in construction has taken place and footprint areas requiring rehabilitation have been identified
Topsoil and ore stockpiles	• There are a limited number of topsoil stockpiles on site e.g. southeast of the TSF complex. Topsoil will be used for rehabilitation • Ore is stockpiled at the concentrator prior to processing
Tailings Storage Facilities	• The AMB TSF complex operates as a consolidated facility comprising TSF 1, 2A, 2B, 3A and 3B. TSF 3B is an extension of TSF 3A • Return water from TSF3B drains to the Holding Dam east of the complex from where it is transferred to the return water dam (RWD) north of the TSF complex. The Holding Dam serves as a transfer station at TSF 3B
Sewage treatment plants	• One 4 350 m^3/day sewage treatment plant (STP) is located within the central area of the mine (south of the concentrator) • Domestic wastewater is generated at the shafts, office areas, shops and hostels of the mine through use of the ablution facilities and kitchens. Domestic wastewater includes shower water, water disposed into sinks following use for domestic purposes, and sewage • The treated effluent is reused in the concentrator • The open pit areas and temporary construction sites have portable chemical facilities and serviced by outside contractors
Domestic, general and hazardous waste management	• Domestic waste is produced at the shafts, office areas, shops and hostels of the mine. Domestic waste includes non-hazardous substances such as cartons, boxes, cans, plastic, glass, paper, and kitchen swill and food waste. This waste is collected regularly by an appointed contractor, who removes mostly segregated waste to the various waste management facilities on site. • Non-hazardous industrial waste that is generated at the mine is separated into salvageable and non-salvageable materials. Salvageable materials include ventilation pipes, air and water pipes, all steel and metals, scraper rope, electrical cables, electrical switchgear boxes and drill bits. Non-salvageable materials include plastic containers, gum boots, bulk bags, tyres, conveyor belts and timber. These waste materials collected at the operational areas are transported on a daily basis to the Industrial salvage yard where they are further sorted into useable and recyclable material • A third category of non-hazardous industrial waste that is generated at the mine includes bricks and concrete waste. Concrete and bricks are accumulated for reuse opportunities on site. AMB has implemented the Zero Waste to Landfill (ZW2L) strategy and has met its ZW2L target, with 100% of non-mineral waste currently directed to recycling, reuse or energy recovery waste destruction opportunities and incineration.
Other mine infrastructure	
Water supply	• AMB sources most of its potable water from Magalies Water via the Vaalkop Reservoir • A 3.5 Ml/d reverse osmosis treatment plant at Dishaba shaft treats water removed from underground to potable standards for domestic purposes at the shaft areas, and a number of other destinations
Roads	• Roads within the mine area consist of existing internal mine and haul roads and roadways into the open pits. Access roads are tarred. • Haul roads are gravel and are sprayed with a commercial dust suppressant according to a detailed schedule.
Electricity Supply	• Electricity to the mine is supplied by Eskom via an electricity distribution network.
Other	• The mine and concentrator complexes include infrastructure such as change houses, stores, offices, boardrooms, workshops, training centres, clinic, security offices, fuel/lube bays, green/conservation areas, dispatch and other supporting buildings, and clean and dirty water separation systems.



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AMB INTEGRATED EA FOR THE PROPOSED OPERATIONAL CAPITAL PROJECTS

AMB EXISTING INFRASTRUCTURE AND ASSOCIATED INFRASTRUCTURE

Data Source: ESRI Basemap SG: Cadastre 2021	
Scale: 1:85 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 10/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 3-1
Revision:	Date:

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4 Description of the property

This section provides a description of the properties comprising the AMB operation, for Mining Right LP30/5/1/2/2/48 MR as well as adjoining properties.

The information relating to properties, ownership, and mining and surface rights associated with the AMB mining right areas is summarised in Table 4-1. The infrastructure and activities associated with the proposed AMB will take place on the following farms and associated farm portions:

The AMB is the holder of the mining right for the properties within the mine boundary area. AMB is the surface right owner for the majority of the farms associated with this proposed property, however, some of the land is leased (Figure 4-1).

4.1 Adjacent properties to the proposed project

Various properties are adjacent to AMB Mining Right. Refer to Figure 4-2 for adjacent properties.

4.2 Details of the affected surface areas

Table 4-1 indicates the property details of the affected surface area where the proposed project will occur.

Table 4-1: Description of properties where the proposed AMB Operations Capital Project activities will occur

Farm name	Farm portion	SG Code	Surface Owner	Mining Right Owner
Haakdoorndrift 374 KQ	Portion 4	T0KQ00000000037400004	Rustenburg Platinum Mines Ltd	Rustenburg Platinum Mines Ltd
Elandskuil 378 KQ	Portion 1	T0KQ00000000037800001	Rustenburg Platinum Mines Ltd	Rustenburg Platinum Mines Ltd
Middellaagte 382 KQ	Portion 0,	T0KQ00000000038200000	Rustenburg Platinum Mines Ltd	Rustenburg Platinum Mines Ltd
	Portion 1	T0KQ00000000038200001	Middellaagte Holdings Ltd	[1]Cronimet (Pty) Ltd
Amandelbult 383 KQ	Portion 1	T0KQ00000000038300001	Rustenburg Platinum Mines Ltd	Rustenburg Platinum Mines Ltd
Elandsfontein 386 KQ	Portion 0,	T0KQ00000000038600000	Rustenburg Platinum Mines Ltd	Rustenburg Platinum Mines Ltd
	Portion 1	T0KQ00000000038600001	Rustenburg Platinum Mines Ltd	Rustenburg Platinum Mines Ltd
	Portion 2	T0KQ00000000038600002	Rustenburg Platinum Mines Ltd	Rustenburg Platinum Mines Ltd
Schildpadnest 385 KQ	Portion 0	T0KQ00000000038500000	Baphalane Ba Mantserre Community Development Trust	Rustenburg Platinum Mines Ltd

[1] AMB has also agreed with Cronimet (Pty) Ltd to acquire the mining right over the Farm Middellaagte KQ Portion 1, however, negotiations are still underway with regards to the surface right

27°12'30"E 27°15'0"E 27°17'30"E 27°20'0"E 27°22'30"E 27°25'0"E 27°27'30"E

24°42'30"S 24°45'0"S 24°47'30"S 24°50'0"S 24°52'30"S

N

Dishaba Proposed Infrastructure

Middellaagte Proposed Infrastructure

Middellaagte Proposed Infrastructure

Tumela 15E Extension Proposed Infrastructure

Tumela 1 Sub Shaft Proposed Infrastructure

Tumela 1 Sub Shaft Proposed Infrastructure

Tumela 1 Sub Shaft Proposed Infrastructure

TYGERKLOOF 354 KQ

BUFFELSFONTEIN 639 KQ

ROODEDAM 368 KQ

LANGPAN 371 KQ

371

HAAKDOORNDRIFT 374 KQ

GEELHAK 684 KQ

HARTBEESTKOPJE 367 KQ

MAROELOESFONTEIN 366 KQ

ZWARTKOP 369 KQ

MIDDELLAAGTE 382 KQ

382

ELANDSKUIL 378 KQ

GROOTKUIL 376 KQ

MIDDELDRIFT 379 KQ

AAPIESKRAAL 377 KQ

SCHILDPADNEST 385 KQ

AMANDELBULT 383 KQ

VLAKNEK 392 KQ

VRUGBAAR 381 KQ

ZONDEREINDE 384 KQ

ELANDSFONTEIN 386 KQ

KROMDRAAI 424 KQ

WITVLEY 423 KQ

MODDERGAT 389 KQ

KOPJE ALLEEN 422 KQ

OSKUIL 390 KQ

KAMEELHOEK

VAALKOP 426 KQ

812

R510

R511

5/374

2/374

6/374

4/374

3/374

2/378

3/378

1/378

4/378

1/382

2/376

5/378

RE/378

RE/23/376

26/369

28/369

RE/379

RE/385

1/385

RE/388

1/388

4/388

3/379

RE/4/379

RE/383

2/392

RE/386

1/389

RE/389

RE/1/417

RE/422

RE/3/417

0 0.5 1 2 3 4 Kilometres

Legend

- Mining Rights
- Surface Rights
- Major Roads
- Proposed Infrastructure
- Alternative Proposed Infrastructure
- Parent Farm
- Farm Portion

Property Classification

- Freehold (Owned)
- Leasehold (Leased)

Data Source: Esri Basemap SG Cadastre 2021	
Scale: 1:90 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	

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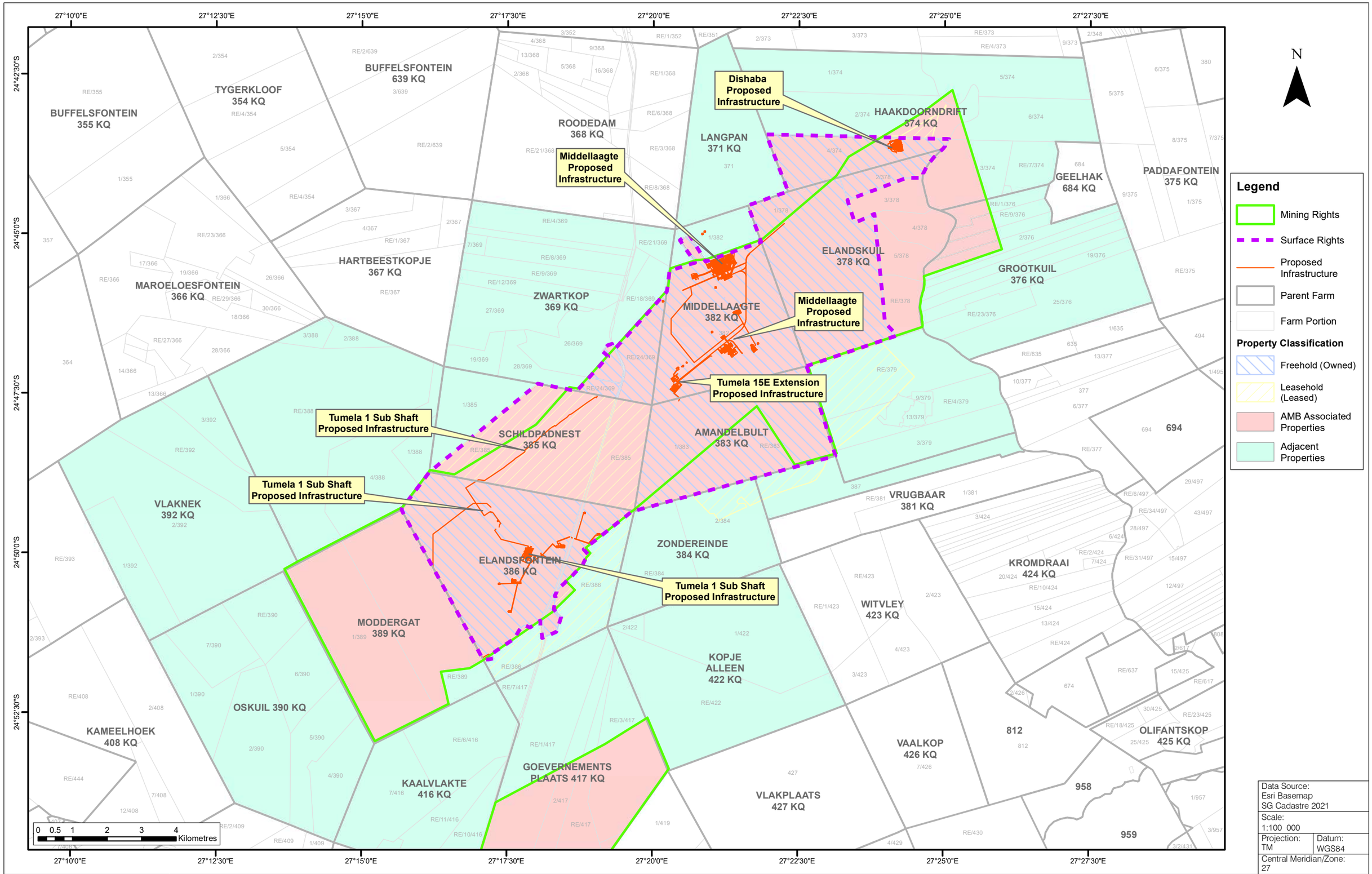
FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE

AMB PROPERTY CLASSIFICATION MAP

Date: 26/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 4-1

Revision: A Date: 18 04 2023

Path: J:\Proj\572200_EIA_Middlelaagte\8GIS\GISPROJ\MXD\Capex_EA_2023\572200_A3L_AMB_Integrated_EA_Capex_PropertyClassification_20230126.mxd



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FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE

AMB PROPERTY CLASSIFICATION MAP

Data Source: Esri Basemap SG Cadastre 2021	
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Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 18/04/2023	Compiled by: LOUA
Project No: 572200	Fig No: 4-2
Revision:	Date:

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5 Description of the scope of the proposed project

5.1 Listed and specified activities for the proposed

The listed activities associated with the proposed AMB Operations Capital Project in respect of NEMA are provided in Table 5-1. Based on the nature and extent of the listed activities shown in Table 5-1, the Amandelbult Complex will conduct an integrated EA process. It will include comprehensive Scoping and Environmental Impact Reporting (S&EIR), interchangeably referred to as a “full” EIA in terms of NEMA and the MPRDA.

The proposed project will also require a Water Use Licence Application (WULA) in accordance with the NWA. The WULA process will be undertaken as part of the authorisation process.

Authorisation in terms of NEMA and MPRDA will be applied for from the Limpopo DMRE, whilst authorisation in respect of the NWA will be applied for from DWS.

Table 5-1: Listed activities triggered by the proposed changes to the proposed project

Name of activity	Aerial extent of the activity	Listed Activity	Applicable listing notice
Middellaagte Upper and Lower Project			
Clearance of vegetation for the whole Middellaagte upper and lower project	124Ha	X	GNR 984: Activity 15
Storage of dangerous goods (including, but not limited to, diesel, emulsion and ammonia gas) for the whole Middellaagte upper and lower project		X	GNR 983: Activity 14 GNR 984: Activity 4
Section 102 required due to changes to the mine works programme		X	GNR 983: Activity 21D GNR 984: Activity 17
Amendment of the AMB mining right to include Portion 1 of the Farm Middellaagte 382 KQ into the existing mining right	257.2Ha	X	GNR 983: Activity 21D GNR 984: Activity 17
Middellaagte Surface Adit – Surface Infrastructure and 6 Level Raisebore Shaft			
Middellaagte surface infrastructure terrace and surface adit including all surface infrastructure described below.	54Ha	X	GNR 983: Activity 21D GNR 984: Activity 17
6 Level raisebore shaft including winder house and headgear		X	GNR 983: Activity 17
Reverse Osmosis Water Treatment Plant		X	GNR 983: Activity 25 Included in overall clearing activity
Three Ericson Dams (2 Ericson dams storage of mine service water 1 Ericson Dam for the active dewatering (fissure water))		X	GNR 984: Activity 6
General buildings(including admin office, change house, control room, crush room, emergency room, lamp room and bootwash, laundry and boiler room, security room, covered and uncovered car parking, taxi rank and bus stop).		X	Included in overall clearing activity
Access Roads		X	GNR 983: Activity 12, 19 and 24
Pipeline for wastewater storage and pumpstations		X	GNR 983: Activity 10
Ore handling including conveyors belt, ore silos			Included in overall clearing activity
Emergency ore stockpile and transfer towers		X	GNR 984: Activity 6
General storage facilities (cable yard, general stores yard, laydown area)			Included in overall clearing activity
Middellaagte Substation and associated powerlines		X	GNR 983: Activity 11, 12 and 19
Two pollution control dam and associated pipelines		X	GNR 983: Activity 10 GNR 984: Activity 6
Transportation of dangerous goods underground		X	GNR 984: Activity 7

Name of activity	Aerial extent of the activity	Listed Activity	Applicable listing notice
12 Level Raisebore shaft			
12 Level rock and men/material shafts (Including winder house and headgear)	23Ha	X	GNR 984: Activity 17
General buildings (including admin office, control room, security room) including overall perimeter fencing		X	GNR 984: Activity 15
Ore handling including conveyors belt, ore silos			Included in overall clearing activity
Emergency ore stockpile and transfer towers		X	GNR 984: Activity 6
Pollution Control Dam and associated pipelines to and from the pollution control dams.		X	GNR 983: Activity 10 GNR 984: Activity 6
Waste water storage (ericson dam) , pumpstation and piping (to 15E RB)		X	GNR 983: Activity 10 GNR 984: Activity 6
Water pumps, two pipeline including the crossing of watercourses to move excess water to TSF return water dam		X	GNR 983: Activity 10, 12, and 19.
Access Roads		X	GNR 983: Activity 12, 19 and 24
11 kV Substation			Included in overall clearing activity
Two Ericson Dams (1 ericson dam for the storage of mine services water and 1 ericson dam for active dewatering/ fissure water)		X	GNR 984: Activity 6
Transportation of dangerous goods underground		X	GNR 984: Activity 7
Ventilation Shafts			
Two Downcast Ventilation shafts (including two refrigeration plants and four Pollution Control Dams)	14.5Ha	X	GNR 983: Activity 9, 10, 12 and 19 GNR 984: Activity 4 and 6
Seven upcast ventilation shafts		X	GNR 983: Activity 9, 10, 12 and 19
Middellaagte Surface Adit – Linear Infrastructure			
Service corridor including pipelines and powerlines	32.5Ha	X	GNR 983: Activity 10 and 12, 19
Railway line extensions		X	GNR 983: Activity 64
Tumela 1 Sub Shaft Project			
Clearance of vegetation for the whole Tumela 1 Sub Shaft Project	85.8Ha	X	GNR 983: Activity 27 GNR 984: Activity 15 GNR 985: Activity 12

Name of activity	Aerial extent of the activity	Listed Activity	Applicable listing notice
Storage of dangerous goods (including, but not limited to, diesel, emulsion and ammonia gas) for the whole Tumela 1 Sub Shaft Project		X	GNR 983: Activity 14 GNR 984: Activity 4 GNR 985: Activity 22
Section 102 required due to changes to the mine works programme		X	GNR 983: Activity 21D GNR 984: Activity 17
Tumela 1 Sub Shaft Project – Surface Infrastructure			
General buildings (new lamp room, new change houses, new offices, including parking)	16Ha	X	Included in overall clearing activity- GNR 984 Activity 15
15-level raise bore shaft complete with headgear and winders (including laydown area and associated infrastructure)		X	GNR 984: Activity 17
Ventilation Shafts			
Transportation of dangerous goods (Emulsion, diesel) and shotcrete underground	20.3Ha	X	GNR 984: Activity 7
Four downcast shafts equipped with bulk air coolers and two refrigeration plants at downcast shaft 1 and 2		X	GNR 983: Activity 10 GNR 984: Activity 6 GNR 984: Activity 17 GNR 985: Activity 18
Three upcast ventilation shafts		X	Included in overall clearing activity GNR 984: Activity 17
Reverse Osmosis Water Treatment Plant		X	Included in overall clearing activity GNR 983: Activity 25
Waste water storage (ericson dam) , pumpstation and associated pipelines		X	GNR 983: Activity 10 GNR 984: Activity 6
Tumela 1 Sub Shaft Project – Linear infrastructure			
Service corridor including roads, pipelines (compressed air, water and wastewater) and powerlines from the general surface infrastructure and 15-level raisebore shaft to the ventilation shafts	49.5Ha	X	GNR 983: Activity 12 and 19 GNR 985: Activity 14 and18
Service corridor including roads, pipelines (water and wastewater) from million dollar dam to the general surface infrastructure and 15-level raisebore shaft.		X	GNR 983: Activity 12, 14 19 GNR 985: Activity 14 and 18
Overhead lines from Phoko Eskom Substation (including service road)		X	GNR 983: Activity 11, 12 and 19 GNR 985: Activity 14 and 18

Name of activity	Aerial extent of the activity	Listed Activity	Applicable listing notice
Potable water pipeline and chilled water pipeline		X	GNR 983: Activity 9
Process water pipeline from million$ dollar dam to Zero dam (including service road)		X	GNR 983: Activity 10, 12, 19 and 24 GNR 985: Activity 14 and 18
Tumela 15 Extension Project			
Clearance of vegetation for the whole Tumela 15 Extension Project	27.5Ha	X	GNR 984: Activity 15
Storage of dangerous goods (including, but not limited to, diesel, emulsion and ammonia gas) for the whole Tumela 15 Extension project		X	GNR 983: Activity 14 GNR 984: Activity 4
Section 102 required due to changes to the mine works programme		X	GNR 983: Activity 21D GNR 984: Activity 17
Tumela 15 Extension Project – Surface Infrastructure			
Raisebore Shaft (rock hoisting and cold hole shaft)	14Ha	X	GNR 984: Activity 17
Ore handling including conveyors belt, ore silos		X	Included in overall clearing activity
Emergency ore stockpile and transfer towers		X	GNR 984: Activity 6
Two Downcast Ventilation shafts (including refrigeration plant and one Pollution Control Dam)		X	GNR 983: Activity 9 GNR 984: Activity 6
Pollution Control Dam including pumps and water line to the tailings overflow dam		X	GNR 983: Activity 10 GNR 984: Activity 6
Wastewater storage and pumpstation		X	GNR 983: Activity 9 and 10 GNR 984: Activity 6
Potable water pipeline		X	GNR 983: Activity 9
Access Roads		X	Included in overall clearing activity
11 kV Substation and overhead lines		X	Included in overall clearing activity
Two Ericson Dams		X	GNR 983: Activity 10 GNR 984: Activity 6
General buildings (parking, and workshops including toilet facilities)		X	Included in overall clearing activity
Reverse Osmosis Water Treatment Plant		X	GNR 983: Activity 25 Included in overall clearing activity

Name of activity	Aerial extent of the activity	Listed Activity	Applicable listing notice
Tumela 15 Extension Project – Linear infrastructure			
Service corridor including pipelines and powerlines	3.5Ha	X	GNR 983: Activity 9 and 10
Railway line extensions		X	GNR 983: Activity 64
Dishaba East Project			
Clearance of vegetation for the whole Dishaba East Project	15Ha	X	GNR 983: Activity 27
Storage of dangerous goods (including, but not limited to, diesel, emulsion and ammonia gas) for the whole Dishaba East project		X	GNR 983: Activity 14 GNR 984: Activity 4
Section 102 required due to changes to the mine works programme		X	GNR 983: Activity 21D GNR 984: Activity 17
Dishaba East Project – Surface Infrastructure			
General budling area (new change houses, new offices, including parking)	14Ha	X	Included in overall clearing activity
Reverse Osmosis Water Treatment Plant		X	GNR 983: Activity 25 Included in overall clearing activity
Surface adit and associated surface infrastructure		X	GNR 984: Activity 17
Ore handling including conveyors belt, ore silos		X	Included in overall clearing activity
Emergency ore stockpile and transfer towers		X	GNR 984: Activity 6
Transportation of dangerous goods (Emulsion, diesel)		X	GNR 984: Activity 7

5.2 Water uses associated with the proposed project

Table 5-2 indicated the proposed changes and the Water Uses which are triggered for each proposed change.

Table 5-2: NWA activities triggered by the proposed changes to AMB Operations Capital Project

Section 21: Water Use	Activity
Section 21(a): Taking water from a water resource	Dishaba Mine dewatering
	Middellaagte Raisebore Shafts dewatering
	Tumela 15E Extension dewatering
	Tumela 1 Sub Shaft dewatering
Section 21(b): Storing of water	Middellaagte Raisebore Shafts Ericson Dam 1
	Tumela 15E Extension Ericson Dam 1
	Tumela 1 Sub Shaft Ericson Dam 1
Section 21(c): Impeding or diverting the flow of water in a watercourse; **Section 21(i)**: Altering the bed, banks, course or characteristic of a watercourse	Middellaagte Services corridor east
	Middellaagte Services corridor west
	AMB Golf Course Extension
	Asbestos Potable water pipeline Dishaba
	Asbestos Potable water pipeline Dishaba
	Holding Dam to Concentrator Pipeline
	Holding Dam to RWD Pipeline
	Potable water pipeline Tumela
	Potable water pipeline Tumela
	Potable Water Reservoir
	Tumela RO Plant
	Tumela 1 Shaft Asbestos pipeline
	Tumela 1 Shaft Asbestos pipeline
	Tumela 1 Shaft Phoko Overhead Lines North and South
	Tumela 1 Shaft services corridor West and East
	Tumela 1 Shaft services corridor 1, 2 and 3
	Tumela 1 Sub Intake Shaft 4, Intake Shaft 2 and Upcast Shaft 2
Section 21(e): Engaging in a controlled activity; irrigation of any land with waste or water containing waste	Rec Club
	Tumela Mine main offices
	Tumela Mine sports field
	Dishaba Mine Soccer field
	Housing irrigation
	Golf Course irrigation
Section 21(g): Disposing of waste in a manner which may detrimentally impact on a water resource	Jabulani Dam
	1 Shaft Ore Stockpile
	2 Shaft Ore Stockpile
	Concentrator Off Loading Bunker
	Concentrator Balloon UG2/MER
	Concentrator EDS Stockpile

Section 21: Water Use	Activity
	Concentrator UG2 Bunker Stockpile
	Abattoir Dam
	Middellaagte Raisebore Shafts Ericson Dam 2 and 3
	Middellaagte Raisebore Shafts Pollution Control Dam 1 and 2
	Tumela 15E Extension Conservancy Tank
	Tumela 15E Extension Ore Stockpile
	Tumela 15E Extension Ericson Dam 2 and 3
	Tumela 15E Extension Settling Dam 1 and 2
	Tumela 15E Extension Pollution Control Dam
	Tumela 1 Sub Shaft Ericson Dam 2
	Dishaba East Ore Stockpile
Section 21(j): Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people	Dishaba Mine dewatering
	Middellaagte Raisebore Shafts dewatering
	Tumela 15E Extension dewatering
	Tumela 1 Sub Shaft dewatering

5.3 Proposed project description

The AMB currently employs a labour-intensive conventional mining methodology for the mining of its narrow tabular ore body. In 2021 AAP commenced with the implementation of a portfolio of mechanised mining projects as volume replacements for the depleting conventional / modernised investment centres. The development of the mechanised mining knowledge base will be leveraging technical and operational learnings from the Tumela 15E Mechanised project together with industry best practice. The mechanisation initiative was included in the latest business plans, with associated allocation of the relevant budgets to each project.

Figure 5-1 indicates the mechanised projects which are in various project development phases at the AMB.

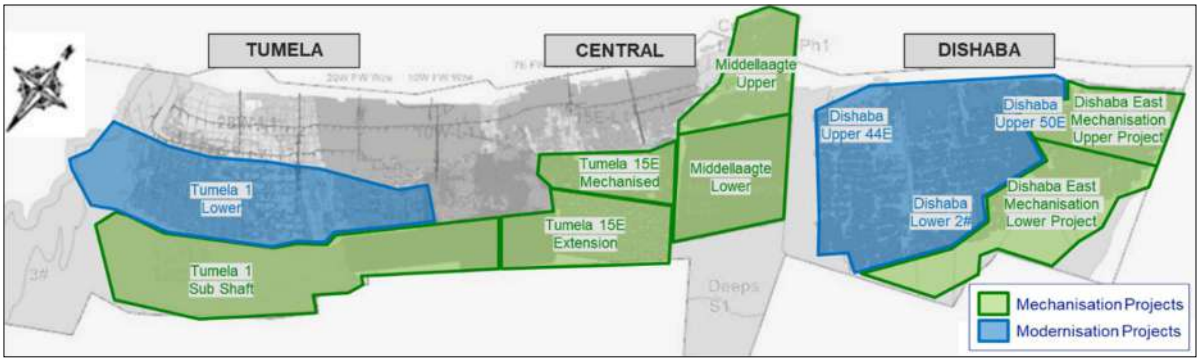


Figure 5-1: Mechanised projects within the Amandelbult Complex

The mechanisation projects consist of the following four major Capital Projects and associated infrastructure:

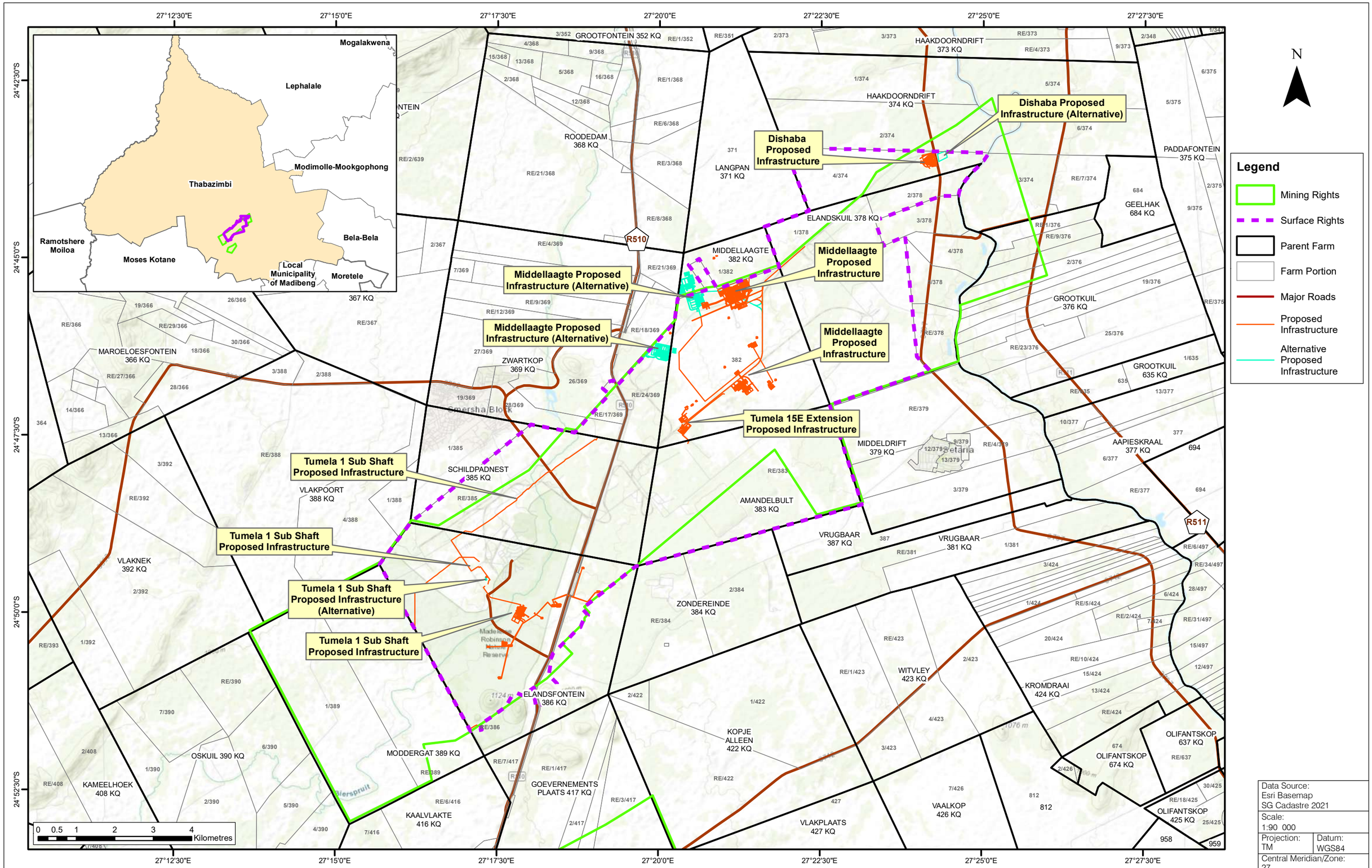
- Middellaagte Upper & Middellaagte Lower;
- Tumela 1 Sub Shaft;
- Tumela 15E Extension; and
- Dishaba East Upper and Dishaba East Lower.

This section outlines the proposed new developments that will be included in this integrated S&EIA process. A summary of the proposed surface infrastructure to support mechanised mining are indicated in Table 5-3. Refer to Figure 5-2 for the proposed location of the new infrastructure to be developed.

Table 5-3: Proposed activities associated with each project

AMB Area	Proposed surface infrastructure
Middellaagte Upper & Middellaagte Lower	• Middellaagte Surface Adit and associated supporting infrastructure (workshops, offices, change-house, lamp room, car park, etc.) • Raisebore Shaft, from surface to 6 Level • Raisebore Shaft from surface to 12 Level • Additional/ new railway line extending from the existing rail network • Surface corridor to allow for pipelines (potable, sewer lines, clean water and process/ service water), powerlines and other linear services • Ventilation shafts (upcast and downcast) • Potential road and power lines realignment • Diesel and emulsion areas • PCD/Ericson dams • Laydown areas • Soil stockpile area • Rock silos and 'emergency' stockpiles • Electrical substation and power lines • Reverse Osmosis (RO) plant
Tumela 1 Sub Shaft	• Raisebore shaft from surface to 15L complete with headgear and winders • Diesel and emulsion drop down area and surface storage area • Shotcrete and emulsion plant area • Tie into the existing fridge plant and roads around the area • Various ventilation shafts (upcast and downcast) • Downcast shafts will be equipped with Bulk Air Coolers (BAC) • Fridge-plants at some vent shafts with pipework to the BAC's • Use of the existing million dollar dam, to be refurbished and upgraded (already authorised) • Two new Ericson dams will be required for dewatering • Two new pipelines will be required, however, these will follow the existing pipeline servitude • Reverse Osmosis (RO) plant • Laydown areas • Soil stockpile area • New electrical power lines from Phoko substation to the Tumela 1 Shaft substation and to the new M&M shaft and ventilation shafts • New 20MVA transformer, at the existing Tumela 1Shaft substation area • Offices, change-houses, parking and laydown area at the 28W RB shaft area
Tumela 15E Extension	• Raise bore (cold hole) shaft from surface to 12 level, bulk air cooling and fridge plant • Raise bore shaft from surface to 13 level, including headgear and winder houses for rock hoisting • Additional diesel and shotcrete plant • Additional Ericson dams and pollution control dam (PCD) • Ore silo and associated emergency stockpile area • Tie into the existing railway network • Diesel, emulsion and shotcrete surface plant (with drop down piping to UG infrastructure) • Electrical power line connections from existing overhead line (OHL)

AMB Area	Proposed surface infrastructure
	• Pipeline corridor for the water services (compressed air, service/ process water, potable water) • Reverse Osmosis (RO) plant • Conversion of the existing downcast vent shaft to an upcast facility with bifurcated fans
Dishaba East	• New surface adit is required within the existing disturbed area • The existing Ericson dams will be utilised, however, two additional dams will be required for dewatering • Reverse Osmosis (RO) plant • New pipelines and powerlines will be required from the adit to the existing lines • New diesel and emulsion areas are required • New laydown areas for construction • Rock handling conveyor belts – tied into the existing 62E Silo and rail network • Offices, laydown area



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Scale: 1:90 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 09/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 5-2

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FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE

LOCALITY MAP OF PROPOSED CAPITAL PROJECTS AND ASSOCIATED INFRASTRUCTURE

Path: J:\Proj\572200_EIA_Middlelaagte\8GIS\GISPROJ\MXD\Capex_EA_2023\572200_A3L_AMB_Integrated_EA_Capex_RegionalLocality_20230109.mxd

Revision: A Date: 18 04 2023

5.3.1 Middellaagte Underground Project

The Middellaagte Underground Project is a new project within the AMB and the Limberg/Cronimet Mining Right, which as part of this application will be transferred to AMB and included into the AMB Mining Right. The Middellaagte Project is situated on both Amandelbult and Limberg (ventilation shafts) properties. Middellaagte is a greenfield project and will require implementation of new infrastructure to access and support underground operation. During the extended Pre-feasibility Study A, two underground access options were investigated. In order to access the underground operations a triple decline cluster through surface adit and men/material hoisting infrastructure down to 6 and 12 level raisebore shafts will be required.

As Middellaagte is on a Greenfields area and is a new project all the surface infrastructure related to the underground mining will be required to be developed and constructed. The Middellaagte Underground Project is separated in to four main areas, namely:

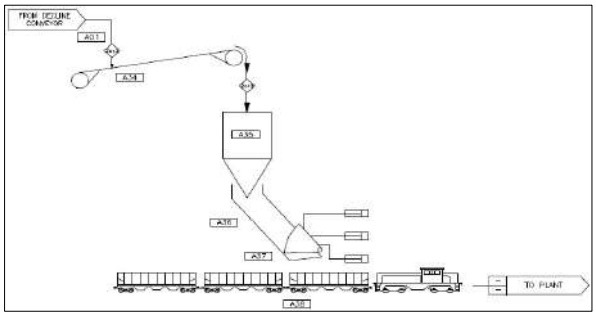
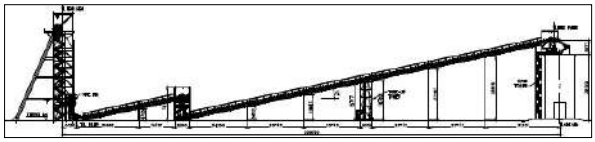
- Ore handling (Table 5-4);
- Surface Adit and 6 Level Rock Hoisting Shaft Infrastructure (Table 5-5);
- Six Level (6L) Raisebore Shafts and Infrastructure (Table 5-6); and
- Twelve Level (12L) Rock & Men/Material Hoisting Shaft Associated Surface Infrastructure (Table 5-7).

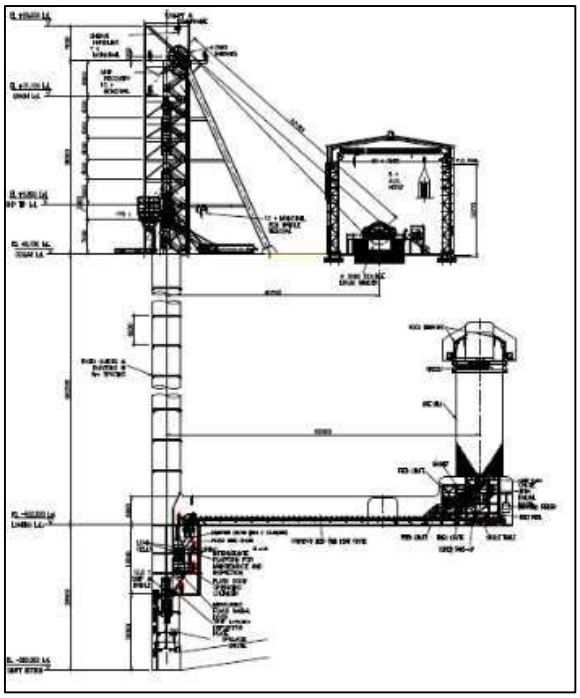
Figure 5-10 provides the proposed location of the proposed project and the associated surface infrastructure.

Ore handling

The ore produced as part of the underground mining will be transported to the surface. Table 5-4 outlines the various surface infrastructure which will be required. Refer to Figure 5-8 for the location of surface infrastructure.

Table 5-4: Middellaagte rock handling

Anticipated infrastructure	Associated infrastructure and detailed description	Image of the proposed infrastructure
Ore Handling		
Ore handling at Middellaagte	Ore will be conveyed from the triple decline cluster via a surface adit and fed into 6000t surface silo. The silo will be placed over the extended railway lines, from the Dishaba railway networks, for transportation (Figure 5-3).	 **Figure 5-3: Middellaagte Day Lighting Leg 1 Decline Belt**
	Ore will be transported by an overland conveyor from the 6 level raise bored rock hoisting shaft to a second 6000t silos as shown above in Figure 5-4.	 **Figure 5-4: Middellaagte Surface Ore Handling Infrastructure**

Anticipated infrastructure	Associated infrastructure and detailed description	Image of the proposed infrastructure
	Ore will be brought up to surface level from the underground workings via a rock hoisting shaft at the 6L and 12L Raisebore shaft. The silos will discharge into the surface tramming system. The existing rail network at the Amandelbult Complex will be extended to include the discharge from the Middellaagte silos.	 **Figure 5-5: Middellaagte 6L and 12L Rock Hoisting Shafts (Typical)**

Surface Adit and 6 Level Rock Hoisting Shaft Infrastructure

Table 5-5 outlines the various infrastructure required as part of the underground surface infrastructure. Refer to Figure 5-8, it provides a graphic view of each of the surface infrastructure.

Table 5-5: Surface Adit and 6 Level Rock Hoisting Shaft Infrastructure

Anticipated Infrastructure	Associated infrastructure and detailed description
Ore Handling	The following surface infrastructure will be required as part of handling ore • 1050mm wide Leg 1 decline conveyor day lighting from surface adit and feeding 6000t silo. • Emergency waste rock stockpile from surface adit and 6 level rock shaft silo feed conveyors. • 6000t ore silo mounted above the extended rail line.
General Buildings	The following buildings and offices will be located at the general buildings: • Administration office, change house and control room • Crush room, emergency room, lamp room, boot wash, laundry and boiler room • Security room • Covered and uncovered car parking, taxi rank and bus stop
Maintenance Facility	A workshop, wash bay, parking and brake test ramp will be located within the maintenance facility.
General Storage Facility	A cable yard will be located within the general storage facility. In addition to this, a general stores yard and laydown area will be located within this area.
Dangerous Goods Storage Facility	Storage of dangerous goods such as petrol, diesel, batteries hydrocarbons and emulsions and other explosives will be stored within the dangerous goods storage facility/plant.

Anticipated Infrastructure	Associated infrastructure and detailed description
Water and Wastewater	The following water and wastewater facilities will be required as part of the Middellaagte surface infrastructure: • A RO water treatment plant will be required as part of the Middellaagte underground project. • Two 4ML ericson dams to store clearwater from underground • Two 4ML ericson dams to store active dewatering fissure water from underground. • Two PCD dams to capture stormwater from surface infrastructure and adit including a pump station to discharge excess water from PCD to TSF return water dam. • Wastewater treatment plant/Wastewater storage, pump station and piping to concentrator
Access Roads	• Access tared roads to all general buildings. • Access gravel roads to all ventilation shafts, rock and men/material shafts, service plants, refrigeration plant, mine stores and cable yard and workshops.
Services Plants	• Diesel plant (Surface Storage only) including storage tanks 0f 100m3 and dispensing units • Emulsion plant (Surface Storage only) including storage silos and dispensing units • Shotcrete plant (Surface Storage only) including weigh system, conveyors, hoppers, silos, pumps, mixers, washing systems, control room and MCC and perimeter fencing.
Perimeter Fencing	• Site wide steel perimeter fencing covering surface adit area and associated infrastructure
Railway Extension	• Tie-in from the existing Amandelbult rail network, extending to the Middellaagte surface ore hoisting shaft silos.
Pipelines	• The Middellaagte services piping will tie-in from existing services corridor at main road between Tumela 15E to Dishaba 43E and will be reticulated to Middellaagte surface adit, all ventilation shafts, 6 level rock hoisting shaft, refrigeration plant and 12 level rock and men/material hoisting shaft. • Services corridor will consist of compressed air, potable water, mine service water pipelines to and from Middellaagte Project. • Services corridor will further consist of excess mine service water and wastewater piping from Middellaagte Project to Amandelbult TSF return water dam and 15E raisebore shaft respectively.
Power Supply	• 33kV Overhead lines from the new 132KVA Eskom Substation to Middellaagte 33kVA substation. • 33 kV Overhead lines from the concentrator to Middellaagte 33kVA substation. • 11kV OHL from Middellaagte Substation to nine upcast ventilation shafts, seven downcast ventilation shafts, 6 level rock raisebore shafts, 12 level rock and men/material hoisting shaft and refrigeration plant.
Ventilation	• Seven downcast ventilation shafts will be required. Each shaft will be equipped with a bulk air cooler, air ducting, all mechanicals and electricals and perimeter fencing. • Two refrigeration plants complete with cooling towers, all mechanicals and electricals, PCD dams and perimeter fencing. • Nine upcast ventilation shafts. Each shaft equipped with bifurcated ventilation fan, 11kV substation and perimeter fencing (Figure 5-6, Figure 5-7 and Figure 5-8)

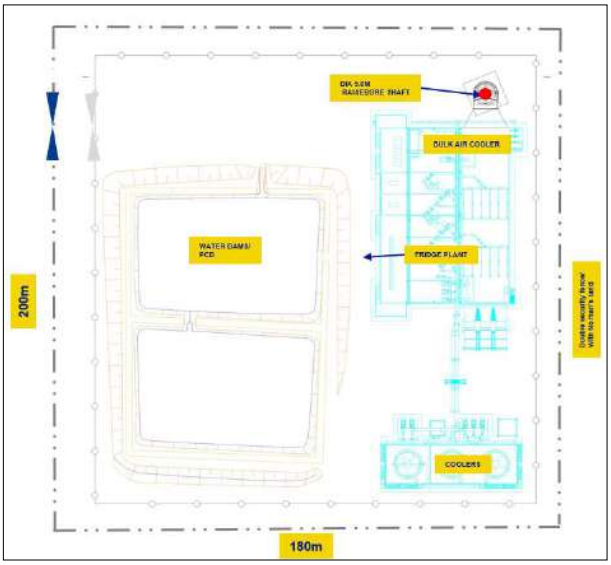


Figure 5-6: Typical downcast ventilation shaft layout

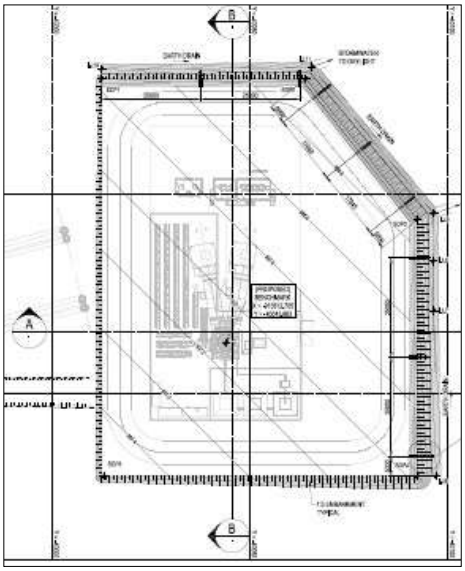


Figure 5-7: Typical Upcast Ventilation Shaft

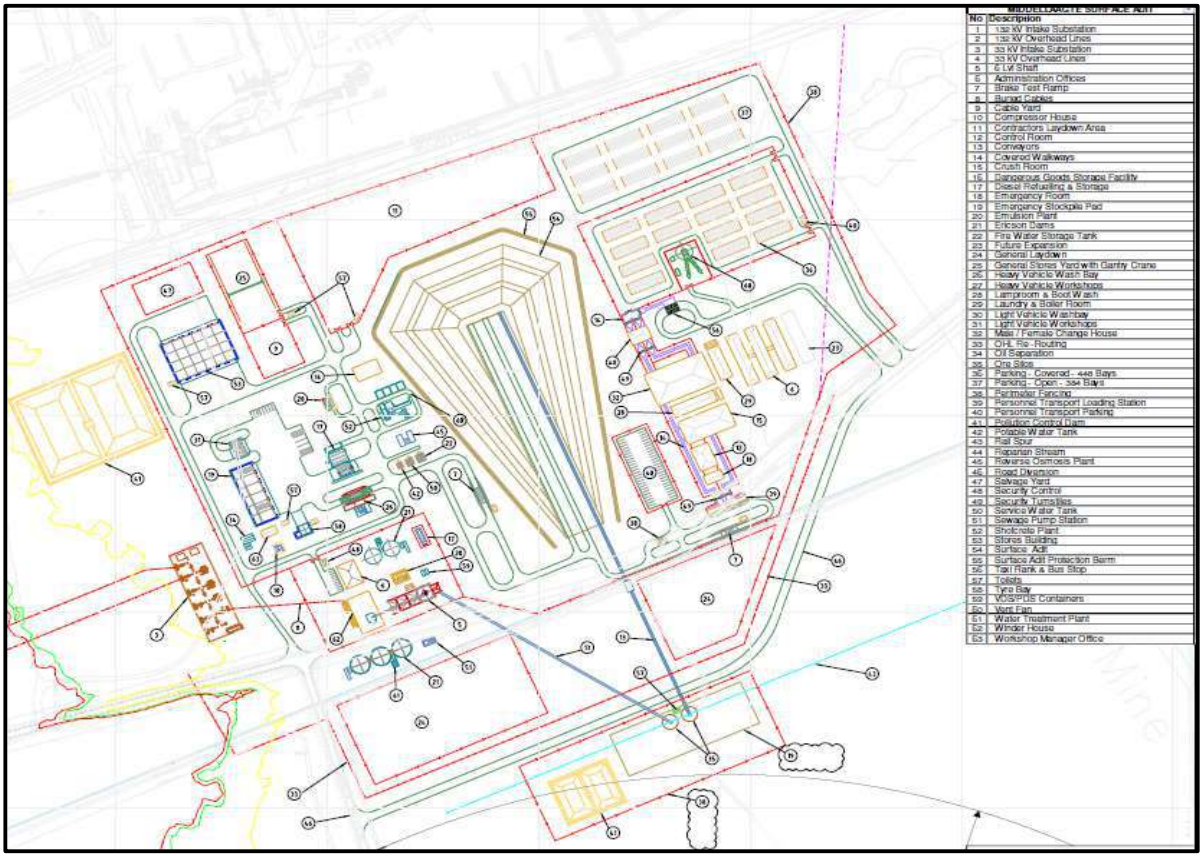
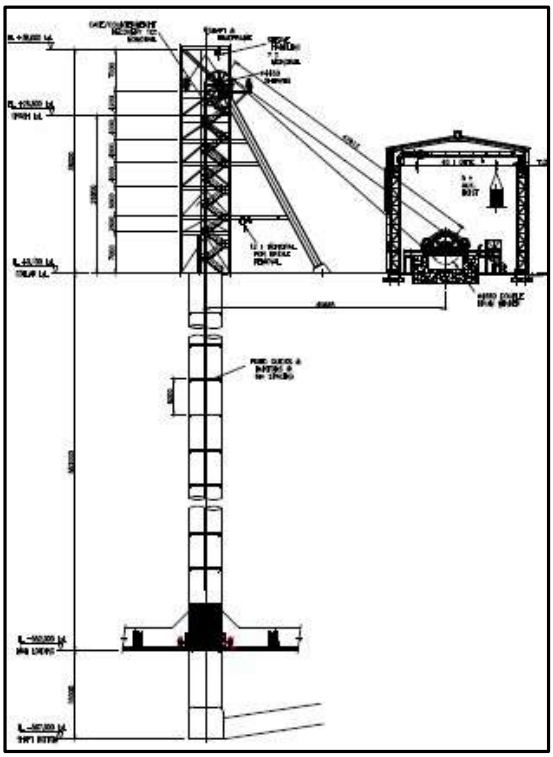


Figure 5-8: Middellaagte Surface Adit & 6 Level Rock Hoisting Shaft Infrastructure

6 Level Raisebore Shafts and Infrastructure

As part of the Middellaagte project a 6 Level (6L) Raisebore shaft will be required to hoist ore to the surface. The various surface infrastructure associated with the 6L Raisebore Shaft is part of the Decline adit infrastructure, except for the hoisting shaft and associated infrastructure as outlined in Table 5-6. Refer to Figure 5-8 for the location of each surface infrastructure.

Table 5-6: 6 Level Raisebore Shafts and Infrastructure

Anticipated infrastructure	Associated infrastructure and detailed description	Image of the proposed infrastructure
Ore Handling	• Rock hoisting shaft (Including winder house, headgear, ropes and mini substation). • 1050mm silo feed conveyor feeding into 6000t ore silos. • The 6000t ore silo mounted above the extended rail line.	 **Figure 5-9: Middellaagte 6 Level Rock Hoisting Shaft (Typical**

12 Level Rock & Men/Material Hoisting Shaft Associated Surface Infrastructure

As part of the Middellaagte project a 12 Level (12L) Rock and Men/ Material Hoisting Shaft will be required to hoist rock and Men/ Material to the surface as mining progresses to the lower levels. There is various surface infrastructure associated with the 12L Rock and Men/ Material Hoisting Shaft as outlined in Table 5-7. Refer to Figure 5-10 for the location of surface infrastructure

Table 5-7: Middellaagte 12L Rock and Men/ Material Hoisting Shaft surface infrastructure

Anticipated Infrastructure	Associated infrastructure and detailed description
Rock & Men/Material Handling	• Rock and men/material hoisting shaft (Including winder house, headgear and ropes). • Emergency ore stockpile • 1050mm silo feed conveyor feeding into two 3000t ore silos. • Two 3000t ore silo mounted above the extended rail line.
General Buildings and Offices	The following buildings and offices will be located at the general buildings: • Administration office, change house and control room • Crush room, emergency room, lamp room, boot wash, laundry and boiler room • Security room • Covered and uncovered car parking, taxi rank and bus stop
General Storage Facilities	A cable yard will be located within the general storage facility. In addition to this, a general stores yard and laydown area will be located within this area.
Dangerous Goods Storage Facility	Storage of dangerous goods such as petrol, diesel, batteries hydrocarbons and emulsions and other explosives will be stored within the dangerous goods storage facility. Volumes?
Water and Wastewater Facilities	The following water and wastewater facilities will be required as part of the Middellaagte surface infrastructure: • . One 4ML ericson dam to store clearwater from underground • One 4ML ericson dam to store active dewatering fissure water from underground. • PCD dams to capture stormwater from surface infrastructure and adit including pump station to discharge excess water from PCD to TSF return water dam. • Wastewater treatment plant/Wastewater storage, pump station and piping to concentrator
Access Roads	• Access tarred roads to all general buildings • Access gravel roads to service plants, general storage facility and dangerous goods storage facility.
Service Plants	• Diesel pipe drop system with 0.4m diameter borehole including storage tanks, pumps; and piping from diesel tanks to borehole and perimeter fencing. • Emulsion pipe drop system with 0.4m diameter borehole including storage tanks, pumps; and piping from tanks to borehole and perimeter fencing. • Shotcrete/concrete slickline pipe drop system with 0.4m diameter borehole including weigh system, conveyors, hoppers, silos, pumps, mixers, washing systems, control room and MCC and perimeter fencing.
Perimeter Fencing	Site wide steel perimeter fencing covering 12 level rock and men/material raisebore shafts and associated infrastructure.
Railway Extension	Tie-in from Dishaba 43E rail-line and extended to Middellaagte 12 level rock hoisting shaft ore silos.
Power Supply	33kV Overhead lines from Middellaagte 33kV Substation to 12 level rock and men/material hoisting shaft

27°19'30"E 27°20'0"E 27°20'30"E 27°21'0"E 27°21'30"E 27°22'0"E 27°22'30"E

24°45'0"S 24°45'30"S 24°46'0"S 24°46'30"S 24°47'0"S

LANGPAN
371 KQ

MIDDELLAAGTE
382 KQ

ZWARTKOP
369 KQ

ELANDSKUIL
378 KQ

AMANDELBULT
383 KQ

Vent Shafts

Vent Shafts

Middellaagte Infrastructure Alternative Option

Middellaagte 6L RB#

Full Boxcut

Security Fence

Roads

Railway Line

Sub-Station by Eskom

Vent Shafts

Vent Shafts

Vent Shafts

Middellaagte Infrastructure Alternative Option

Service Corridor

Fridge plant; BAC & PCD

Vent Shafts

Middellaagte 12L RB

Vent Shafts

Fridge plant; BAC & PCD

R510

R510

RE/18/369

1/382

382

1/378

RE/24/369

RE/17/369

RE/370

N

Legend

- Mining Rights
- Surface Rights
- Major Roads
- Parent Farm
- Farm Portion

0 265 530 1 060 Metres

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FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE PROJECT

MIDDELLAAGTE PROPOSED INFRASTRUCTURE

Data Source: Esri Basemap	
Scale: 1:17 500	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 13/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 5-10

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Revision: A Date: 18 04 2023

5.3.2 Tumela 1 Sub Shaft Project

The Tumela 1 Sub Shaft Project will be a mechanised operation below the current conventional mine, as shown in Figure 5-11. The purpose of the Tumela 1 Sub Shaft project is due to the depleting minerals using conventional mining. The mechanisation project will allow for the mining activities of the mineral resource to continue. The mechanisation project will leverage the existing mining infrastructure as well as the supporting infrastructure. The current Tumela 1 Shaft men/material hoisting infrastructure will be used to access the project area. The existing rock hoisting infrastructure is earmarked to support development and production from Tumela 1 Sub Shaft operation.

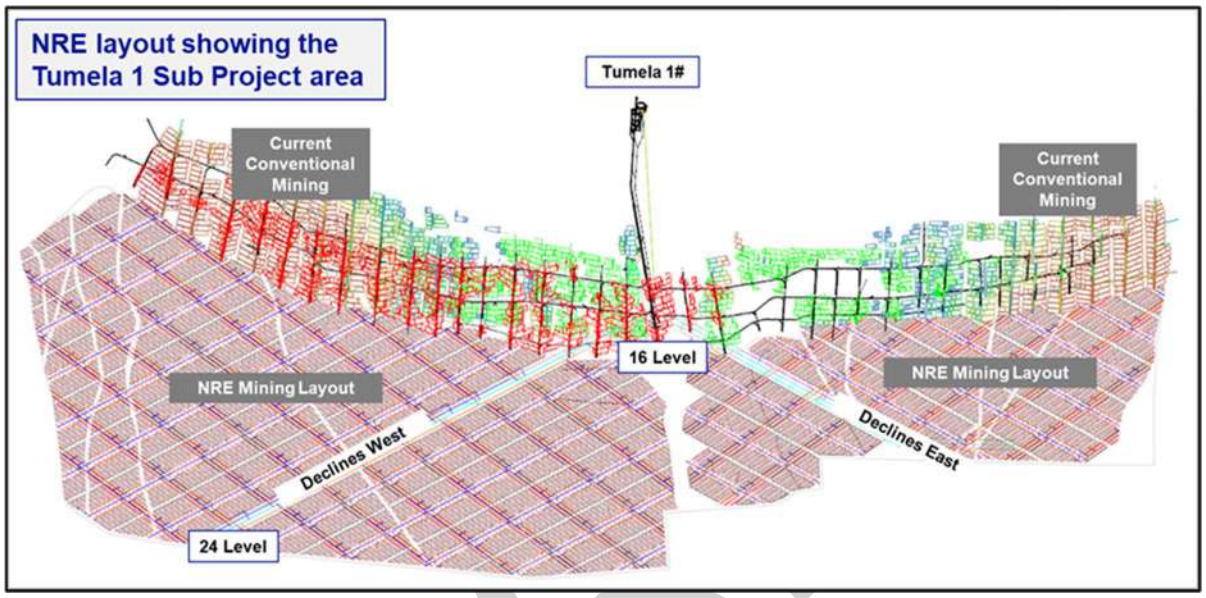
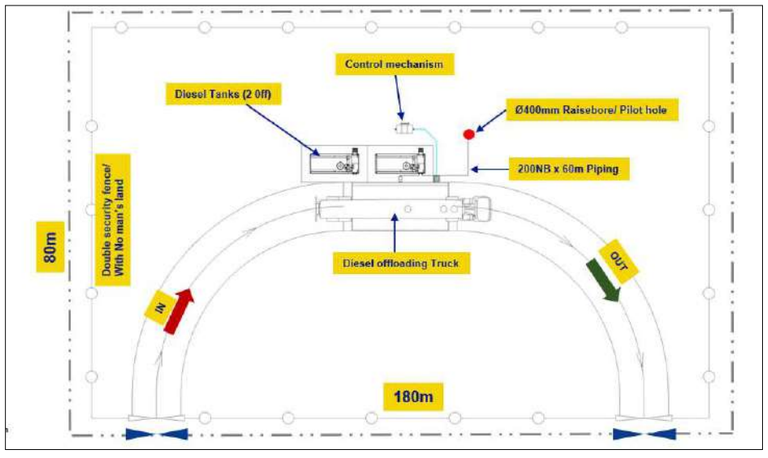


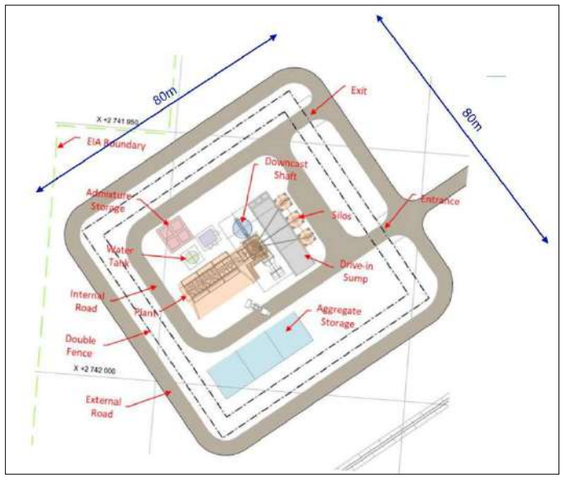
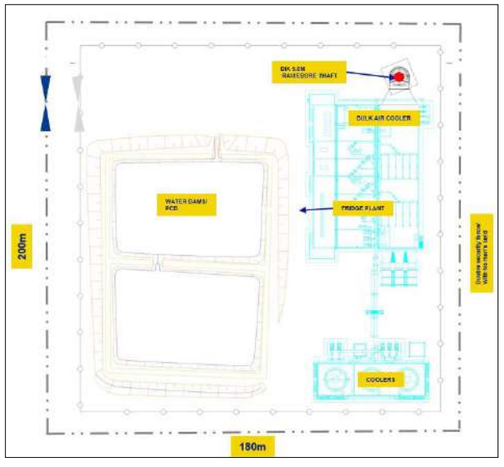
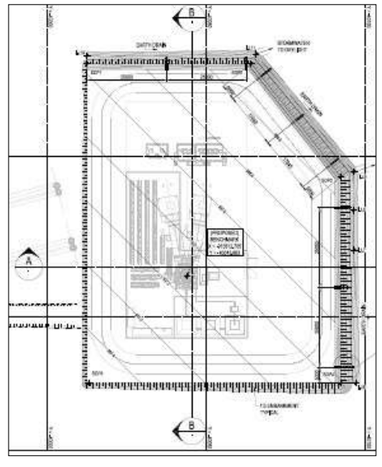
Figure 5-11: Tumela 1 Sub Shaft UG Layout

Table 5-8 provides a detailed description as well as images indicating the supporting infrastructure which will be required at Tumela 1 Sub Shaft.

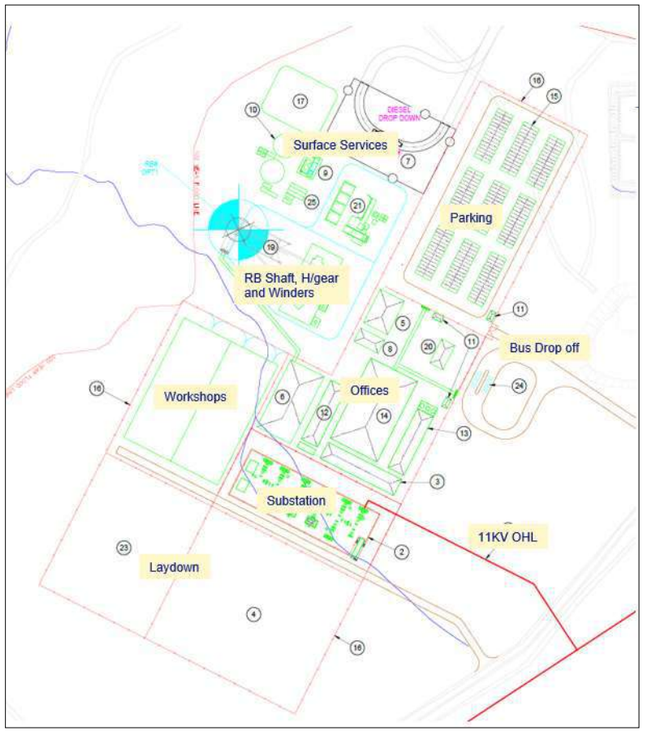
Table 5-8: Tumela 1 Sub Shaft supporting surface infrastructure

Surface Infrastructure	Infrastructure Description	Image of the proposed area
Water Handling		
Ericson Dams	The Tumela 1 Sub Shaft will use the existing two ericson dams (Figure 5-12). These are both 4Ml circular ericson dams and will be used to store mine service water. An additional 4ML ericson dam will be required for active dewatering. Due to this there will be three ericson dams required as part of the Tumela 1 Sub Shaft supporting surface infrastructure. The existing gravel roads will be used to access the various area and will be fenced where necessary. A new pipe will be required to feed the mine service water, via gravity, from the ericson dam to the Million Dollar Dam. The pipeline will have a diameter of 200m and a length of 245m.	
Million Dollar Dam	The existing Million Dollar Dam (Figure 5-12) will be rehabilitated and re-lined for use as storage of excess mine service water from the Ericson dams. The existing gravel access roads, fencing, power supply to be utilised to access the Million Dollar Dam. A new water pump station will need to be developed as well as a new pipeline from the Million Dollar Dam to the Zero Dam. The Pipeline will have a diameter of 300mm and a length of 7 km.	
Potable Water	Potable water will be piped to all downcast ventilation shafts, diesel, emulsion and shotcrete/concrete plant sites within Tumela 1 Sub Shaft. This pipeline will tie into the existing line which services the existing refrigeration plant and will routed along the existing services corridor up. It is anticipated that the pipeline will have a diameter of 250mm and a length of 1500m.	**Figure 5-12: Tumela 1 Sub Shaft existing Ericson and Million Dollar Dam**
General Buildings		
General Buildings	The surface area of Tumela 1 Sub Shaft is fairly constraint therefore the existing 28W RB infrastructure terrace earmarked for establishment and construction of Tumela 1 Sub Shaft general project buildings, following the completion of the reclamation project. The terrace footprint dimensions are as shown in Figure 5-13 below, and will include the following surface infrastructure • PDS/VDS lamp room • Male/female change house • Project and contractors' office • Covered parking • Laydown area.	
Services at the general buildings	In order to accommodate the Tumela 1 Sub Shaft general buildings a new wastewater drainage pipe will be required. It will route along the existing gravel access road from the 28W RB terrace down and will tie into the existing wastewater pipeline at Tumela 1 Shaft. The pipeline will have a diameter of 200mm and a length of 390m. The existing gravel road will be utilised as well as the existing potable water which is already routed to this area. The general buildings are located on already disturbed area. The activities which are currently being undertaken at this area are being stopped and the infrastructure is being decommissioned (not part of this application). The proposed areas will be less than 1ha in area.	**Figure 5-13: Tumela 1 Sub Shaft General Buildings**

Surface Infrastructure	Infrastructure Description	Image of the proposed area
Power Supply		
Power Supply from Eskom Substation	Power will be supplied via the existing Phoko Eskom Substation. In order to provide power to the project, the Phoko Eskom Substation will require extending and additional transformer will be added to this substation for the Tumela 1 Sub Shaft. These activities will be undertaken by Eskom as this is on their property (Figure 5-14) and the overhead powerline from the Phoko Eskom substation will be constructed by AMB. This powerline will follow an existing servitude and will provide power to the Tumela 1 Sub Shaft Project and a new powerline route to the new M&M Raisebore shaft	 **Figure 5-14: Phoko Substation and OHL**
Power Supply from Tumela 1 Shaft Substation	Construction of an additional 6.7 km long, 33 kV overhead lines from the Phoko Eskom Substation to the M&M shaft, three upcast ventilation shafts, four downcast ventilation shafts, surface plants sites and the Tumela 1 Shaft Substation. This will be constructed by AAP as this is within the AMB (**Figure 5-15**).	 **Figure 5-15: Tumela 1 Shaft Substation**
Service Plants		
Diesel Plant	The areas where the diesel plant will be located will have an area of 180m by 80m. The diesel plant will have two diesel storage tanks which have a capacity of 30 000 litres ($30m^3$). The diesel will be gravity fed, through a 100m diameter surface pipe for a length 50m horizontal and then gravity fed to the underground workings, which will be though a diesel pipe drop system which has a 400mm diameter borehole. A road will be constructed at a width of 6m. This will be used by vendors to offload diesel to the storage tanks.	 **Figure 5-16: Typical diesel plant layout**

Surface Infrastructure	Infrastructure Description	Image of the proposed area
Emulsion Plant	The areas where the emulsion plant will be located will have an area of 120m by 80m. The emulsion plant will have one storage tank which have a capacity of 30m3. The emulsion will be gravity fed, through a 100m diameter surface pipe for a length 200m to the underground workings, which will be though a pipe drop system which has a 400mm diameter borehole. A road will be constructed at a width of 6m. This will be used by a contractor to offload emulsion to the storage tank. Two Emulsion Plants are anticipated at Tumela 1 Sub Shaft (18 & 22 level in western decline and 18 level in the eastern decline).	 **Figure 5-17: A typical emulsion plant layout**
Shotcrete/ Concrete Plant	Two shotcrete/concrete slickline pipe drop systems will be required at Tumela 1 Sub Shaft. The area where the shotcrete plant will be located will have a terrace of 120m by 80m. The necessary mix of aggregates and water will be loaded into a screw feeder and mixed. Additives will be stored on silos. The Shotcrete will be gravity fed, through a 200m diameter surface pipe to the underground workings, which will be though a pipe drop system which has a 400mm diameter borehole. A road will be constructed at a width of 6m. This will be used by a vendor to offload material as follows to the storage tanks: • 3 x 60 t binder storage silos, two for cement and one for fly ash • 3 x bins; each bin has a nominal capacity of 20 m³ and approximately 40 t of aggregate • 1 x 20 m³ polypropylene water tank	 **Figure 5-18: A typical shotcrete plant layout**
Ventilation		
Ventilation Shafts: Downcast and upcast	The purpose of a downcast ventilation cast is to cool the air prior to it being force draught down the raise bore shaft to cool the underground workings. Downcast ventilation shafts: four downcast ventilation shafts will be required as part of the Tumela 1 Sub Shaft. Each downcast ventilation shaft will be equipped with a bulk air cooler, air ducting, and refrigeration plant. The refrigeration plants will include cooling towers, two PCD dams and a perimeter fencing (Figure 5-19). The existing gravel access roads to all ventilation shafts to be used. Upcast ventilation shafts: three upcast ventilation shafts will be required as part of the Tumela 1 Sub Shaft. The purpose of the upcast ventilation shaft is to remove the warmer air from the underground workings. Each upcast ventilation shaft will be equipped with bifurcated ventilation fan, an 11kV substation and perimeter fencing (Figure 5-20). The existing gravel access roads to all ventilation shafts to be used.	 **Figure 5-19: Typical downcast ventilation shaft layout**  **Figure 5-20: Typical Upcast Ventilation Shaft**

Surface Infrastructure	Infrastructure Description	Image of the proposed area
Raisebore Shaft (15 Level)		

Raisebore Shaft (15 Level) and associated surface infrastructure.	A new personnel and material shaft are required for the Tumela 1 Sub Shaft project. This will be required to lower large equipment to the underground operations. A 5m diameter raisebore hole from surface to the underground workings will be constructed. This will be equipped with a large cage and counterweight to transport mechanised equipment underground. Refer to Figure 5-21 for the typical outline of the RB Rock Hoisting Shaft. Additional surface infrastructure associated with the RB Rock hoisting Shaft includes:
	• Office buildings including mechanised workshop, laydown areas, offices and parking;
	• Surface infrastructure including a diesel, emulsion and shotcrete plants (detailed above), winders and headgear;
	• New access roads (shorter than 1km) which will be tied in with the existing roads. Existing roads will be upgraded (width will be less than 8m).
	• 11KV overhead line from Phoko Eskom substation and a local substation
	• Water services (all pipelines will be approximately 2.2 km) in include:
	  ○ 100NB potable water,
	  ○ 150NB sewer line from/ to Tumela 1shaft,
	  ○ 250NB each from a surface dam to the shaft area.
		
		Figure 5-21: Tumela 1 Sub Shaft - Personnel and Material Hoist Shaft

27°15'0"E 27°16'0"E 27°17'0"E 27°18'0"E 27°19'0"E 27°20'0"E 27°21'0"E

24°47'30"S 24°48'45"S 24°50'0"S 24°51'15"S

N

Legend

- Mining Rights
- Surface Rights
- Major Roads
- Parent Farm
- Farm Portion

SCHILDPADNEST 385 KQ

VLAKPOORT 388 KQ

ZWARTKOP 369 KQ

MIDDELLAAGTE 382 KQ

AMANDELBULT 383 KQ

ELANDSFONTEIN 386 KQ

MODDERGAT 389 KQ

KOPJE ALLEEN 422 KQ

GOEVERNEMENTS PLAATS 417 KQ

Tumela 1 Shaft Service Corridor

Clear Water Reservoir Dam

Clear Water Reservoir Dam Alternative

Shotcrete & Emulsion

Upcast Shaft 3

Downcast Shaft 3

Downcast Shaft 1

Diesel Drop Down

Upcast Shaft 1

Shotcrete & Emulsion

New 11kV OHL & Service Corridor

Upcast Shaft 2

Downcast Shaft 2

Downcast Shaft 4

R510

0 0.5 1 2 Kilometres

Data Source: Esri Basemap	
Scale: 1:30 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	

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FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE PROJECT

TUMELA 1 SUB SHAFT PROPOSED INFRASTRUCTURE

Date: 27/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 5-22

Revision: A Date: 18 04 2023

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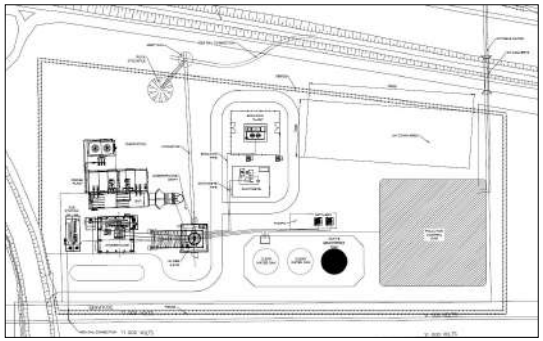
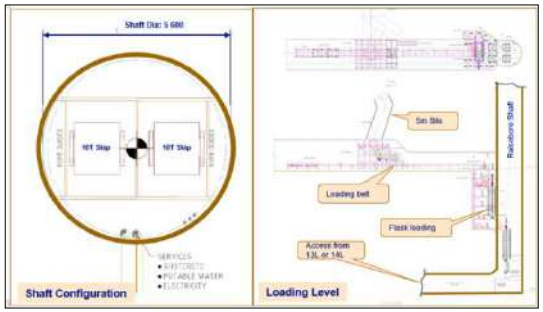
5.3.3 Tumela 15E Extension Project

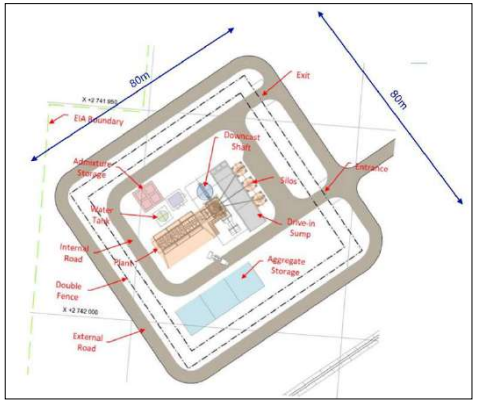
The Tumela 15E Extension Project is a deeper mining 'extension' of the existing 15E dropdown mining project. In 2019 the 15E Mechanisation Dropdown Project commenced and was a pilot project to identify the viability of mechanisation at the AMB. Due to the success of that project, it is proposed to continue deeper underground using the existing infrastructure for personnel and material. However, due to the continuation, new surface infrastructure will be required for the ventilation and rock handling to support the increase in tonnages from the current 75ktpm to more than 110ktpm.

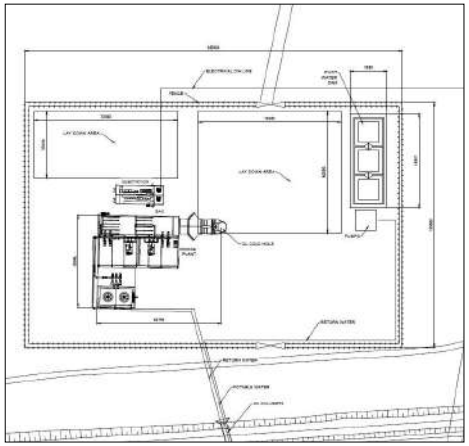
A similar mining method of either Narrow Reef Equipment (NRE) or Board and Pillar (B&P) will be used. Rock will be conveyed to 13L, where it will hoist to surface through a new raisebore shaft.

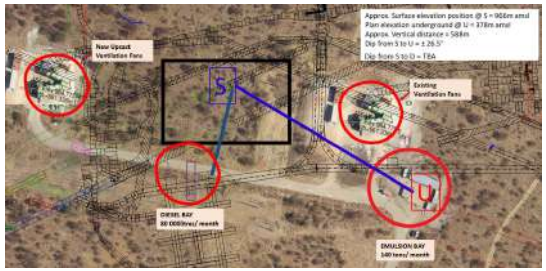
Table 5-9 provides a detailed description as well as images indicating the supporting infrastructure which will be required at Tumela 15E Extension Project.

Table 5-9: Tumela 15E Extension Project associated surface infrastructure

Surface Infrastructure	Infrastructure Description	Image of the proposed area
Surface Terrance		
Surface Terrance	The area where the surface infrastructure will be located will have an area of 200m x 250m which will be cleared and terraced. The proposed site layout for the Tumela 15E Extension surface infrastructure is outlined in Figure 5-23. All the turf, sub soil and waste will be removed and transported to approved sites. Suitable waste rock will be imported to provide the necessary civil bases for the infrastructure to be installed.	 **Figure 5-23: Proposed surface infrastructure for the Tumela 15E Extension Projects**
Raisebore Shaft	The raisebore hole will commence with the pilot hole drilling typically 400mm from surface to 13L. Water used during the piloting will be collected from the mine and transported to site using water bowsers and stored in lined dams for this 4 – 6 month operation. During the reaming operation, nil water is used. No blasting is foreseen during the raisebore operation (Figure 5-24).	 **Figure 5-24: Raisebore shaft at Tumela 15E Extension**
Winder-house, Headgear and Winder ropes	The winder-house will contain all the mechanicals, double drum rock hoisting winder, electricals, and services. A toilet and wash hand basis will be connected to a conservancy tank where a 'honey sucker' mobile unit will collect the waste frequently.	
Conveyor, silo and ore stockpile	A 1050mm wide conveyor with a length of 110m will be installed from the headgear to the silo. A 3000t concrete silo (Height of 15m height) will be mounted above the extended rail line (Figure 5-24). Should the silo be full or there is an emergency, an ore stockpile will be created. The stockpile is anticipated to have an approximately height of 4m. The ore will be collected by trucks loaded by front end loaders and transported to the concentrator plant.	

Surface Infrastructure	Infrastructure Description	Image of the proposed area
Fridge plant building	A fridge plant will be required and will include a building for all the mechanical, electrical and instrumental equipment as well as cooling water towers and steel ducting from the fridge plant to the shaft entrance.	
Power Supply		
Electrical substation	A new 11kV line will be constructed and will tie in with the existing powerline from the main substation. Power will be supplied to the individual drives from this substation i.e., feed to the winders, fridge plant, pumps, etc.	
Service Plants		
Emulsion Plant	The areas where the emulsion plant will be located will have a terrace of 120m by 80m. The emulsion plant will have one storage tank which has a capacity of 30m^3. The emulsion will be gravity fed, through a 100m diameter surface pipe for a length 200m to the underground workings, which will be though a pipe drop system which has a 400mm diameter borehole. A road will be constructed at a width of 6m. This will be used by a contractor to offload emulsion to the storage tank. Two Emulsion Plants are anticipated at Tumela 15E Extension.	
Shotcrete/ Concrete Plant	The area where the shotcrete plant will be located will have a terrace of 120m by 80m in order to have sufficient laydown areas for the raisebore equipment. The necessary mix of aggregates and water will be loaded into a screw feeder and mixed. Additives will be stored in silos. The Shotcrete will be gravity fed, through a 200m diameter surface pipe to the underground workings, which will be though a pipe drop system which has a 400mm diameter borehole. A road will be constructed at a width of 6m. This will be used by a vendor to offload material as follows to the storage tanks: • 3 60 t binder storage silos, two for cement and one for fly ash • 3 x bins; each bin has a nominal capacity of 20 m³ and approximately 40 t of aggregate • 1 x 20 m³ polypropylene water tank	
Water Handling		
Clear water supply to underground	Two ericson dams will be installed on surface to supply water to the underground operations through a 250mm diameter pipeline. The pipeline above ground will not exceed 150m in length, prior to going down the shaft to gravity feed the water	

Surface Infrastructure	Infrastructure Description	Image of the proposed area
Underground water storage dams	Water from underground will be pumped to surface, and discharge into the two off settler water dams. Any overflow from these dams will be pumped to the TSF overflow dam via two 200mm pipelines with a length of 1500m.	
Pollution control dam	A PCD will be constructed to ensure all stormwater runoff from the infrastructure is handled appropriately.	
Potable water supply	In order to provide the project site with potable water, a 100mm diameter pipeline will be constructed. This pipeline will tie in to the existing pipeline located at the nearby living quarters and will have a length of 800m.	
Ventilation Shafts		
Downcast Shaft to 13L – Cold air only	The downcast shaft is required to ensure a safe fresh air intake working environment for the underground personnel. The surface layout is shown below in Figure 5-25. The area will have the following surface infrastructure • Fridge plant building and BAC: All mechanicals, electricals, instrumentation, etc. will be housed in this building, cooling water towers and surface steel ducting, from the plant to the shaft entrance • Electrical substation: The 11kV lines run adjacent to the site, where power will be tapped off to feed the main substation. Power will be supplied to the fridge plant, pumps, etc. and all ancillaries • PCD: A PCD will not be constructed; any water will flow or be pumped to the new PCD at the 13L Hoisting shaft area	 **Figure 5-25: 12L Cold air Down Cast Shaft**

Surface Infrastructure	Infrastructure Description	Image of the proposed area
New Up Cast Ventilation Shaft	The existing Tumela 15E downcast shaft that was completed in 2021 will be changed to an upcast shaft, see Figure 5-26. It is adjacent to the approved diesel surface drop down plants.	 **Figure 5-26: New upcast ventilation shaft**

27°20'0"E
27°20'15"E
27°20'30"E
27°20'45"E
24°47'0"S
24°47'15"S
24°47'30"S

Diesel & Shotcrete Plant
Diesel & Shotcrete Plant
Upcast Shaft
RE/24/369
ZWARTKOP 369 KQ
MIDDELLAAGTE 382 KQ
15E Extension 12L
Clean Water Dam
382
Clean Water Dam
Fence
Clean Water Dam
15E Extension 13L RB
PCD
New Rail
Conveyor
Clean Water Dam
Fence
New Roads
AMANDELBULT 383 KQ
RE/383

0 75 150 300 Metres

N

Legend

- Mining Rights
- Surface Rights
- Major Roads
- Parent Farm
- Farm Portion

Data Source: Esri Basemap	
Scale: 1:4 500	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 13/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 5-27

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FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE PROJECT

TUMELA 15E EXTENSION PROPOSED INFRASTRUCTURE

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Revision: A Date: 18 04 2023

5.3.4 Dishaba East Mechanised Project

The Dishaba East Mechanisation project is on the north eastern boundary of the AMB. Two Option have been identified where the surface area can be located:

- Existing 62E Footwall area; and
- Haakdoorndrift surface area.

The underground mine area consists of an Upper and Lower area. The Upper area will be accessed from surface and the Lower area will be accessed from the existing underground infrastructure at Dishaba 2 Shaft.

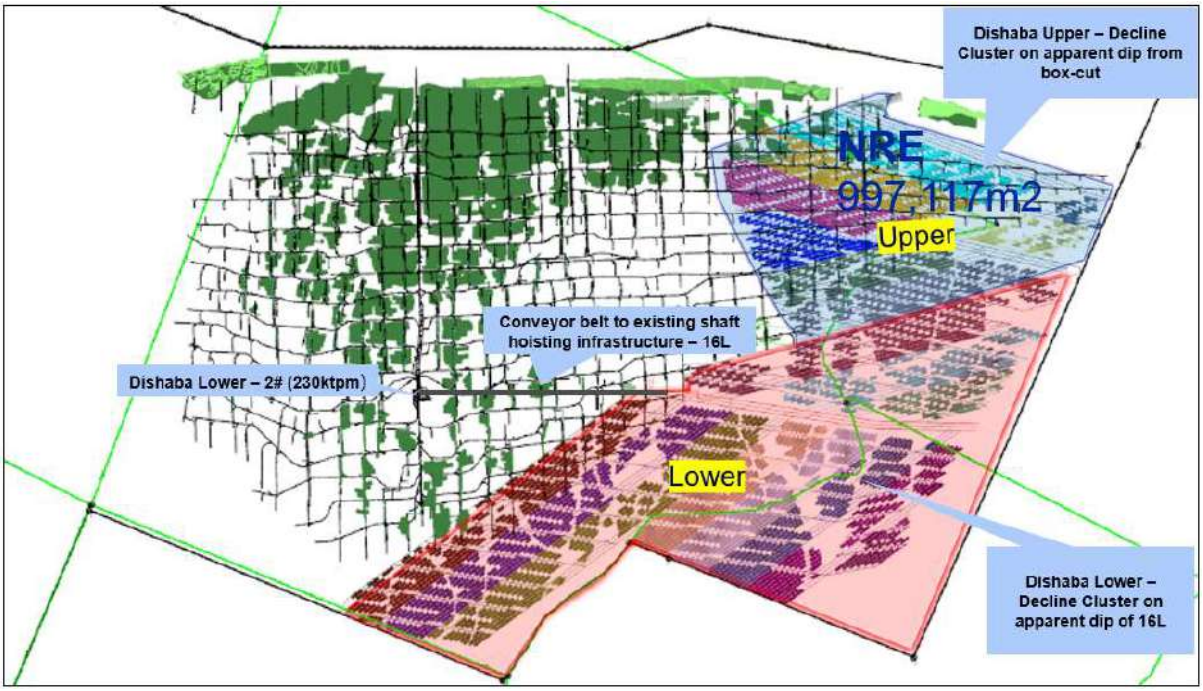

Figure 5-28: Dishaba upper and lower

The existing 62E Footwall is the preferred alternative as the area is already disturbed and it is on an established footprint. The footprint in this area is larger than if it would be position at the Haakdoorndrift area as the infrastructure needs to be positioned in between existing established buildings and structures (Figure 5-29).

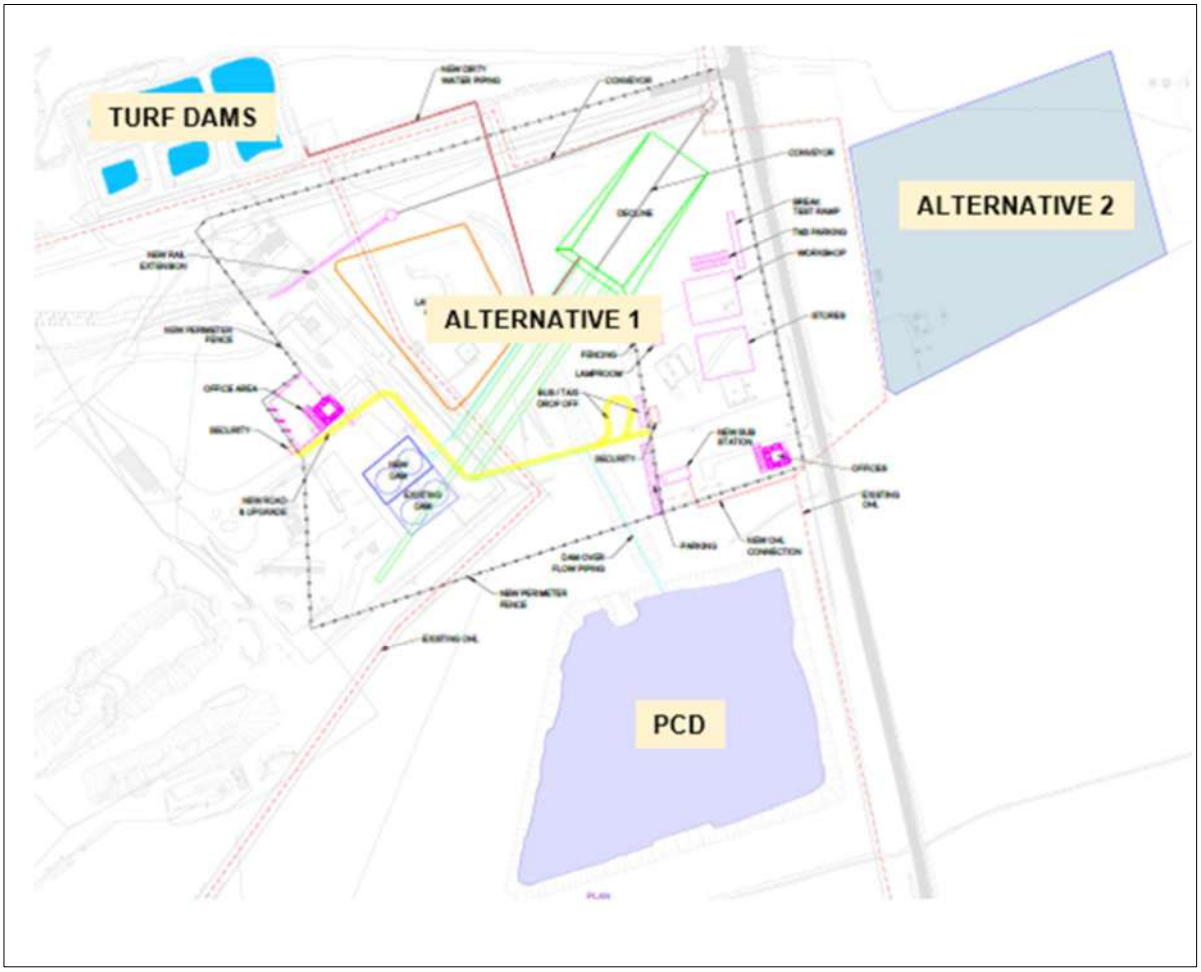

Figure 5-29: Dishaba East location and layout

Dishaba East Mechanisation Project Surface Infrastructure

As part of the Dishaba East Project there is various surface infrastructure which support the underground mining. These are outline in Table 5-10 and shown in Figure 5-30. Refer to Figure 5-31 for the location of each surface infrastructure.

Table 5-10: Dishaba East Mechanisation 12L Rock and Men/ Material Hoisting Shaft surface infrastructure

Anticipated infrastructure	Associated infrastructure and detailed description
Change house	Infrastructure is limited and follows the same principle where all Dishaba employees make use of the change-house at No.2 shaft and bussed to the respective shafts.
Surface and terrace	Selected areas will be used for terracing, as the bulk of the area has been terraced. An area of 100m x 150m will be cleared and terraced for the surface infrastructure. All the turf, sub soil and waste will be removed and transported to approved sites. Suitable waste rock will be imported to provide the necessary civil bases for the infrastructure to be installed.
Surface Adit with 3 – Decline System	The surface adit will commence from surface, with a civil constructed boxcut to ensure suitable protection on surface. Mining will continue from hereon with trackless machinery with all ore taken to the concentrator plant using the surface rail network.
Trackless Workshop	• The workshop will be used for the maintenance of all the trackless equipment. • A hydrocarbon cleaning facility to collect all oils etc. will be installed. All used oil will be disposed correctly as per the Mine's current standard

Anticipated infrastructure	Associated infrastructure and detailed description
Offices	Minimal offices will be required and mostly for the on-site maintenance staff (offices will be used at Dishaba 2 shaft). Toilets and wash hand basins will be connected to conservancy tanks, with wastewater collected by a 'honey sucker' mobile unit.
Electrical substation	The 11kV lines run adjacent to the site, where power will be tapped off to feed the main substation. Power will be supplied to the individual drives from this substation i.e., feed to the workshop, conveyors, pumps, etc.
Conveyor, ore stockpile and silo	• A 1050mm wide x 160m length conveyor will surface from the adit, feeding a 2nd conveyor of 380m length feeding the silo. • A 3000t concrete silo, approximately 15m height x 4m diameter will be mounted above the extended rail line. • An emergency ore stockpile will be required in the event that the ore silo is full. This stockpile will be approximately 10m diameter and 4m height. The ore will be collected by trucks loaded by front end loaders and transported to the concentrator plant for processing.
Service Plants	• Diesel storage and pipe drop system with 0.4m diameter borehole including diesel storage tanks, pumps; and piping from diesel tanks to borehole and perimeter fencing. • Emulsion storage and pipe drop system with 0.4m diameter borehole including storage tanks, pumps; and piping from tanks to borehole and perimeter fencing. • Shotcrete/concrete storage and slickline pipe drop system with 0.4m diameter borehole including weigh system, conveyors, hoppers, silos, pumps, mixers, washing systems, control room and MCC and perimeter fencing.
Water and Wastewater Facilities	• Surface mine water storage dams: The existing 2 ericson dams will be refurbished to supply water via two separate 250mm diameter pipeline to the adit, before going underground. The length of the pipeline will not exceed 150m, prior to going vertically down the shaft to the relevant station. Water from underground will be treated and pumped to surface to these ericson dams. Any overflow from these dams will be pumped to the 49E turf overflow dams as is currently practiced, for re-use at Dishaba Mine. • Active Dewatering storage dams: Clear fissure water at source will be pumped from underground to surface into 2 new 4,0m diameter Ericson dams. This water will be used where cleaner water is required, e.g., at the concentrator. • Pollution control dam: A new PCD will not be constructed. The existing Haakdoorndrift PCD will be used • Potable water supply: A 100mm diameter pipeline with a length of 800m, will be installed from the nearby shaft area to the project area.

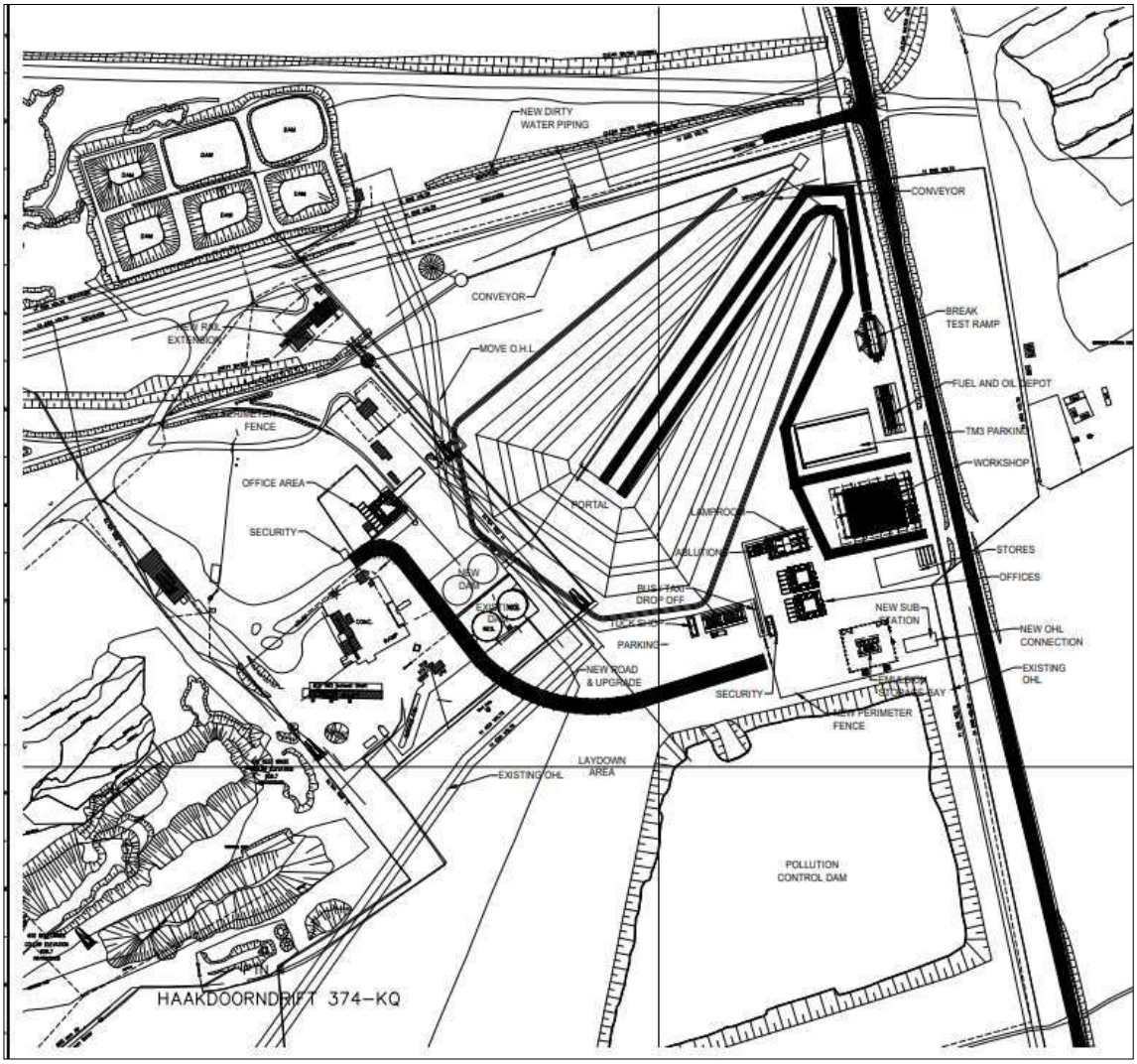

Figure 5-30: Proposed Dishaba East Mechanisation Project surface infrastructure layout

27°24'0"E 27°24'15"E 27°24'30"E

24°43'30"S

HAAKDOORNDRIFT
374 KQ

Dishaba New Conveyor

Dishaba New Stores

Full Boxcut

Dishaba New Road & Upgrade

Dishaba East Alternative Dishaba Office Option 2

Dishaba New Offices

Dishaba New Security Point

Dishaba New Dam

Dishaba Clean Water

Dishaba New Fence

Dishaba New OHL

PCD

ELANDSKUIL 378 KQ

0 50 100 200 Metres

24°43'45"S

27°24'0"E 27°24'15"E 27°24'30"E

N

Legend

- Mining Rights
- Surface Rights
- Major Roads
- Parent Farm
- Farm Portion

Data Source: Esri Basemap	
Scale: 1:3 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 09/01/2023	Compiled by: LOUA
Project No: 572200	Fig No: 5-31

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FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE PROJECT

DISHABA EAST PROPOSED INFRASTRUCTURE

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Revision: A Date: 18 04 2023

6 Policy and legislative context

This section provides an overview of the policy and legislative context within which the proposed AMB Operational Capital Projects (refer to Table 6-1) will operate. It identifies all legislation, policies, plans, guidelines and other applicable legislation to this activity to be considered in the assessment process, which may be applicable or have relevance to the project. This sections also describes Anglo American policies and guidelines.

In terms of Section 24 of NEMA, as amended in 2021, an application for EA must be submitted to the CA for activities listed in the 2014 EIA Regulations, as amended in 2021 and promulgated in terms of Section 24(5) of NEMA, and where authorisation was obtained prior to the commencement of listed activities. Listing Notices 1-3 in terms of NEMA list activities that require EA (“NEMA listed activities”).

Activities listed in Listing Notice 1(GN 983) and Listing Notice 3(GN 985) require a Basic Assessment (BA) process, while activities listed in Listing Notice 2(GN 984) require S&EIR. A full S&EIA process will therefore be conducted for the proposed AMB Operational Capital Projects.

In terms of the 2014 NEMA EIA Regulations, as amended in 2017 and 2021, the proposed AMB Operational Capital Projects will trigger several Listing Notice 1, Listing Notice 2 and Listing Notice 3 activities as detailed in Section 5.1.

6.1 Legislation, policies and guidelines applicable to the proposed Project

Table 6-1 lists the applicable legislation, policies and guidelines identified as relevant to the proposed AMB Operational Capital Projects. In addition, a description of how the proposed activity complies with and responds to the legislation and policy context is given. This list is not exhaustive but rather presents the most applicable pieces of legislation relevant to the proposed operational capital projects.

Table 6-1: Policy and legislative context of the proposed operational capital projects

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
Constitution of the Republic of South Africa, (No. 108 of 1996).	Throughout the S&EIA process.	The Bill of Rights is the cornerstone of democracy in South Africa, ensuring the rights of all people and affirming the democratic values of human dignity, equality and freedom. Section 24 is directly relevant to environmental law and states that everyone has the right to: *"An environment that is not harmful to their health or well-being; and have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: Prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".* The Constitution of South Africa is the overarching framework legalisation driving the NEMA principles. The right to a safe environment and the right to information are addressed during the environmental authorisation process through stakeholder engagement, where available information pertaining to the environment and proposed activities are disclosed. Chapter 2 – Bill of Rights. Section 24 – Environmental rights.	Government of the Republic of South Africa.
Minerals and Petroleum Resources Development Act 28 of 2002.	Throughout the scoping and S&EIA process.	The MPRDA makes provision for equitable access to and sustainable development of South Africa's mineral resources. The MPRDA requires that the environmental management principles set out in NEMA shall apply to all mining operations and serves as a guideline for the interpretation, administration and implementation of the environmental requirements of NEMA. The MPRDA requires that a reconnaissance permission, prospecting right, Mining Right, mining permit, retention permit, technical corporation permit, reconnaissance permit, exploration right, production right, prospecting work programme; exploration work programme, production work programme, mining work programme, environmental management programme, or an environmental authorization issued in terms of the National Environmental Management Act, 1998, as the case may be, may not be amended or varied (including by extension of the area covered by it or by the addition of minerals or a share or shares or seams, mineralized bodies, or strata, which are not at the time the subject thereof) without the written consent of the Minister. An application for Environmental Authorisation was submitted to the DMRE for mining activities associated with the AMB Operational Capital Projects within the Mining Right area held by AMB. In addition to this, AMB has submitted a Section 102 application to the DMRE to incorporate the Cronimet mining right into the AMB mining right.	Department of Mineral Resources and Energy, Limpopo

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
National Environmental Management Act- NEMA (No. 107 of 1998).	• Throughout the scoping report; • Section 5.1 of this report details the proposed project developments and associated listed activities triggered; and • Table 5-1 details the listed activities to be authorised according to NEMA.	The all-encompassing 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 24 of the NEMA, headed "Environmental Authorisations" sets out the provisions which are to give effect to the general objectives of Integrated Environmental Management ("IEM"), and laid down in Chapter 5 of the NEMA. In terms of section 24(1), the potential impact on the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority charged by the NEMA with granting of the relevant environmental authorisation. On 04 December 2014, the Department of Environmental Affairs ("DEA") published the 2014 NEMA Environmental Impact Assessment ("EIA)" Regulations and listed activities in Government Gazette No. 38282, which was amended in 2017 and 2021. The proposed infrastructure involves listed activities detailed in Section 5.1 as identified in terms of the NEMA read with the 2014 EIA Regulations, as amended. In terms of section 24(2) and 24D of the NEMA no person may commence an activity listed or specified in terms of the act unless the competent authority has granted an environmental authorisation for the activity. Section 24 – Environmental Authorisation (control of activities which may have a detrimental effect on the environment). Section 28 – Duty of care and remediation of environmental damage. Environmental management principles.	Department of Mineral Resources and Energy, Limpopo
National Environmental Management Act, 1998 (Act 107 of 1998) and the EIA Regulations 2014 (Government Notice (GN) 984), as amended in June 2021.		AMB has EAs authorised under NEMA. The AMB Operational Capital Projects triggers activities listed in GNR 983,984 and 985 and will require an EA from the DMRE. According to GNR 982 of the NEMA, activities listed in GNR 984 require that a full S&EIA be undertaken. **Applicable Listing Notice 1 (GNR983) activities:** Activity 9, 10, 11, 12, 14,17, 19, 21D, 24, 25, 27, 64 **Applicable Listing Notice 2 (GNR984) activities:** Activity 4, 6, 7, 15 and 17 **Applicable Listing Notice 3(GNR985) activities:** Activity 12, 14, 18, 22	Department of Mineral Resources and Energy, Limpopo

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
Department of Forestry, Fisheries and Environment (DFFE) (previous Department of Environmental Affairs (DEA) Integrated Environmental Management Guideline Series, Guideline 5: Assessment of the EIA Regulations, 2012 (Government Gazette 805).	Throughout the authorisation process.	Environmental impacts will be generated primarily in the construction phase of this project with associated operational phase impacts. These will be assessed as part of the proposed project.	
Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004.		An Environmental Assessment is required for the proposed project as activities are triggered under GN R 983, GNR984 and GNR985.	
Review in Environmental Impact Assessment, Integrated Environmental Management, Information Series 13, Department of Environmental Affairs and Tourism (DEAT), Pretoria.			
DEA 2017, Public Participation guideline in terms of NEMA EIA Regulations, Department of Environmental Affairs, Pretoria, South Africa.	Throughout the authorisation process.	Public participation is a requirement of the S&EIA process and will be conducted for the proposed project.	
National Water Act, 1998 (Act 36 of 1998).	Throughout the S&EIA process, including the WULA – pertaining to all water related aspects	This Act sets out the fundamental principles relating to the sustainability and equity are identified as central guiding principles in the protection, use, development, conservation, management and control of water resources. These guiding principles recognise the basic human needs of present and future generations, the need to protect water resources, the need to share some water resources with other countries, the need to promote social and economic development through the use of water and the need to establish suitable institutions in order to achieve the purpose of the Act. National Government, acting through the Minister, is responsible for the achievement of these fundamental principles in accordance with the Constitutional mandate for water reform. Being empowered to act on behalf of the nation, the Minister has the	Department of Water and Sanitation (DWS)

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
		ultimate responsibility to fulfil certain obligations relating to the use, allocation and protection of and access to water resources. AMB's water activities are authorised by a Water Use Licence (WUL) (No: 03/A24F/ABCEFGHIJ/3684) issued on 25 August 2015. • Section 21 (a): • Section 21 (b): • Section 21 (c) and (i): • Section 21(e): • Section 21(f): • Section 21(g): • Section 21 (j):	
National Environmental Management Waste Act (Act No. 59 of 2008) (NEM:WA).	Throughout the scoping report Section 5.1 of this report details the proposed project developments and associated listed activities triggered Table 5-1 details the listed activities to be authorised.	NEM:WA focuses to reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith. No listed activities in terms of GNR 921 will be triggered by the proposed project.	Department of Mineral Resources and Energy, Limpopo through the integrated application process.
National Environmental Management Air Quality Act (Act No. 39 of 2004) (NEM:AQA).	Specialist studies, baseline description.	The main objectives of NEM:AQA are to protect the environment by providing reasonable legislative and other measures to: • Prevent air pollution and ecological degradation; • Promote conservation; and • Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development in alignment with Sections 24a and 24b of the Constitution of the Republic of South Africa. The Act has devolved the responsibility for air quality management from the national sphere of government to local spheres of government (district and local municipal authorities), who are tasked with baseline characterisation, management and operation of ambient monitoring networks, licensing of listed activities, and development of	Department of Environmental Affairs.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
		emissions reduction strategies. The National Ambient Air Quality Standards (NAAQS) for common pollutants, as set in terms of the NEM:AQA. The National Dust Control Regulations (GN R.827), which were promulgated on 1 November 2013, define acceptable dust fall rates for residential areas as <600 (mg/m_2/day) taken over a 30 day average (with no more than 2 exceedances per year, in non-sequential months), and non-residential areas as dust fallout >600<1200 (mg/m_2/day) taken over a 30 day average (with no more than 2 exceedances per year, in non-sequential months). Air quality management: • Section 32 – Dust control; • Section 34 – Noise control; and • Section 35 – Control of offensive odours. As part of this S&EIA process an Air Quality Impact Assessment will be completed to assess and mitigate the potential impact which the AMB Operational Capital Projects may have on air quality.	
The National Forestry Act, 1998 (Act No. 84 of 1998) (NFA).	Throughout the authorisation process Biodiversity assessment Baseline description section 12.	The NFA protects against the cutting, disturbance, damage, destruction or removal of protected trees. A biodiversity assessment has been conducted as part of the S&EIA, which would have identified protected trees, which may be affected by the operational capital projects. Should there be any protected trees that are affected by the project, AAP will apply for the required permit for the removal and/or relocation of the trees.	Department of Agriculture, Forestry and Fisheries (DAFF).
The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEM:BA).	Throughout the authorisation process Biodiversity Assessment Baseline description section 12.	The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEM:BA) provides for the management and conservation of South Africa's biodiversity within the framework of NEMA, as well as the protection of species and ecosystems that warrant national protection and the sustainable use of indigenous biological resources. The Act provides for listing of threatened or protected ecosystems, in one of four categories: critically endangered, endangered, vulnerable or protected. During the S&EIA process, biodiversity hotspots and bio-regions will be investigated to determine the potential impacts that the project may have on the receiving environment. The management and control of alien invasive species on the impacted areas during all the phases of the project will be governed by the NEM:BA. The NEM:BA ensures that provision is made by the site developer to remove any alien species, which have been introduced to the site or are present on the site.	Department of Environmental Affairs.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
Mine Health Safety Act, 1996 (Act No. 29 of 1996) (MHSA).		The Mine Health and Safety Act (Act No. 29 of 1996) (MHSA) aims to provide for protection of the health and safety of all employees and other personnel at the mines of South Africa. The proposed project is located within a mining area and AAP will therefore need to ensure that employees, contractors, sub-contractors and visiting personnel, adhere to this Act and subsequent amendment regulations on site.	Department of Mineral Resources.
Conservation of Agricultural Resources Act (Act No. 43 of 1983).	Throughout the authorisation process Biodiversity Assessment Baseline description section 12.	• Control measures for erosion; and • Control measures for alien and invasive plant species.	Department of Agriculture.
National Heritage Resources Act 25 of 1999 (NHRA).	Heritage assessment Baseline description section 12.	The National Heritage Resources Act aims to promote good management of cultural heritage resources and encourages the nurturing and conservation of cultural legacy so that it may be bestowed to future generations. Section 38 of the NHRA details how heritage resources must be managed and provide development categories which include the requirement that all developers, including mines, must undertake cultural heritage studies for any development exceeding 0.5 ha or linear activities longer than 300m. It also provides guidelines for impact assessment studies to be undertaken where cultural resources may be disturbed by development activities. Heritage permit is required for destruction of structures 60 years or older. A heritage assessment will be conducted as part of the S&EIA to identify whether there are any areas of heritage importance.	South African Heritage Resource Authority.
Spatial Planning and Land Use Management Act, (Act No. 16 of 2013) (SPLUMA).	Throughout the authorisation process.	The Spatial Planning and Land Use Management Act (Act 16 of 2013) (SPLUMA) was promulgated in May 2015. SPLUMA is a framework act for all spatial planning and land use management legislation in South Africa. It seeks to promote consistency and uniformity in procedures and decision-making in this field. SPLUMA will also assist municipalities to address historical spatial imbalances and the integration of the principles of sustainable development into land use and planning regulatory tools and legislative instruments. The need for SPLUMA authorisation will be determined during the EIA/EMPr process.	Municipality.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
The Promotion of Administrative Justice Act, (Act No. 3 of 2000) (PAJA).	Throughout the authorisation process.	This Act gives effect to the constitutional right to administrative action that is lawful, reasonable and procedurally fair. It also gives effect to the right to written reasons for administrative action as contemplated in section 33 of the Constitution. The Act aims to promote an efficient administration and good governance and to create a culture of accountability, openness and transparency in the public administration or in the exercise of a public power or the performance of a public function by giving effect to the right to just administrative action. In terms of the Act, administrative action which materially and adversely affects the rights or legitimate expectations of any person must be procedurally fair. "Administrative action" as defined in section 1 of PAJA means any decision taken, or any failure to take a decision, by- (a) an organ of state, when (i) exercising a power in terms of the Constitution or a provincial constitution; or (ii) exercising a public power or performing a public function in terms of any legislation; or (b) a natural or juristic person, other than an organ of state, when exercising a public power or performing a public function in terms of an empowering provision, which adversely affects the rights of any person and which has a direct, external legal effect, excluding certain classes of executive, legislative and quasi-judicial functions set out in the act. The stakeholder engagement process will be undertaken in line with the NEMA requirements throughout the authorisation process to keep registered stakeholders notified of the process and any decisions taken by the competent authorities.	
The Promotion of Access to Information Act, (Act No. 2 of 2000) (PAIA).	Throughout the authorisation process.	This Act gives effect to Section 32 of the Constitution by providing mechanisms to ensure access to certain information held by a public body as well as to information held by private bodies (in the latter case, as long as this information is required in order to exercise or protect any rights). The act allows for access to records, regardless of when such records came into existence. The Act specifically retains Sections 31 (1) and (2) of NEMA which also deal with access to information from a public or private body. While the Act confers specific rights of access to information, I&APs should not forego the normal public participation process and only try to obtain information through the PAIA provisions. As registered I&APs, they have specific rights (and responsibilities) in terms of being afforded an opportunity to "access" all the information to provide comments and to be informed of the outcome. The stakeholder engagement process will be undertaken in line with the NEMA requirements throughout the authorisation process to keep registered stakeholders notified of the process and any decisions taken by the competent authorities.	

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context	Authority
Protection of Personal Information, 2013 (Act No. 4 of 2013) (POPI)	Throughout the authorisation process.	The Protection of Personal Information Act 4 of 2013 (POPIA), which aims to promote protection of personal information, came into effect on 1 July 2021. The EIA Regulations, 2014 require, inter alia, transparent disclosure of registered stakeholders and their comments. In terms of the EIA Regulations, 2014, stakeholders who submit comments, attend meetings or requests registration in writing are deemed registered stakeholders who must be added to the project stakeholder database. By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be processed and disclosed, in fulfilment of the requirements of the EIA Regulations, 2014 and the National Appeal Regulations, 2014.[2]	
Noise standards.	Baseline description section 12.	There are a few South African Scientific Standards (SABS) relevant to noise from mines, industry and roads. They are: • South African National Standard (SANS) 10103:2008. The measurement and rating of environmental noise with respect to annoyance and to speech communication; • SANS 10210:2004. Calculating and predicting road traffic noise; • SANS 10328:2008. Methods for environmental noise impact assessments; • SANS 10357:2004. The calculation of sound propagation by the concave method; • SANS 10181:2003. The measurement of noise emitted by road vehicles when stationary; and • SANS 10205:2003. 'The measurement of noise emitted by motor vehicles in motion. The relevant standards use the equivalent continuous rating level as a basis for determining what is acceptable. The levels may take single event noise into account, but single event noise by itself does not determine whether noise levels are acceptable for land use purposes. With regards to SANS 10103:2008, the recommendations are likely to inform decisions by authorities, but non-compliance with the standard will not necessarily render an activity unlawful per se.	Municipality

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

6.2 Municipal plans

AMB is situated within the Thabazimbi Local Municipality. Due to this the 2021/ 2022 Thabazimbi Local Municipality Integrated Development Plan (IDP) is applicable to the AMB Operations Capital Project.

6.2.1 Thabazimbi Local Municipality Integrated Development Plan

According to the 2021/ 2022 Thabazimbi Local Municipality IDP (Thabazimbi LM, 2021), mining makes up 56% of the Waterberg GVA sectoral contribution. Mining and agriculture are the most dominant economic sectors in the municipal areas. The IDP also indicated that the mining sector is the most significant in terms of employment with the AMB being one of the main contributors.

In addition to this, the AMB Social Labour Plan (SLP) projects have been included as part of the IDP indicating the positive impact the mine has on the surrounding communities. It is also outlined in the IDP the importance that must be given to the S&EIA process as well as aspects such as riverine systems and sensitive areas to reduce the overall impact on the environment (Thabazimbi LM, 2021).

6.3 Anglo American Platinum policies, procedures and guidelines

AA has various policies and guidelines which each operation needs to comply with. The following policies and guidelines are applicable to the AMB Operations Capital Project.

6.3.1 Anglo American Safety, Health and Environmental Policy

The Anglo American plc Executive Committee has endorsed and committed to the implementation of an internal document known as the Anglo American Environment Way, which is governing framework for the management of environmental impacts for all environmental projects. The Board seeks assurance of compliance with the Anglo American Environment Way standards through regular self-assessments, peer review and third party audits.

The Anglo American Safety, Health and Environmental (SHE) Policy describes Anglo's environmental vision, which is to minimise harm to the environment by designing, operating and closing all of their operations in an environmentally responsible manner.

Underpinning this vision are four core principles:

- Zero mindset: Anglo American shall apply the mitigation hierarchy of avoiding, minimising and mitigating environmental impacts arising from our activities, products and services;
- No repeats: all necessary steps will be taken to learn from environmental impacts, incidents, audit findings and other non-conformances, to prevent their recurrence;
- Non-negotiable standards and rules: common, non-negotiable;
- Environmental Performance Standards and Procedures shall be applied throughout the Group as a minimum requirement; and
- The Anglo American policies will guide and inform the study phase inputs.

6.3.2 Anglo American Platinum Strategy and Values

AAP's strategy is to create maximum value through understanding and developing the market for PGMs, grow the Company to expand into those opportunities and to conduct its business cost effectively and competently. AAP has the following six company values (see Figure 6-1):

Figure 6-1: Anglo American Platinum Values

6.3.3 Anglo American Platinum Safety, health and environmental management (SHE) policy

AMB is committed to the implementation of the AAP policy towards environmental management, with specific focus on water related issues. The policy states that: “Our vision is to always find ways to prevent and reduce harm to the environment (if not restore it) in the way that we design, operate and eventually close operations, always doing so in an environmentally responsible manner.”

In order to give practical expression to their commitments and to measure their progress, AAP has the following aims with regard to the environment:

- Zero mindset: We are committed to avoid, minimise and mitigate environmental impacts arising from our activities, products and services, aiming to leverage positive environmental impacts where practicable;
- No repeats: As a learning organization, we commit to proactively apply a risk-based approach to reduce or prevent environmental impacts, incidents, nonconformances so to prevent recurrence; and
- Simple non-negotiable standards: We are deliberate in applying the most appropriate and sustainable environmental management systems, performance standards and procedures throughout Platinum.

6.3.4 Anglo American Socio-economic Assessment Toolbox

The Anglo American Socio-economic Assessment Toolbox (SEAT) is intended to improve an operation’s understanding of their socio-economic impacts, both positive and negative, to build a more structured dialogue with stakeholders, to create greater internal capacity in the management of social issues, and to be a step forward in transparency and local accountability. As an assessment methodology the SEAT provides tools that are applicable to all stages of mine development.

The overarching objectives of the SEAT process are as follows:

- Provide guidance and support for achieving full compliance with the Anglo American Social Way;
- Identify key social and economic impacts and issues that need to be managed and thereby, improve risk management;
- Assess existing social performance initiatives and identify where improvements are required;
- Facilitate the capture and sharing of best practice;

- Improve the operation's understanding of the full range of local stakeholders, their views and interests, provide guidance on developing and updating Stakeholder Engagement Plans and increase trust and goodwill among host communities; and
- Support sustainable socio-economic development in host communities.

6.3.5 Anglo American Social Way 3

The Anglo American Social Way 3 describes Anglo's Social Vision, which is to make a lasting positive contribution to the communities associated with Anglo American's operations, and to be a partner of choice for host governments and communities as well as an employer of choice. It is based on the International Finance Corporation (IFC) Performance Standard (PS) 1 (2012), which deals with the assessment and management of environmental and social risks and impacts. Underpinning this vision are four core principles:

- Engage respectfully with host communities throughout the project cycle, and be accountable to stakeholders;
- Host communities should experience a lasting benefit from the presence of Anglo American operations and Anglo must seek to maximise the benefits flowing from an operation in addition to traditional social investment;
- Take the necessary steps to spread the application of good practice, and to learn from negative social impacts, complaints, incidents, audit findings and other non-conformances to prevent their recurrence. In addition, put in place appropriate mechanisms for handling and resolving grievances; and
- Common, non-negotiable performance standards and procedures shall be applied throughout the Group as a minimum requirement. Anglo American seeks to assure compliance with the Social Way standards through the Good Citizenship Business Principles letters of assurance process; regular self-assessments; peer review; community consultation; implementation of the SEAT process at relevant operations; and third-party audits.

6.3.6 Anglo American: AMB Environmental Procedures

AMB has various operational procedures which all projects must align with. Some of the key ones include:

- Problematic Animal and Wildlife Management. May 2021 AMB-SHE-SHE-PRO-0002;
- Alien Invasive Vegetation Control. March 2022 AMB-SHE-ENV-PRO-0005;
- Topsoil and Vegetation Management Procedure. March 2021 AMN-SHE-ENV-PRO-0001;
- Hazardous Material Management. May 2021 AMB-SHE-ENV_PRO-0003; and
- Water Quality Sampling and Reporting. October 2021. AMB-SHE-OCH-PRO-0002.

6.4 Other environmental planning and management guidelines

A number of planning and management guidelines have been developed that need to be considered as part of the process, including:

- Limpopo Provincial Biodiversity Conservation Plan;
- DWS, 2010. Operational Guideline: Integrated Water and Waste Management Plan. Resource Protection and Waste;
- Department: Water Affairs and Forestry, 2007. Best Practice Guideline A2: Water Management for Mine Residue Deposits;
- Department: Water Affairs and Forestry, 2007. Best Practice Guideline A4: Pollution control dams;
- Department of Water Affairs and Forestry, 2008. Best Practice Guideline A6: Water Management for Underground Mines;
- Department of Water Affairs and Forestry, 2006. Best Practice Guideline G1 Storm Water Management;

- Department of Water Affairs and Forestry, 2006. Best Practice Guideline G2: Water and Salt Balances;
- Department of Water Affairs and Forestry, 2006. Best Practice Guideline G3. Water Monitoring Systems;
- Department of Water Affairs and Forestry, 2008. Best Practice Guideline G4: Impact Prediction;
- Department of Water Affairs and Forestry, 2008. Best Practice Guideline H1: Integrated Mine Water Management;
- Department of Water Affairs and Forestry, 2006. Best Practice Guideline H3: Water Reuse and Reclamation;
- DEAT. 2002. Integrated Environmental Management, Information series 2: Scoping. Department of Environmental Affairs and Tourism (DEAT. 2002);
- DEAT. 2002. Integrated Environmental Management, Information series 3: Stakeholder Engagement. Department of Environmental Affairs and Tourism (DEAT. 2002);
- DEAT. 2002. Integrated Environmental Management, Information series 4: Specialist Studies. Department of Environmental Affairs and Tourism (DEAT. 2002);
- DEAT. 2002. Integrated Environmental Management, Information series 12: Environmental Management Programmes. Department of Environmental Affairs and Tourism (DEAT. 2002);
- DEA. 2012. Companion to the EIA Regulations 2010, Integrated Environmental Management Guideline Series 7, Department of Environmental Affairs; and
- DEA. 2017. Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa.

7 Period for which the environmental authorisation is required

It is envisaged that the construction of the infrastructure associated with the proposed AMB Operations Capital Project will take approximately 10 years from project approval as indicated below, with the expected operational, closure and post-closure timeframes associated with these project phases being in line with the AMB current Mining Right up to 2050.

8 Need and desirability of the proposed activities

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

- Mining benefit;
- Environmental responsibility;
- Socio-economic benefits;
- Employment opportunities;
- Project timeline; and
- No-go option.

Each of the proposed projects is being developed as a strategic portfolio as part of the AMB mechanisation strategy. The production profiles demonstrate AMB's strategic intent for the transformation from conventional to mechanised mining by 2032. The primary objectives of the mechanisation strategy are to position AMB in H1 of the industry cost curve and employ technology decisions that result in sustainable mining of the AMB endowment. It also allows continuation of the mining of the ore reserve, with multiple benefits to the communities, and local, regional and national economy.

8.1 Mining benefits

The mineral extraction at AMB is considered by AAP to be in the best interest of the public at large, by generating earning power both locally and internationally, and in the absence of significant alternative employment opportunities in the area.

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

It is estimated that at the LoM for the AMB is well beyond 2060 based on the planned future mining rate. The proposed Projects will allow the AMB to continue with the mining activities by supplying ore to maintain the current throughput for the LoM.

8.2 Environmental responsibility

The AMB has various EMPrs and EMPs approved under the previous Minerals Act and the MPRDA. The purpose of this document is to include the activities and infrastructure associated with the proposed Project and to develop a comprehensive document that will be in line with the legislated requirements of the NEMA. This document will contain management measures for the purpose to avoid, minimise and reduce the potential negative impacts on the environment, as a result of the mining and processing operations at AMB.

The Amandelbult Complex is also operating under the following four WULs:

- Licence No. 03/A24F/ABCEFGIJ/3684 issued on 25 August 2015;
- Licence No. 07/A24C/CGI/8768 issued on 20 May 2019 for Tumela East Dropdown and Dishaba 62 East raisebore shafts;
- Licence No. 07/A24F/AG/9118 issued on 26 June 2019 for Amandelbult fine chrome recovery plant; and
- Licence No. 07/A24C/ABCGIJ/8734 issued on 23 December 2019 for Haakdoorndrift opencast activities.

Monitoring of water consumption is in place at AMB with the intention to ensure the minimum amount of water is used by the respective mining related activities. Reduction targets are set and revised annually. AMB also indicates that they review and revise the water management strategy on an on-going basis towards continual improvement.

AAP is a member of the International Council on Mining and Metals as well as the Minerals Council of South Africa. AAP is committed to responsible mining and reports to both of these internationally recognised structures.

AMB indicates that it has an open door policy for dealing with any complaint/issues received from the public and information is provided to the surrounding land owners if and when requested.

AMB is ISO 14001 certified and is currently undergoing certification audits for the Initiative for Responsible Mining Assurance (IRMA) which requires the mine to be environmentally responsible while undertaking mining activities.

This document contains management measures to avoid, minimise and reduce the potential negative impacts on the environment as a result of the proposed projects. Monitoring of air quality, noise and water quality is in place at the AMB.

8.3 Socio-economic benefits

The AMB is considered to have a positive socio-economic benefit through employment of the local community. Unskilled and semi-skilled labour is sourced mainly from the local communities and surrounding areas and recruitment is in conjunction with the local unemployment forum. Specialist and skilled labour are recruited outside the local boundaries when required.

The proposed capital projects are mainly for the implementation of mechanization which will allow AAP to access and mine the underground mineral resources safely and economically. The implementation of the capital projects will extend the life of Amandelbult by approximately 30 years providing jobs over an extended period. The implementation of mechanization will result in a reduction in the overall labour numbers, however the future workforce will require higher skills which will be developed as part of the mechanization transition. Additionally, the future construction and supply chain requirements are being determined to position local businesses and service providers to be able to acquire the necessary capacity and capabilities to be able to participate in the future mechanized operations.

There is limited alternative formal employment in the area. The main sources of employment within the area are mining and agriculture along the Crocodile River.

AMB has a SLP which includes community development projects such as:

- Skills development and training;
- Portable skills programme for unemployed people to improve skills levels, job opportunities and create trained pool as source of labour for government and industries; and
- Amandelbult Complex also has a policy in place in terms of preferential procurement for the local businesses and training of local SMME.

8.4 Employment opportunities

In the current planning, the labour requirements for the development of the various projects will be met by existing employees, with the exception of the construction phase which will require temporary contractors to undertake the work. The employment procedure will be done in line with the AAP procurement process.

Procurement for the project, if required, will be undertaken as per the existing AAP Inclusive Procurement policies. Meaningful participation of local businesses will be maximised as far as possible and practicable.

It is important to note, the proposed capital projects are mainly for the implementation of mechanization which will allow AAP to access and mine the underground mineral resources safely and economically. The implementation of the capital projects will extend the life of Amandelbult by approximately 30 years providing jobs over an extended period. The implementation of mechanization will result in a reduction in the overall labour numbers, however the future workforce will require higher skills which will be developed as part of the mechanization transition. Additionally, the future construction and supply chain requirements are being determined to position local businesses and service providers to be able to acquire the necessary capacity and capabilities to be able to participate in the future mechanized operations.

8.5 Project timeline

Many of the proposed projects will commence with construction once the authorisation is approved which is anticipated to be the begin in 2024. The following commencement dates are anticipated for each proposed project, as indicated above (see mining projects timeline), but this is also dependent on capital availability, market pressures and stability:

- Middellaagte Underground Project: March 2024;
- Tumela Sub 1 Shaft Project: March 2024;
- Tumela 15E Extension Project: September 2025; and
- Dishaba East Mechanisation Project: September 2024.

8.6 No-go option

The socio-economic impacts of cessation or curtailing of operations at AMB include the following local, regional and more than likely national impacts:

- Local and regional: planned socio-economic initiatives within the surrounding communities would not be able to go ahead and employees and contractors' workers would be impacted; more than half of whom are semi-skilled/unskilled and thus would not easily find alternative employment; and
- National: Reduction in foreign exchange for South Africa will be incurred due to the decrease in mine product sales internationally.

The cessation or curtailing of the AMB Complex will also mean that ore reserves would remain underutilised, adding to the employment and local economic opportunities and revenue that would be lost.

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

Project alternatives were considered during the compilation of the existing approved EMPrs. Alternatives considered in the approved EMPr included:

- Mineral processing method;
- Surface infrastructure layout alternatives including the location of product stockpiling and dispatch facilities and site access alternatives;
- Water supply alternatives;
- Power supply alternatives;
- Waste management alternatives such as domestic and industrial waste, mining residue and management alternatives;
- Air quality management alternatives including dust suppressions, dust extraction and a combination of the two alternatives; and
- The 'no-go' alternative

As part of the project design of the proposed AMB Operational Capital Projects, various alternatives were considered which is discussed in Section 10. The location of the preferred options was mainly dependent on the underground mineral resource locations and how to best access the ore. Based on this the location of the adits and associated infrastructure is constrained to the location of the mineral resources.

10 Details of alternatives considered

As indicated in Section 9, the existing AMB mining alternatives were assessed as part of the pervious EMPrs. Figure 10-1 indicated the alternatives which were considered as part of the design phase of the project. Based on the surface rights as well as the proposed location of the mineral resources the following alternative were considered as part of the AMB Operational Capital Projects:

- Middellaagte adit and supporting infrastructure; and
- Dishaba East mechanisation adit.

The key infrastructure at Tumela 15E and Tumela 1 Sub Shaft will be required in line with the existing underground operations, thus no alternative locations were considered for these proposed projects

10.1 Property alternatives

The location of the proposed capital operations projects are constrained to the location of the existing infrastructure as well as the mineral resource. Based on this, the surface infrastructure had to remain within the AMB surface right and mining right areas. Thus no property alternatives were considered as part of this project.

10.2 Location alternative

Location alternatives were considered from both the Middellaagte and Dishaba East adits. Three alternatives were considered in terms of the Middellaagte adit, however, the preferred alternative was chosen based on the geology of the area and access to the mineral resources. The Dishaba East preferred alternative was selected as the area has been disturbed as part of the previous authorised mining activities.

10.3 Technology alternatives

The following was considered in the various technological alternatives associated with the AMB Capital projects:

- The implementation of a portfolio of mechanised mining projects as volume replacements for the depleting conventional / modernised investment centres;
- Different mining methods were assessed to reduce the waste generated and impact on water resources at AMB as well as reduce energy consumption at AMB;
- The development of a mechanised mining knowledge base leveraging technical and operational learnings from the Tumela 15E Mechanised project together with industry best practice;
- The development of the operations strategy to support the future mechanised project portfolio including: mining engineering, maintenance, social performance, human resources, water management, environmental management, energy management, operational readiness etc.;
- Determine the future skills requirements and staffing levels and develop strategies and action plans to migrate and upskill the current workforce for application in the future mechanised operations;
- Develop the resource base at Amandelbult including the mine employees, local communities, and local businesses to be able to participate in the Amandelbult value chain; and
- AMB is currently employing a labour-intensive conventional mining methodology for the mining of its narrow tabular ore body. In line with the AAP strategy to adopt mechanised mining methods in their underground operations, AMB has finalised transformative plans for the mechanisation of selected mining operations in its portfolio.

10.4 Operational alternatives

Operational alternatives were not considered for the proposed projects. The proposed operational capital projects will be operated in line with and concurrent to the existing AMB operational activities.

10.5 No-Go alternative

Should the proposed operational capital projects not be implemented, AMB will continue to operate at its current production rates and any additional local economic development opportunities as well as procurement of local goods and services to support the mine activities will not be realised. In addition to this, projected temporary employment opportunities during the construction phase will not be fulfilled.

If the proposed operational capital projects are not taken forward and the ‘no-go’ or status quo approach is adopted, then AMB will continue to operate at the current production rates until the mineral resources have been depleted. Should it not be possible to continue mining the mineral resources within the AMB mining right, AMB will not be able to maintain the production rate and thus the mining activities will cease and decommissioning and closure of AMB will need to commence.

27°19'0"E 27°20'0"E 27°21'0"E 27°22'0"E 27°23'0"E 27°24'0"E 27°25'0"E

24°44'0"S

24°45'0"S

24°46'0"S

Dishaba Infrastructure Alternative Option

HAAKDOORNDRIFT 374 KQ

LANGPAN 371 KQ

ELANDSKUIL 378 KQ

GROOTKUIL 376 KQ

MIDDELLAAGTE 382 KQ

Middellaagte Infrastructure Alternative Option

ZWARTKOP 369 KQ

Middellaagte Infrastructure Alternative Option

GROOTKUIL 376 KQ

MIDDELDRIFT 379 KQ

R510

2/374 4/374 371 2/378 3/374 3/378 1/378 1/382 5/378 RE/378 382 RE/18/369 26/369 RE/24/369 11/376 RE/23/376

N

Legend

- Mining Rights
- Surface Rights
- Major Roads
- Parent Farm
- Farm Portion

0 500 1 000 2 000 Metres

srk consulting

FUTURE OF AMANDELBULT CAPITAL AND SUPPORTING INFRASTRUCTURE PROJECT

DISHABA AND MIDDELLAAGTE PROPOSED INFRASTRUCTURE (ALTERNATIVES)

Data Source: Esri Basemap	
Scale: 1:30 000	
Projection: TM	Datum: WGS84
Central Meridian/Zone: 27	
Date: 18/04/2023	Compiled by: LOUA
Project No: 572200	Fig No: 10-1
Revision:	Date:

Path: J:\Proj\572200_EIA_Middelaagte\8GIS\GISPROJ\MXD\Capex_EA_2023\572200_A3L_AMB_Integrated_EA_Capex_Dishaba_Middellaagte_Alternatives_20230418.mxd

11 Details of the public participation process followed to date

11.1 Objectives of public participation

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

11.1.1 During pre-application

The objectives of the stakeholder engagement during pre-application phase are to introduce the project to stakeholders and to inform them that an environmental authorisation process will be followed.

11.1.2 During scoping

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

11.1.3 During impact assessment

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

11.1.4 During the decision-making phase

Following the outcome of the decision-making process by authorities, registered I&APs will be notified of the outcome and how and by when the decision may be appealed, should they wish to.

11.2 Stakeholder identification

The NEMA 2014 EIA Regulations, as amended require identification of and consultation with interested and affected parties (I&APs). In terms of Section 24 0 (2) of NEMA, specific state departments were identified and recognised as commenting authorities on aspects of the proposed AMB Operations Capital Project. Representatives from these departments are included in the current I&AP database.

I&APs identified in previous environmental authorisations processes, together with lists of stakeholders that AMB has regular contact with, and networking and referral formed the basis for the development of the stakeholder database. Key stakeholders include:

- Landowners associated with the proposed projects (refer to Section 11.2.1);
- Stakeholders potentially affected by the project;
- Department of Mineral Resources and Energy, Limpopo;
- Department of Water and Sanitation, Limpopo;
- Limpopo Department of Economic Development, Environment and Tourism;
- Department of Agriculture, Land Reform and Rural Development;

- Agricultural farming associations;
- Cooperative Governance, Human Settlements and Traditional Affairs;
- Thabazimbi Local Municipality; and
- Waterberg District Municipality.

The stakeholder database will be reviewed and updated after each round of engagement during the environmental authorisation process. Box 1 provides more information regarding the distinction between I&APs and registered I&APs.

Box 1. Distinction between I&APs and Registered I&APs

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

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

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

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

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

(a) All persons who have submitted written comments or attended meetings with the applicant or EAP;

(b) All persons who have requested the applicant or EAP managing the application, in writing, for their names to be placed on the register; and

(c) All organs of state which have jurisdiction in respect of the activity to which the application relates.

11.2.1 Identification of landowners

The identification of landowners in the area is an important part of the stakeholder engagement process. SRK conducted a deeds search to identify landowners directly affected, adjacent to and in the immediate surroundings of the AMB. Table 11-1 indicated the landowners which are directly affected by the proposed infrastructure projects, however, there is a possibility that some of the neighbouring landowners may be affected by these projects. Please refer to Figure 4-2 for the properties adjacent to AMB.

Table 11-1: Properties where proposed activities will occur and directly affected landowners

Farm Name	Portion	Relevant Capital Project	Owners
Haakdoorndrift 374 KQ	Portion 4	Dishaba Mechanisation Project	Rustenburg Platinum Mines Ltd
Elandskuil 378 KQ	Portion 1	Middellaagte Project	
Middellaagte 382 KQ	Portion 0,	Middellaagte Project and Tumela 15 Extension Project	
	Portion 1	Middellaagte Project	
Amandelbult 383 KQ	Portion 1	Tumela 15 Extension Project	
Elandsfontein 386 KQ	Portion 0,	Tumela 1 Sub Shaft project	
	Portion 1		
	Portion 2		
Schildpadnest 385 KQ	Portion 0	Tumela 1 Sub Shaft project	Baphalane Ba Mantserre Community Development Trust

11.2.2 Identification of district and local municipalities

The project area falls within the jurisdiction of the Waterberg District Municipality and the Thabazimbi Local Municipality in the Limpopo Province. The AMB is situated in six wards within the Thabazimbi Local Municipality. Details of the relevant municipalities and respective ward councillors are provided in Table 11-2.

Table 11-2: District and Local Municipalities

Municipality	Contact Person	Designation
Thabazimbi Local Municipality	Lindiwe Makaya	Municipal Manager
Thabazimbi Local Municipality	Tokkie Swanepoel	Mayor
Waterberg District Municipality	Gladwin Tloubatla	Acting Municipal Manager
Waterberg District Municipality	S. Mafa	Environmental Management
Ward 3	Cllr D Mampeule	Ward councillor
Ward 4	Cllr T Hearne	Ward councillor
Ward 5	Cllr F Kokonyane	Ward councillor
Ward 6	Cllr I Nengwekulu	Ward councillor
Ward 8	Cllr T Ramoabi	Ward councillor
Ward 11	Cllr X Nozozo	Ward councillor

11.2.3 Identification of relevant government departments

The CA applicable to the EA process for the proposed AMB Operational Capital Projects is the DMRE as provided in Table 11-3. Table 11-3 also provides the information of other relevant government department which will be consulted with as part of the integrated authorisation process, such as DWS. A meeting was held with the DMRE on 22 February 2023 to discuss and confirm the process and way forward for the proposed AMB Operational Capital Projects.

A meeting will be held with DWS once a case officer has been assigned to the project.

Table 11-3: Contact details for the competent authority

Department	Contact Person
DMRE - Polokwane Office	Thivhulawi Kolani
DWS – North West	Tshepo Moropana

Other commenting authorities that will be consulted with during this process include DWS, Limpopo Department of Economic Development Environment and Tourism (LEDET), Department of Agriculture, Rural Development and Land Reform, Cooperative Governance, Human Settlements and Traditional Affairs, Thabazimbi Local Municipality, and the Waterberg District Municipality.

11.3 Stakeholder engagement during scoping

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

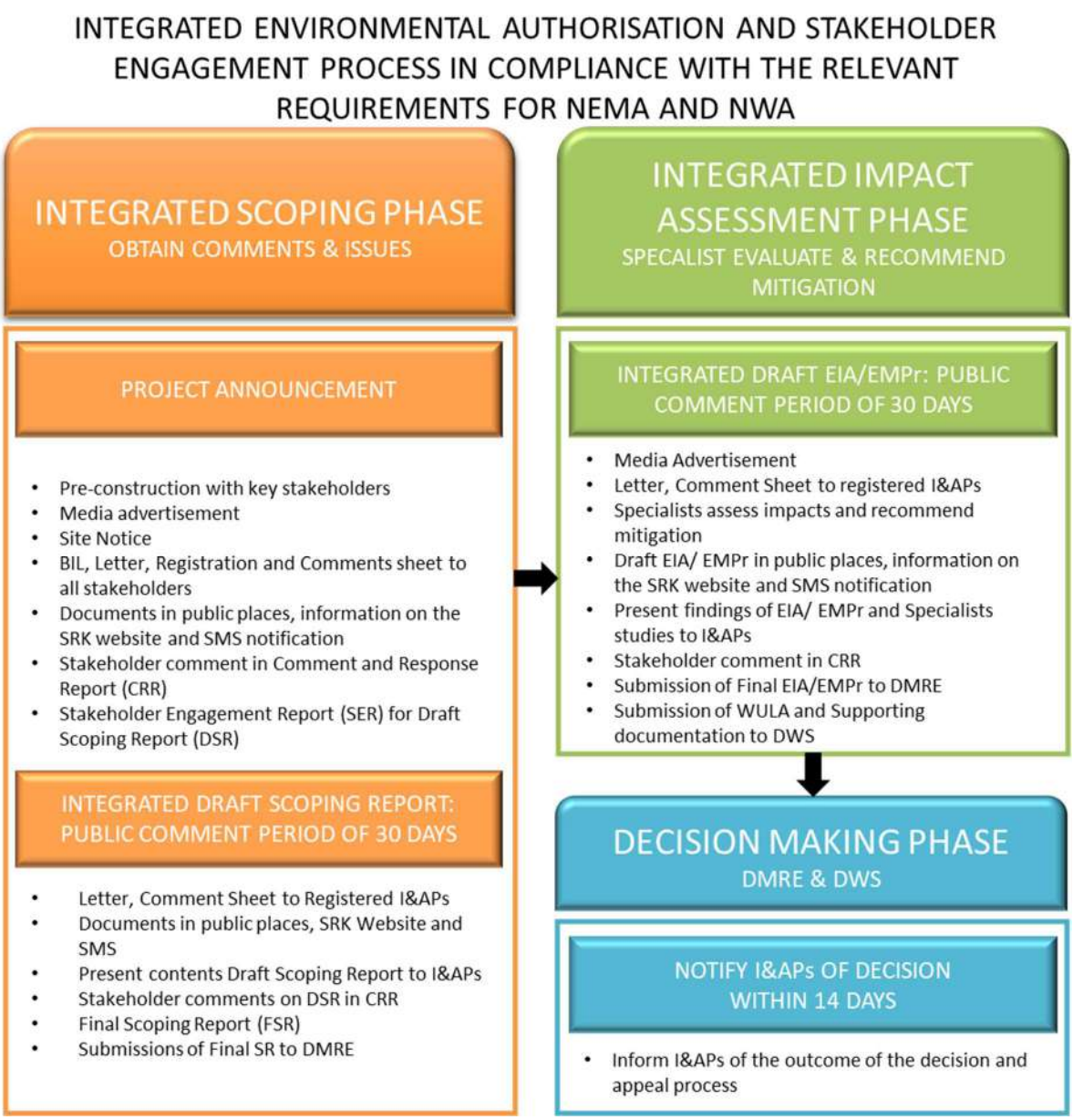

Figure 11-1: Public participation throughout the integrated environmental authorisation process

11.3.1 Announcement

The project was announced to the public from **22 May 2023**. I&APs were notified of the opportunity to comment on the proposed AMB Operational Capital Projects and to register as an I&AP via various engagement methods (see Appendix B for copies of all notification materials).

The project was announced using the following methods:

- Notification of I&APs regarding report availability via site notices, SMS, email and letters;
- Advertisement in the Platinum Bushveld (in English and Setswana; and
- Announcement letter and comment form on the SRK website (https://www.srk.com/en/public-documents/amandelbult-mine-complex-limpopo-south-africa).

11.3.2 Meetings with local authorities

Details of meetings held with the CA, Traditional Authorities (TA) and commenting authorities during project announcement are shown in Table 11-4.

Table 11-4: Meeting details with local authorities

Meeting details	Date	Venue	Number of attendees
Pre-application Meeting with the DMRE	22 February 2023	Microsoft Teams	6
Mantserree Community TA	23 March 2023	Mantserree TA Office	13
Ramokoka Community TA	24 March 2023	Ramokoka TA Office	20
Sefikile Community TA	19 April 2023	Sefikile TA Office	13
Moses Kotane Local Municipality	19 April 2023	Moses Kotane Local Municipality Office	6

11.3.3 Opportunities to comment

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

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

11.4 Availability of the draft scoping report for public comment

The DSR was made available for public comment from 22 May 2023 to 21 June 2023. The availability of the DSR and details relating to the public engagement meetings was announced as follows:

- Distribution of a letters to I&APs, accompanied by a registration and comment form (in English and Sepedi), inviting I&APs to comment on the DSR and to register as an I&AP;
- Notification of I&APs regarding report availability via site notices, SMS, email and letters;
- Advertisement in the Platinum Bushveld (in English and Sepedi); and
- Posting the DSR, announcement letter and comment form on the SRK website (https://www.srk.com/en/public-documents/amandelbult-mine-complex-limpopo-south-africa) and at public places.

11.5 Comment and response report

As part of the announcement phase of the project, a Comment and Response Report (CRR) has been developed. The CRR has been compiled to document all comments raised throughout the project phases (announcement, scoping and EIA phases). The Comment and Response Report (CRR) will be updated with comments received during the 30-day public review period of the DSR and included in the FSR to be submitted to the DMRE.

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

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

12 Environmental attributes associated with the sites

This section provides a general overview of the status quo of the environmental and social context within which the AMB is located. It is important to note, there have been extensive specialist studies conducted for the proposed projects, thus, the baseline draws on data collected and analysed during specialist studies undertaken for various environmental authorisation processes.

All of the proposed activities will take place within the existing mining right areas of the AMB. While most of the descriptions below are focused on the site itself, where necessary, the regional context of the environmental features is also explained.

More detail on certain aspects of the biophysical and socio-economic environment will be included in the EIA once the specialist investigations have been completed and inputs from I&APs have been considered during the public participation process. For each environmental aspect discussed below, potential environmental and social issues and impacts have been highlighted where applicable. The EIA will explore these issues and impacts following further investigation.

NOTE: The specialist's studies were done for the entire AMB, however information relevant to the Capital Projects has been extracted and included into this DSR.

12.1 Geology

The information presented in this section is extracted from the hydrogeological specialist study undertaken by Golder and Associates in 2022.

The area is underlain by the rocks of the Rustenburg Layered Suite (RLS) of the Bushveld Igneous Complex (BIC). These comprise norite, pyroxenite, anorthosite and gabbro. The Merensky Reef and UG2 horizons that contain the platinum group minerals lie within the RLS. These reefs follow the strike of the RLS and are exploited in the study area for the mining of platinum group metals. The area is associated with wide areas of sub outcrop, with localised zones of deeper weathering.

Shale, quartzite and minor diamictites of the Pretoria Group, which forms the upper part of the Transvaal Sequence, occur to the west, north-west and south-east of the study area. In the west of RLS, the Pretoria Group lithologies trends in NE-SW direction. The Magaliesberg quartzite forms the hills and ridges occurring west of the Pilanesberg. To the east and south of AMB, coarse grained granite outcrops occur.

Quaternary sand alluvium and surface deposits are located along the streams, east and west of the study area. This covered the solid geology over a wide area.

Dolomite and shale of the Malmani Formation forms an east to west trending outcrop approximately 5 km west and approximately 12 km north-west of the study area. The dolomite dips to the south below the Pretoria Group strata (Golder, 2022).

12.2 Topography

The information presented in this section is extracted from the visual specialist study undertaken by Eco Elementum in 2022.

The general topography of the study area can be described as relatively flat and gently decreases in an easterly direction. An exception to the flat terrain is a row of hills/ridges located west and north of the study area. Overall, the surface elevation varies between 893 meters above mean sea level (mamsl) and 1506 mamsl within 15 km of the proposed mining area and between 919 mamsl and 970 mamsl across the proposed mining operations.

12.3 Climate

The information presented in this section is extracted from the air quality specialist study undertaken by Airshed Professionals in 2022.

12.3.1 Precipitation

The annual rainfall of the area is between 524 to 684 mm with the peaks during the summer months and dips during the winter months (Figure 12-1).

Relative humidity is the amount of moisture in the air compared to what the air can "hold" at a particular temperature. It is the ratio of the partial pressure of water vapour to the saturation vapour pressure of water at the same temperature. Humidity influences the amount of precipitation in a region and can also influence the effect of air pollution on visibility. A high relative humidity can significantly increase the adverse effect of pollution on visibility. The annual mean humidity was ~ 59 % in 2018, ~ 58 % in 2019 and 63 %in 2020 (Figure 12-1).

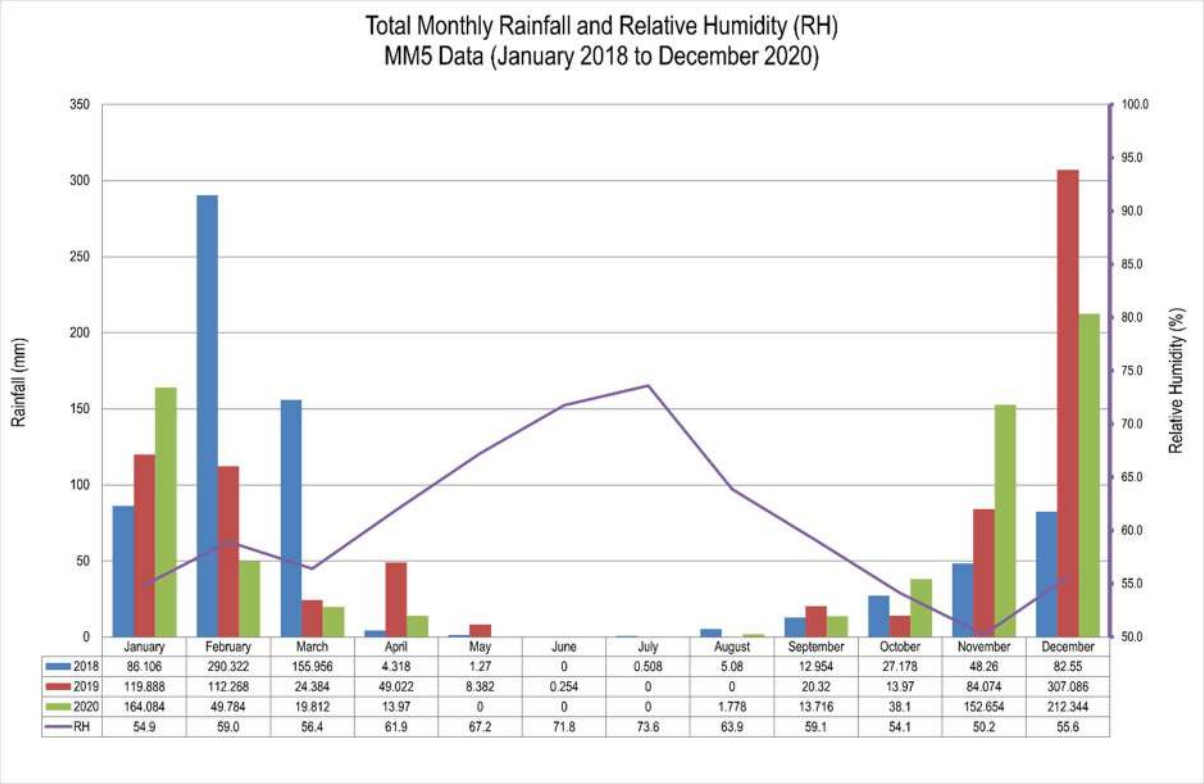

Figure 12-1: Monthly rainfall data for an on-site location.

12.3.2 Site temperature

Air temperature is important, both for determining the effect of plume buoyancy (the larger the temperature difference between the emission plume and the ambient air, the higher the plume is able to rise), and determining the development of the mixing and inversion layers. Monthly mean, maximum and minimum temperatures between 2018 and 2020 are given in Table 12-1. Temperatures ranged

between 1.6°C and 34.8°C. Diurnal and average monthly temperature trends are presented in Figure 12-2.

Table 12-1: Minimum, maximum and average hourly temperatures (Modelled data, 2018 to 2020)

Monthly Minimum, Maximum and Average Temperatures (°C) (January 2018 to December 2020)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Minimum	15.6	16.1	14.5	10.2	4.1	1.9	1.6	2.9	5.0	9.9	10.8	14.9
Average	25.3	24.6	23.8	19.9	15.4	11.2	10.9	15.8	19.0	22.4	24.8	25.5
Maximum	34.4	33.2	33.4	30.5	25.4	21.0	22.2	26.5	31.1	34.0	34.5	34.8

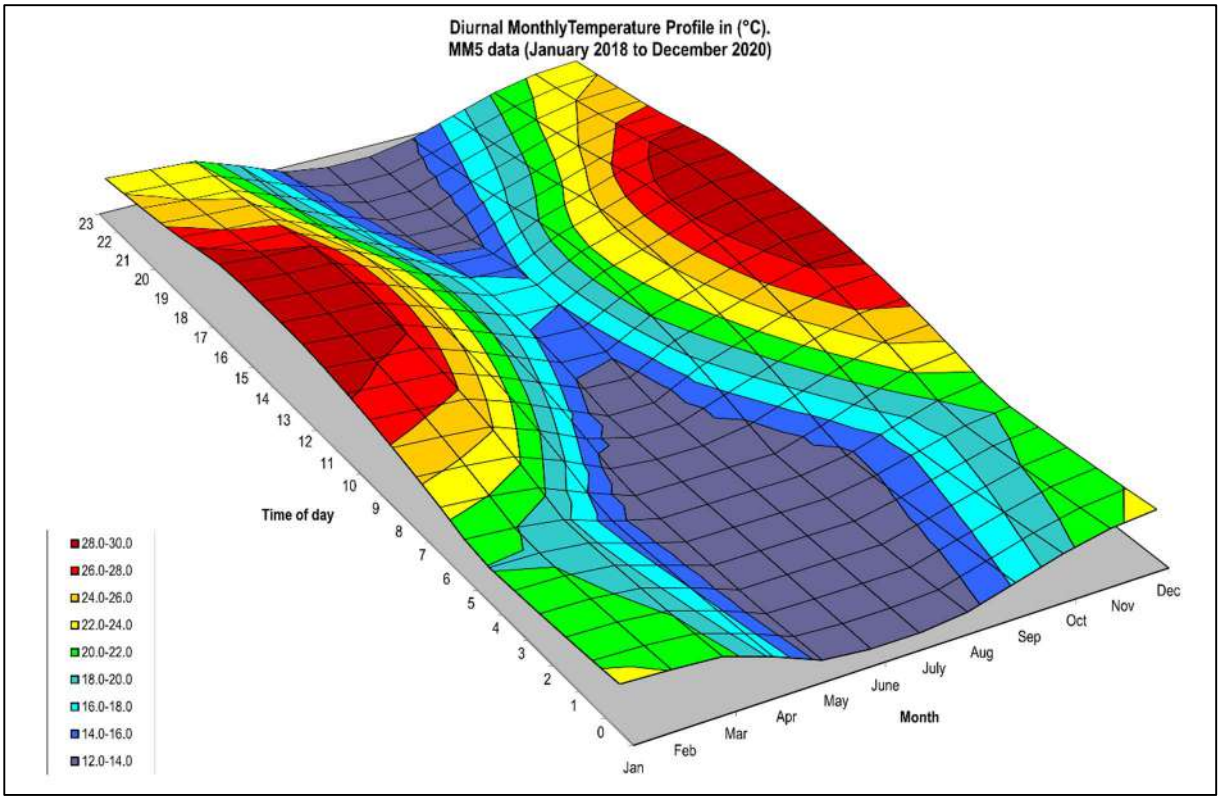

Figure 12-2: Diurnal temperature profile (Modelled MM5 data, 2018 to 2020)

12.3.3 Wind speed and direction

Wind roses comprise 16 spokes, which represent the directions from which winds blew during a specific period. The colours used in the wind roses below, reflect the distinct categories of wind speeds; the yellow area, for example, representing winds in between 5 and 6 m/s. The dotted circles provide information regarding the frequency of occurrence of wind speed and direction categories. Calm conditions are periods when the wind speed was below 1 m/s. These low values can be due to "meteorological" calm conditions when there is no air movement; or, when there may be wind but it is below the anemometer starting threshold (AST).

The period wind field and diurnal variability in the MM5 wind field for January 2018 to December 2020 are shown Figure 12-3. The seasonal wind variability is shown in Figure 12-4. The period wind field and diurnal variability in the wind field depicts the predominance of the east-south-easterly, south-easterly and easterly winds with wind speeds of greater than 5 m/s, especially during the day. The period average wind speed is 2.84 m/s with calm winds occurring 17.3 % of the time. The average wind speed during the day is 2.63 m/s with calm winds occurring 22.3 % of the time. The night-time is

characterised by a higher frequency of calm conditions (39.1%) and dominant winds originating from the east with an average wind speed of 3.06 m/s. Winds from the north-north-westerly sector also occur during the day, albeit at slightly lower overall wind speed. The night-time wind rose shows a slight decrease in the east-south-easterly, south-easterly and the south-south easterly winds. There is a significant decrease in the frequency of calm wind conditions during the night-time hours.

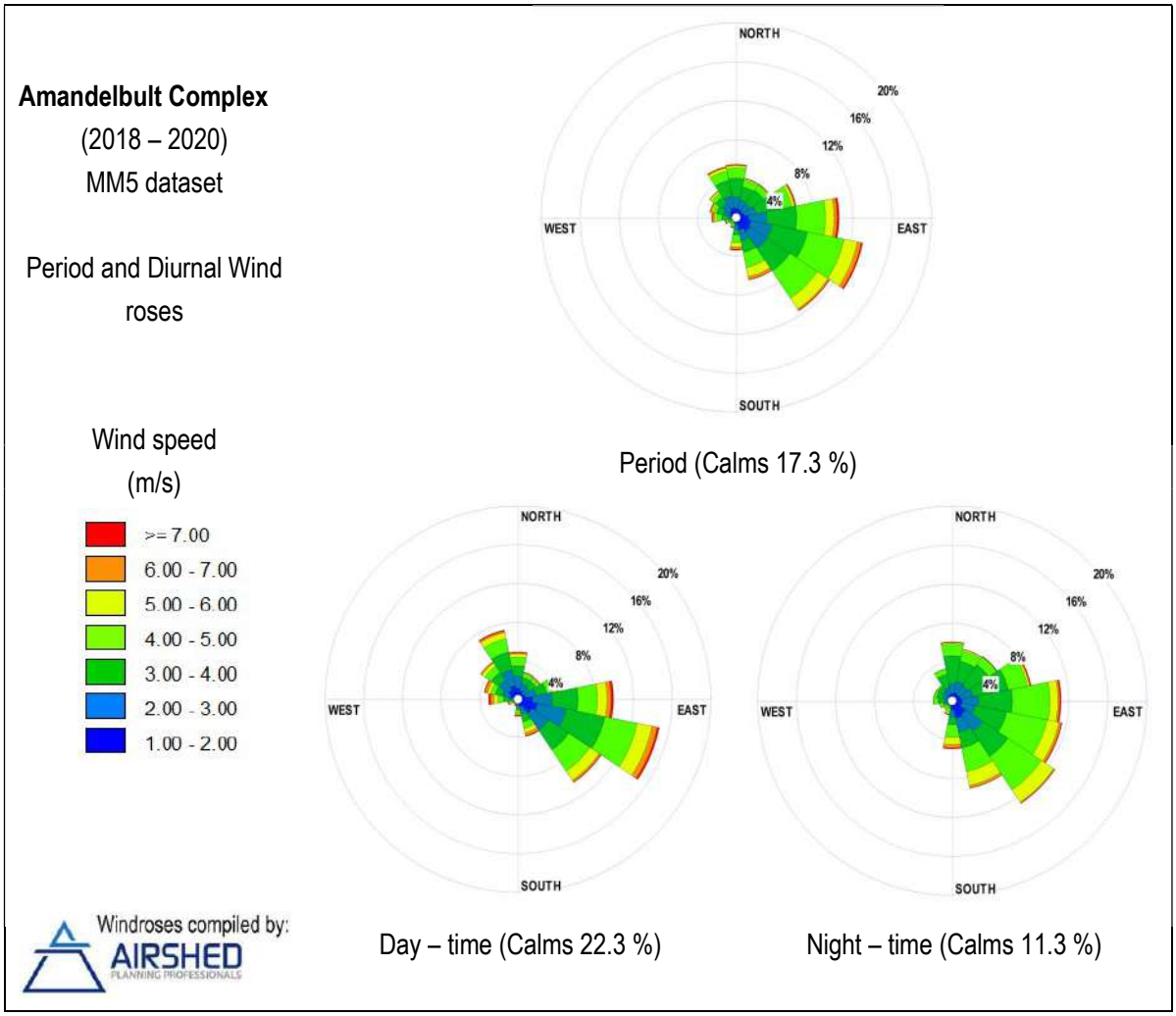

Figure 12-3: Period, day and night-time wind roses (Modelled MM5 data, 2018 to 2020)

During summer, the wind profile shifts and is predominantly from north, northwest and east-north-eastern sectors. Winter, autumn and spring show similar wind direction profiles to the period average with an increase in south-easterly and south-south-easterly winds during winter. Wind speeds are mostly lowest during Autumn and Winter; however, there are high frequency of winds above 4 m/s during Winter.

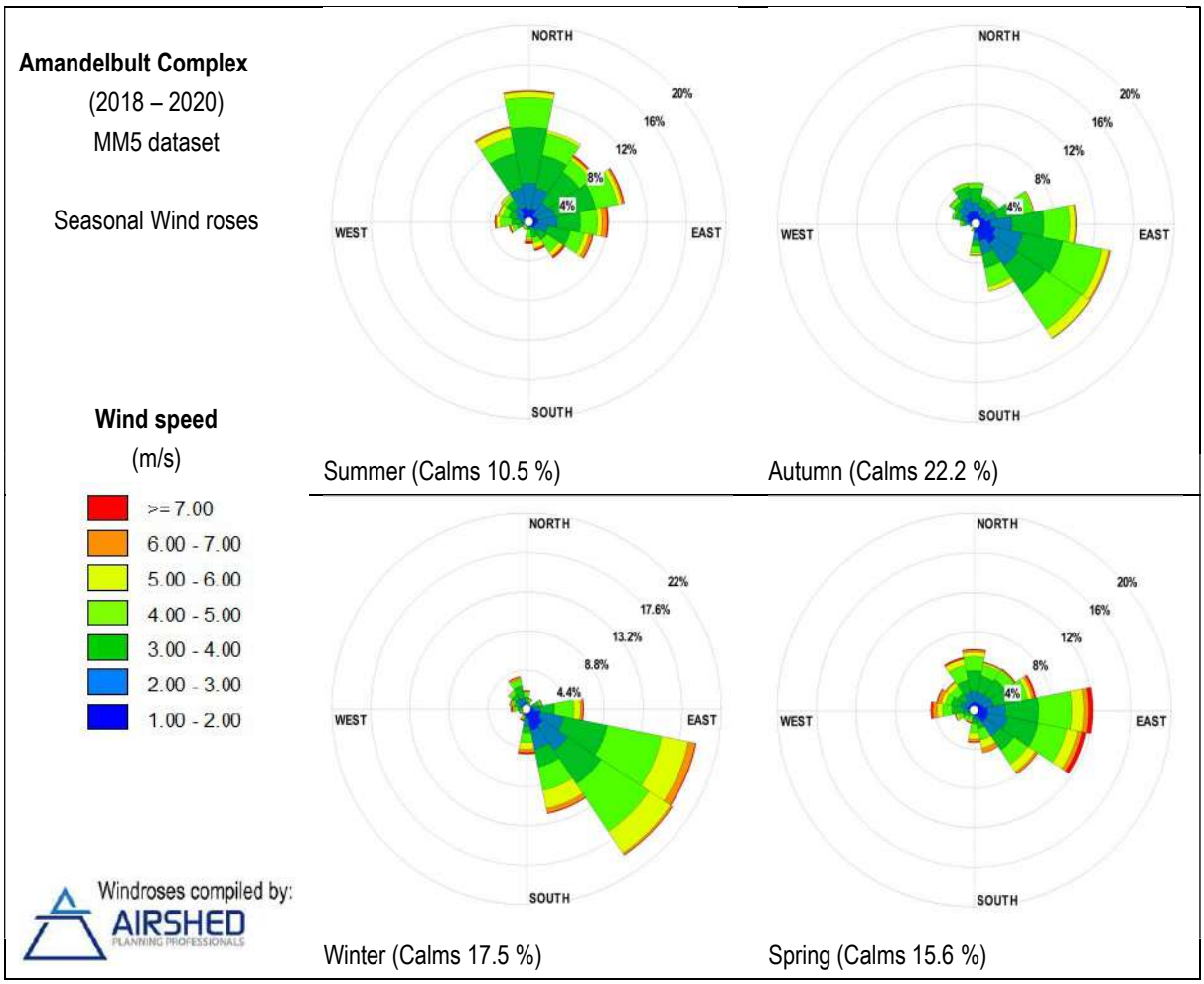

Figure 12-4: Monthly wind roses (Modelled MM5 data, 2017 to 2019)

12.4 Visual

The information presented in this section is extracted from the visual specialist study undertaken by Eco Elementum in 2022.

12.4.1 Vegetation cover

The Visual Absorption Capacity (VAC) is the capacity of the receiving environment to absorb the potential visual impact of the proposed infrastructure. The VAC is primarily a function of the surrounding vegetation, and will be high if the vegetation is tall, dense and continuous. Conversely, low growing, sparse and patchy vegetation will have a low VAC. The AMB is situated within the Dwaalboom Thornveld vegetation type. This vegetation type is characterised by scattered, low to medium-high trees and shrubs as well as an almost continuous herbaceous layer dominated by grass species (Rutherford et al., 2006). Therefore, it can be inferred that the surrounding vegetation of the area creates a medium VAC for the proposed project. Figure 12-5 indicates this vegetation type as seen from the site visit.

Figure 12-5: Amandelbult Complex site vegetation

12.4.2 Sensitive Receptor

From a desktop study of satellite imagery, various sensitive receptors in the form of human habitation areas were identified within 15 km of the proposed mining operations and are presented in Figure 12-6 below. These human habitation areas include nearby towns (Setaria, Smashblock, Northam and Thabazimbi) and scattered homesteads/villages. It should be noted that the sensitive receptors in the area may differ from those identified as not all areas may have been identified from the imagery successfully.

Protected areas (mainly private nature reserves) and main roads (namely the R510 and R511) have also been included as sensitive receptors for this study. The protected areas are considered sensitive receptors due to their potential static views of the proposed operations, and the main roads due to travellers momentarily experiencing any potential visual impacts.

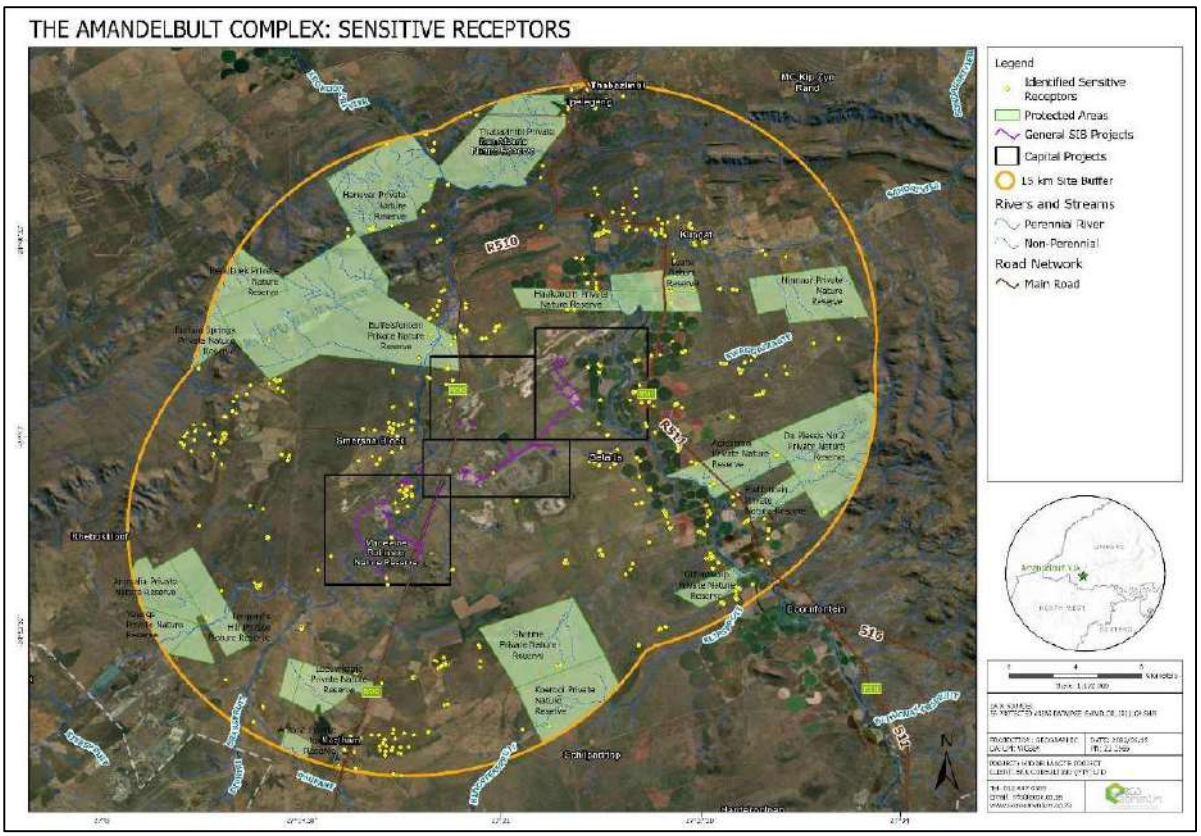

Figure 12-6: Amandelbult Complex sensitive receptors

12.4.3 Sense of place

The concept of “a Sense of Place” does not equate simply to the creation of picturesque landscapes or pretty buildings, but to recognize the importance of a sense of belonging. Embracing uniqueness, as opposed to standardization, attains quality of place. In terms of the natural environment, it requires the identification, a response to and the emphasis of the distinguishing features and characteristics of landscapes. Different natural landscapes suggest different responses.

The current study area is located adjacent to two mining towns namely, Smash Block and Setaria. The main town of Thabazimbi is located approximately 18 km north of the site and Northam approximately 25 km south. The R510 main road runs across the site from north to south and the R511 is located east of the site. A row of hills/ridges is also present west and north of the study area (south of Thabazimbi). Overall, the sense of place of the current study area can be characterized by the predominant mining and agricultural activities within the area. Therefore, the proposed supporting infrastructure project are not expected to significantly detract from the existing sense of place.

Figure 12-7 and Figure 12-8 below illustrates the sense of place using images taken from the Amandelbult Mine Town and the R510.

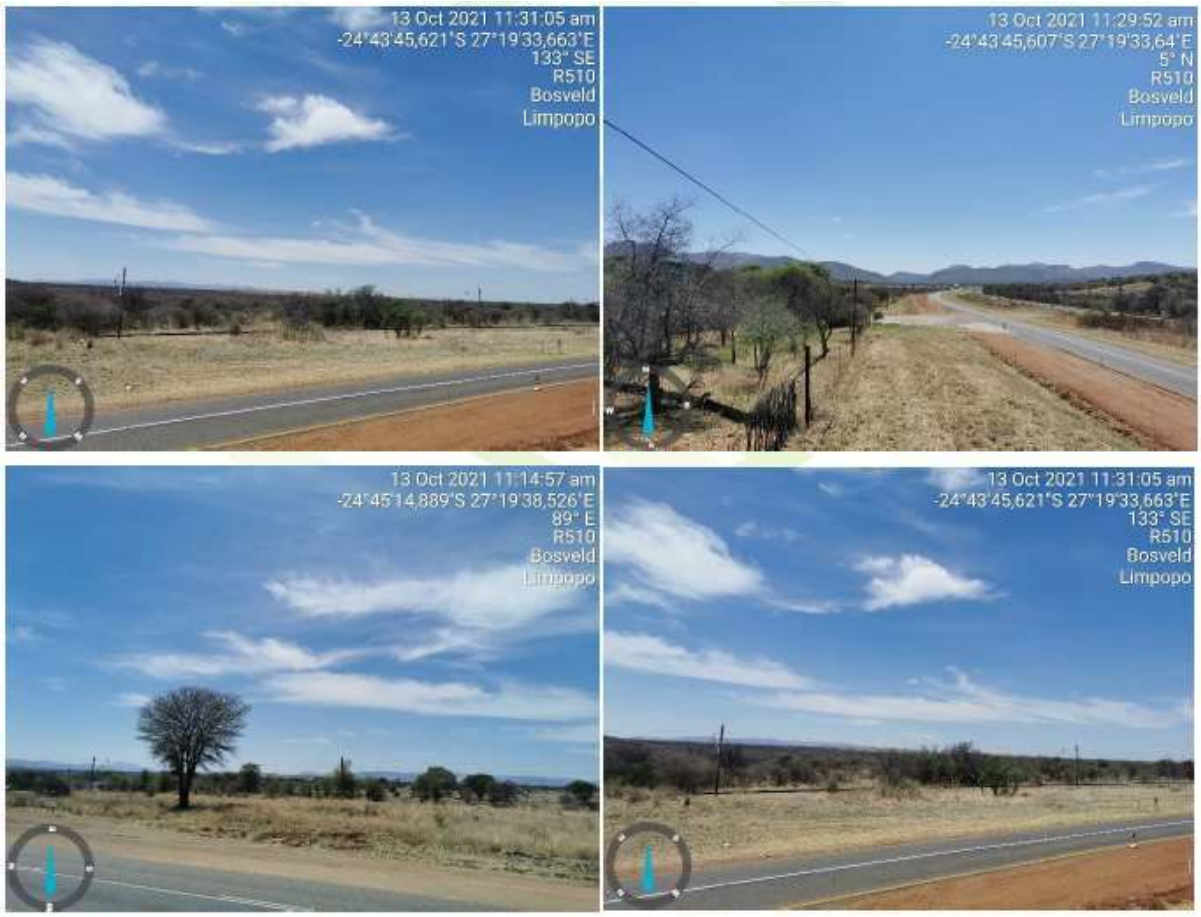

Figure 12-7: Images taken from the R510

Figure 12-8: Images taken from the Amandelbult Mine Town

12.5 Soils and land use

The information presented in this section is extracted from the closure specialist study undertaken by SRK Consulting in 2022.

Arcadia black turf (vertisol soil type) occurs in the area and is the result of the weathering of norite. The clay has very high swelling and shrinking characteristics between the wet and dry states. When saturated with moisture, the clays are highly impermeable to water movement, but surface cracks develop due to shrinking in the dry condition that allow for some infiltration and recharge of water before saturation is reached.

The Arcadia soil form covers most the mine lease area and thickness ranges from 0,8 to 1,5 m below ground level (bgl). This calcareous soil form comprises a deep (>1m), Vertic A Horizon with a soft carbonate B Horizon lens. The presence of hydrophilic, expansive 2:1 montmorillonite clay results in seasonal soil heave. The clayey soil is dark in colour and black when slightly moist to saturated with a granular surface structure when dry.

Except for existing mine buildings, ancillary structures and current land usage (mining and minor residential), much of the land in the area is open natural veld with several game areas in and around the mine area. Within the mine area, portions of land next to the Crocodile River is leased to farmers for agricultural purposes (irrigation lands) and some land is leased to farmers for grazing. The surrounding farms are mainly utilised for agricultural production and grazing. An important component within the AMB is the Madeleine Robinson Game Reserve, which is owned by the mine and is managed as a wildlife sanctuary. It covers an area of approximately 1500 ha.

The soil has low salinity, sodicity and erodibility but the agricultural potential is limited due to an alkaline pH and the extreme hydrophilic nature of the clayey soil, especially with depth, which competes with, and may overwhelm root absorption of soil moisture. This high soil moisture retention negatively affects the overall agricultural potential. The soil is thus considered to have a low agricultural potential unless irrigated as occurs with the land adjacent to the Crocodile River, with a relatively high buffer capacity.

12.6 Biodiversity

The information presented in this section is extracted from the biodiversity specialist study undertaken by The Biodiversity Company in 2022.

12.6.1 Ecologically Important Landscape Features

The proposed project areas were assessed by the biodiversity specialists to identify the sensitivities of the area. Table 12-2 outlines the sensitivities of the areas in terms of ecologically important landscape features

Table 12-2: Summary of ecologically important landscape features associated with the proposed project areas

Ecologically important landscape features	Relevance
Ecosystem Threat Status	The spatial dataset indicated that the proposed projects overlaps with a Least Concern (LC) ecosystem
Ecosystem Protection Level	The proposed projects overlaps with a Moderately Protected (MP) Ecosystem
Protected Areas	The proposed project does not occur within any protected area, however, the northern area of Dishaba is located within 5km from the Haakboom Private Nature Reserve.
Critical Biodiversity Area	The proposed projects fall within various Critical Biodiversity Areas (CBAs), namely CBA2, Ecological Support Areas (ESA1), ESA2; Other Natural Area (ONA) and No Natural Remaining (NNR).
Important Bird and Biodiversity Areas	The majority of the site is located within the Northern Turf Thornveld Important Bird and Biodiversity Areas (IBA). The area is well known for holding the core of the remaining resident South African population of Yellow-throated Sandgrouse (*Pterocles gutturalis*). Other important birds in the IBA include Secretary bird, Kori Bustard, Lanner Falcon and Black-winged Pratincole (Birdlife, 2017).
South African Inventory of Inland Aquatic Ecosystems	A Critically Endangered wetland systems occurs within 500 m of AMB. The Bierspruit overlaps with the project area. Non-FEPA Rivers and wetlands occurs within and overlaps with the project area.
Mining and Biodiversity Guideline	The majority of the project area overlaps with an area classified as “Highest Biodiversity Importance”

12.6.2 Floral Biodiversity

The project area is situated within the savanna biome. The savanna vegetation of South Africa represents the southernmost extension of the most widespread biome in Africa (Mucina & Rutherford, 2006). Major macroclimatic traits that characterise the savanna biome include:

a) seasonal precipitation; and
b) (sub) tropical thermal regime with no or usually low incidence of frost (Mucina & Rutherford, 2006).

Most savanna vegetation communities are characterised by a herbaceous layer dominated by grasses and a discontinuous to sometimes very open tree layer (Mucina & Rutherford, 2006). On a fine-scale vegetation type, the project area overlaps with one vegetation type: the Dwaalboom Thornveld.

Dwaalboom Thornveld is restricted to and is distributed in Limpopo and North-West Provinces, within flats north of the Dwarsberge and associated ridges mainly west of the Crocodile River in the Dwaalboom area but including a patch around Sentrum. South of the ridges it extends eastwards from the Nietverdiend area, north of the Pilanesberg to the Northam area at an altitude range of between 900 and 1,200m above mean sea level. Its main vegetation and landscape features include plains with a layer of scattered, low to medium high, deciduous microphyllous trees and shrubs with a few broad-leaved tree species. There is almost a continuous herbaceous layer dominated by grass species.

Important Plant Taxa in Dwaalboom Thornveld

Based on Mucina and Rutherford's (2006) vegetation classification, important plant taxa are those species that have a high abundance, a frequent occurrence (not being particularly abundant); or are prominent in the landscape within a particular vegetation type. Table 12-3 provides the important taxa in the Dwaalboom Thornveld vegetation type.

Table 12-3: Important plant taxa in the Dwaalboom Thornveld vegetation type

Vegetation Type	Important Pant Taxa
Trees:	*Vachellia erioloba, Vachellia erubescens, Vachellia nilotica, Vachellia tortilis subsp. heteracantha, Senegalia fleckii, Senegalia burkei, Searsia lancea* (Mucina & Rutherford, 2006).
Tall Shrubs	*Vachellia hebeclada subsp. hebeclada, Combretum hereroense, Diospyros lycioides subsp. lycioides, Euclea undulata, Grewia flava, Tarchonanthus camphoratus.*
Low Shrubs	*Vachellia tenuispina, Abutilon austro-africanum, Aptosimum elongatum, Hirpicium bechuanense, Pavonia burchellii, Solanum delagoense.*
Succulent Shrubs	*Kalanchoe rotundifolia, Talinum caffrum.*
Herbaceous Climber	*Rhynchosia minima.*
Shrubs	*Diospyros lycioides subsp. lycioides, Grewia flava, Mystroxylon aethiopicum subsp. burkenum, Agathisanthemum bojeri (Mucina & Rutherford, 2006).*
Graminoids	*Aristida bipartite, Bothriochloa insculpta, Digitaria eriantha subsp. eriantha, Ischaemum afrum, Panicum maximum and Cymbopogon pospischilii* (Mucina & Rutherford, 2006).

Conservation Status

According to Mucina and Rutherford (2006) Dwaalboom Thornveld is classified as Least Threatened. Cultivation and to a lesser extend urbanisation have resulted in the transformation of approximately 14% of Dwaalboom Thornveld and exotic invasive plants are present. Incidences of erosion are low to very low (Mucina & Rutherford, 2006).

Expected Flora Species

The Plants of Southern Africa (POSA) database indicates that 470 species of indigenous plants are expected to occur within the project area. Two Species of Conservation Concern (SCC) based on their conservation status could be expected to occur within the project area and are provided in Table 12-4 below.

Table 12-4: Threatened flora species that may occur within the project area.

Family	Taxon	Author	IUCN[3]	Ecology
Scrophulariaceae	*Jamesbrittenia bergae*	Lemmer	VU	Indigenous; Endemic
Apocynaceae	*Stenostelma umbelluliferum*	(Schltr.) Bester & Nicholas	NT	Indigenous; Endemic

Protected Trees

Based on pervious projects undertaken within the proposed project area, protected trees have been observed such as *Boscia albitrunca* (Shepard's Tree), *Combretum imberbe* (Leadwood) and *Sclerocarya birrea. subsp. caffra* (Marula). This will be updated as part of the EIA phase of the project. Should any protected trees be observed within the proposed project areas these species are protected under the National Forests Act, 1998 (Act No. 84 of 1998) (NFA).

Invasive Alien Plant Species

Based on the field assessment done in 2022, seven Invasive Alien Plant (IAP) species were recorded within the supporting infrastructure project areas (Table 12-5). These species are listed under the Alien and Invasive Species List 2020, Government Gazette No. GN1003 as Category 1b. These IAP species must be controlled by implementing an IAP Management Programme, in compliance of section 75 of the NEMBA, as stated above.

Table 12-5: Observed invasive alien plant species within the project area.

Family	Scientific Name	NEMBA Category
Asteraceae	*Flaveria bidentis*	NEMBA Category 1B
Asteraceae	*Xanthium spinosum*	NEMBA Category 1B
Cactaceae	*Opuntia ficus-indica*	NEMBA Category 1B
Meliaceae	*Melia azedarach*	NEMBA Category 1B
Poaceae	*Pennisetum setaceum*	NEMBA Category 1B
Solanaceae	*Datura ferox*	NEMBA Category 1B
Tamaricaceae	*Tamarix ramosissima*	NEMBA Category 1B

12.6.3 Faunal Biodiversity

Avifauna

The South African Bird Atlas Project, Version 2 (SABAP2) database indicated that 290 bird species have the potential to occur in the vicinity of the project area.

Table 12-6 details the SCC expected in the proposed project area with ten of these having a moderate-high likelihood of occurrence based on the suitable habitat and food sources present in the project area.

[3] EN = Endangered, VU = Vulnerable, NT = Near threatened, LC = Least concern.

Table 12-6: SCC expected within the proposed project area

Species	Common Name	Conservation Status		
		Regional (South African National Biodiversity Institute (SANBI), 2016)	International Union for Conservation of Nature (IUCN, (2021)	Likelihood of Occurrence
Aquila verreauxii	Eagle, Verreaux's	VU	LC	Moderate
Calidris ferruginea	Sandpiper, Curlew	LC	NT	Moderate
Ciconia abdimii	Stork, Abdim's	NT	LC	Moderate
Ciconia nigra	Stork, Black	VU	LC	Confirmed
Coracias garrulus	Roller, European	NT	LC	Confirmed
Gyps coprotheres	Vulture, Cape	EN	EN	Confirmed
Leptoptilos crumenifer	Stork, Marabou	NT	LC	Moderate
Mycteria ibis	Stork, Yellow-billed	EN	LC	Moderate
Phoeniconaias minor	Flamingo, Lesser	NT	NT	Low
Phoenicopterus roseus	Flamingo, Greater	NT	LC	Low
Podica senegalensis	Finfoot, African	VU	LC	Moderate
Polemaetus bellicosus	Eagle, Martial	EN	VU	Moderate
Pterocles gutturalis	Sandgrouse, Yellow-throated	NT	LC	High
Rostratula benghalensis	Painted-snipe, Greater	NT	LC	Moderate
Sagittarius serpentarius	Secretarybird	VU	VU	Moderate
Torgos tracheliotos	Vulture, Lappet-faced	EN	EN	Low

Based on the field assessment, 82 (28% of expected) species were recorded within the project areas. Four SCC were identified during the site visits (Table 12-7).

Table 12-7: SCC identified during the site visits

Species	Common Name	Conservation Status	
		Regional (SANBI, 2016)	IUCN (2021)
Ciconia nigra	Stork, Black	VU	LC
Coracias garrulus	Roller, European	NT	LC
Gyps coprotheres	Vulture, Cape	EN	EN
Falco vespertinus	*Falcon, Red-footed*	*NT*	*NT*

Amphibians and reptiles

According to the IUCN Red List Spatial Data and Amphibian Map, 30 amphibian species are expected to occur within the proposed project areas. One of these species are threatened. In addition to this 91 reptile species are expected to occur within the proposed project area of which three are classified as threatened (Table 12-8). Based on the absence of a suitable perennial river in the project area, the likelihood of occurrence of the Nile Crocodile was rated as low.

Table 12-8: Threatened reptile species that are expected to occur within the project area

Species	Common Name	Conservation Status		Likelihood of Occurrence
		Regional (SANBI, 2016)	IUCN (2017)	
Crocodylus niloticus	Nile Crocodile	VU	LC	Low
Lygodactylus waterbergensis	Waterberg Dwarf Gecko	NT	NT	Moderate
Pseudocordylus transvaalensis	Northern Crag Lizard	NT	LC	Moderate

Based on the field assessment, seven reptile species and three amphibian species were recorded within the project areas. The use of the rocky outcrops water resources by these species receptively on the fine-scale habitats is important to consider for mitigation actions when an area is cleared for placement of the infrastructure.

Mammals

The IUCN Red List Spatial Data lists 86 mammal species that could be expected to occur within the area. This list excludes large mammal species that are limited to protected areas. Of the 86 species, 13 of these expected species are regarded as threatened (Table 12-9), 11 of these have a low likelihood of occurrence based on the lack of suitable habitat in the project area.

Table 12-9: Threatened mammal species that are expected to occur within the project area.

Species	Common Name	Conservation Status		Likelihood of Occurrence
		Regional (SANBI, 2016)	IUCN (2017)	
Aonyx capensis	Cape Clawless Otter	NT	NT	High
Atelerix frontalis	South Africa Hedgehog	NT	LC	Moderate
Cloeotis percivali	Short-eared Trident Bat	EN	LC	Low
Crocidura mariquensis	Swamp Musk Shrew	NT	LC	Low
Crocuta	Spotted Hyaena	NT	LC	Low
Felis nigripes	Black-footed Cat	VU	VU	Moderate
Leptailurus serval	Serval	NT	LC	High
Panthera pardus	Leopard	VU	VU	Moderate
Parahyaena brunnea	Brown Hyaena	NT	NT	Moderate
Pelea capreolus	Grey Rhebok	NT	NT	Moderate
Poecilogale albinucha	African Striped Weasel	NT	LC	Moderate
Redunca fulvorufula	Mountain Reedbuck	EN	LC	Low
Smutsia temminckii	Temminck's Ground Pangolin	VU	VU	Low

During the field assessment conducted in 2022, 23 mammal species were observed. Six mammal species, including two SCC, are considered ‘captive’ species as these were only present within the game farm areas.

12.7 Surface water hydrology

The information presented in this section is extracted from the Integrated Water and Waste Management Plan 2022 undertaken by SRK Consulting (Pty) Ltd in 2022.

12.7.1 Water management area

AMB falls within the A24F (Bierspruit) and A24C (Crocodile River) quaternary drainage regions in the Limpopo-North West Water Management Area (WMA), which combines the previous Limpopo and Crocodile-West WMA and Luvuvhu catchment from the previous Luvuvhu-Letaba WMA. The surface within the mine boundary area is generally flat to gently undulating, with the exception of several rocky hills in the western part of the mine. The western part of the mine falls within the A24F catchment area and drains mainly northward and westward towards the non-perennial Bierspruit. The Middellaagtespruit is a tributary of the Bierspruit in the vicinity of the TSF area. The eastern part of the mine falls within the A24C catchment and drains mainly north-eastwards and eastwards via a few small ephemeral streams towards the perennial Crocodile River.

12.7.2 Surface water quality

Surface water quality monitoring is conducted on a monthly basis at Amandelbult Complex in accordance with the WUL requirements with variances from the WUL indicated in the water quality monitoring reports. A comprehensive report (discussing surface and groundwater quality) is compiled annually.

Water quality is sampled by Aquatico Scientific Services according to the three main areas Dishaba Shaft, Tumela Shaft and the Concentrator (Aquatico Scientific, 2021).

Dishaba

The surface water quality for the Dishaba Shaft is detailed as below:

- Surface water quality is in general neutral to alkaline with the average TDS being very saline and the total hardness varying between very hard and extremely hard;
- The average physical and chemical composition of several process water monitoring localities exceeded the target values specified in the WUL Waste Water Discharge. These exceedances include EC, Na, Cl and NO_3-N concentrations;
- While qualities for process water may exceed, risk is low as water is maintained in a closed system and no individuals are expected to consume water directly;
- The water quality of the receiving environment at Dishaba shaft;
- The water quality which is discharged into the environment is neutral, non-saline and slightly hard to hard;
- The average physical and chemical composition of the receiving environment water quality exceeded the WUL Surface Water Resource limits in terms of EC, Total Alkalinity, SAR, SS, Turbidity and DO; and
- Low impact on the Crocodile River was however recorded.

Tumela Mine

The surface water quality of the Mine water is detailed below:

- Surface water quality is neutral to alkaline, the average TDS varied from saline to very saline and the total hardness varied between hard and extremely hard;
- The average physical and chemical composition of several process water monitoring localities exceeded the target values specified in the WUL Waste Water Discharge in terms of pH, EC, Na, Cl, NO3-N and Mn concentrations;

- While qualities for process water may exceed, risk is low as water in maintained in a closed system and no individuals are expected to consume water directly;
- The water quality of the receiving environment at Tumela shaft;
- general neutral to alkaline, non-saline to very saline and slightly hard to very hard;
- The average physical and chemical composition of the receiving environment water quality exceeded the WUL Surface Water Resource limits in terms of pH, EC, Total Alkalinity, Cl, NO3-N, SAR, SS Turbidity and DO;
- Some impact on the Bierspruit was recorded and continual monitoring is important; and
- The average water quality profile of the Golf Course sampling locality can be described as neutral, very saline and extremely hard. The average physical and chemical composition of the Golf Course sampling locality water quality exceeded the WUL Waste Water Discharge Limit in terms of EC, Na, Cl and NO3-N.

12.8 Groundwater

The information presented in this section is extracted from the hydrogeological specialist study undertaken by Golder and Associates in 2022.

Groundwater occurrences in the AMB area is controlled by the depth of weathering, along the alluvial sediments and presence of secondary geological structures. According to the hydrogeological map series of South Africa (Du Toit *et a*l 1998), the aquifers around the AMB area are categorised as minor, based on the low to moderate groundwater yielding potential and moderately good groundwater quality.

12.8.1 Unsaturated zone

The unsaturated zone varies across the site, encompassing the zone above the water table. The unsaturated zone is thin closer to the TSF Complex and along the drainage lines where the depth to table is shallow (5.28 m thick in EMPR07), compared to 13.2 m thick. There is limited hydraulic information available for the unsaturated zone.

12.8.2 Saturated zone

The saturated zone encompasses the section below the water table. The saturation within the unconsolidated and deeply weathered aquifer is high relating to porosity of the overburden compared to fractured aquifers. Within the fractured secondary aquifers, water saturation is limited to the fractures.

12.8.3 Groundwater recharge

The available literature estimated the recharge to groundwater across the area as 3% of Mean Annual Precipitation (MAP - 19.5 mm/y) and the recharge ranging between 5% to 7% (32.5 – 45.5 mm/y) of MAP within the drainage courses of the Bierspruit and Crocodile Rivers, (WGC, 2007). The Middellaagte groundwater model was calibrated at 31% (186 mm/a) for the Transvaal dolomitic aquifer and 4% (24 mm/a) for the Transvaal aquitard and the Bushveld Complex aquifers.

12.8.4 Groundwater vulnerability

Groundwater in this area is the least vulnerable to some conservative pollutants in the long-term when continuously discharged or leached. Regionally, the groundwater is of good quality. However, the groundwater quality characterisation conducted by Golder in 2016 record good to slightly impacted water qualities across the site with Electrical Conductivity ranging from ≥70 mS/m to >500 mS/m attributed to local farming and mining practices. The local ongoing groundwater monitoring indicate

elevated concentrations of major ions with NO_3 levels attributed to the use of nitrate-based explosives in mining.

12.8.5 Aquifer protection classification

Aquifer protection classification is based on the aquifer vulnerability classification, threat posed to the aquifer by land use and aquifer system management classification. These attributes are multiplied with the aquifer rating system to obtain the Groundwater Quality Management index (GQM), which is used to determine the level of groundwater protection, as shown in Table 12-10 and Table 12-11. The AMB area is underlain by minor aquifer system (Point 2) which is least (Point 1) vulnerable to contamination.

Table 12-10: Ratings for the Groundwater Quality Management Classification System

Aquifer System Management Classification		Aquifer Vulnerability Classification	
Class	Points	Class	Points
Sole Source Aquifer System	6	Sole Source Aquifer System	6
Major Aquifer System	4	Major Aquifer System	4
Minor Aquifer System	2	Minor Aquifer System	2
Non-aquifer System	0	Non-aquifer System	0
Special Aquifer System	0-6	Special Aquifer System	0-6

Table 12-11: Appropriate Level of groundwater protection required based on Groundwater Management Classification

GQM index	Level of protection
<1	Limited Protection
1-3	Low level of Protection
3-6	Medium Level of Protection
6-10	High Level of Protection
>10	Strictly non-degradation

12.8.6 Groundwater levels

The recent groundwater monitoring data was evaluated to provide an understanding of depth to groundwater level across the study area, and it follows that (Groundwater Complete, 2020):

- Overall shallower water levels were measured to the east of the TSF and in the general down gradient groundwater flow direction. Artificial aquifer recharge in the form of seepage from the TSF and its Holding Dam is believed to be responsible for these shallow water levels (i.e., groundwater mounding);
- Average groundwater levels in the Bierspruit drainage direction varied between ±2.5 and 18.2 meters below surface (mbs), while averages of ±1.6 to 14.3 mbs were measured in the Crocodile River drainage direction;
- Groundwater flow from the mining area is generally towards the north/north-west and north-east in the direction of the Bierspruit and Crocodile River respectively; and
- Long-term water level decreasing trends, albeit gradual, are observed for boreholes EMPR01, EMPR05, EMPR08, EMPR10 and WM08 when considering the entire data record. Mine dewatering in the area is the most obvious cause, especially in the case of EMPR10, however the long-term effect of global warming and natural decrease in rainfall and consequent decrease in aquifer recharge cannot be ignored.

Groundwater level data was plotted together with the Cumulative Rainfall Departure (CRD), and it shows a good correlation for most boreholes indicating that the groundwater is directly dependent on recharge and fluctuates with the rainfall pattern.

A groundwater level map was generated based on water level data recorded from the Hydrocensus program to illustrate the inferred groundwater flow direction Figure 12-9. From the groundwater elevation map, it is evident that the groundwater flow direction is towards the rivers, mimicking the surface topography.

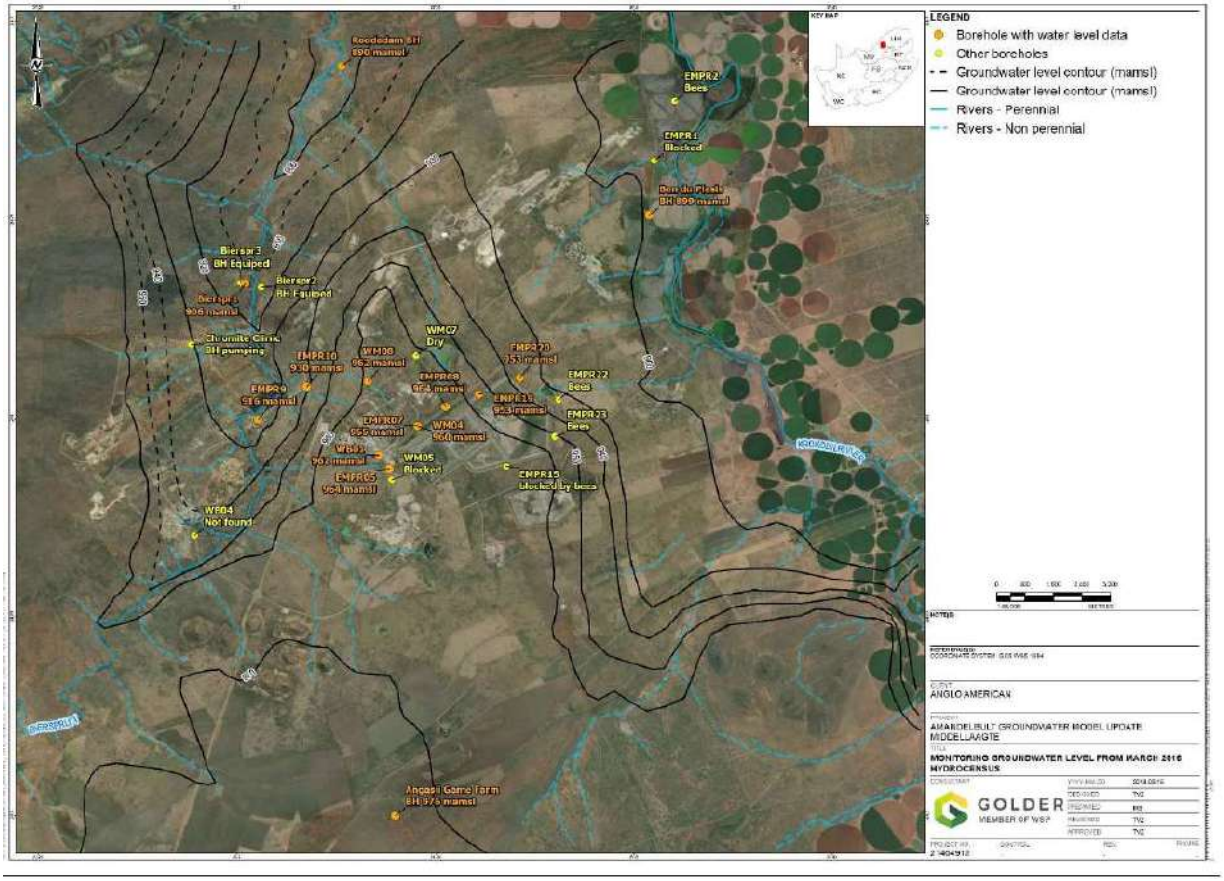

Figure 12-9: Groundwater level from March 2016 Hydrocensus

12.8.7 Baseline Groundwater Quality

Generally, the background groundwater quality in AMB area is marginal to poor with slightly elevated EC levels (70-370 mS/m), with even higher EC concentrations (>500 mS/m) reported from some local groundwater monitoring boreholes (EMPR19). Total dissolved solids (TDS) concentration in groundwater is generally elevated.

Locally, the waste rock and TSF constitute the main potential sources of groundwater contamination. The source term characterisation reports low metal and semi metal leachability and therefore low acid generation potential risk. However, based on source term geochemical characterisation, the TDS, nitrate, chromium, sodium, and sulphate are identified as the potential contaminants.

The following statements are made from the groundwater monitoring program, Groundwater Complete (2020):

- Concentrator Plant and associated dams:
  - Groundwater qualities varied from marginal to poor when compared with the South African National Standards for drinking water purposes (SANS 241:2015);
  - Sulphate and chloride were identified as two of the more dominant pollutants, while the Tailings Dam and its Return Water Dam and Holding Dams are the most significant sources of inorganic groundwater contamination in the AMB mining area;
- Environmental Boreholes:

- Groundwater qualities varied from marginal to poor when compared with the South African National Standards for drinking water purposes (SANS 241:2015); and
- Nitrate was identified as one of the most dominant pollutants, which originates from the following mine related activities: shaft areas stockpiles, backfilled opencast areas or wherever groundwater/recharge has been in contact with material exposed to nitrate-based explosives.

12.9 Air quality

The information presented in this section is extracted from the air quality specialist study undertaken by Airshed Professionals in 2022.

A site visit was undertaken by Airshed Professionals in November 2021 to gather information in preparation of the air quality study for the proposed AMB supporting infrastructure projects.

The area directly surrounding the proposed development is largely rural and is dominated by mining entities. The Air Quality Sensitive Receptors (AQSRs) around and within the mining lease area are shown in Figure 12-10. Towns and villages located around the mining lease area include Northam Mine (located ~11 km to the southwest); Thabazimbi (located ~15 km to the north), Northam Mine Town (located ~ 2 km to the west), Mantserre and Swartklip (located ~ 32 km to the southwest), Northam (located ~ 15 km to the south-southwest), Rethabile Mine Village, and Chromite (formerly Schilpadsnest) which is situated 10 km from Amandelbult Concentrator Section, Sefikile and Garamosi (located ~16 km to the west-southwest); Setaria (located~ 3 km to the southeast) and AMB (within the mine boundary).

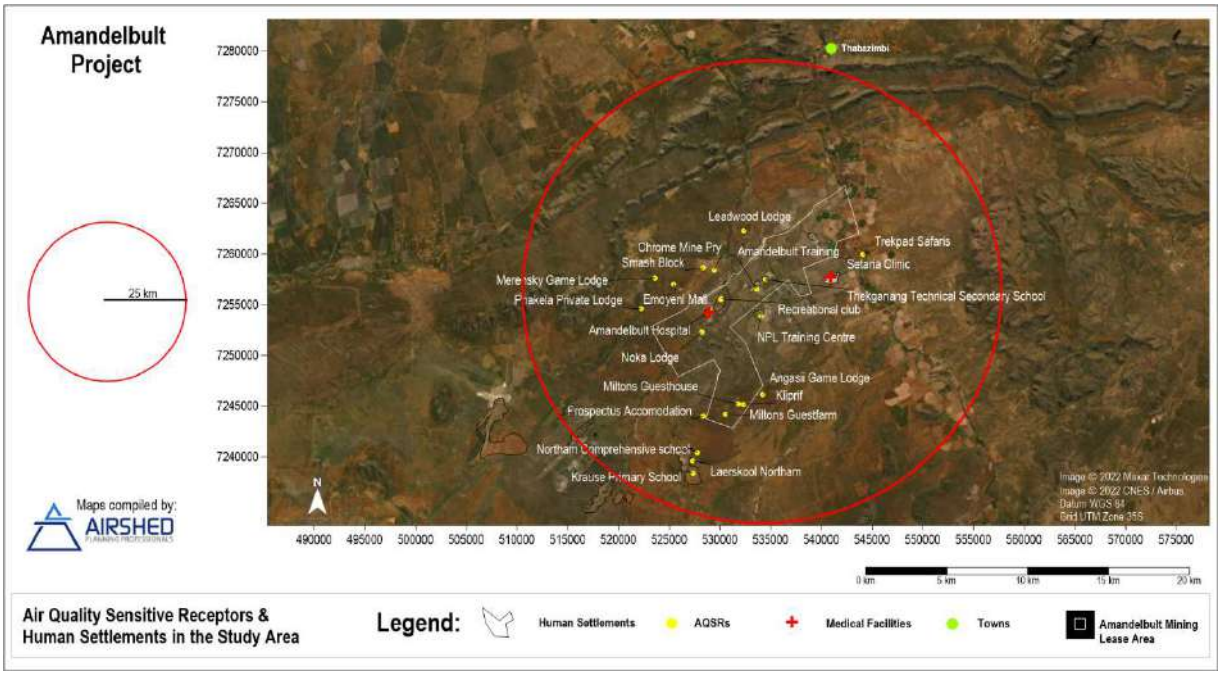

Figure 12-10: Air Quality Sensitive Receptor Locations

12.9.1 Measured Ambient Air Quality

Particulate Matter

Ambient air quality monitoring data from the South African Weather Station (SAWS) managed Thabazimbi station that is located 15 km to the north of the mining lease area was used. A summary of the particulate matter (PM) measurements is provided in Table 12-12. The data availability at the station was acceptable for the entire period (1 January 2019 – 31 December 2021). The 99th percentile PM10 concentrations (135.8, 119.5 and 142.3 µg/m³) were higher than the National Ambient Air

Quality Standards (NAAQS) limit value (75 µg/m³) in 2019, 2020 and 2021 respectively. There were 66, 44 and 56 daily exceedances to the NAAQS for PM10 in 2019, 2020 and 2021 respectively. Similarly, the 99th percentile $PM_{2.5}$ concentrations (51.1, 66.3 and 99 µg/m³) were higher than the NAAQS limit value (40 µg/m³) in 2019, 2020 and 2021 respectively. There were 17, 37 and 90 daily exceedances to the NAAQS for $PM_{2.5}$ in 2019, 2020 and 2021 respectively.

Table 12-12: A summary of the PM measurements at the SAWS Thabazimbi station (Jan 2019 – Dec 2021)

Period	Data Availability	Daily	Annual Average	No of recorded daily exceedances
		99th Percentile		
PM_{10} (µg/m³)				
Criteria		75 µg/m³	40 µg/m³	4 days per year
2019	86%	135.8	53.3	66
2020	80%	119.5	44.1	43
2021	77%	142.3	43.7	56
$PM_{2.5}$ (µg/m³)				
Criteria		40 µg/m³	20 µg/m³	4 days per year
2019	86%	51.1	19.3	17
2020	79%	66.3	31.9	37
2021	79%	99.0	29.0	90

The NAAQS set requirements for air quality that are defined in terms of an indicator, an averaging time for the measurement, a concentration, and a form. PM10 and PM2.5 are a percentile standard based on 3- years of data. From the data measured at the SAWS Thabazimbi station, is evident that the air quality in the region with respect to particulates (PM10 and PM2.5) is not compliant to the set regulations. It must be noted that the station is 15 km to the north of the mining lease area and the contributions to these elevated concentrations cannot be pinpointed to specific sources.

Gaseous Pollutants

Using data from the Thabazimbi SAWS station, the summary of the gaseous pollutants is presented in Table 12-13. All the measured 99th percentile concentrations are below their respective thresholds. There were no exceedances of the hourly and daily NAAQS for SO2 and CO over the entire period (1 Jan 2019 – 31 Dec 2021). There were 40 exceedances of the hourly NO2 NAAQS in 2021.

Table 12-13: A summary of the gaseous pollutant concentrations at the SAWS Thabazimbi station (Jan 2019 – Dec 2021)

Period	Data Availability	Hourly	Daily	Annual Average	No of recorded hourly exceedances	No of recorded daily exceedances
		99th Percentile	99th Percentile			
SO_2 (µg/m³)						
Criteria		350 µg/m³	125 µg/m³	50 µg/m³	88 hours per year	4 days per year
2019	95%	56.9	28.8	7.7	0	0
2020	96%	41.5	21.1	4.8	0	0
2021	78%	58.7	29.9	5.6	0	0
NO_2 (µg/m³)						
Criteria		200 µg/m³	-	40 µg/m³	88 hours per year	4 days per year
2019	94%	65.3	-	12.1	0	-
2020	87%	50.0	-	7.8	0	-

Period	Data Availability	Hourly	Daily	Annual Average	No of recorded hourly exceedances	No of recorded daily exceedances
		99th Percentile	99th Percentile			
2021	81%	143.5	-	20.4	40	-
CO (µg/m³)						
Criteria		30 000 µg/m³	-	-	88 hours per year	4 days per year
2019	87%	1644	-	-	0	-
2020	95%	3029	-	-	0	-
2021	86%	2312	-	-	0	-

Dust Fallout

Dustfall monitoring is conducted at the AMB, with dust buckets installed at the concentrator, Dishaba open pit mine, and at HDD opencast (Figure 12-11). Dustfall monitoring data were provided for the period November 2020 to October 2021. The AMB dust network consists of 12 dustfall buckets installed at Tumela 1 Shaft, Tumela 15 E, Dishaba and near the concentrator.

At the Amandelbult Concentrator dustfall network, Hostel 1 and Rethabile Village 1 exceeded the residential threshold limit in October 2021 and August 2022 respectively. There was an exceedance of the non-residential limit at the Tailings Office site in April 2021. There were exceedances of the non-residential limit at Dishaba dustfall network at Dishaba 8A Southwest and Dishaba 8A East in February 2021. Dustfall rates measured at the Haakdoorndrift network exceeded the residential limit at HDD Northwest, and HDD Northeast in July and September 2021. There was one exceedance to the non-residential limit at HDD Northeast in November 2020.

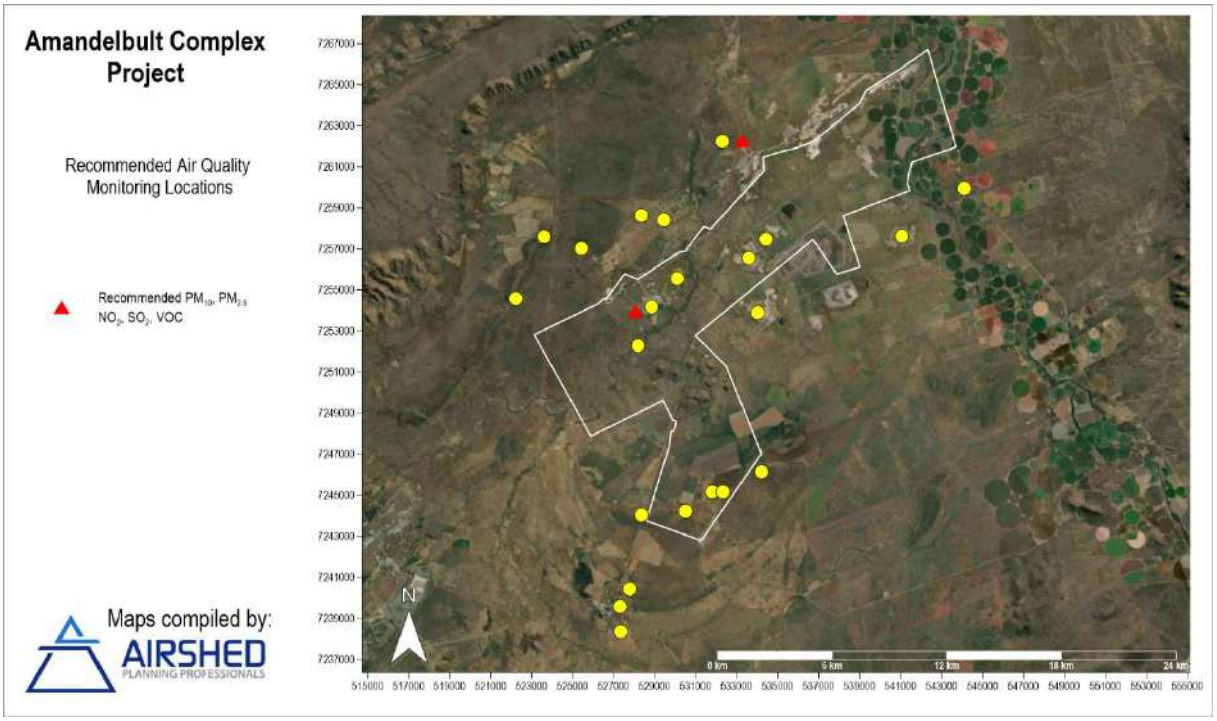

Figure 12-11: Dustfall network at the current Amandelbult operations

12.9.2 Existing Sources of Emissions in the Study Area

Land use in the region includes human settlements, farming, mining and platinum processing.

Sources of atmospheric emissions include:

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

12.10 Noise

The information presented in this section is extracted from the noise specialist study undertaken by Acusolv Consulting in 2022.

Two noise site visits were undertaken by Acusolv Consulting, one in October 2021 and March 2022. The focus of the noise study was to determine the noise implications the proposed AMB supporting infrastructure projects will have on the people living in the surrounding area.

The noise baseline survey found that the typical ambient levels in these areas are around 45 dBA during the day and 40 dBA at night.

Limits defining the noise study area were adjusted to extend well beyond potential worst-case noise footprints and includes all noise receptors (shown in green) located within possible reach of audible noise from the AMB.

The areas around the AMB can be described as a mixed rural, agricultural and game farming district, interspersed with main roads and mining activities. As such, the character and the level of ambient noise vary, depending on the nature of local activities and the distance of any locality to the nearest main roads and to the nearest mining activities. Despite the large overall physical footprint of the AMB, the current effects of the mine on background ambient noise levels at the nearest communities and residences in the area, are still very minimal.

12.11 Archaeology, cultural heritage and palaeontology

The information presented in this section is extracted from the Heritage Specialist study undertaken by Beyond Heritage in 2022.

12.11.1 Heritage resources

Topographically, the study areas consist of generally flat plains with vertic soils (turf or clay) with stretches of dense vegetation (Dichrostachys shrubs) and other pioneer species where the areas have been disturbed in the past. Large sections of the area have been used for cultivation prior to mining activities that started in the 1970's. The flat plains were not preferred for settlement in antiquity as Late Iron Age settlements are concentrated along topographical focal points like the base and between the saddle of hills or rocky outcrops where stone for construction of the stone walled settlements were readily available as well as along the Bierspruit as illustrated in Figure 12-12. During the current survey, similar landscape use was noted in the Project area and several Iron Age stone walled sites

conforming to the CCP were identified at such focal points. Sites contained central kraals, smaller livestock enclosures, lower grindstones and ceramic scatters. These sites form part of a larger Late Iron Age settlement complex dating to the Later Iron Age (AD1600 to AD1820) with most sites located on the farm Zondereinde and Elandsfontein. The plains are of low archaeological potential but would have been utilised by the nearby Iron Age communities for grazing and cultivation and most of the Project infrastructure is located here where very few archaeological features are found apart from isolated finds.

No major landscape features occur in the areas affected by the Project apart from a few hills where several Iron Age features occur. Other categories of heritage resources in the wider area include isolated and scatters of Middle Stone Age (MSA) artefacts, informal cemeteries, and a limited number of houses older or approaching sixty years of age. Other historical infrastructure noted, comprised of features relating to the railways and limited, insignificant mining related activities such as exploration shafts (Van der Walt 2022).

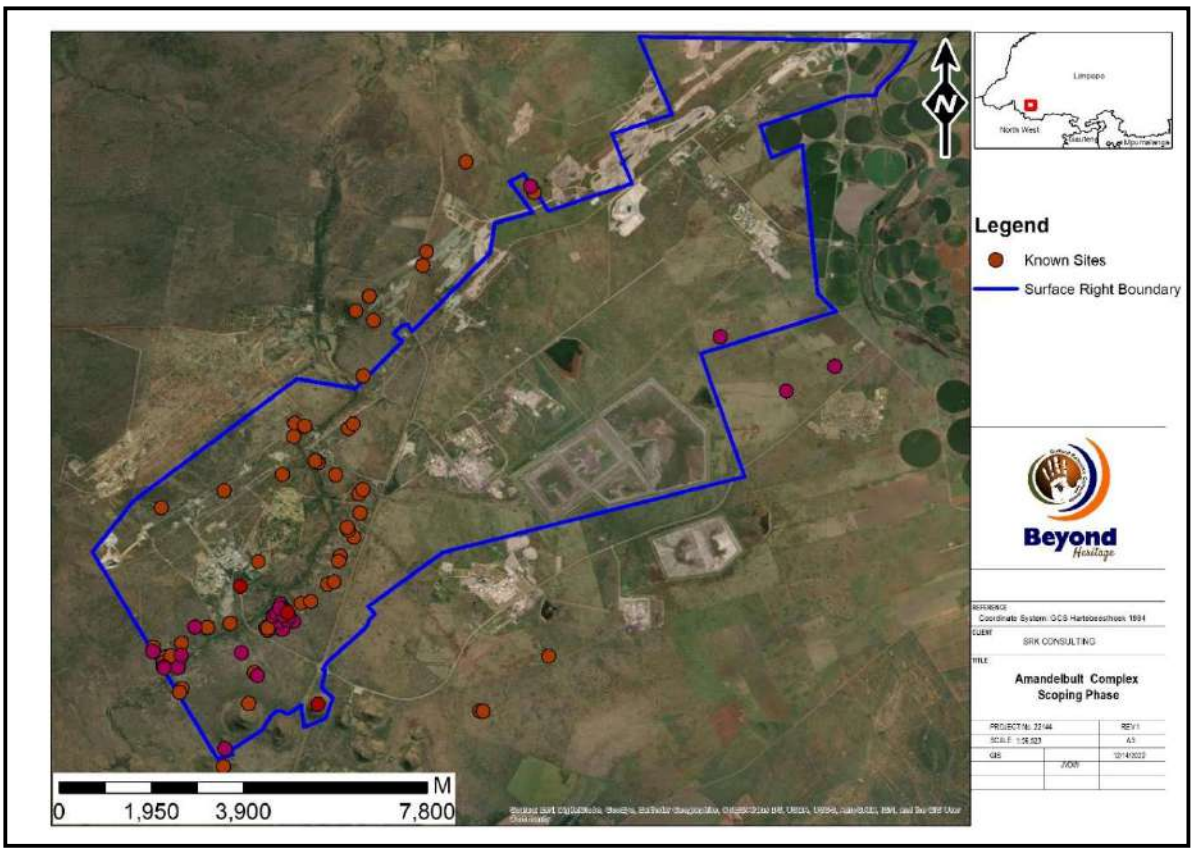

Figure 12-12: Recorded features in relation to the proposed Projects.

12.11.2 Cultural Landscape

The study area is in a rural setting and characterised by mining activities with an extensive archaeological layering dating from the Stone Age with intensive Iron Age occupation focussed on and around elevated areas and along the Bierspruit that provides focal points in the landscape.

12.11.3 Paleontological Heritage

According to the South African Heritage Resources Agency (SAHRA) palaeontological sensitivity map the study area is indicated as of insignificant significance and no further studies are required. Figure 12-13 indicates the paleontological sensitivity and Table 12-14 indicates the sensitivity rating.

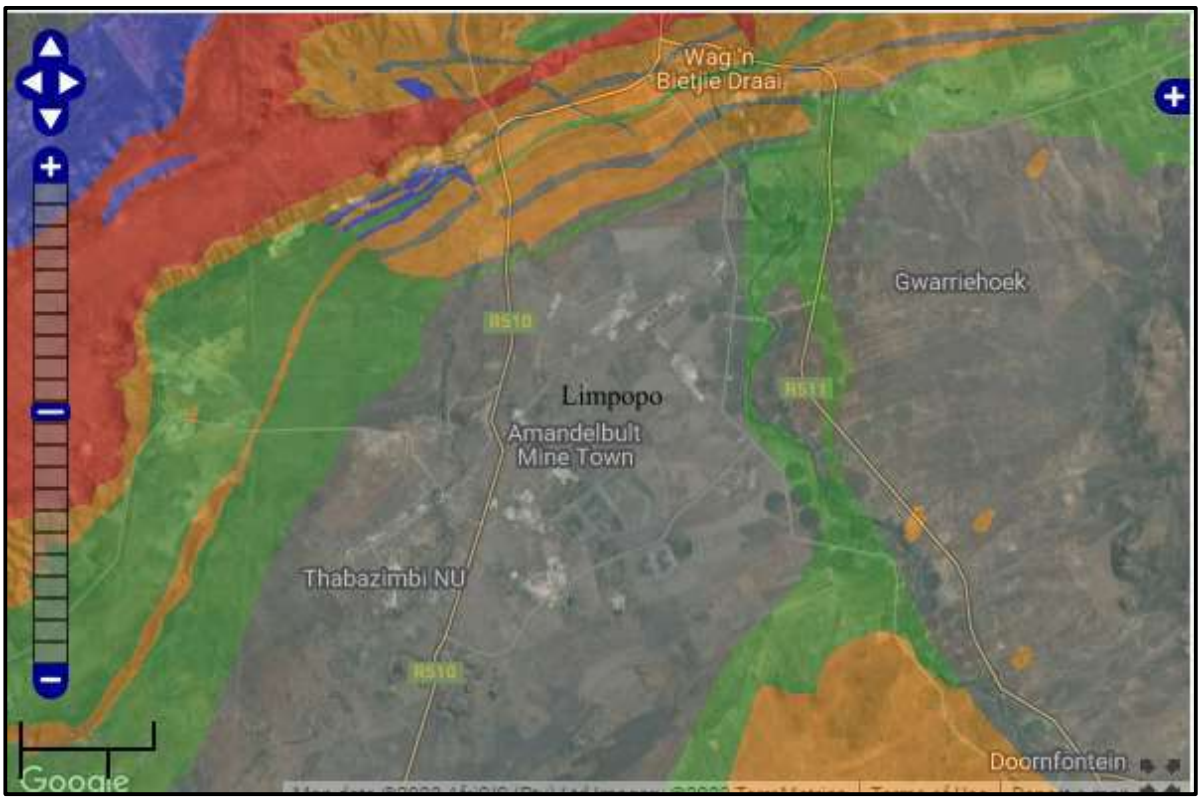

Figure 12-13: Paleontological sensitivity of the approximate study area (yellow polygon) as indicated on the SAHRA Palaeontological sensitivity map

Table 12-14: Paleontological sensitivity rating

Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	Desktop study is required
BLUE	LOW	No palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required
WHITE/CLEAR	UNKNOWN	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map

The general area is characterised by extensive mining related activities and portions of the study area have been mined or developed resulting in transformed areas throughout the AMB. Several Cultural Resource Management (CRM) surveys were conducted in anticipation of these mining activities (e.g., van Schalkwyk 1994, van der Walt 2009; 2014, 2016 and 2019, Pistorius 2020) and known archaeological sites are clustered along the Bierspruit and hills in the area.

12.12 Socio-economic

The information presented in this section is extracted from the socio-economic specialist study undertaken by SRK in 2022.

The AMB falls within the Thabazimbi Local Municipality in the Limpopo Province and has its labour-sending areas extending into Moses Kotane Local Municipality in the North West Province.

The Thabazimbi Local Municipality is the second-largest municipality in Limpopo, with an area of 10 882 km^2 (23.8% of the total area of the Waterberg District). However, the population is relatively small, with few towns and settlements distributed in the municipal area with low population densities. The bulk of the municipal area is made up of commercial and game farms.

Moses Kotane Local Municipality is classified as Category B4 Local Municipality, mainly rural with communal tenure. The Municipality covers an area of approximately 5719 km^2. The municipality comprises 107 villages and two formal townships of Mogwase and Madikwe, with an estimated population of 243 648 people.

12.12.1 Land tenure and ownership

Land tenure and ownership are complex issues in South Africa. Land in South Africa is managed through statutory and customary tenure and use rights systems. Statutory rights are protected by the Constitution, while customary rights are managed through Cooperative Governance and Traditional Affairs legislation and the various Traditional Authorities (TAs) and Councils of South Africa. The two basic types of land tenure systems in South Africa are summarised in Table 12-15.

Traditional Authorities

TAs refer to mainly rural areas where chiefs and their councils are responsible for administrative tasks at a community level and mobilising local communities if any investment projects are within their area of jurisdiction. There are two TAs near the proposed project areas, namely Bakgatla-BaKgafela TA and Baphalane Ba Ramokokastad TA, both situated in the North-West Province.

Table 12-15: Land ownership and tenure rights

Land ownership/tenure rights	Summary
Community Ownership and Rights	• The former homeland areas cover 13% of South Africa, which is 18 million ha. This land is owned by the government but managed through traditional structures • This system of tenure is usually characterised by some form of “permission to occupy”. This does not have legal status, although it is common in the former homeland areas • It is estimated that approximately 16.5 million people, or more than 3 million households (more than a third of the total population), still live in these areas • Official land information regarding communal land tenure is almost non-existent • Many farmers in these areas will refer to this as “own land” although technically, it is not so • Land rights are embedded in a range of social relationships, including household and kinship networks, and various forms of community membership, often multiple and over-lapping in character • Land rights are inclusive rather than exclusive in character, being shared and relative, but generally secure • In a specific community, rights may be individualised (dwelling), communal (grazing, hunting and fishing) or mixed (seasonal cropping combined with grazing and other activities) • Access to land is guaranteed by norms and values embodied in the community’s land ethic. This implies that access through defined social rights is distinct from the control of land by systems of authority and administration • Social, political and resource-use boundaries are usually clear, but often flexible and negotiable, and sometimes the source of tension and conflict

Land ownership/tenure rights	Summary
Individual Rights	• This land is owned by an individual or legal entity (Sole Proprietor, Partnership, Property Trust, Close Corporation, Cooperative, Pty Ltd Company to name a few examples).

Table 12-16 outlines the socio-economic information for both the Thabazimbi Local Municipality and the Moses Kotane Local Municipality.

Table 12-16: Thabazimbi Local Municipality and the Moses Kotane Local Municipality socio-economic environment

Population Composition
The Thabazimbi Local Municipality had a population increase of 2.80% (compounded annually) between 2011 and 2016. In the same period, the Moses Kotane Local Municipality population increased by 0.10% also compounded annually. This is due to people settling in the provinces for job-seeking opportunities.
Population Gender
The Moses Kotane Local Municipality population consists of more females (50.2%) than males (49.8%), while the Thabazimbi Local Municipality population consists of more males (59.5%) than females (40.5%). The Skewed gender profile, as recorded in Thabazimbi Local Municipality is typical in areas that tend to attract male migrants from rural areas in search of work.
Population Group
Both Thabazimbi Local Municipality and Moses Kotane Local Municipality consist of a predominantly African population (i.e., 99.3% for MKLM and 82.5% for Thabazimbi Local Municipality), with fewer Indian, Coloured and White groups.
Dominant Language
The principal spoken language in Moses Kotane Local Municipality is Tswana at 87.4% while in Thabazimbi Local Municipality the dominant language is Sepedi at 54.7%.
Age distribution
Both Thabazimbi Local Municipality and Moses Kotane Local Municipality have high percentages (67% for Thabazimbi Local Municipality and 54 % for Moses Kotane Local Municipality) in the working-age category (between 18 years and 60years)
Employment Status
Within the Thabazimbi Local Municipality 38.62% of the population are employed, while only 19.14% in Moses Kotane Local Municipality are employed. In addition, the number of unemployed persons in the Moses Kotane Local Municipality is highest at 11.68% compared to 10.05% in Thabazimbi Local Municipality.
Household income and poverty intensity
Household income is widely distributed across income brackets in the Moses Kotane Local Municipality and Thabazimbi Local Municipality. Majority (21.9%) of households in the Moses Kotane Local Municipality earn between R 19 601 - R 19 200, while in the Thabazimbi Local Municipality, the majority (21.4%%) earn between R 38401 - R 76800 per annum. Additionally, most of the people across the two geographic areas have no income, with Moses Kotane Local Municipality having 19.2% and Thabazimbi Local Municipality having 14.8% of households without income annually.
Migration patterns and labour sending areas
Within the Moses Kotane Local Municipality 90.2% of the people residing there were born in the North-West Province and that only 7.7 % were from other provinces. In the Thabazimbi Local Municipality, 56.5 % of the population were born in the Limpopo Province, while 36.7 were from other provinces.
Households by ownership
The Moses Kotane Local Municipality has 75.7% of the households fully own and have paid off their houses, while only 32.8% of the households in Thabazimbi Local Municipality fully own and have paid off their houses.
Access to Education
In terms of Education, Thabazimbi Local Municipality has 31 early childhood development centres (seven fully registered, 15 conditionally registered, and nine not registered). There are 25 Primary schools, 4 combined schools, 4 High schools, 4 Private schools, and 1 FET college. The challenges Thabazimbi Local Municipality faces regarding education include the provision of water, sanitation, and electricity to needy schools (TLM IDP, 2021).

Access to Health Facilities
On the one hand, Thabazimbi Local Municipality has 18 health care facilities, that are 5 hospitals, 10 clinics, and 3 mobile health facilities. The challenges Thabazimbi Local Municipality faces regarding health facilities include clinics that do not operate for 24 hours, a dysfunctional HIV/AIDS Council, and a shortage of AIDS Counsellors among others (TLM IDP, 2021). On the other hand, Moses Kotane Local Municipality has 48 fixed primary health care facilities. These facilities have infrastructure challenges due to poor workmanship, age facilities (some built years back), and lack of equipment.

12.12.2 Services and infrastructure

Most of the households in Moses Kotane Local Municipality (40.2 %) and Thabazimbi Local Municipality (43.3%) have access to piped water in their homes/yards. No one uses a bucket toilet.

In terms of access to electricity, the majority of the households from both Moses Kotane Local Municipality (90.4%) and Thabazimbi Local Municipality (52.6%) use in-house prepaid meters.

Regarding refuse disposal, most of the households from both Moses Kotane Local Municipality (76.9%) and Thabazimbi Local Municipality (46.6%) depend on the local authority/private company/community for their refuse disposal (Table 12-7).

Table 12-17: Types of services (Community Survey, 2016)

Types of services	MKLM	TLM
Main source of drinking water		
Borehole in the yard	8%	4.4%
Borehole outside the yard	1.7%	6%
Neighbours tap	8%	1.1%
Other	2.6%	5%
Piped (tap) water inside the dwelling/house	9.3%	43.3%
Piped (tap) water inside yard	40.2%	27.2%
Piped water on community stand	10.4%	4%
Public/communal tap	15%	2.8%
Rain-water tank in yard	0.2%	0.2%
Spring	0%	0.1%
Watercarrier/tanker	4.5%	6%
Access to electricity		
Connected to other sources which household is not paying for	0.1%	1.2%
Connected to other sources which household pays for	0.2%	3.7%
No access to electricity	3.2%	17.1%
In-house conventional meter	5.9%	22.3%
In-house prepaid meter	90.4%	52.6%
Solar home system	0%	0.1%
Generator	0%	0%
Other	0.1%	2.9%
Access to sanitation		
Bucket toilet (collected by municipality)	0%	0%
Bucket toilet (emptied by household)	0.2%	0%
Chemical toilet	0.7%	0.5%
Ecological toilet (e.g., urine diversion)	1.7%	0%

Types of services	MKLM	TLM
Flush toilet connected to a public sewerage system	10.2%	62.7%
Flush toilet connected to a septic tank	4.3%	8.9%
None	1.9%	5.1%
Other	1.7%	1.4%
Pit latrine/toilet without ventilation pipe	44.2%	19.9%
Pit latrine/toilet with ventilation pipe	35.3%	1.4%
Refuse disposal		
Communal container/central collection point	0.2%	0.1%
Communal refuse dump	0.9%	2%
Dump or leave rubbish anywhere (no rubbish disposal	0.9%	8%
Other	2.6%	4.8%
Own refuse dump	13.1%	36.2%
Removed by local authority/private company/community	76.9%	46.6%
Removed by local authority/private company/community	5.5%	2.4%

13 Environmental and Social Impact Assessment

This section provides an overview of the impact assessment methodology, the findings of the impact assessment phase which includes both positive and negative impacts identified for the various phases of the project (pre-construction, construction, operation and decommissioning and closure).

13.1 Potential impacts as a result of the proposed AMB Operations Capital Projects

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

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

Table 13-1: Potential impacts due to the proposed AMB Operations Capital Projects (without mitigation)

Aspect	Potential Impact	Magnitude	Duration	Extent
Geology	The main purpose of the four capital projects is to increase the underground mining activities. This will impact the geology of the area.	Moderate	Long-term	Local
Topography	The topography of the area may be temporarily altered due to the Middellaagte and Dishaba declines which are anticipated as part of this project. In addition to this there is also various surface infrastructure which is being proposed to support the underground mining projects such as ventilation shafts, refrigeration plants and general office areas.	Low	Long-term	Local
Climate	The main activities will be underground with some surface infrastructure. It is not anticipated that the proposed project will have an impact on the climate.	Low	Long-term	Local
Soils	Soil loss due to the clearing of land, poor soil management and storage, as well as excavations specifically within the Middellaagte area.	Moderate	Long-term	Local
Land use	The area where the proposed project will be located has already been converted to a mining land use due to the existing mining activities.	Low	Long-term	Local
Biodiversity	There may be a negative impact on the biodiversity of the area as sensitive fauna and flora may be impact by the proposed projects.	Moderate	Long-term	Local
	Potential impact to biodiversity due to an increase in alien invasive species due to proposed project activities.	Moderate	Long-term	Local
Surface water	Due to the water saving projects which are being undertaken, it is anticipated that the impact on surface water will remain the same.	Moderate	Long-term	Local
	Potential impact on surface water quality due to the proposed projects through contamination due to the increase in activities within close proximity to watercourses and wetlands.	Moderate	Long-term	Local
Groundwater	There is a potential negative impact on the groundwater quality in the proposed site area due to the increase in underground mining.	Moderate	Long-term	Local
	Potential increase in seepage due to ore stockpiles at each potential project	Low	Long-term	Local
Air quality	Potential increase in dust during construction due to clearing activities as well as an increase due to the movement of vehicles on unpaved roads.	Moderate	Short	Local
	As majority of the activities proposed a part of this project will be underground, it is anticipated that the impact the project will have on the surrounding air quality will be limited.	Low	Medium	Local
Noise and vibration	Very little blasting will occur as part of the proposed projects, thus it is anticipated that there will be an insignificant impact on sensitive receptors in the vicinity of the mine.	Low	Short	Local
Cultural heritage	Cultural heritage sites may be impacted due to the development of infrastructure and associated activities.	Moderate	Long-term	Local

Aspect	Potential Impact	Magnitude	Duration	Extent
Socio-economic	The proposed project expansion may have a negative impact on the socio-economic aspects of the area due to the mine moving away from conventional mining and towards mechanisation.	Moderate	Long-term	Local
Visual	There will be additional surface infrastructure which will be required as part of the proposed projects, however, there is already existing surface infrastructure such as ventilation shafts, raisebore shafts within the propose mining area, thus it is anticipated that the visual impact of the proposed projects will be insignificant.	Low	Long-term	Local
Cumulative Impact	The area where the AMB Operational Capital Projects will be located is within the existing AMB mining right and surface right/ lease area. This area already has existing mining operations and associated surface infrastructure. In terms of the biophysical it is anticipated that there may be an impact on aspects such as biodiversity and heritage, however, this will be assessed as part of the EIA phase.	Low	Long-term	Local
	In terms of the socio-economic aspect the proposed project may have a negative cumulative impact on the surrounding areas due to the potential decrease in jobs once mechanisation of the mines has commenced.	Moderate	Long-term	Local

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

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

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

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

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

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

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

Table 14-1: Ranking scales for environmental significance

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

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

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

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

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

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

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

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

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

Table 14-2: Example of EIA Table

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

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

Refer to Section 14 for the preliminary positive and negative impacts identified for the proposed Project. A detailed assessment of the potential positive and negative impacts associated with the project will be developed and included in the EIA/EMPr.

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

The proposed AMB Operations Capital Projects will occur within the existing AMB mining right areas, which has already been affected by current mining activities. The specialist studies will assess potential environmental and socio-economic impacts that may occur as a result of the proposed AMB Operations Capital Projects. Appropriate mitigation and management measures to avoid, manage and /or minimise the identified impacts associated with the project will be developed and included in the EIA/EMPr. Refer to Section 1 for the potential positive and negative impacts identified for the proposed AMB Operations Capital Projects.

17 Motivation where no alternatives were considered

Alternatives relating to location, infrastructure and transportation were considered in the previous EMPrs compiled for AMB. The location of the proposed AMB Operations Capital Projects is constrained to the location of the mineral resource, and proven reserve. As such, no property alternatives were considered for the proposed AMB Operations Capital Projects, however, design layouts were considered within the existing AMB properties (Section 10). The main purpose of the proposed project is to move towards a mechanised mining technology. The finalisation of the engineering design studies associated with each capital project will take place in parallel with the Scoping/ EIA process. If alternatives are identified as part of the specialist and engineering studies, these will be included in the Draft EIA/ EMPr.

18 Statement motivation of the preferred site

Alternatives relating to location, infrastructure and transportation were considered as part of the previous EMPrs compiled for AMB. AMB is an existing mine and various studies have been conducted to identify the locations of the mineral resources. Based on existing mining activities, the location of the mineral resources has been confirmed and proven, thus the location of the proposed AMB Operations Capital Projects are constrained to the location of the mineral resource. Due to this, no property alternative were considered as part of this project and the proposed AMB Operations Capital Projects will remain within the existing AMB properties. Due to this, no site selection was required as part of this projects.

19 Plan of study for the environmental impact assessment process

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

Refer to Section 10 for consideration of alternatives.

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

Table 19-1 provides the aspects which will be specifically assessed as part of the EIA process for the proposed AMB Operations Capital Projects.

Table 19-1: Specialist studies undertaken for the proposed AMB Operations Capital Projects

Aspect	Specialist
Air quality	Airshed Professionals (Pty) Ltd
Biodiversity (Soils, land use and land capability, Terrestrial and Aquatic)	The Biodiversity Company
Blasting and vibration	Blasting management and Consulting
Closure liability	SRK Consulting (Pty) Ltd
Cultural heritage and palaeontology	Beyond Heritage
Hydrogeological	Golder and Associates
Noise	Acusolv
Socio-economic	SRK Consulting (Pty) Ltd
Surface water	SRK Consulting (Pty) Ltd
Visual	Eco Elementum
Wetland	Wetland Consulting Services

19.3 Description of aspects to be assessed by specialists

Previous specialist assessments have been undertaken for AMB for the existing approved EMPs and EAs. Further specialist assessments are required for the areas where additional infrastructure will be required for the proposed AMB Operations Capital Projects.

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

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

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

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

Generally, the impact assessment is divided into three parts:

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

19.5 The proposed method of assessing duration significance

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

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

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

19.6 The stages at which the Competent Authority will be consulted

Pre-Application consultation with the CA (the DMRE Limpopo) was undertaken on 22 February 2023. During this meeting the required EA process for the proposed AMB Operations Capital projects was discussed and agreed upon.

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

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

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

The public participation process (PPP) will be ongoing throughout the EA phases. The stakeholder engagement proposed for the impact assessment phase is presented in Section 14.

20.1 Stakeholder engagement during impact assessment phase

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

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

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

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

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

20.2 Notification of authority decision

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

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

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

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

- Complete specialist studies of the proposed AMB Operations Capital Projects;
- Assess potential impacts using SRK's impact assessment methodology;
- Develop an EIA/EMPr which will include management measures to avoid and/or mitigate and manage the potential impacts identified in the impact assessment;
- Provide registered I&APs feedback on the impact assessment phase;

- Make the draft EIA/EMPr available for I&AP and authority comment;
- Submit the final EIA/EMPr to the relevant authorities following the incorporation of I&APs comments; and
- Communicate the decision of the DMRE and DWS to registered I&APs (refer to Box 1).

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

The proposed AMB Operations Capital Projects will incorporate measures aimed at mitigating and managing impacts into the EIA/EMPr report. Detailed mitigation and management measures for identified positive and negative impacts associated with the proposed AMB Operations Capital Projects will be developed and included in the EIA/EMPr report.

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

22 Other information required by the Competent Authority

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

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

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

Assessment of sites of historical and cultural heritage importance has been undertaken on several occasions associated with EA processes on site. An update to the heritage assessment will be conducted as part of project for activities and infrastructure associated with the proposed AMB Operations Capital Projects.

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

Not Applicable.

24 Undertaking regarding correctness of information

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

25 Undertaking regarding level of agreement

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

26 Statement of SRK independence

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

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

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

27 Conclusion

This report has provided a detailed description of the proposed AMB Operations Capital Projects, which includes:

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

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

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

Signature of the EAP

DATE: 22 May 2023

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

Appendices

Appendix A: EAP CVs and qualifications

Natasha Moodley

Principal Environmental Scientist

Profession	Environmental Scientist
Education	Certification in Project Management, 2016 BSoc Sc (Hons), Geography and Environmental Management, University of KwaZulu-Natal, Howard College, 2006 BSoc Sc, Geography and Environmental Management, University of KwaZulu-Natal, Howard College, 2005
Registrations/ Affiliations	Registered Environmental Assessment Practitioner in South Africa (EAPSA) – 2020/596 Member, IAIAsa Member, SSAG Golden Key Honorary Society of South Africa
Awards	National Research Fund (NRF) Bursary to undertake Honors Research

Specialisation

Environmental social, Impact assessments, Basic assessments, Environmental, social management plans/programmes, Environmental due diligence auditing, project management, Environmental, Social management frameworks, Bankable programme reports, Environmental performance assessments, Specialist coordination and stakeholder engagement.

Expertise

Natasha Anamuthoo has been involved in the field of environmental management for the past 16 years. Her expertise includes:

- environmental impact assessments and basic assessments for service stations, industrial, linear, energy, cement and mining (coal, platinum and gold) related projects both in South Africa and Southern African countries such as the DRC, Guinea and Sierra Leone.
- environmental, social impact assessment (ESIA) and environmental social management plan (ESMP) for financial institutions such as the International Finance Cooperation, World Bank and African Development Bank.
- development and implementation of stakeholder engagement processes.
- specialist team co-ordination and drafting Terms of Reference (ToR).
- conducting environmental control officer work environmental projects.
- due diligence reporting.
- project management.
- environmental control officer (ECO).
- environmental performance assessments.
- environmental social management framework for Southern African Groundwater Management Institute.
- Development of a 10- year regional groundwater programme for Southern African Groundwater Management Institute
- Environmental, social and governance training on World Bank environmental and social safeguards, IFC performance standards and equator principles

Employment

2010 – present	SRK Consulting (Pty) Ltd, Environmental Scientist, Johannesburg
2009 – 2010	SRK Consulting (Pty) Ltd, Environmental Scientist, Durban
2007 – 2009	Kantey and Templer Consulting Engineers Pty (Ltd), Environmental Officer, Durban
2006 – 2006	WSP Pty (Ltd), Environmental Intern, Durban

Natasha Moodley

Principal Environmental Scientist

Publications	Authored various articles in the mining, engineering and environmental journals/ publications in South Africa and Southern Africa
Languages	English – read, write, speak (Excellent) Afrikaans – read, write, speak (Fair) Zulu – read, write, speak (Fair)

Natasha Moodley

Principal Environmental Scientist

Publications

- Removing barriers to entry (2015)
- Growing investor confidence increasing DRC cement demand (2015)
- Forging links within DRC's cement sector (2016)
- Integrating environmental and social safeguards in regional power projects (2017)
- Learning from progress in managing Africa's groundwater (2021)
- Impact of the groundwater in South Africa (2021)
- Developing a new 10 year regional groundwater programme for Southern African Groundwater Management Institute (2021)
- SADC GMI learning valuable lessons on sustainable groundwater management (2021)

Natasha Moodley

Principal Environmental Scientist

Key Experience: Environmental Impact Assessment, Environmental Management Plans and Public Participation:

Location:	South Africa
Project duration & year:	2020 – Ongoing
Client:	Anglo American
Name of Project:	Elders Colliery
Project Description:	Environmental Impact Assessment and Management Plan.
Job Title and Duties:	Project Manager
Value of Project:	N/A

Location:	Zambia
Project duration & year:	2020 – Ongoing
Client:	Mopani
Name of Project:	Gap Analysis for Mopani Copper Mine
Project Description:	Project Manager
Job Title and Duties:	Gap Analysis
Value of Project:	N/A

Location:	Zimbabwe
Project duration & year:	2019
Client:	PLZ Lithium Mine
Name of Project:	Upgrade to the ESIA for Arcadia Lithium Mining Project
Project Description:	Project co-ordinator
Job Title and Duties:	Reporting
Value of Project:	N/A

Location:	Southern Africa
Project duration & year:	2018 – 2019
Client:	Groundwater Management Institute
Name of Project:	Environmental and Social Safeguard Project
Project Description:	Environmental and Social Safeguard Specialist
Job Title and Duties:	Site work, reporting and advisor
Value of Project:	N/A

Location:	Guinea
Project duration & year:	2018 – 2019
Client:	AngloGold Ashanti
Name of Project:	Environmental, Health, Social Impact Assessment
Project Description:	Undertake Baseline Studies
Job Title and Duties:	Project Manager
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2018
Client:	Sereti Coal
Name of Project:	Kriel Matla
Project Description:	Section 29
Job Title and Duties:	Project Manager
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: **Environmental impact assessments, environmental management plans and public participation**

Location:	Southern African
Project duration & year:	2016 - 2017
Client:	South African Power Pool
Name of Project:	Environmental Social Management Framework
Project Description:	Environmental Social Management Framework
Job Title and Duties:	Project Coordinator
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2016 - 2017
Client:	Anglo American
Name of Project:	Landau EIA and EMP for the Power line
Project Description:	Undertake EIA and EMP
Job Title and Duties:	Project manager, Reporting and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2012 - 2017
Client:	Anglo American
Name of Project:	Kriel Opencast EIA
Project Description:	Undertake EIA and EMP
Job Title and Duties:	Project manager, Reporting and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2015 – Current
Client:	Optimum Coal
Name of Project:	EIA Amendment for Optimum Coal
Project Description:	EIA Amendment to include a new portion of mining area
Job Title and Duties:	Project manager, Reporting and Client Liaison
Value of Project:	N/A

Location:	Democratic Republic of Congo
Project duration & year:	2014 - Current
Client:	TERRA
Name of Project:	Preliminary ESIA and ESMP for TERRA
Project Description:	Preliminary Environmental Social and Impact Assessment
Job Title and Duties:	Project Co coordinator, Reporting and Client Liaison
Value of Project:	N/A

Location:	Democratic Republic of Congo
Project duration & year:	2014 – 2016
Client:	ENRC
Name of Project:	ESIA for the Metalkol RTR Project
Project Description:	ESIA for the Metalkol RTR Project
Job Title and Duties:	Project Co-ordinator
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: **Environmental impact assessments, environmental management plans and public participation**

Location:	Democratic Republic of Congo
Project duration & year:	2013 - 2015
Client:	Nymba
Name of Project:	ESIA and ESMP for NYA
Project Description:	Environmental Social and Impact Assessment
Job Title and Duties:	Project manager and Co- coordinator and Reporting
Value of Project:	N/A

Location:	Democratic Republic of Congo
Project duration & year:	2013 - 2015
Client:	PPC Cement
Name of Project:	ESIA and ESMP for PPC , Barnet
Project Description:	Environmental Social and Impact Assessment
Job Title and Duties:	Project Co coordinator, Reporting and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2011 - Current
Client:	Anglo Platinum American
Name of Project:	MPM Tailings Retreatment Plant EIA
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	Zambia
Project duration & year:	2011 - 2013
Client:	Barrick Gold
Name of Project:	Lumwana Gold
Project Description:	Environmental, Social Impact Assessment (ESIA)
Job Title and Duties:	Project Co- coordinator
Value of Project:	N/A

Location:	South Africa
Project duration & year:	Completed and approved by the Limpopo Department of Economic Development and Environment and Tourism in 2012
Client:	Anglo Platinum American
Name of Project:	MPM Road Deviation
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	Completed and approved by the Department of Environmental Affairs in 2012
Client:	Samancor Chrome
Name of Project:	Tubaste Chrome
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: Environmental impact assessments, environmental management plans and public participation

Location:	Democratic Republic of Congo
Project duration & year:	2010 - Current
Client:	Teal
Name of Project:	Kalumines
Project Description:	Environmental, Social Impact Assessment (ESIA)
Job Title and Duties:	Project manager and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2010 - Current
Client:	De Beers
Name of Project:	Venetia
Project Description:	Environmental, Social Impact Assessment
Job Title and Duties:	Social engagement and EMPr Research
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2010 - Current
Client:	Anglo Thermal Coal
Name of Project:	Kriel Block F
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Reporting
Value of Project:	N/A

Location:	South Africa
Project duration & year:	Completed and approved by the Department of Environmental Affairs in 2010
Client:	Minmetals
Name of Project:	Naboom
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Reporting
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2010
Client:	ABI
Name of Project:	ABI Tank EMP and Audit
Project Description:	EMP and Environmental Control Officer (ECO)
Job Title and Duties:	Reporting and ECO work
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2010
Client:	Air Liquid
Name of Project:	Air Liquid 24G
Project Description:	24G application
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: Environmental impact assessments, environmental management plans and public participation

Location:	South Africa
Project duration & year:	2010
Client:	Shell
Name of Project:	Shell Phola EIA
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2010
Client:	Sara Lee
Name of Project:	Sisonke Farms Market
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009 - 2010
Client:	Ethekwini Municipality
Name of Project:	Westville Triangle
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	n/a

Location:	South Africa
Project duration & year:	2009 - 2010
Client:	Transnet
Name of Project:	Transnet EIA
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	Shell
Name of Project:	Shell Ladysmith EIA
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	NPC
Name of Project:	NPC EIA
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: **Environmental impact assessments, environmental management plans and public participation**

Location:	South Africa
Project duration & year:	2009
Client:	Illovo Sugar
Name of Project:	Umfolozi Waste
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	Foskor
Name of Project:	Foskor Dry Wall EIA
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Key Experience: **Environmental impact assessments, environmental management plans and public participation**

Location:	South Africa
Project duration & year:	2009
Client:	Sasol
Name of Project:	Sasol Tongaat
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	Shell
Name of Project:	Shell Newscastle
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	Shell
Name of Project:	Shell Wavecrest
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: Environmental impact assessments, environmental management plans and public participation

Location:	South Africa
Project duration & year:	2009
Client:	Shu Powders
Name of Project:	Shu Powders EIA
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	Total
Name of Project:	Prospecton Motors
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	Total
Name of Project:	Pomoroy Service Station
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2009
Client:	Total
Name of Project:	Pomoroy Service Station
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	Sasol
Name of Project:	Sasol Oogies
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	Total
Name of Project:	Amalgamated Bulk
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: **Environmental impact assessments, environmental management plans and public participation**

Location:	South Africa
Project duration & year:	2008
Client:	Exxaro
Name of Project:	Exxaro Sands
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	NMR Consultants
Name of Project:	NMR Logistics
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	Total
Name of Project:	Trimborm Agency
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	Engen
Name of Project:	Stonehaven Garage
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	FNB
Name of Project:	FNB Underground Storage Tank
Project Description:	Basic Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	Total
Name of Project:	Waston Motors
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Natasha Moodley

Principal Environmental Scientist

Key Experience: **Environmental impact assessments, environmental management plans and public participation**

Location:	South Africa
Project duration & year:	2008
Client:	Total
Name of Project:	Total Empangeni
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	Total
Name of Project:	Total Westville
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

Location:	South Africa
Project duration & year:	2008
Client:	Total
Name of Project:	Total Merebank
Project Description:	Environmental Impact Assessment
Job Title and Duties:	Project Co- coordinator, Reporting, Public Participation and Client Liaison
Value of Project:	N/A

ANAMUTHOO (ANAM).

UNIVERSITY OF KWAZULU-NATAL

The Universities of Durban-Westville and Natal merged
to become the University of KwaZulu-Natal on 1 January 2004

This is to certify that

Natasha Naidoo

was admitted this day
at a congregation of the University
to the degree of

Bachelor of Social Science Honours
(Geography & Environmental Management)

having satisfied the conditions prescribed for the degree.

M W Makgoba
Vice-Chancellor

E Mnensy
Registrar

D P McCracken
Dean

23 April 2007

UNIVERSITY OF KWAZULU-NATAL

The Universities of Durban-Westville and Natal merged
to become the University of KwaZulu-Natal on 1 January 2004

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having satisfied the conditions prescribed for the degree.

M W Makgoba
Vice-Chancellor

E Mnensy
Registrar

D P McCracken
Dean

11 May 2006

Environmental Assessment Practitioners Association of South Africa

Registration No. 2020/596

Herewith certifies that

Natasha Moodley

is registered as an

Environmental Assessment Practitioner

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

Effective: 01 March 2023

Expires: 29 February 2024

Chairperson

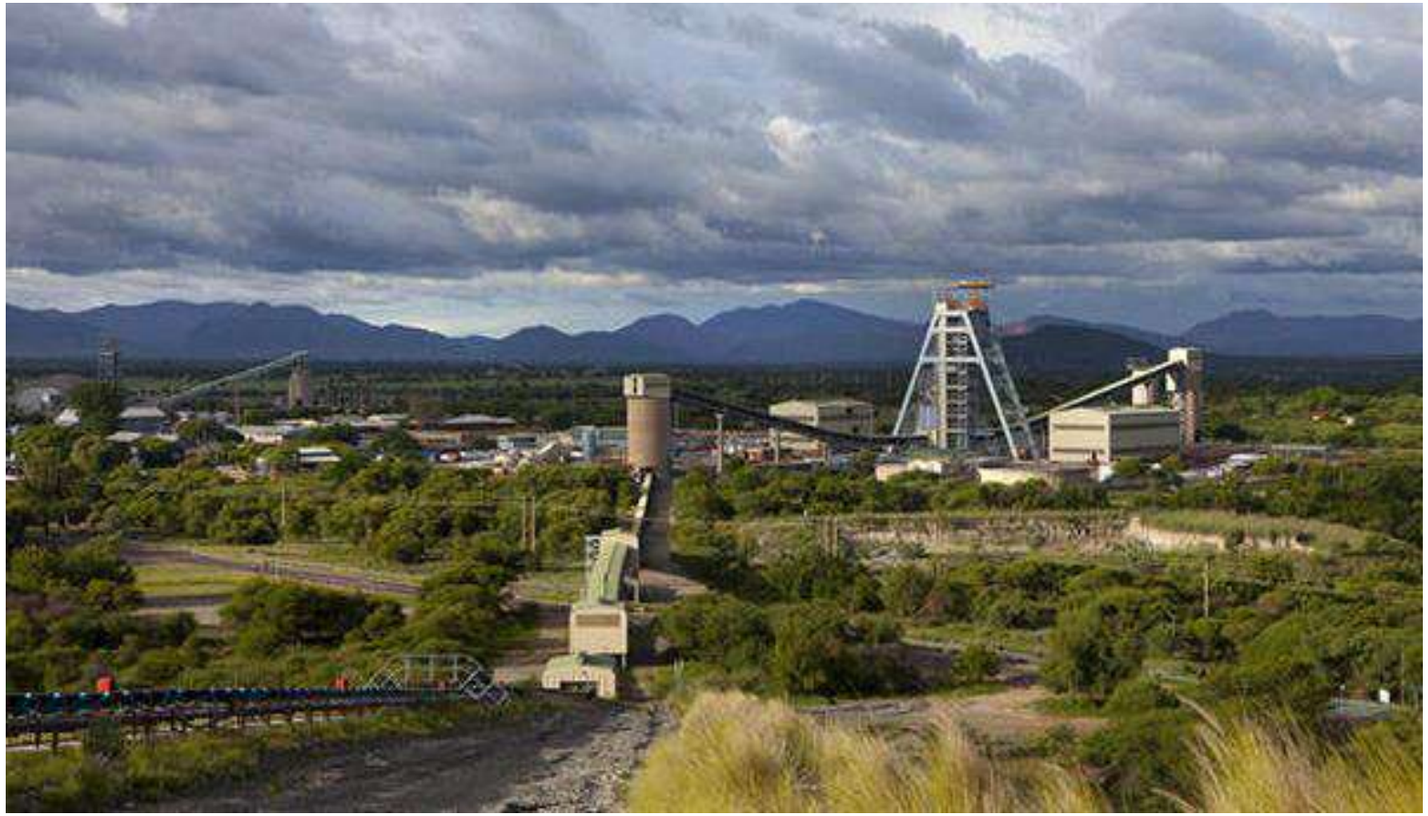
Registrar

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

Appendix B: Public Participation Documents

Amandelbult Complex
Proposed capital projects and environmental authorisation requirements

Scoping and Environmental Impact Assessment, Water Use Licences Application and Section 102 Mining Right Amendment



DMRE

Pre-Application Meeting

22 February 2023

DMRE Polokwane

DMRE, SRK, AAP

Agenda

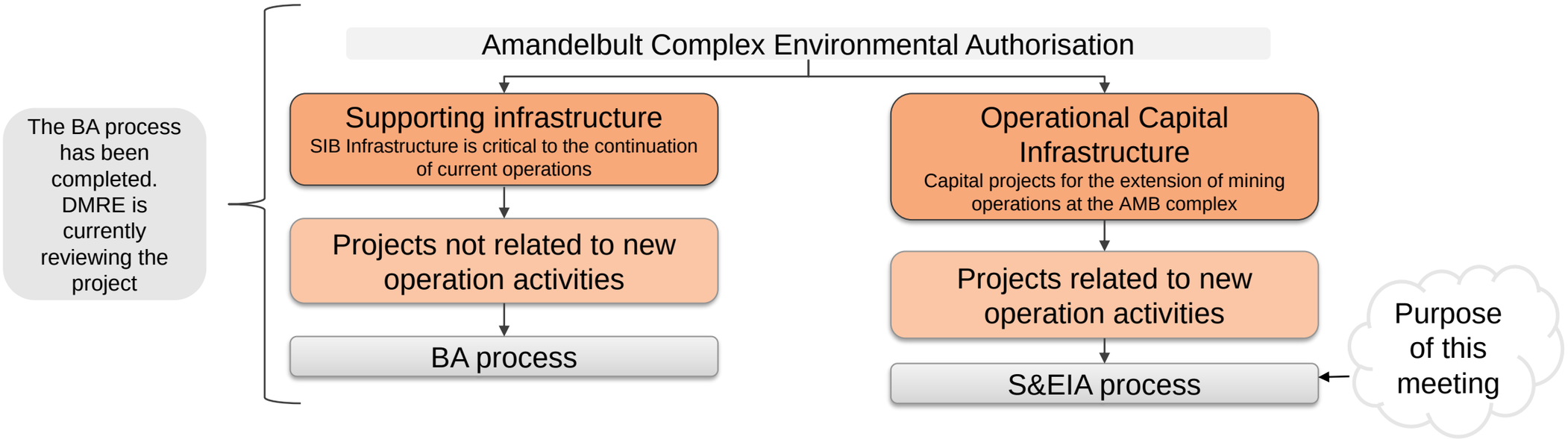
01	Welcome and Introduction
02	Overview of Proposed Projects
03	Overall Authorisation Requirements
04	Environmental Authorisation (NEMA and NWA) Integrated Process
05	Specialist Studies to be undertaken
06	Stakeholder Engagement process & integrated approach
07	Discussion and way forward

1. Welcome and Introduction

- **Purpose:** Introduce the proposed projects and anticipated authorisation processes to the DMRE
  - **Applicant:** Anglo American Platinum (AAP) Rustenburg Platinum Mines (Pty) Ltd (RPM) – Amandelbult Mine Complex (AMB)
  - **Consultant:** SRK Consulting (Pty) Ltd (SRK)

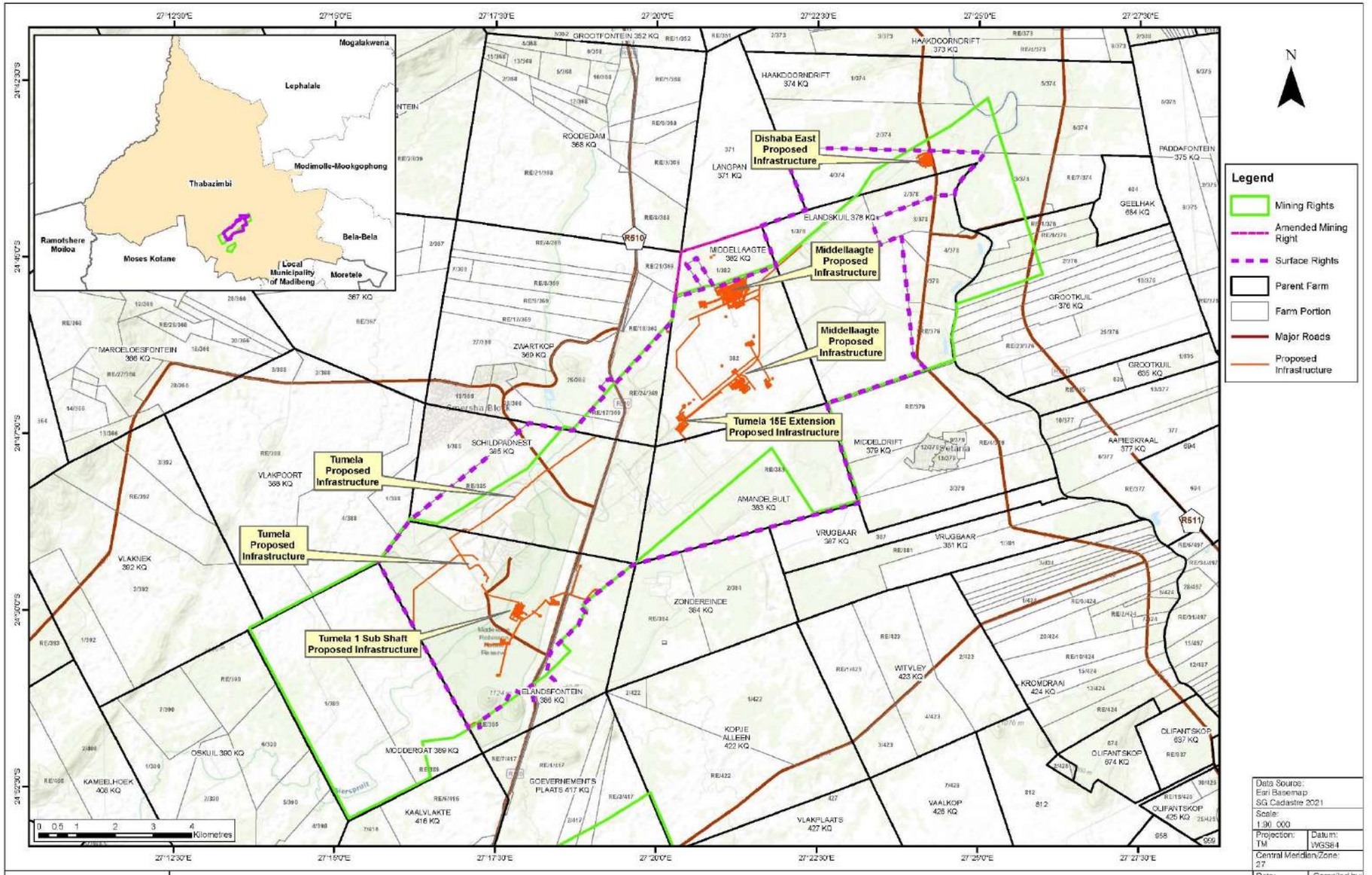
2. Overview of proposed projects

- AMB is embarking on two environmental authorisation processes:
  - A BA process for Stay In Business (SIB) infrastructure: Various supporting infrastructure has been combined into one BA process (Basic Assessment process has been submitted to DMRE for a decision – March 2023)
  - **A S&EIA process for capital projects: Multiple operational infrastructure will be combined into one S&EIA process (the process)**
- In the absence of significant alternative employment opportunities in the area, the capital projects will allow the AMB to continue with the mining activities for the Life of Mine (LoM) (beyond 2060)



2. Overview of proposed projects: AMB Integrated EA Background

- The AMB currently employs a labour-intensive conventional mining methodology for the mining of its narrow tabular ore body.
- In line with the broader AAP strategy to adopt mechanised mining methods in their underground operations, AMB has finalised transformative plans for mechanising selected mining operations in its portfolio.
- The mechanisation projects consist of the following Operational Capital Projects:
  - Middellaagte Upper & Middellaagte Lower;
  - Tumela 15E Extension;
  - Tumela 1 Sub Shaft; and
  - Dishaba East Upper and Dishaba East Lower.
- In addition to this, AMB has commenced with discussions to acquire the mining right and surface right for Farm Middellaagte KQ Portion 1 from Cronimet (Pty) Ltd for inclusion in to the AMB Mining right. The acquisition of the mining right has been agreed while the surface right is still underway.


Mogalakwena
Lephalale
Thabazimbi
Modimolle-Mookgophong
Ramotshere Moiloa
Moses Kotane
Local Municipality of Madibeng
Bela-Bela
Moretele
Dishaba East Proposed Infrastructure
Middellaagte Proposed Infrastructure
Middellaagte Proposed Infrastructure
Tumela 15E Extension Proposed Infrastructure
Tumela Proposed Infrastructure
Tumela Proposed Infrastructure
Tumela 1 Sub Shaft Proposed Infrastructure
GROOTFONTEIN 352 KQ
HAAKDOORNDRIFT 373 KQ
HAAKDOORNDRIFT 374 KQ
ROODEDAM 368 KQ
LANGPAN 371 KQ
PADDAFONTEIN 375 KQ
ELANDSKUIL 378 KQ
GEELHAK 684 KQ
MIDDELLAAGTE 382 KQ
GROOTKUIL 376 KQ
GROOTKUIL 695 KQ
MARCELOESFONTEIN 366 KQ
ZWARTKOP 369 KQ
SCHILDPADNEST 385 KQ
MIDDELDRIFT 379 KQ
AARESKRAAL 377 KQ
VLAKPOORT 388 KQ
AMANDELBULT 383 KQ
VRUGBAAR 387 KQ
VRUGBAAR 381 KQ
VLAKNEK 392 KQ
ZONDEREINDE 384 KQ
WITVLEY 423 KQ
KROMDRAAI 424 KQ
ELANDSFONTEIN 386 KQ
KOPJE ALLEEN 422 KQ
OLIFANTSKOP 697 KQ
OLIFANTSKOP 674 KQ
OLIFANTSKOP 425 KQ
OSKUIL 390 KQ
MODDERGAT 389 KQ
KAMEELHOEK 408 KQ
GOEVERNEMENTS PLAATS 417 KQ
KAALVLAKTE 416 KQ
VLAKPLAATS 427 KQ
VAALKOP 426 KQ
R510
R511
N
Legend
Mining Rights
Amended Mining Right
Surface Rights
Parent Farm
Farm Portion
Major Roads
Proposed Infrastructure
0 0.5 1 2 3 4 Kilometres
Data Source: Esri Basemap SG Cadastre 2021
Scale: 1:90 000
Projection: TM
Datum: WGS84
Central Meridian/Zone: 27
Date: 30/01/2023
Compiled by: LOUA
Project No: 572200
Fig No: 1-2
Revision:
Date:
srk consulting
AMB INTEGRATED EA FOR THE PROPOSED OPERATIONAL CAPITAL PROJECTS
LOCALITY MAP OF PROPOSED CAPITAL PROJECTS AND ASSOCIATED INFRASTRUCTURE
Path: J:\Proj\572200_EIA_Middellaagte\GIS\GISPROJ\MXD\Capex_EA_2023\572200_AGL_AMB_Integrated_EA_Capex_PreferredInfrastructure_RegionalLocality_20230130.mxd

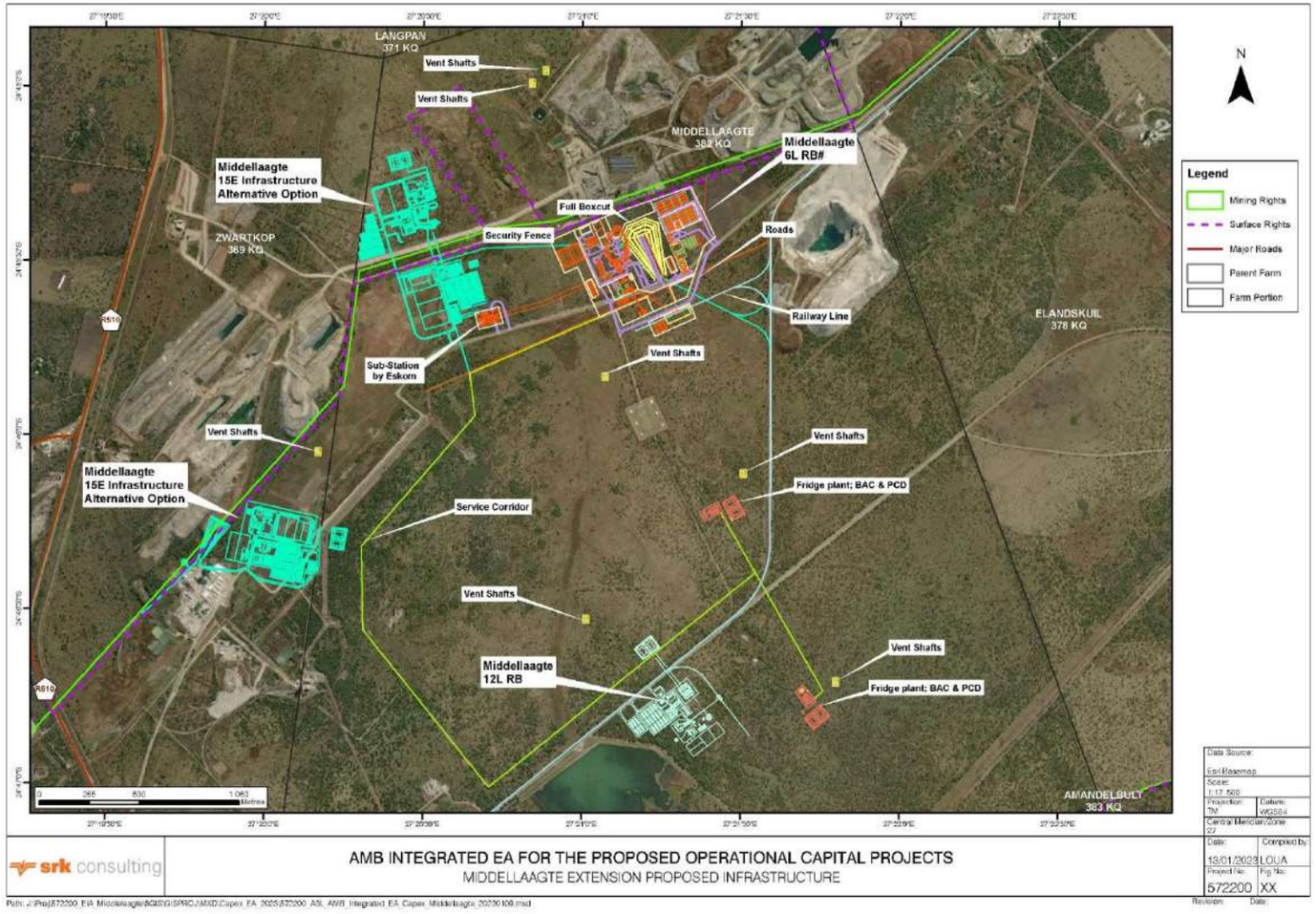
2. Overview of proposed projects (continued)

- The four capital projects forming part of AMB's mechanisation strategy is as follows:

Project Name	Description
Middellaagte (Upper and Lower)	This project focus area is on the Eastern border of Tumela Mine, with surface access and infrastructure located on both the AMB and Limberg properties. Negotiations are currently taking place to purchase and/or lease the surface area and underground mining rights. This is a greenfield project and will require the implementation of new infrastructure to access and support underground operations.
Tumela 15E Extension	This project is a deeper 'extension' of the existing 15E dropdown project and continues the 15E Mechanisation Dropdown project that commenced in 2019 (separate environmental authorisation). The project will be supported by the existing Tumela 15E infrastructure for personnel and material. However, new surface infrastructure will be required for ventilation,-rock handling to support the increase in tonnages from the current 75 ktpm to more than 110 ktpm and associated infrastructure.
Tumela 1 Sub Shaft	This project is a mechanised operation below the current conventional mine. The project is a volume replacement for the depleting traditional and modernised production areas within Tumela 1 Lower Shaft. The project is brownfields and will leverage the existing infrastructure at Tumela 1 to support the underground operation. The current Tumela hoisting infrastructure will be used to access the project area. The existing rock hoisting infrastructure is earmarked to support development and production from Tumela 1 Sub Shaft operation. New surface infrastructure includes a personnel & material shaft from surface to 16 Level, ventilation shafts, and associated infrastructure.
Dishaba East Mechanisation	This project is on the Eastern boundary of the AMB Complex. The area where the Dishaba East Mechanisation project will take place is a brownfields area and will include the areas previously used as part of the Haakdoorndrift (HDD) open pit project. Additional surface infrastructure will be required for the proposed project such as offices and workshops, however, this will remain within the already disturbed area.

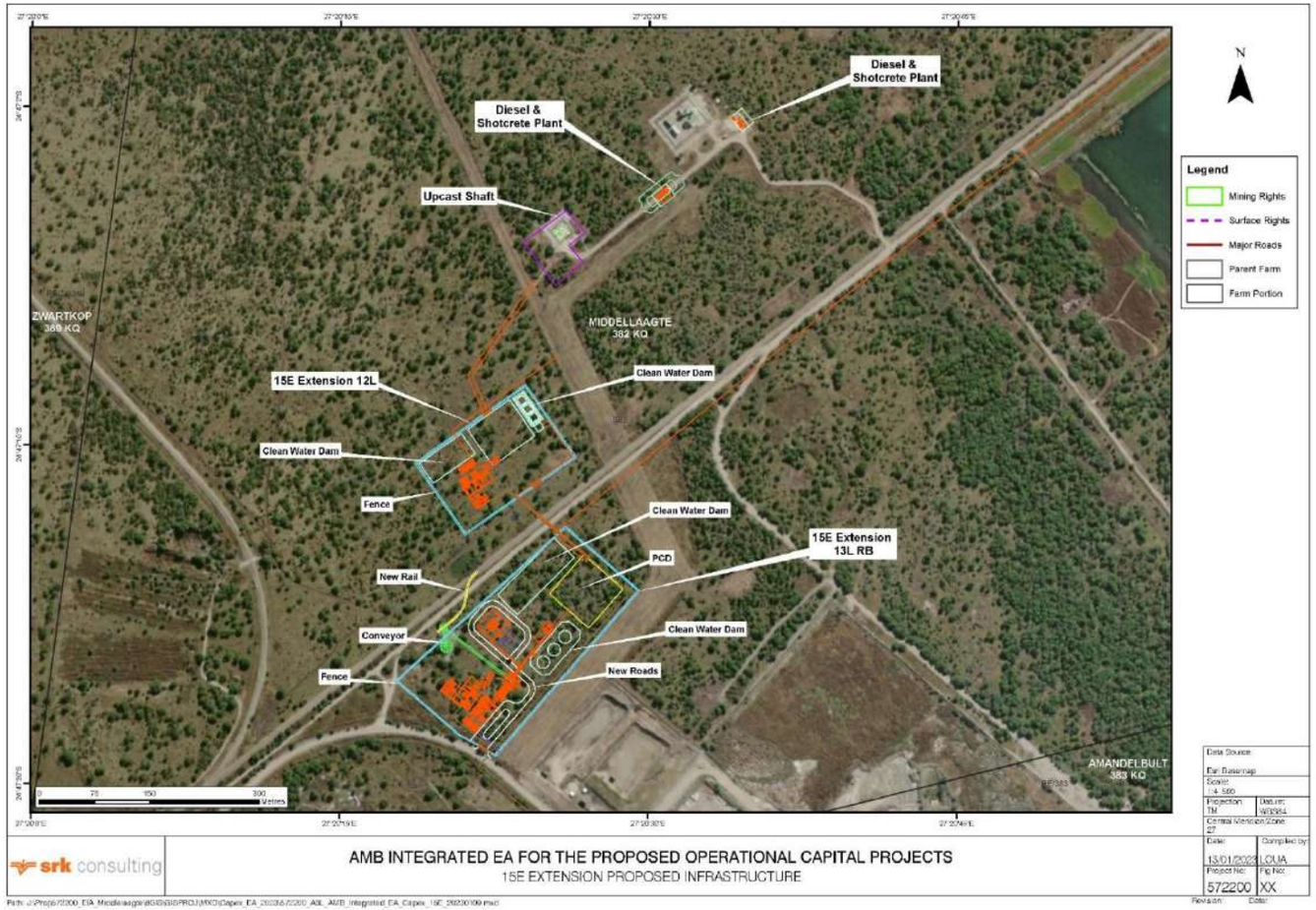
Proposed Middellaagte (Upper and Lower)

- **Middellaagte Surface Adit and associated supporting infrastructure** (offices, changehouse, emergency room, lamp room, security room, car parking, taxi rank and bus stop, overall steel perimeter fencing)
- **Middellaagte 6 Level Raisebore Shaft** (Rock and men/material raisebore shafts including winder house and headgear)
- **Middellaagte 12 Level Raisebore Shaft**
- **Associated linear infrastructure**: 9km railway line extension, surface corridor to allow for pipelines (potable, sewer lines, clean water and process/ service water), substation, powerlines and roads
- **Ventilation shafts:** 9 upcast and 7 downcast (including two fridge plants, 11kv powerline and pipeline)
- **Storage of dangerous goods**: Diesel, petrol, batteries hydrocarbons and emulsion areas
- **Shotcrete plant**: mixing and dispensing of shotcrete for underground stability
- **Water handling**: Reverse Osmosis (RO) plants, Pollution Control Dams (PCD) and Ericson dams
- **Ore handling**: Ore silos, silo feed conveyor and 'emergency' stockpiles and transfer tower
- **Construction infrastructure**: laydown areas and soil stockpiles (topsoil and subsoil)



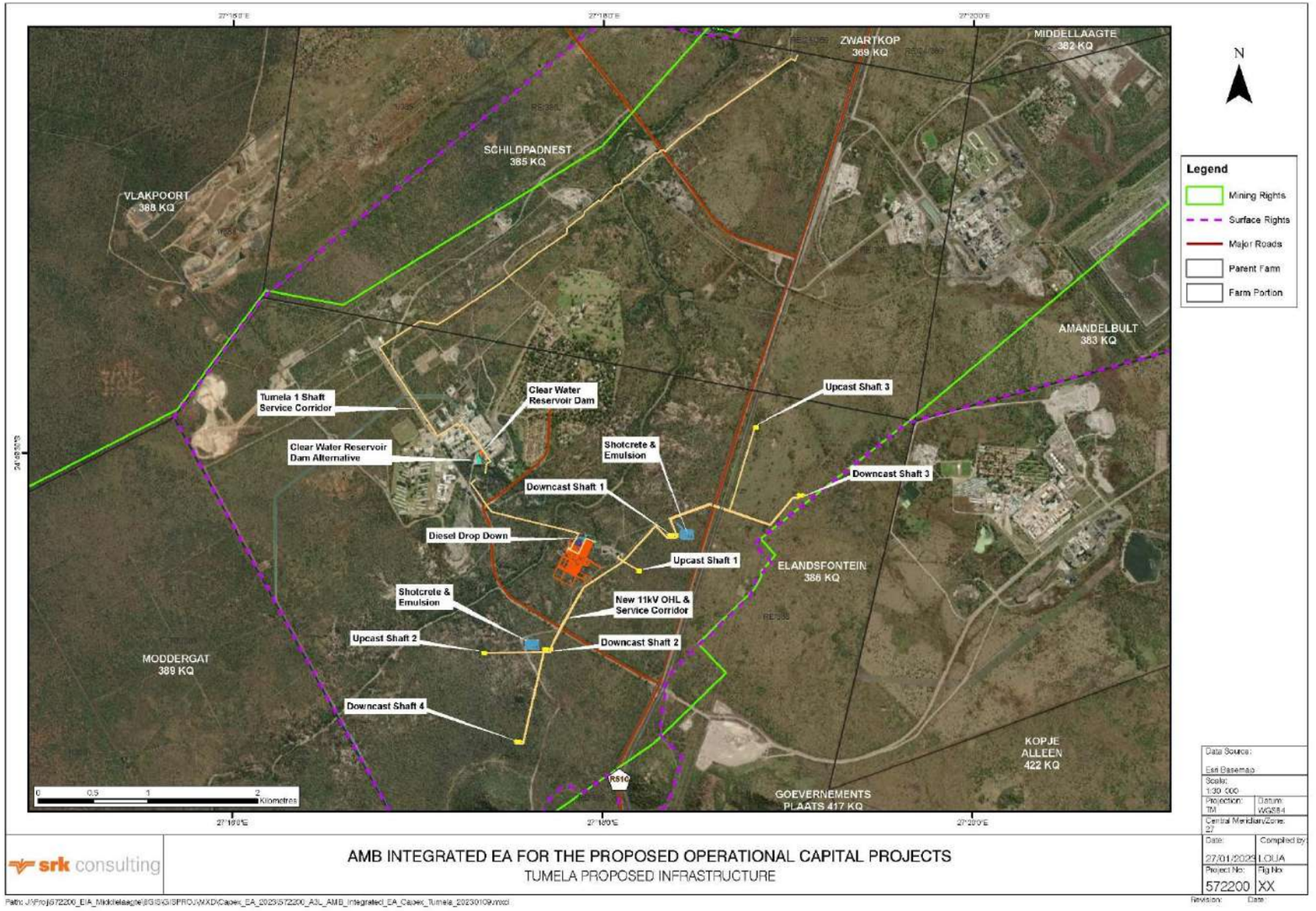
Proposed Tumela 15E Extension

- **12 level cold hole:** bulk air cooling and fridge plant
- **13 level raisebore shaft:** including headgear and winder houses and general buildings (parking, workshops, toilets (honeysucker)
- **Storage of dangerous goods**: Diesel, petrol and emulsion storage and dispensing facility (with drop down piping to UG infrastructure).
- **Shotcrete plant**: mixing and dispensing of shotcrete for underground stability
- **Water handling**: Ericson dams for process water and active dewatering , reverse osmosis (RO) Plant and PCD
- **Ore handling**: Ore silo, overland silo feed conveyor and associated emergency stockpile area
- **Associated linear infrastructure**: 1 Km railway line extension, surface corridor to allow for pipelines (compressed air, service/ process water, potable water), powerlines and associated substation and roads
- **Ventilation shaft**: Conversion of the existing downcast vent shaft to an upcast facility with bifurcated fans
- **Construction infrastructure:** laydown areas and soil stockpiles (topsoil and subsoil)



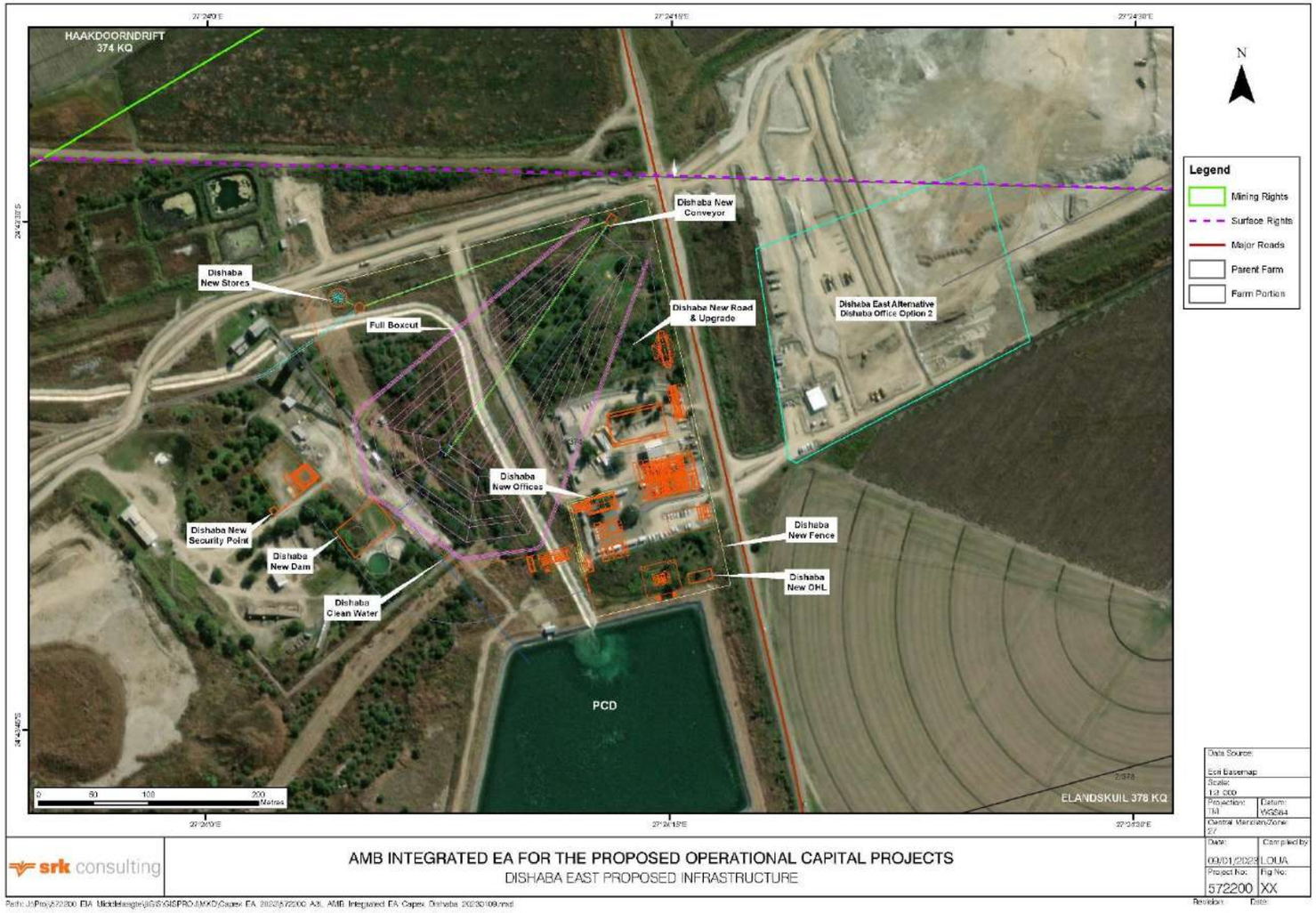
Proposed Tumela 1 Sub Shaft

- **15 level raisebore shaft**: headgear , winders and tying into the existing fridge plant and associated surface infrastructure (offices, change-houses, lamp room, parking and laydown area at the 28W RB shaft area)
- **Storage of dangerous goods**: Diesel and emulsion storage and dispensing facility
- **Shotcrete plant**: mixing and dispensing of shotcrete for underground stability
- **Ventilation Shafts**: upcast (including ventilation fans) and downcast vent shafts (including Bulk Air Coolers (BAC) and Fridge-plants)
- **Water handling**: 2 new Ericson dams and the upgrade of 2 additional ericson dams, Reverse osmosis plant and use of the existing PCD
- **Associated linear infrastructure**: Two new pipelines will be required (will follow the existing pipeline servitude), new electrical power lines from Phoko substation to the Tumela 1Shaft substation
- **Electrical infrastructure**: New 20MVA transformer, at the existing Tumela 1Shaft substation area
- **Construction infrastructure**: laydown areas and soil stockpiles (topsoil and subsoil)



Proposed Dishaba East (Upper and Lower)

- **New Dishaba surface adit**: Within existing disturbed area and new offices
- **Water handling**: One existing ericson dams, two additional ericson dams, Reverse Osmosis (RO) plant (new and upgrade of existing plant), utilisation of the existing PCD (Haakdoringdrift).
- **Associated linear infrastructure**: New pipelines and powerlines will be required from the adit to the existing lines
- **Storage of dangerous goods**: Diesel and emulsion
- **Shotcrete plant**: mixing and dispensing of shotcrete for underground stability
- **Ore handling**: Ore silos, overland silo feed conveyor and 'emergency' stockpiles tied into the existing 62E Silo
- **Construction infrastructure**: laydown areas and soil stockpiles (topsoil and subsoil)

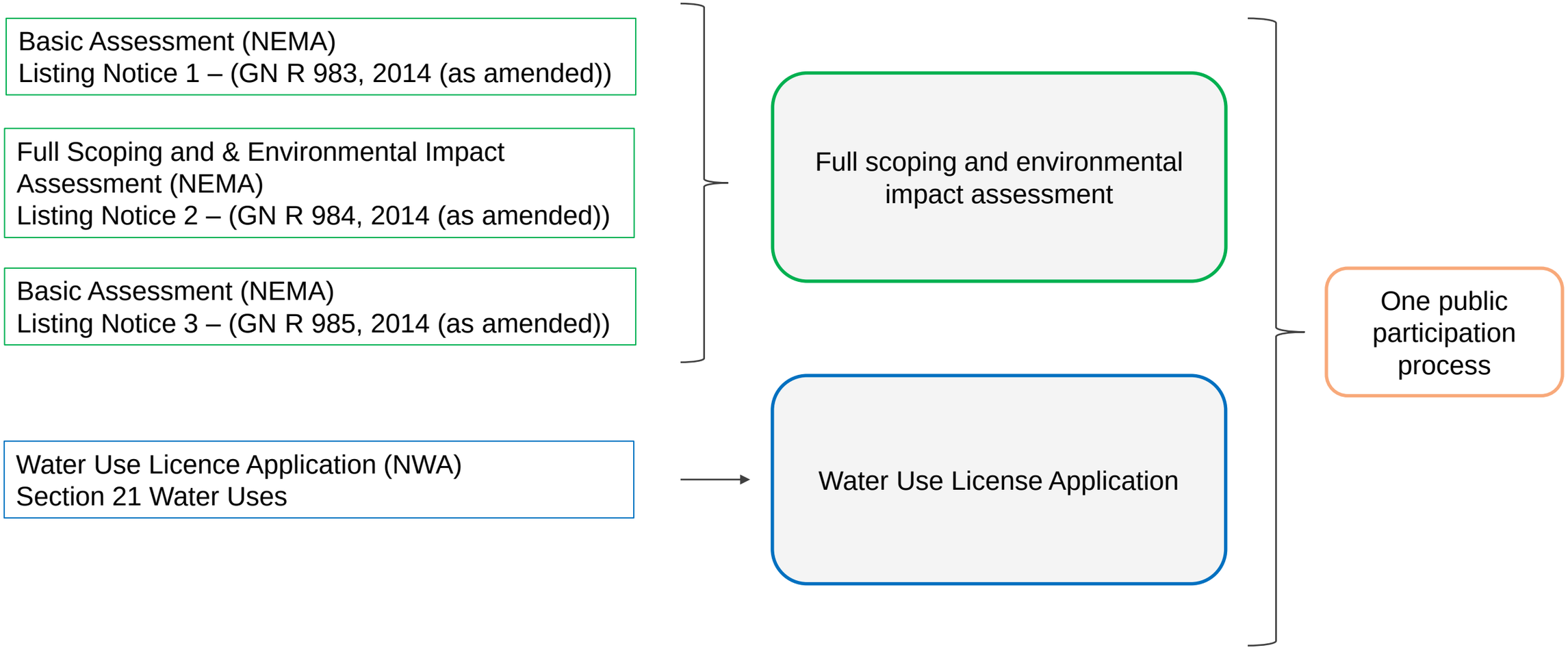


3. Overall Authorisation Requirements

Applicable legislation	Authorisation required	Competent Authority
National Environmental Management Act (Act No. 107 of 1998) (NEMA)	EA for any project related listed activities stipulated in the NEMA Environmental Impact Assessment (EIA) Regulations of 2014, as amended in 2017. • Listing Notice 1 (GNR 983): Activity 9, 10, 11, 12, 14, 19, 21D, 24, 27, 64 • Listing Notice 2 (GNR 984): Activity 4, 6, 7, 15 and 17 • Listing Notice 3 (GNR 985): Activities 4, 10, 12, 14 and 18	DMRE Polokwane
National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA)	WML for any project related waste activities stipulated in NEM:WA GNR 921 of November 2013 • GNR 921: Category B: Activity 10 and 11	DMRE Polokwane
Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA)	Section 102 application in terms of the MPRDA for amending the Mining Works Programme as well as the transfer ownership of the mining right for Farm Middellaagte KQ Portion 1 from Cronimet (Pty) Ltd to Anglo American Platinum (AAP) Rustenburg Platinum Mines (Pty) Ltd (RPM)	DMRE Polokwane
National Water Act (Act No. 36 of 1998) (NWA)	WUL for any project related water uses stipulated under Section 21 of NWA. • Section 21(a), (b), (c), (e), (g), (i) and (j) In addition to this, a GN704 exemption will be applied for due to surface infrastructure being within 500m of a wetland.	DWS Lydenburg

4. Environmental Authorisation (NEMA and NWA) Integrated Process

- The process which will be followed will be an integrated process including the full S&EIR and WULA.



SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS (NEMA & NEM:WA)

Pre-application enquiry (optional)

Application Phase

Submit EA Application to DMRE — **Day 1**

Scoping Phase

Scoping report to public for review 30 days

Submission of Scoping report to DMRE — Day 44

DMRE accept or reject Scoping Report (*within 43 days of receipt of report*) — Day 87

Impact Assessment Phase

EIA/EMPr to public for review 30 days

Submission of EIA/EMPr report to DMRE (*within 106 days after Scoping report accepted*) — Day 193

DMRE accept/reject EIA/EMPr Report (*within 107 days of receipt of EMPr report*) — **Day 300**

Appeal or Amendment Phase
90 days in terms of NEMA

WATER USE LICENCE APPLICATION PROCESS (NWA)

Pre-application enquiry (compulsory)

Application (Phase 1)

Day 1 → Submission of Section 21 water uses

Site Assessment (Phase 2)

Day 36 → DWS Site inspection and requirements

Day 146 → Submission of WULA Report and supporting specialist information

Technical Report, Assessment and Decision (Phase 3)

DWS assessment (*139 days assessment period*)

Day 300 → Decision and communication

Appeal or Amendment Phase
120 days in terms of NWA

Listed Activities queries

Activity	Query
Storage of dangerous goods	Should we apply per project (capital project) or per property?
Clearing of indigenous vegetation	We will apply for each capital project in terms of Activity 15 of LN2. DMRE to confirm this is acceptable.
Amendment of Mining right	AAP has acquired the mining right for Farm Middellaagte KQ Portion 1. An EMPr amendment will be undertaken as part of this S&EIA to incorporate the mining right into the existing AMB mining right. DMRE to confirm this can be done?
Section 102	Activity 21 D (Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of section 102 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity contained in this Listing Notice or in Listing Notice 3 of 2014, required for such amendment.) Will apply for each project. DMRE to confirm.

5. Specialist Studies to be undertaken

As guided by DFFE Screening Tool

Air Quality	Wetlands	Blasting & vibration (opinion)	Freshwater aquatic biodiversity	Terrestrial biodiversity
Soils & land capability	Cultural heritage & palaeontology	Hydrogeology	Noise	Socio-economics
	Closure & rehabilitation	Surface water	Visual	

6. Stakeholder Engagement – Integrated approach recommended (EIA & WULA)

- In line with NEMA requirements as well as GN 650
  - Project announcement
    - Site notices
    - Advertisement
    - Background information document
  - Public review of draft Scoping Report as well as the draft Environmental Impact Assessment report (30 days each)
    - Public meetings / open house during the Scoping and EIA phase
  - Consult with:
    - interested and affected parties;
    - government authorities; and
    - traditional authorities.

Confirmation whether a public participation plan should be compiled as part of the application form?

Must the EAP send a copy of the draft documents to the commenting authorities?

7. Discussion and way forward

- Other comments/questions (All)?

Thank You

Presented by:

Michelle Miles

SRK House
265 Oxford Road
Illovo 2196
P O Box 55291
Northlands 2116
South Africa
T: +27 (0) 11 441 1111
F: +27 (0) 11 880 8086
E: johannesburg@srk.co.za
www.srk.co.za

Motsheganong 2023
Nomoro ya Porojeke ya SRK: 572200

Rre/Mme yo o Rategang,

LEKWALO LA TSHEDIMOSETSO YA TLHALOSO

Tiro ya Tshekatsheko ya Kamego ya Tikologo, Kopo ya Laesense ya Tiriso ya Metsi le Karolo 102 ya Phetolo ya Tetlelelo ya go Epa ya Dikago tse Dikgolo le tse di Tshegetsang tsa Proposed Future Amandelbult (FOA) kwa Khopolekeseng ya Moepo wa Amandelbult, kwa Porofenseng ya Limpopo, Aforika Borwa.

1. Ketapele le Tlhaloso

Moepo wa Amandelbult Mine Complex (AMB) – wa meepo ya Rustenburg Platinum Mines (Pty) Ltd (RPM) ya Anglo American Platinum e sale e ntse e dira fa e sale ka bo-1970 mme o kwa Kgaolong ya Mmakaseterata wa Thabazimbi, mo teng ga Mmasepala wa Selegae wa Thabazimbi ke Mmasepala wa Kgaolo wa Waterberg mme o mo sebakeng sa 20 km go tswa kwa botlhaba go ya kwa bophirima. Moepo ono ke o mmotlana o e leng wa Anglo American Platinum Limited (AAP) ka botlalo mme o sekgala se se ka nnang 15 km kwa bokonebotlhaba jwa bokone jwa Northam le 30 km kwa borwa bophirima jwa Thabazimbi mo karolong e e kwa bokone jwa Platinum Belt.

Tiro e kgolo kwa AMB ke go epa go tswa kwa majweng a Merensky le a UG2 ka bobedi go dirisiwa mefuta ya go epa kafa tlase ga lefatshe le mo mosimeng o o seng boteng. Lefelo la moepo le kgaogantswe ka karolo ya kwa bophirima, ya legare le ya kwa botlhaba. Moepo o na le diyunjiti tse nné tse difarologaneng tsa tiro:

- **Moepo wa Tumela** o nang le shafote e e yang kwa godimo le kwa tlase (shafote ya Tumela, e pele e neng e bidiwa shafote ya No. 1) le dishafote tse dingwe tse di yang kwa tlase le kwa godimo, tse di kwa bokone jwa shafote e kgolo e e yang kwa tlase;
- **Moepo wa Tumela** o o nang le shafote e e yang kwa godimo le kwa tlase (shafote ya Dishaba, e pele e neng e bidiwa shafote ya No. 2) le dishafote tse dingwe tse di yang kwa tlase le kwa godimo, tse di kwa bokone jwa shafote e kgolo e e yang kwa tlase;
- **UG1, UG2 Khompolekese ya Khonsentereitha ya Merensky** le khompolekese ya bobolokelo jwa maselela a dimerala a a amanang le yone (tailings storage facility [TSF]); le
- **Ditirelo tsa tshegetso** gammogo le diofisi, madirelo, sepatela, motse, polante ya foriji, polante ya go thiba diphatlha le Tshomarelo ya Diphologolo.

AMB e dira go ya ka Environmental Management Programmes (di-EMPr), Dithebolelo tsa Tikologo, Water Use Licences (di-WUL) le Waste Management Licences (di-WML).

Jaaka karolo ya togomaano ya metšhine ya AMB go fetola go epa ka tsela ya bogologolo gore go epiwe ka metšhine ka 2032, boikaelelo jwa AMB ke go simolola diporojeke tse dikgolo tsa go epa di

le mmalwa mo ditirong tsa yone tsotlhe mo lefelong le AMB e nang le tetlelelo ya go epa le lefelo la tshwanelo ya lefatshe. Fa go se na ditiro dipe tsa botlhokwa tse di ka bonwang mo lefelong leno, diporojeke tse dikgolo tse di kopelwang di tla dira gore AMB e tswelele e dira ditiro tsa go epa tsa Life of Mine (LoM], se e leng morago ga ngwaga wa 2060.

Tiro ya thebolelo ya tikologo e tlile go akaretsa tiro ya Tshekatsheko ya Kamego ya Tikologo (Scoping and Environmental Impact Assessment [S&EIA]) go ya ka in National Environmental Management Act (Act No 107 ya 1998) (NEMA) Melawana ya 2014 ya Environmental Impact Assessment (EIA) Government Notice Regulation (GNR) 982, 2014 (e e fettsweng), Listing Notice 1 (GNR 983), Listing Notice 2 (GNR 984), le Listing Notice 3 (GNR 985), ya dikago tse dingwe gape le ditiro tse di tsamaisanang kwa AMB.

Gape AMB e tsweletse ka tiro ya go buisana ka go tsaya Karolo 1 ya Polasi ya Middellaagte 382 KQ Karolo 1 mo go Cronimet (Pty) Ltd. Dipuisano di santse di tsweletse malebana le lefelo la tetlelelo ya fa godimo ga lefatshe, lefa go ntse jalo, go bonwe tetlelelo ya go epa mme Karolo 102 e rometswe kwa DMRE. Jaaka karolo ya tiro ya tetlelelo ya EA e e Kopantsweng eno ya AMB le Porojeke ya WULA, go tlile go dirwa phetolo ya EMPr gore go fetolwe lefelo la tetlelelo ya go epa go akaretsa Polasi ya Middellaagte 382 KQ Karolo 1.

Mo godimo ga seno, go tlile go batliwa Kopo ya Laesense ya go Dirisa Metsi ereka go nna le ditiriso tsa metse tse di farologaneng go ya ka Karolo 21 ya Nation Water Act (Act No. 36 wa 1998) (NWA).

AMB e tlhomile SRK Consulting (South Africa) (Pty) Ltd (SRK) jaaka Banalekitso ba Tshekatsheko ya Tikologo (Environmental Assessment Practitioner ([AP]) gore ba dire tiro ya S&EIA le Tiro e e amanang le gone ya Go Tsaya Karolo ga Morafe.

1.1 Boikaelelo jwa Lekwalo la Tshedimosetso ya Tlhaloso

Boikaelelo jwa lekwalo la tshedimosetso ya tlhaloso (*background information letter* [BIL]) ke go naya Batho ba ba Nang le Kgatlhego le ba ba Amegang (*Interested and Affected Parties* [bo-I&AP]):

- Tshedimosetso ya ntlha ka porojeke e e kopelwang le tiro ya thebolelo ya tikologo e e tlileng go dirisiwa;
- Tshono ya go kwadisa jaaka I&AP le go tshwaela mo porojekeng e e kopelwang le tiro ya yone; le
- Tshedimosetso ka dikgato tse di latelang mo tirong ya thebolelo ya tikologo.

2. Tlhaloso ya Porojeke

Diporojeke tse nne tse dikgolo tse e leng karolo ya thulaganyo ya go dirisa metšhine le kopo eno di ka tsela e e latelang:

Leina la Porojeke	Tlhaloso
Middellaagte (E e kwa Godimo le kwa Tlase)	Lefelo la boremelelo la porojeke eno ke molelwane o o kafa Botlhaba wa Moepo wa Tumela, o lefatshe le go tsenwang mo go one ka lone le dikago di leng mo mafelong a AMB gammogo le Limberg. Mo nakong eno go tshwerwe dipuisano tsa go reka le/kgotsa go hirisa ditetlelelo tsa go epa tsa lefelo la lefatshe le kafa tlase ga lefatshe. Porojeke eno ke ya mo lefelong le go sa dirwang sepe mo go lone mme le tlile go tlhoka gore go agiwe dikago tse disha mo go lone go kgona go tsena mo ditirong tse di kafa tlase ga lefatshe le go di tshegetsa.
Katoloso ya Tumela 15E	Porojeke eno ke 'katoloso' e e boteng ya porojeke e e ntseng e le teng ya 15E e e yang kwa tlase mme e tsweledisa porojeke ya 15E ya Metšhine e e yang kwa Tlase e e simolotseng ka 2019 (thebolelo e sele ya tikologo). Porojeke eno e tlile go tshegediwa ke dikago tsa Tumela 15E tse di ntseng di le teng ka babereki le matheriale. Lefa go ntse jalo, go tlile go tlhokiwa dikago le ditsela tse disha mo godimo ga lefatshe go tsenya mowa le go tshwara matlapa go thusa mabapi le koketsego ya merwalo go tloga go ditone tsa dikhilogerame di le 75 kgwedi le kgwedi (ktpm) go ya go 110 ktpm.
Shafote e Potlana ya Tumela 1	Porojeke eno ke ya tiro ya metšhine e e kwa tlase ga moepo o o tlwaelegileng. Porojeke eno ke ya go oketsa bogolo jwa mafelo a diepiwa tse di tlwaelegileng le tsa segompieno tse di felang mo Shafote e e Kwa Tlase ya Tumela 1. Porojeke eno e mo lefelong le le sa bolong go tlogelwa mme e dirisa dikago le ditsela tsa kwa Tumela 1 go tshegetsa tiro ya kafa tlase ga lefatshe. Go tla dirisiwa dikago le ditsela tsa go tsholetsa tsa mo Tumela go tsena mo lefelong la porojeke. Dikago le ditsela tse di ntseng di le teng tsa go tsholetsa matlapa di rulaganyeditswe go thusa mo tirong ya go tlhabolola le ntshotiro kwa Shafoteng e Potlana ya mo Tumela 1.
Go Dirisiwa ga Metšhine kwa Dishaba Botlhaba	Porojeke eno e mo molelwaneng wa kwa botlhaba wa AMB. Lefelo le porojeke ya Go Dirisiwa ga Metšhine kwa Botlhaba jwa Dishaba e tlile go dirwa teng ke

	lefelo le le sa bolong go tlogelwa le pele le neng le dirisiwa e le karolo ya mosima o o seng boteng ya Haakdoorndrift (HDD). Go tlile go batlega dikago le ditsela tse dingwe tsa mo godimo ga lefatshe mo porojekeng eno e e kopelwang, tse di tshwanang le diofisi le madirelo, lefa go ntse jalo, tseno di tla nna di le mo lefelong le le nang le dikgoreletsi.

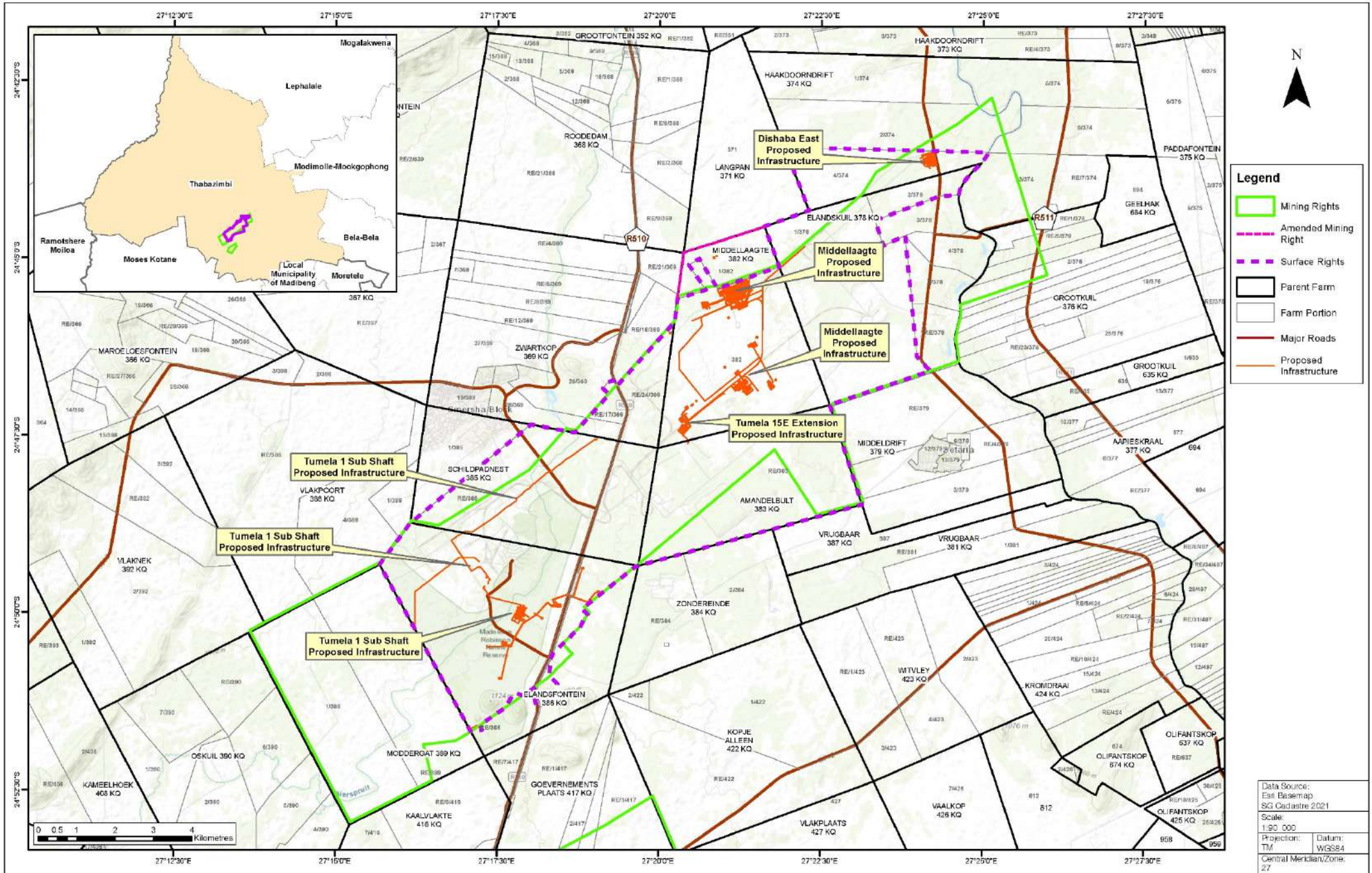
Dikago le ditsela tse di umakiwang fa godimo le ditiro di tla bo di le mo lefelong le lefatshe le AMB e ntseng e na le tshwanelo ya go epa mo go lone mo dipolasing tse di latelang:

- Haakdoorndrift 374 KQ, Ptn 4;
- Elandskuil 378 KQ, Ptn 1;
- Middellaagte 382 KQ, Ptns 0;
- Amandelbult 383 KQ, Ptn 1;
- Elandsfontein 386 KQ, Ptns 0, 1 le 2; le
- Schildpadnest 385 KQ, Ptn 0.

Gape AMB e dumalane le Cronimet (Pty) Ltd gore e reke karolo ya tshwanelo ya yone ya go epa mo Farm Middellaagte KQ Karolo 1.

3. Lefelo la Porojeke

Diporojeke tse dikgolo tse di kopelwang tse di bontshiwang mo go Setshwantsho 1, di tlile go nna mo lefelong la AMB la tetlelelo ya go epa le lefatshe le tse di ntseng di le teng.



Data Source: Esri Basemap, SG Cadastre 2021
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Central Meridian/Zone: 27

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AMB INTEGRATED EA FOR THE PROPOSED OPERATIONAL CAPITAL PROJECTS

LOCALITY MAP OF PROPOSED CAPITAL PROJECTS AND ASSOCIATED INFRASTRUCTURE

Date:	Compiled by:
30/01/2023	LOUA
Project No:	Fig No:
572200	1-2

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4. Ditiro tsa Thebolelo ya Tikologo

Pele ga AMB e ka simolola ka tiro epe ya diporojeke tseno, go tshwanetse ga dirwa dithebolelo dingwe tsa tikologo go ya ka Melawana ya EIA 2014 ya NEMA, e e fetotsweng gammogo le Karolo 21 ya NWA.

4.1 Tiro ya Tshekatsheko ya go Amega ga Tikologo

Go ya ka Melawana ya EIA ya 2014 ya NEMA, e e fetotsweng, ditiro tse di kwadilweng tse di latelang di dirisiwa mo diporojekeng tseno:

Tiro	Tlhaloso ya Tiro
Listing Notice 1 – (GN R 983, 2014 (e e fetotsweng)):	
Tiro 9	Go agiwa ga dikago le ditsela tse di fetang dimitara tse 1 000 ka boleele tsa tsamaiso ya metsi a mantsi kgotsa metsi a morwalela— (i) tse di nang le bophara jwa dimitara di le 0.36 mo teng kgotsa go feta; kgotsa (ii) a bogolo jwa dilitara tse 120 motsotswana mongwe le mongwe kgotsa go feta;
Tiro 10	Go agiwa le tiro e e tsamaisanang le gone ya dikago le ditsela tsa boleele jo bo fetang dimitara tse 1 000 tsa go tsamaisiwa ga metsi a a leswe, mantle, metsi a a dirisiwang, metsi a a latlhiwang, metsi a a boelang mo lefelong, dilatlhiwa tsa mo madirelong kgotsa bogweregwere - (i) tse di nang le bophara jwa dimitara di le 0.36 mo teng kgotsa go feta; kgotsa (ii) a bogolo jwa dilitara tse 120 motsotswana mongwe le mongwe kgotsa go feta;
Tiro 11	Go agiwa ga dikago kgotsa dikago le ditsela tsa go tsamaisiwa le go tsenngwa ga motlakase— (i) ka kwantle ga mafelo a setoropo kgotsa dikhompolekese tsa madirelo tse di nang le motlakase wa maatla a a fetang di-kilovolt di le 33 mme di le kwa tlase ga di-kilovolt di le 275
Tiro 12	Go agiwa ga— (i) matamo kgotsa matangwana a a tsholedisweng mo teng ga noka, gammogo le dikago le ditsela le lefelo la metsi a a fa godimo ga lefatshe, go feta disekwere mitara di le 100; kgotsa (ii) dikago le ditsela kgotsa dikago fela tsa sebaka sa disekwere mitara di le 100 kgotsa go feta; mo dikago tseo di agiwang teng— a) mo teng ga molatswana wa metsi; b) fa go se na kgoreletso epe ya tiro eno ya go aga, mo molatswaneng wa dimitara tse 32, go lekanngwa go tswa kwa losing lwa molatswana; —
Tiro 14	Go agiwa le tiro e e tsamaisanang le yone ga dikago kgotsa dikago le ditsela, bobolokelo, kgotsa bobolokelo le tiriso, ya dilo tse dikotsi, mo bobolokelo joo e leng dikhontheinara tsa bogolo jwa dimitara tsa 80 cubic fa bo kopantsweng kgotsa go feta mme bo sa fete dimitara tsa 500 cubic
Tiro 19	Go papaitelwa kgotsa go latlhelwa ga matheriale ope fela wa dimitara tsa 10 cubic mo, kgotsa go phepafadiwa ga lefelo, go epiwa, kgotsa go ntshiwa kgotsa go tsamaisiwa ga mmu, motlhaba, dikgapa, motlhaba wa dikgapa, matlapana kgotsa maje a bogolo jwa dimitara tsa 10 cubic go tswa kwa molatswaneng;
Tiro 21D	Tiro epe fela gammogo le go dirwa ga tiro eo e e tlhokang go fetolwa kgotsa se se farologaneng le tetlelelo kgotsa phemiti go ya ka karolo 102 ya Mineral and Petroleum Resources Development Act, gammogo le tiro e e maleba e e leng mo Listing Notice kgotsa mo go Listing Notice 3 ya 2014, e e batlelwang phetolo eo.
Tiro 24	Go dira ga tsela — (ii) e e nang le tselana ya dinao ya bophara jwa dimitara di le 13.5, kgotsa mo go senang tselana ya dinao gone fa tsela e leng bophara jwa dimitara tse 8;
Tiro 25	Go agiwa le tiro e e amanang le gone ga dikago kgotsa dikago le ditsela tsa go phepafadiwa ga mantle, metsi a a latlhiwang kgotsa metsi a a leswe a bogolo jwa dimitara tsa 2 000 cubic kgotsa go feta mme a le kwa tlase ga dimitara tsa 15 000 cubic.
Tiro 27	Go rengwa mo lefelong la hekethara e le 1 kgotsa go feta, mme le le kwa tlase ga dihekethara di le 20 ga dimela tsa lefelo leo.
Tiro 64	Go okediwa ga seporo sa terena, diteitšhane kgotsa dijarata tsa go gokelela tse go tlileng go nna le koketsego ya dikago tse di kgoreletsang
Listing Notice 2 – (GN R 984, 2014 (e e fetotsweng)):	
Tiro 4	Go agiwa le tiro e e tsamaisanang le yone ga dikago kgotsa dikago le ditsela, bobolokelo, kgotsa bobolokelo le tiriso ya dilo tse dikotsi, mo bobolokelo joo e leng dikhontheinara tsa bogolo jwa dimitara tsa 500 cubic fa bo kopantsweng.
Tiro 6	Go agiwa ga dikago kgotsa dikago le ditsela tsa tsamaiso epe fela kgotsa tiro e e tlhokang phemiti kgotsa laesense kgotsa phemiti e e fetotsweng kgotsa laesense go ya ka molao wa naga kgotsa wa porofense o o laolang go dirwa kgotsa go ntshiwa ga digase, kgotlelo ya mowa kgotsa mantle,

Tiro 7 -	Go agiwa le tiro e e amanang le gone ga dikago kgotsa dikago le ditsela tsa go tsamaisa dilo tse di kotsi– (ii) tsa mofuta wa diedi, di isiwa kwa khompolekeseng ya madirelo e e ka kwantle, go dirisiwa diphaephe, tsa boleele jo bo fetang dimitara tse 1 000, tse di tsamaisang bogolo jwa dimitara tsa 50 cubic ka letsatsi; kgotsa
Tiro 15	Go rengwa mo lefelong la dihekethara tse 20 kgotsa go feta ga dimela tsa naga eno
Tiro 17	Tiro epe fela gammogo le go dirwa ga tiro eo e e tlhokang go tetlelelo kgotsa phemiti go ya ka karolo 22 ya Mineral and Petroleum Resources Development Act, gammogo le tiro e e maleba e e leng mo Listing Notice eno, mo go Listing Notice 1 ya 2014 kgotsa mo go Listing Notice 3 ya 2014, e e batlelwang go dirisa tetlelelo eno ya go epa.
Listing Notice 3 – (GN R 985, 2014 (e e fetotsweng)):	
Tiro 4	Go dirwa ga tsela ya bophara jo bo fetang dimitara tse 4 e na le tselana ya dinao ya bophara jo bo kwa tlase ga dimitara di le 13.5.
Tiro 10	Go agiwa le tiro e e tsamaisanang le yone ga dikago kgotsa dikago le ditsela, bobolokelo, kgotsa bobolokelo le tiriso ya dilo tse dikotsi, mo bobolokelo joo e leng dikhontheinara tsa bogolo jwa dimitara tsa 30 cubic mme e seng jo bo fetang mitara tsa 80 cubic fa bo kopantsweng.
Tiro 12	Go rengwa mo lefelong la disekweremitara tse 300 kgotsa go feta ga dimela tsa naga eno
Tiro 14	Go agiwa ga— (i) matamo kgotsa matangwana a a tsholedisweng mo teng ga noka, gammogo le dikago le ditsela le lefelo la metsi a a fa godimo ga lefatshe, go feta disekwere mitara di le 10; kgotsa (ii) dikago le ditsela kgotsa dikago fela tsa sebaka sa disekwere mitara di le 10 kgotsa go feta; mo dikago tseo di agiwang teng— a) mo teng ga molatswana wa metsi; c) fa go se na kgoreletso epe ya tiro eno ya go aga, mo molatswaneng wa dimitara tse 32, go lekanngwa go tswa kwa losing lwa molatswana; —
Tiro 18	Go nna sephara ga tsela ka dimitara di feta tse 4, kgotsa go boleele jwa tsela bo feta kilomitara e le 1.

Kopo ya dithebolelo tsa tikologo go ya ka NEMA e tla newa Department of Mineral Resources and Energy (DMRE) ya Porofense ya Limpopo, Bolaodi jo bo Tshwanelegang gore e e akanyetse.

Tiro ya Tshekatsheko ya Kamego ya Tikologo (S&EIA) e e tshwanetseng go dirwa e le karolo ya tiro ya thebolelo e bontshiwa mo go Setshwantsho 2.

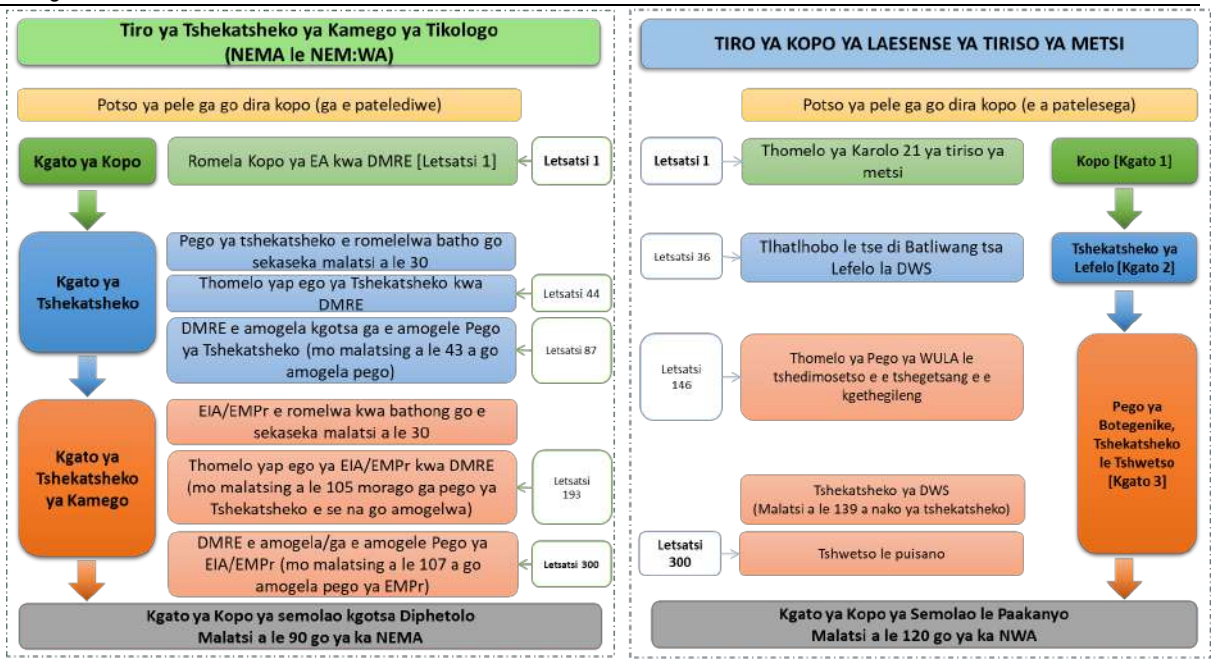
4.2 Kopo ya Laesense ya Tiriso ya Metse

Go ya ka Karolo 21 ya NWA go tlhokega ditiriso tse di latelang tsa metsi mo diporojekeng tseno tse di kopelwang:

- Karolo 21(a) ya Molao: Go tsaya metsi mo metsweding ya metsi
- Karolo 21(b) ya Molao: Go boloka metsi
- Karolo 21(c) ya Molao: E e kgoreletsang kgotsa e e faposang metsi a a elelang a molatswana;
- Karolo 21(e) ya Molao: Go dira tiro e e laolwang; go nosediwa ga lafatshe lepe le le nang le dilatlhiwa kgotsa metsi a a nang le leswe
- Karolo 21(g) ya Molao: Go latlhiwa ga dilatlhiwa ka tsela e di ka nnang tsa ama motswedi wa metsi ka tsela e e sa siamang
- Karolo 21(i) ya Molao: Go fetola lebota la molatswana, kgotsa bokafathoko jwa molatswana, kelelo kgotsa popego ya molatswana wa metsi
- Karolo 21(j) ya Molao: Go tlosa, go tsamaisa kgotsa go latlha metsi a a fitlhelwang kafa tlase ga lefatshe fa go tlhokega gore tiro e tswelele sentle kgotsa gore batho ba sireletsege.

Kopo ya WULA go ya ka NWA e tla romelelwa Department of Water and Sanitation (DWS), Bolaodi jo bo Tshwanelegang gore e akanyediwe.

Tiro ya WULA e e tshwanetseng go dirwa e le karolo ya tiro ya thebolelo e bontshiwa mo go Setshwantsho 2.



Setshwantsho 2: Setshwantsho sa Ditiro tsa S&EIA le WULA

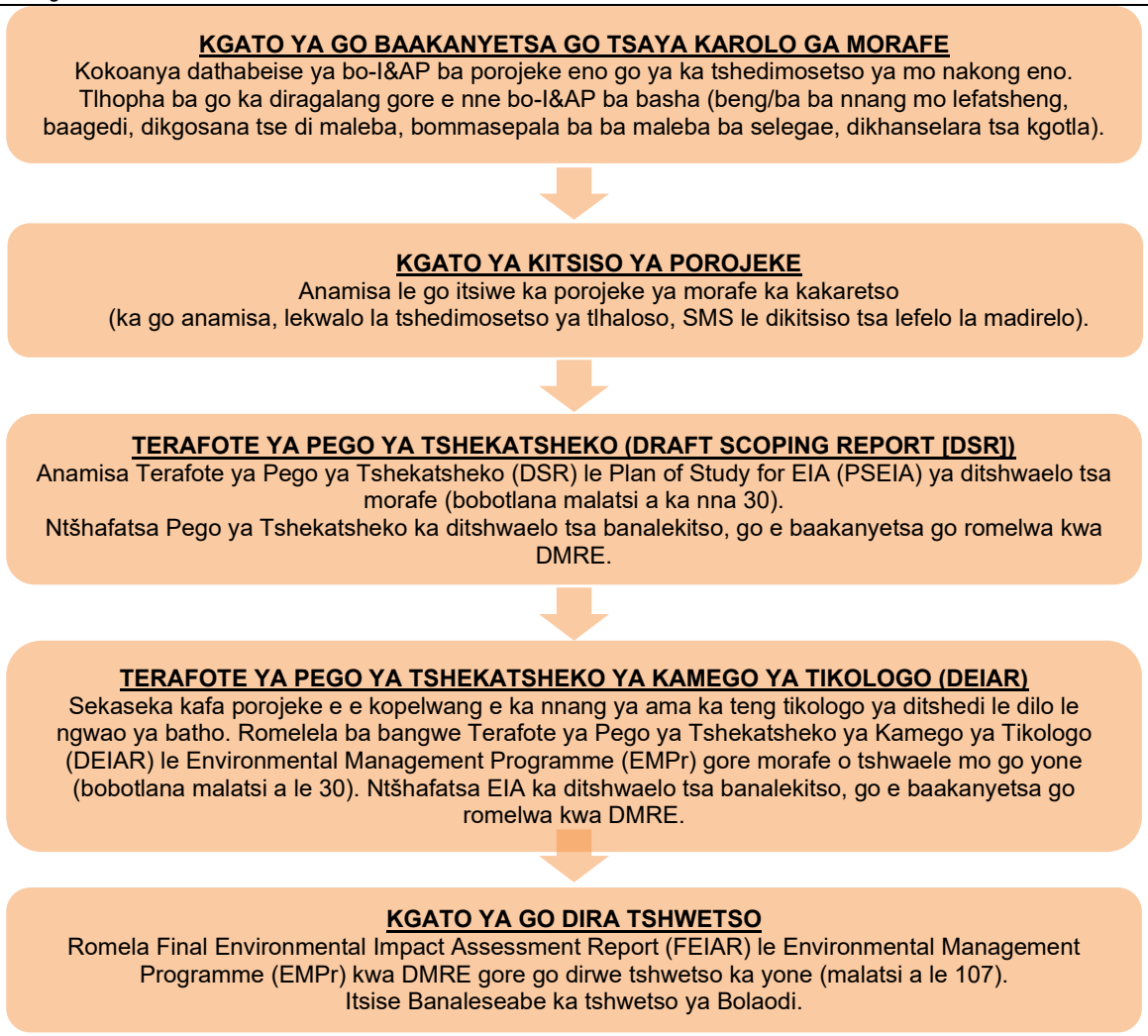
5. Tiro ya Go Tsaya Karolo ga Morafe

SRK e tlile go dira tiro ya thebolelo ya tikologo go ya ka tse di batliwang mo go Kgaolo 6 ya Melawana ya EIA ya NEMA, e e fetotsweng.

Jaaka karolo ya botlhokwa ya tiro ya thebolelo ya tikologo, SKR e tla dira tiro ya go tsaya karolo ga morafe go dirisana le bo-I&AP go abelana tshedimosetso kaga porojeke e e kopelwang le tiro, le go ba naya tshono ya go tshwaela.

Tiro ya go tsaya karolo ga morago e e tileng go dirwa a le karolo ya tiro ya S&EIA e sobokanngwa mo go Setshwantsho 3. Ka nako ya tiro eno, go tla tlhophiwa bo-I&AP, porojeke e tla itsisiwe, le dikamego tse di ka nnang tsa dirwa ke porojeke e e kopelwang di tla bontshiwa le go sekasekiwa.

Morago ga kitsiso ya porojeke eno, go tla dirwa gore Draft Scoping Report (DRS) e nne teng gore batho ba tshwaele ka yone, ka nako ya malatsi a le 30 a khalentara. Morago pego eno e tla ntšhafadiwa go tsenya ditshwaelo tsa bo-I&AP, mme Final Scoping Report (FSR) e tla romelwa kwa go DMRE, ba ba tla amogelang kgotsa ba tla sekeng ba amogele FSR, ba se na go buisana le balaodi ba bangwe ba mo porofenseng kgotsa ba lefelo leo.
Fa e le gore FSR e a amogelwa, go tla baakanngwa Draft Environmental Impact Assessment Report (DEIAR) le Environmental Management Programme (EMPr) le go dira gore morafe o kgone go tshwaela ka yone, ka nako ya malatsi a le 30 a khalentara. Morago pego eno e tla ntšhafadiwa go tsenya ditshwaelo tsa bo-I&AP, mme Final Environmental Impact Assessmeng (FEIR) le EMPr tse tla romelwa kwa go DMRE, ba ba tla dirang tshwetso ka phelelo ya thebolelo ya tikologo, ba se na go buisana le balaodi ba bangwe ba mo porofenseng kgotsa ba lefelo leo.



Setshwantsho 3: Tiro ya Tshekatsheko ya go Amega ga Tikologo

5.1 Taletso ya go ikwadisa jaaka I&AP

Tsweetswee elatlhoko gore o tshwanetse go ikwadisa jaaka I&AP gore o nne o itsisiwe ka ditiro tsa porojeke le ditshono tse dingwe gore o tshwaele ka porojeke eno. Ditokumente tse dingwe di tla nna teng ka nako ya tiro ya S&EIA. Ditshwaelo tsa gago le dikakantsho tsa karolo epe ya porojeke e e kopelwang le tiro ya thebolelo kwa bofelong e tla thusa balaodi go dira tshwetso ba na le kitso.

Bo-I&AP ba kgothalediwa go kwadisa le go romela dipotso, ditshwaelo le dikakantsho ka go tlatsa Foromo ya Kwadiso le Ditshwaelo le go e busetsa kwa Public Participation Office ya SKR (dintlha tsa go ikgolaganya di fa tlase). Elatlhoko gore banaleseabe ba tlile go nna le tshono gape ya go tshwaela mo porojekeng eno ka nako ya Tiro ya S&EIA.

Gaynor Nel kwa SKR Consulting Public Participation Office, P O Box 55291 Northlands, 2116, Tel: (011 441 1203), Imeile: GaNel@srk.co.za, Fax 086 296 6617

6. Dikgato tse di latelang mo tirong ya Thebolelo ya Tikologo.

Morago ga kitsiso eno ya tiro S&EIA e e kopelwang e e kopaneng, Terafote ya Pego ya Tshekatsheko (Draft Scoping Report [DSR]) e tla dirwa gore morafe o tshwaele ka yone ka nako ya 22 Motsheganong tsa 21 Seetebosigo 2023. Mo nakong eno, bo-I&AP ba ba kwadisitsweng ba tla itsisiwe gore pego e setse e le teng, ba tla lalediwa gore ba nne teng mo phuthegong/kamogelo ya botlhe, mme ba tla newa tshono ya go tsaya karolo mabapi le kafa batho ba dirang ka teng, ditlhopha tsa tikologo le tsa porojeke go buisana ka diteng tsa DSR le go bua ditshwaelo le matshwenyego a bone ka porojeke eno.

Re lebile pele go go tsaya karolo ga gago mo tirong eno.

Weno ka boikanyego,

SRK Consulting (South Africa) (Pty) Ltd

Natasha Moodley
Monalekitso wa Porojeke Tshekatsheko ya Tikologo

Foromo ya Kwadiso le Tshwaelo

Tiro ya Tshekatsheko ya Kamego ya Tikologo ya diporojeke tse dikgolo le dikago le ditsela tse di tshegetsang kwa Amandelbult Mine Complex, kwa Porofenseng ya Limpopo, Aforika Borwa. **Mopitlwe 2023**	**Portia Tsotetsi kwa SKR Consulting Public Participation Office, P O Box 55291 Northlands, 2116, Mog: (011) 441 1203 Imeile: ganel@srk.co.za, Fekese 086 296 6617**

Go I&AP yo o kwadisitsweng tsweetswee e tlatse o bo o e isa kwa go Gaynor Nel (jaaka fa godimo)

SERETO		**LEINA**		
DITLHAKAINA		**SEFANE**		
KHAMPHANE				
ATERESE YA POSO				
		KHOUTU YA POSO		
NOMORO YA MOGALA WA MO NTLONG		**NOMORO YA SELULAFOUNO**		
NOMORO YA FEKESE		**IMEILE:**		

DITSHWAELO (tsweetswee dirisa dipampiri tse di farologaneng fa o batla)

RE LEBOGELA SEABE SA GAGO

LEINA: **MOSAENO:** **LETLHA:**

Ka go ikwadisa jaaka Motho yo o Nang le Kgatlhego le yo o Amegang, o dumelela gore SRK e dirise tshedimosetso kaga gago mo boemong jwa Anglo American ka boikaelelo jwa go tsaya pegelo ya tiro ya thebolelo ya tikologo le go go naya tshedimosetso e e maleba ka yone. Tshedimosetso e ka nna ya abelanwa le batho ba ba tlhophilweng ka maikaelelo ano fela. Tsweetswee bona Pholisi ya Polokodiphiri ya Banalesabe (https://www.angloamerican.com/site-services/privacy-policy/stakeholders) go bona tshedimosetso e nngwe

srk consulting

[OFFICIAL]

SRK House
265 Oxford Road
Illovo 2196
P O Box 55291
Northlands 2116
South Africa
T: +27 (0) 11 441 1111
F: +27 (0) 11 880 8086
E: johannesburg@srk.co.za
www.srk.co.za

May 2023
SRK Project number: 572200

Dear Sir/ Madam,

BACKGROUND INFORMATION LETTER

Scoping and Environmental Impact Assessment process, Water Use Licence Application and Section 102 Mining Right Amendment for the Proposed Future of Amandelbult (FOA) Capital and Supporting Infrastructure Project at the Amandelbult Mine Complex, Limpopo Province, South Africa.

1. Introduction and Background

The Anglo American Platinum Rustenburg Platinum Mines (Pty) Ltd (RPM) – Amandelbult Mine Complex (AMB) has been operating since the 1970s and is situated in the Thabazimbi Magisterial District, within the Thabazimbi Local Municipality and Waterberg District Municipality and extends over some 20 km from east to west. The mine is a wholly owned subsidiary of Anglo American Platinum Limited (AAP) and is approximately 15 km north northeast of Northam and 30 km south west of Thabazimbi on the northern limb of the Platinum Belt.

The main activity at AMB is the mining from both the Merensky and UG2 reefs using underground and open pit mining methods. The mine area is divided into western, central and eastern sections. The mine consists of four different operational units:

- **Tumela Mine** consisting of a vertical shaft (Tumela shaft, previously known as No. 1 shaft) and a number of other incline and decline shafts, located north of the main vertical shaft;
- **Dishaba Mine** consisting of a vertical shaft (Dishaba shaft, previously known as No. 2 Shaft) and a number of other incline and decline shafts, located north of the main vertical shaft;
- **The UG1, UG2 and Merensky Concentrator Complex** and the associated tailings storage facility (TSF) complex; and
- **Support services** including offices, workshops, hospital, village, fridge plant, grouting plant and Game Reserve.

The AMB operates under existing approved Environmental Management Programmes (EMPrs), Environmental Authorisations, Water Use Licences (WULs) and Waste Management Licences (WMLs).

As part of the AMB mechanisation strategy to transform from conventional to mechanised mining by 2032, AMB intends to commence with several mining capital projects across its operations in the AMB mining right area and surface right area. In the absence of significant alternative employment opportunities in the area, the proposed capital projects will allow the AMB to continue with the mining activities for the Life of Mine (LoM), which is beyond 2060.

The environmental authorisation process will entail a Scoping and Environmental Impact Assessment (S&EIA) process in terms of the National Environmental Management Act (Act No 107 of 1998) (NEMA) 2014 Environmental Impact Assessment (EIA) Regulations Government Notice Regulation (GNR) 982, 2014 (as amended), Listing Notice 1 (GNR 983), Listing Notice 2 (GNR 984), and Listing Notice 3 (GNR 985), for additional infrastructure and associated activities at AMB.

AMB is also in the process of negotiating the acquisition or lease of Portion 1 of Farm Middellaagte 382 KQ Portion 1. Negotiations are still underway with regards to the surface right area, however, the portion of the mining right has been acquired and a Section 102 has been submitted to the DMRE. As part of this AMB Integrated EA and WULA Project permitting process, an EMPr amendment will be undertaken in order to amend the mining right area to include Farm Middellaagte 382 KQ Portion 1.

In addition to this, a Water Use Licence Application will be required as various water uses are triggered in terms of Section 21 of the Nation Water Act (Act No. 36 of 1998) (NWA).

AMB has appointed SRK Consulting (South Africa) (Pty) Ltd (SRK) as an Independent Environmental Assessment Practitioner (EAP) to undertake the S&EIA and the associated Public Participation Process.

1.1 Purpose of the Background Information Letter

The purpose of this background information letter (BIL) is to provide Interested and Affected Parties (I&APs) with:

- Initial information on the proposed project and the environmental authorisation process which will be followed;
- An opportunity to register as an I&AP and to comment on the proposed project and process; and
- Information on the next steps in the environmental authorisation process.

2. Project Description

The four capital projects forming part of the mechanisation strategy and of this application are as follows:

Project Name	Description
Middellaagte (Upper and Lower)	This project focus area is on the Eastern border of Tumela Mine, with surface access and infrastructure located on both the AMB and Limberg properties. Negotiations are currently taking place to purchase and/or lease the surface area. A portion of the underground mining rights have been acquired. This is a greenfield project and will require the implementation of new infrastructure to access and support underground operations.
Tumela 15E Extension	This project is a deeper 'extension' of the existing 15E dropdown project and continues the 15E Mechanisation Dropdown project that commenced in 2019 (separate environmental authorisation). The project will be supported by the existing Tumela 15E infrastructure for personnel and material. However, new surface infrastructure will be required for ventilation and rock handling to support the increase in tonnages from the current 75 kilo tonnes per month (ktpm) to more than 110 ktpm.
Tumela 1 Sub Shaft	This project is a mechanised operation below the current conventional mine. The project is a volume replacement for the depleting traditional and modernised production areas within Tumela 1 Lower Shaft. The project is brownfields and will leverage the existing infrastructure at Tumela 1 to support the underground operation. The current Tumela hoisting infrastructure will be used to access the project area. The existing rock hoisting infrastructure is earmarked to support development and production from Tumela 1 Sub Shaft operation.
Dishaba East Mechanisation	This project is on the eastern boundary of the AMB. The area where the Dishaba East Mechanisation project will take place is a brownfields area which was previously used as part of the Haakdoorndrift (HDD) open pit project. Additional surface infrastructure will be required for the proposed project such as offices and workshops, however, this will remain within the already disturbed area.

The above-mentioned infrastructure and activities will be located within the AMB's existing mining right and surface right area on the following farms:

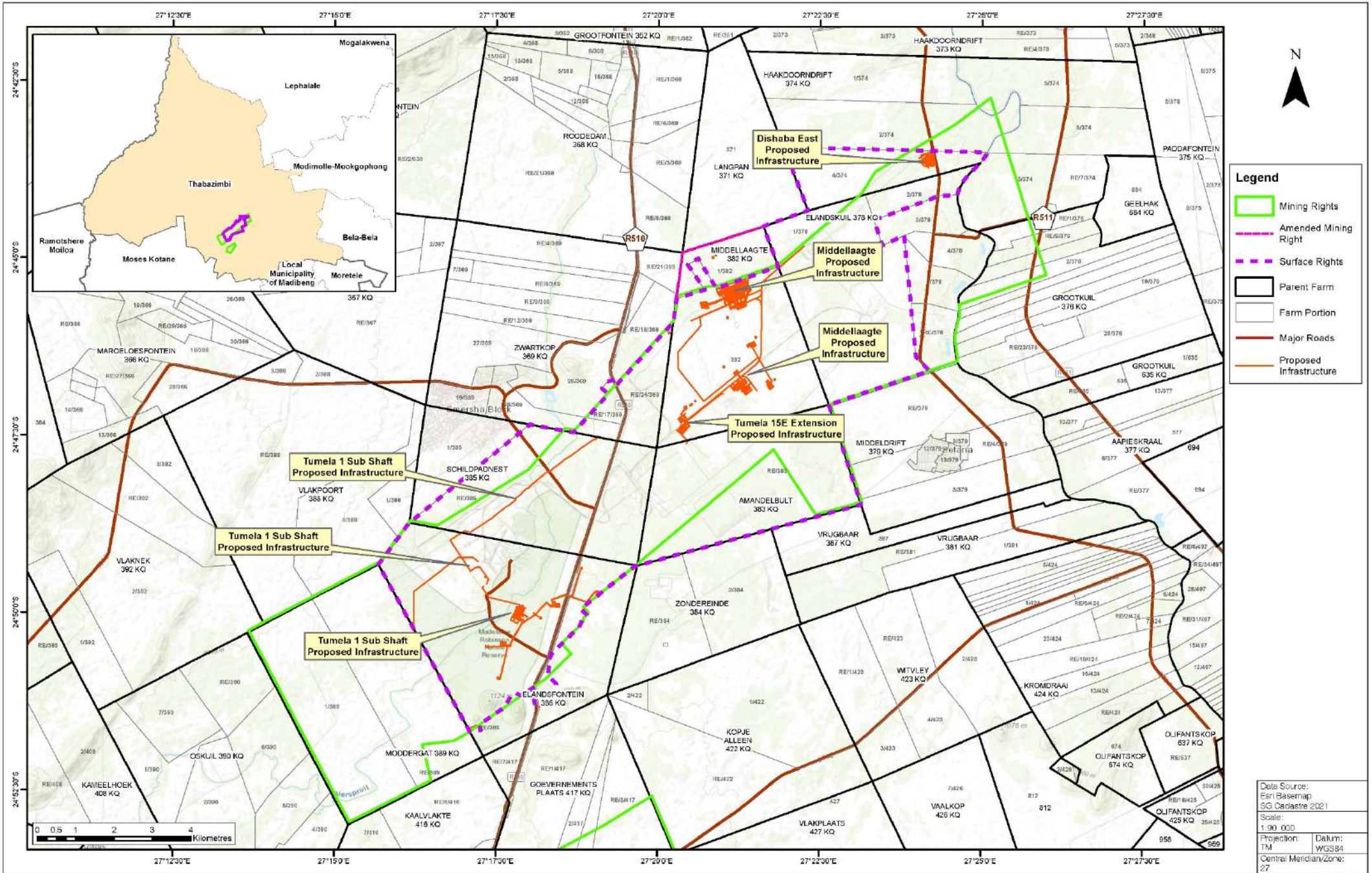
- Haakdoorndrift 374 KQ, Ptn 4;
- Elandskuil 378 KQ, Ptn 1;
- Middellaagte 382 KQ, Ptns 0;

- Amandelbult 383 KQ, Ptn 1;
- Elandsfontein 386 KQ, Ptns 0, 1 and 2; and
- Schildpadnest 385 KQ, Ptn 0.

AMB has also agreed with Cronimet (Pty) Ltd to acquire a portion of theri mining right over the Farm Middellaagte KQ Portion 1.

3. Project Location

The proposed capital projects shown in Figure 1, will be located within the existing mining right and surface right area of AMB.



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AMB INTEGRATED EA FOR THE PROPOSED OPERATIONAL CAPITAL PROJECTS

LOCALITY MAP OF PROPOSED CAPITAL PROJECTS AND ASSOCIATED INFRASTRUCTURE

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4. Environmental Authorisation Processes

Before the AMB may commence with development of any of these projects, certain environmental authorisations need to be undertaken in terms of the NEMA EIA Regulations of 2014, as amended as well as Section 21 of the NWA.

4.1 Scoping and Environmental Impact Assessment Process

In terms of the NEMA EIA Regulations of 2014, as amended, the following listed activities are applicable to these projects:

Activity	Activity Description
Listing Notice 1 – (GN R 983, 2014 (as amended)):	
Activity 9	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;
Activity 10	The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes – (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;
Activity 11	The development of facilities or infrastructure for the transmission and distribution of electricity— (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts
Activity 12	The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— a) within a watercourse; b) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —
Activity 14	The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.
Activity 19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;
Activity 21D	Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of section 102 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity contained in this Listing Notice or in Listing Notice 3 of 2014, required for such amendment.
Activity 24	The development of a road— (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;
Activity 25	The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.
Activity 27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation
Activity 64	The expansion of railway lines, stations or shunting yards where there will be an increased development footprint
Listing Notice 2 – (GN R 984, 2014 (as amended)):	
Activity 4	The development and related operation of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.
Activity 6	The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent,
Activity 7	The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods— (ii) in liquid form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 50 cubic metres per day; or
Activity 15	The clearance of an area of 20 hectares or more of indigenous vegetation

Activity 17	Any activity including the operation of that activity which requires a mining right in terms of section 22 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice, in Listing Notice 1 of 2014 or Listing Notice 3 of 2014, required to exercise the mining right.
Listing Notice 3 – (GN R 985, 2014 (as amended)):	
Activity 4	The development of a road wider than 4 metres with a reserve less than 13,5 metres.
Activity 10	The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.
Activity 12	The clearance of an area of 300 square metres or more of indigenous vegetation
Activity 14	The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— a) within a watercourse; c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —
Activity 18	The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.

The application for environmental authorisations in terms of NEMA will be submitted to the Limpopo Province's Department of Mineral Resources and Energy (DMRE), the Competent Authority for consideration.

The Scoping and Environmental Impact Assessment (S&EIA) process to be undertaken as part of the authorisation process is illustrated in Figure 2.

4.2 Water Use Licence Application

In terms of Section 21 of NWA the following water uses are required for the proposed projects:

- Section 21(a) of the Act: Taking water from a water resource
- Section 21(b) of the Act: Storing of water
- Section 21(c) of the Act: Impeding or diverting the flow of water in a watercourse;
- Section 21(e) of the Act: Engaging in a controlled activity; irrigation of any land with waste or water containing waste
- Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource
- Section 21(i) of the Act: Altering the bed, banks, course or characteristic of a watercourse
- Section 21(j) of the Act: 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

The application for WULA in terms of NWA will be submitted to the Department of Water and Sanitation (DWS), the Competent Authority for consideration.

The WULA process to be undertaken as part of the authorisation process is illustrated in Figure 2.

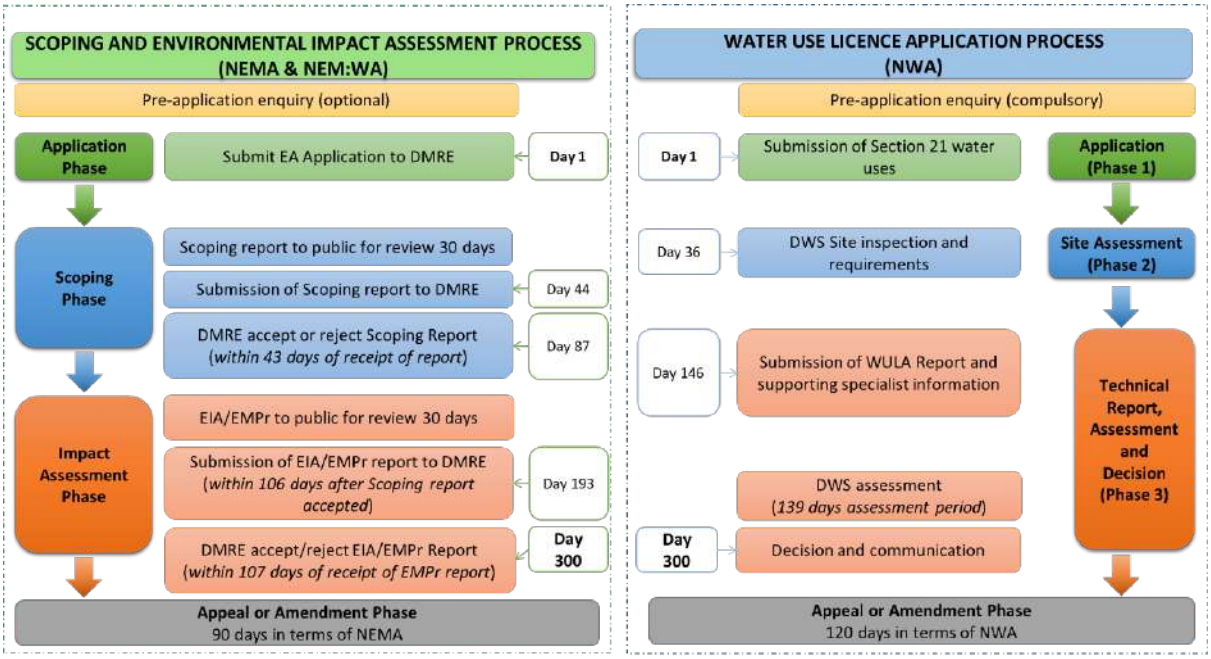

Figure 2: Illustration of the S&EIA and WULA Processes

5. Public Participation Process

SRK will undertake the environmental authorisation process in accordance with the requirements of Chapter 6 of the NEMA EIA Regulations, as amended.

As an important part of the environmental authorisation process, SRK will undertake a public participation process to engage I&APs to share information about the proposed project and process, and to provide them an opportunity to comment.

The public participation process which will be conducted as part of the S&EIA process is summarised in Figure 3. During this process, I&APs will be identified, the project will be announced, and potential impacts of the proposed project will be identified and assessed.

Following the announcement of the project, the Draft Scoping Report (DSR) will be made available for public comment, for a period of 30 calendar days. The report will then be updated to incorporate comments from I&APs, and the Final Scoping Report (FSR) will be submitted to the DMRE, who will in consultation with other authorities at provincial and local levels, accept or reject the FSR. If the FSR is accepted, the Draft Environmental Impact Assessment Report (DEIAR) and Environmental Management Programme (EMPr) will be prepared and made available for public comment, for a period of 30 calendar days. The report will then be updated to incorporate comments from I&APs, and the Final Environmental Impact Assessment Report (FEIAR) and EMPr will be submitted to the DMRE, who will in consultation with other authorities at provincial and local levels, will decide on the outcome of the environmental authorisation.

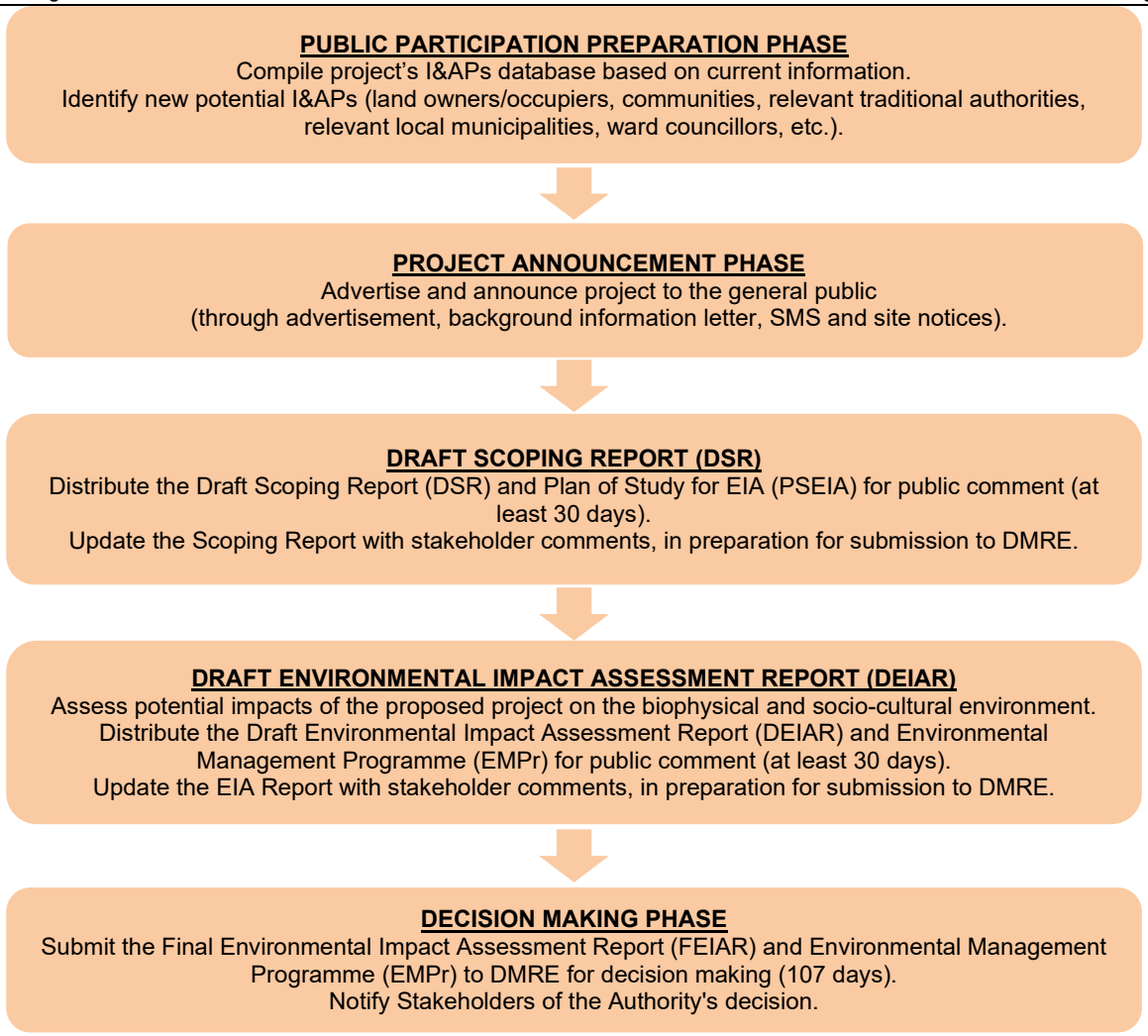

Figure 3: Scoping and Environmental Impact Assessment Process

5.1 Invitation to register as an I&AP

Please note that you must register as an I&AP to be kept informed of the project activities and further opportunities to comment on the project. More documents will become available during the S&EIA process. Your comments and suggestions on any aspect of the proposed project and authorisation process will ultimately assist the authorities to make an informed decision.

I&APs are encouraged to register and submit questions, comments and suggestions by completing the attached Registration and Comment Form and returning it to the SRK Public Participation Office (details below). Note that stakeholders will have further opportunity to comment on this project during the S&EIA Process.

Gaynor Nel at the SRK Consulting Public Participation Office, P O Box 55291 Northlands, 2116, Tel: +27 11 441 1203 Email: ganel@srk.co.za, Fax 086 296 6617

6. Next steps in the Environmental Authorisation process

Following this announcement of the proposed integrated S&EIA process, the Draft Scoping Report (DSR) will be made available for public comment during 22 May to 21 June 2023. During this time, registered I&APs will be informed of the availability of the report, will be invited to attend a public meeting/open house, and will be provided an opportunity to engage with the social performance, environmental and project teams to discuss the contents of the DSR and raise comments and concerns regarding the proposed project.

We look forward to your participation in this process.

Yours faithfully,

SRK Consulting (South Africa) (Pty) Ltd

Natasha Moodley
Project Environmental Assessment Practitioner

Registration and Comment Form

Scoping and Environmental Impact Assessment process for capital projects and supporting infrastructure at the Amandelbult Mine Complex, Limpopo Province, South Africa. **May 2023**	**Gaynor Nel at the SRK Consulting Public Participation Office, P O Box 55291 Northlands, 2116, Tel: +27 11 441 1203, Email: ganel.srk.co.za, Fax 086 269 6617**

To formally register as an I&AP please complete and return to Gaynor Nel (as above)

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

COMMENTS (please use separate sheets if you wish)

THANK YOU FOR YOUR CONTRIBUTION

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

By registering as an Interested and Affected Party, you consent to SRK processing your personal data on behalf of Anglo American for the purposes of obtaining feedback for the environmental authorisation process and to provide you with relevant information about it. Your information may be shared with selected third parties for these purposes only. Please see our Stakeholder Privacy Policy (https://www.angloamerican.com/site-services/privacy-policy/stakeholders) for more information

KITSISO YA TIRO YA GO TSAYA KAROLO GA MORAFE MO GO TSAMAISANANG LE TIRO YA TSHEKATSHEKO YA KAMEGO YA TIKOLOGO, KOPO YA LAESESE TIRISO YA METSI LE KAROLO YA 102 YA PHETOLO YA TETLELELO YA GO EPA E E AMANANG LE POROJEKE YA BOKAMOSO JWA AMANDELBULT FUTURE OF AMANDELBULT [FOA]) E E KOPELWANG YA DIKAGO LE DITSELA TSE DIKGOLO LE TSE DI TSHEGETSANG KWA KHOMPOLEKESENG YA MOEPO WA AMANDELBULT, POROFENSE YA LIMPOPO

SRK PROJECT REF: *572200*

DMRE *REF. NO. LP 30/5/1/2/3/2/1(048)EM*
LP30/5/1/2/2/48 MR
DWS *REF. NO. WU27756*

TALETSO YA GO KWADISXA JAAKA MOTHO YO O NANG LE KGATLHEGO LE YO O AMEGANG LE GO TSHWAELA

Anglo American Platinum Rustenburg Platinum Mines (Pty) Ltd (RPM) – Amandelbult Mine Complex (AMB) e e kwa Kgaolong ya Mmakaseterata wa Thabazimbi, mo teng ga Mmasepala wa Selegae wa Thabazimbi le Mmasepala wa Kgaolo ya Waterberg ke e potlana e e leng ya Anglo American Platinum Limited (AAP). AMB e ka nna 15 km kwa bokone, bokone botlhaba jwa Northam le 30 km kwa borwa bophirima jwa Thabazimbi mo letlhakoreng la kwa bokone la Platinum Belt.

Jaaka karolo ya togomaano ya tiriso ya metšhine ya AMB go fetola go epa ka tsela ya bogologolo gore go epiwe ka metšhine ka 2032, boikaelelo jwa AAP ke go simolola porojeke mo ditirong tsotlhe tsa yone mo lefelong le AMB e e nang le tetlelelo ya go epa, tse di tlileng go nna diporojeke di le nné tse di farologaneng.

- Porojeke ya Middellaagte
- Porojeke ya Katoloso ya Tumela 15E
- Porojeke ya Shafote e Potlana ya Tumela 1
- Porojeke ya Tiriso ya Metšhine ya kwa Botlhaba jwa Dishaba

Ponokakaretso ya diporojeke tse di kwadilweng fa godimo e newa mo lenaneothalong le le fa tlase.

Setlhogo sa Porojeke	Porojeke ya Middellaagte Project	Porojeke ya Katoloso ya Tumela 15E	Porojeke ya Shafote e Potlana ya Tumela 1	Porojeke ya Tiriso ya Metšhine ya kwa Botlhaba jwa Dishaba
Tlhaloso ya porojeke	Porojeke ya Middellaagte ke ya mo lefelong le go sa dirwang sepe mo go lone mme le tlile go tlhoka gore go agiwe dikago tse disha mo go lone go kgona go tsena mo ditirong tse di kafa tlase ga lefatshe le go di tshegetsa	Porojeke ya Katoloso ya Tumela 15E ke 'katoloso' ya go ya kwa teng thata ya porojeke ya 15E e e yang kwa tlase mme e tsweledisa porojeke ya 15E ya Tiriso ya Metšhine go ya kwa Tlase. Porojeke eno thatatahata e tlile go tshegediwa ke dikago tsa Tumela 15E tse di ntseng di le teng ka babereki le matheriale. Lefa go ntse jalo, go tlile go tlhokiwa dikago le ditsela tse disha mo godimo ga lefatshe go tsenya mowa le go tshwara matlapa go thusa mabapi le koketsego ya merwalo ka ditone.	Porojeke eno ya Shafote e Potlana ya Tumela 1 ke ya tiro ya metšhine e e kwa tlase ga moepo o o tlwaelegileng. Porojeke eno e mo lefelong le le sa bolong go tlogelwa mme e dirisa dikago le ditsela tsa kwa Tumela 1 go tshegetsa tiro ya kafa tlase ga lefatshe. Go tla dirisiwa dikago le ditsela tsa go tsholetsa tsa mo Tumela go tsena mo lefelong la porojeke.	Tiriso ya Metšhine ya kwa Botlhaba jwa Dishaba (Dishaba East Mechanisation) e tlile go dirwa teng mo lefelong le le sa bolong go tlogelwa mme e tlile go akaretsa mafelo a a kileng a dirisiwa e le karolo ya porojeke ya mosima o o seng boteng ya Haakdoorndrift. Go tlile go batliwa dikago le ditsela tse dingwe tsa mo godimo ga lefatshe mo porojekeng eno e e kopelwang tse di tshwanang le diofisi le madirelo.
Dipolasi tse di amegang (dikarolo tse di farologaneng):	Elandskuil 378 KQ, Karolo 1 Middellaagte 382 KQ, Karolo 0 le 1	Middellaagte 382 KQ, Karolo 0 Amandelbult 383 KQ, Karolo 1	Elandsfontein 386 KQ, Karolo 0, 1 le 2 Schildpadnest 385 KQ, Karolo 0	Haakdoorndrift 374 KQ, Karolo 4

Mo godimo ga kopo ya diporojeke tse di umakiwang fa godimo, AMB gape e dumalane le Cronimet (Pty) Ltd go batla tshwanelo ya go epa mo Polasing ya Middellaagte KQ Karolo 1 ka boikaelelo jwa Porojeke ya Middellaagte. Ka baka la seno, Khompolekese ya AMB e batla go akaretsa kago eno mo tshwanelong ya go epa e e ntseng e le teng ya Khompolekese ya AMB, ka gone go tlhokega phetolo ya tetlelelo ya go epa ya Karolo 102 e le karolo ya tiro eno ya thebolelo ya tikologo.

Pele ga AAP e ka simolola diporojeke tseno, go tshwanetse ga batliwa thebolelo e e tlhokegang le dilaesense tse di newang ke Department of Mineral Resources and Energy (DMRE) le Department of Water and Sanitation (DWS). Ka baka la mofuta le bogolo jwa ditiro tse di kopelwang, tiro ka botlalo ya Tshekatsheko ya Kamego ya Tikologo (S&EIA) e tla dirwa e le karolo ya tiro e e kopaneng ya Thebolelo ya Tikologo, go bona thebolelo mo go DMRE mabapi le National Environmental Management Act (Act No. 107 ya 1998) (NEMA). Mo godimo ga moo, go tlile go batliwa Karolo ya 102 go ya ka Mineral and Petroleum Resources Development Act (Act No. 28 ya 2002) (MPRDA), ereka Porojeke ya Katoloso e tlile go batla gore moepo o fetole Thulaganyo ya Ditiro tsa Moepo tsa bone. Mo godimo ga seno, Karolo 102 ya MPRDA e tlile go batliwa go akaretsa tetlelelo ya moepo ya Karolo 1 ya Polasi ya Middellaagte KQ mo tetlelelong ya go epa ya AMB.

AAP le yone e tlile go tshwanela go dira tiro ya Kopo ya Laesense ya Tiriso ya Metsi (Water Use Licence Application [WULA]) e le gore e newe thebolelo ke DWS go ya ditiriso tsa metsi tse di ntseng di le teng le ditiriso tsa metsi tse di simolotsweng ke seno. WULA e tlile go dirwa go ya ka National Water Act (Act No. 36 wa 1998) (NWA).

Ditiro tse di kwadilweng le ditiriso tsa metsi tse di tlileng go simololwa ka baka la dikago le ditsela le ditiro tse di tsamaisanang le diporojeke tseno di sobokanngwa mo lenaneothalong le le fa tlase.

Ditiro tse di Kwadilweng tsa Tshekatsheko ya Kamego ya Tikologo (Environmental Impact Assessment [EIA]) ya NEMA tse di simololwang ke seno:	Tlriso ya metsi e e simololwang ke Kopo ya Laesense ya Tiriso ya Metsi (Water Use Licence Application [WULA])
Listing Notice 1 (GNR 983) • Tiro 9, 10, 11, 12, 14, 19, 21D, 24,25, 27, 64 **Listing Notice 2 (GNR 984)** • Tiro 4, 6, 7, 15 le 17 **Listing Notice 3 (GNR 985)** • Ditiro 4, 10, 12, 14 le 18	• Karolo 21(a) • Karolo 21(b) • Karolo 21(c) • Karolo 21(e) • Karolo 21(g) • Karolo 21(i) • Karolo 21(j)

Go itsisiwe fano gore boikaelelo jwa AAP ke go romela dikopo tsa thebolelo go ya ka NEMA le Melawana ya EIA ya 2014 (e e fetotsweng) e e amanang le yone le NWA.

SRK Consulting (Pty) Ltd (SRK) e tlhomilwe e le Banalekitso ba Tshekatsheko ya Tikologo (Environmental Assessment Practitioner [EAP]) ba ba ikemetseng ka nosi go tsamaisa tiro ya botlhokwa ya thebolelo ya tikologo, go dira ditiro tsa bolaodi tse di batliwang tsa go tsaya karolo ga morafe le go baakanya ditokumente se di maleba tsa porojeke eno.

Lekwalo la Tshedimosetso ya Tlhalso (Background Information Letter [BIL]) le le nang le dintlha tse ka botlalo tsa diporojeke le ka bonwa mo webosaeteng ya SRK (https://www.srk.com/en/public-documents/amandelbult-mine-complex-limpopo-south-africa) le kwa mafelong a a latelang a batho botlhe:

- Thabazimbi e e gaufi Rrateropo;
- Thabazimbi Rrateropo ditlhabololo tsa morafe Hall;
- Smashblock ditlhabololo tsa morafe;
- Amandelbult Complex Tumela Entrance;
- Amandelbult Social Performance Office;
- Jabulani ditlhabololo tsa morafe;
- Moses Kotane Rrateropo;
- Mantserre Traditional Authority (TA) offices;
- Bakgatla Ba Kgafela (BBK) Sifikile village TA offices;
- Ramokoka TA offices

Batho ba ba nang le kgatlhego le ba ba amegang (bo-I&AP) ba lalediwa go ikwadisa le go romelwa ditshwaelo tsa dipe kgotsa dingongoreto kwa go:

SRK Consulting
Tlhokomela: Gaynor Nel, Public Participation Office, **P.O. Box** 55291, Northlands, 2116,
Mog: (011) 441 1111 (Switchboard) / (011) 441 1203 (Ka tlhamalalo); **Fekese**: 086 296 6617 / **Imeile**: ganel@srk.co.za

Ka go ikwadisa jaaka Motho yo o Nang le Kgatlhego le yo o Amegang, o dumelela gore SRK e dirise tshedimosetso kaga gago mo boemong jwa Anglo American ka boikaelelo jwa go tsaya pegelo ya tiro ya thebolelo ya tikologo le go go naya tshedimosetso e e maleba ka yone. Tshedimosetso e ka nna ya abelanwa le batho ba ba tlhophilweng ka one maikaelelo ano fela. Tsweetswee bona Pholisi ya Polokodiphiri ya Banalesabe (https://www.angloamerican.com/site-services/privacy-policy/stakeholders) go bona tshedimosetsoe nngwe gape

TLHOKOMEDISO: *Go ka ya tiro ya WULA, bo-I&AP ba itsisiwa fano gore fa lo ka batla go romelwa ditshwaelo tse di kwadilweng kgotsa go sa dumalane le porojeke e e kopelwang le ditiriso tsa metsi tse di amanang le yone lo na le malatsi a le 60 a go dira jalo. Tsweetswee romela* ***ditshwaelo/go sa dumalane*** *moo* ***kwa go SRK ka 21 Seetebosigo 2023*** *kwa tshedimosetsong e e newang fa godimo.*

NOTICE OF PUBLIC PARTICIPATION PROCESS ASSOCIATED WITH A SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS, WATER USE LICENCE APPLICATION AND SECTION 102 MINING RIGHT AMENDMENT RELATING TO THE PROPOSED FUTURE OF AMANDELBULT (FOA) CAPITAL AND SUPPORTING INFRASTRUCTURE PROJECT AT THE AMANDELBULT MINE COMPLEX, LIMPOPO PROVINCE

SRK PROJECT REF: *572200*

DMRE *REF. NO. LP 30/5/1/2/3/2/1(048)EM*
LP30/5/1/2/2/48 MR
DWS *REF. NO. WU27756*

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY & COMMENT

Anglo American Platinum Rustenburg Platinum Mines (Pty) Ltd (RPM) – Amandelbult Mine Complex (AMB) situated in the Thabazimbi Magisterial District, within the Thabazimbi Local Municipality and Waterberg District Municipality is a wholly owned subsidiary of Anglo American Platinum Limited (AAP). AMB is approximately 15 km north, north east of Northam and 30 km south west of Thabazimbi on the northern limb of the Platinum Belt.

As part of the AMB mechanisation strategy to transform from conventional to mechanised mining by 2032, AAP intends to commence with a project across its operations in the AMB mining right area, which will consist of four individual projects:

- Middellaagte Project
- Tumela 15E Extension Project
- Tumela 1 Sub Shaft Project
- Dishaba East Mechanisation Project

An overview of the above projects is provided in the table below.

Project Title:	**Middellaagte Project**	**Tumela 15E Extension Project**	**Tumela 1 Sub Shaft Project**	**Dishaba East Mechanisation Project**
Project description	The Middellaagte Project is a greenfield project and will require the implementation of new mining infrastructure to access and support underground operations.	The Tumela 15E Extension Project is a deeper 'extension' of the existing 15E dropdown mining project and continues the 15E Mechanisation Dropdown project. The project will primarily be supported by the existing Tumela 15E infrastructure for personnel and material. However, new surface infrastructure will be required for ventilation and rock handling to support the increase in tonnages.	The Tumela 1 Sub Shaft Project is a mechanised operation below the current conventional mine. The project is brownfields and will leverage the existing mining infrastructure at Tumela 1 to support the underground operation. The current Tumela hoisting infrastructure will be used to access the project area.	The Dishaba East Mechanisation will take place is a brownfields area and will include the areas previously used as part of the Haakdoorndrift open pit project. Additional surface mining infrastructure will be required for the proposed project such as offices and workshops.
Affected farms (various portions):	Elandskuil 378 KQ, Portion 1 Middellaagte 382 KQ, Portions 0 and 1	Middellaagte 382 KQ, Portion 0 Amandelbult 383 KQ, Portion 1	Elandsfontein 386 KQ, Portions 0, 1 and 2 Schildpadnest 385 KQ, Portion 0	Haakdoorndrift 374 KQ, Portion 4

In addition to the application of the abovementioned projects, AMB has also agreed with Cronimet (Pty) Ltd to acquire a portion of their mining right over the Farm Middellaagte KQ Portion 1 for the purposes of the Middellaagte Project. Due to this, the AMB Complex would like to include this property into the existing AMB Complex mining right, thus a Section 102 mining right amendment is required as part of this environmental authorisation process.

Before AAP can commence with the projects, the necessary authorisation and licences from the Department of Mineral Resources and Energy (DMRE) and the Department of Water and Sanitation (DWS) need to be obtained. Due to the nature and extent of the proposed activities, a full Scoping and Environmental Impact Assessment (S&EIA) process will be undertaken as part of an integrated Environmental Authorisation process, to obtain authorisation from the DMRE in respect of the National Environmental Management Act (Act No. 107 of 1998) (NEMA). Furthermore, a Section 102 application in terms of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA), will be required since the Expansion Project will require the mine to amend their Mine Works Programme. In addition to this, a Section 102 of the MPRDA will be required to include the mining right for Farm Middellaagte KQ Portion 1 into the existing AMB mining right.

AAP will also need to undertake a Water Use Licence Application (WULA) process in order to obtain authorisation from DWS in respect of the existing water uses and water uses that are triggered by this project. The WULA will be undertaken in accordance with the National Water Act (Act No. 36 of 1998) (NWA).

The listed activities and water uses that will be triggered as a result of the infrastructure and activities associated with the projects are summarised in the table below.

NEMA Environmental Impact Assessment (EIA) Listed Activities triggered:	**Water Use Licence Application (WULA) water uses triggered**
Listing Notice 1 (GNR 983) • Activity 9, 10, 11, 12, 14, 19, 21D, 24, 25, 27, 64 **Listing Notice 2 (GNR 984)** • Activity 4, 6, 7, 15 and 17 **Listing Notice 3 (GNR 985)** • Activities 4, 10, 12, 14 and 18	• Section 21(a) • Section 21(b) • Section 21(c) • Section 21(e) • Section 21(g) • Section 21(i) • Section 21(j)

Notice is hereby given of AAP's intent to submit applications for authorisations in terms of the NEMA and its associated EIA Regulations of 2014 (as amended) and the NWA.

SRK Consulting (Pty) Ltd (SRK) has been appointed as the Independent Environmental Assessment Practitioner (EAP) to conduct the necessary environmental authorisation process, undertake the regulatory required public participation processes and prepare the relevant project documentation.

A Background Information Letter (BIL) containing more detail on the projects is available on the SRK website (https://www.srk.com/en/public-documents/amandelbult-mine-complex-limpopo-south-africa) and at the following public places:

- Thabazimbi Local Municipality;
- Thabazimbi Municipality Community Hall;
- Smashblock Community;
- Amandelbult Complex Tumela Entrance;
- Amandelbult Social Performance Office;
- Jabulani Community;
- Moses Kotane Municipality;
- Mantserre Traditional Authority (TA) offices;
- Bakgatla Ba Kgafela (BBK) Sifikile village TA offices;
- Ramokoka TA offices.

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

SRK Consulting
Attention: Gaynor Nel, Public Participation Office, **P.O. Box** 55291, Northlands, 2116,
Tel: (011) 441 1111 (Switchboard) / (011) 441 1203 (Direct); **Fax**: 086 296 6617 / **Email**: ganel@srk.co.za

By registering as an Interested and Affected Party, you consent to SRK processing your personal data on behalf of Anglo American for the purposes of obtaining feedback for the environmental authorisation process and to provide you with relevant information about it. Your information may be shared with selected third parties for these purposes only. Please see our Stakeholder Privacy Policy (https://www.angloamerican.com/site-services/privacy-policy/stakeholders) for more information

NOTE*: In terms of the WULA process, I&APS are hereby notified that should you wish to submit written comments or objections in respect of the proposed project and associated water uses you have 60 days to do so. Please submit such* ***comments/objections to SRK by 21 June 2023*** *at the details provided above.*

SRK House
265 Oxford Road
Illovo 2196
P O Box 55291
Northlands 2116
South Africa
T: +27 (0) 11 441 1111
F: +27 (0) 11 880 8086
E: johannesburg@srk.co.za
www.srk.co.za

Amandelbult Integrated EA and WULA Project

Minutes for the Meeting: DMRE Pre-application Meeting

Held: Virtual Microsoft Teams, 22 February 2023 at 11:00

Distribution:	Hazel Fiehn	HF	AAP
	Jacques Yssel	JY	AAP
	Saligh Cader	SC	AAP
	Ursula Marvey	UM	AAP
	Thivhulawi Kolani	TK	DMRE
	Michelle Miles	MM	SRK
For Information:	Franciska Lake	FL	SRK
	Kavandren Moodley	KM	SRK

1 Introduction and welcome

The meeting commenced with a welcome by **MM.** Those present on the call introduced themselves. **MM** thanked **TK** for attending the meeting and for his time.

MM outlined that the purpose of this meeting was to introduce the project to the DMRE and get clarity on some aspects associated with the proposed project.

2 Confirmation of agenda

The agenda for the meeting was presented by **MM**.

3 Overview of the proposed project

MM outlined that the Amandelbult Complex (AMB) is embarking on two environmental authorisation processes, namely a Basic Assessment process and a Scoping and Environmental Impact Assessment (S&EIA) Process.

- A BA process for Stay In Business (SIB) infrastructure: Various supporting infrastructure has been combined into one BA process (Final Basic Assessment Report has been submitted to DMRE for decision, regulated timeframe for decision is March 2023)
- A S&EIA process for capital projects: Multiple operational infrastructure will be combined into one S&EIA process (this process will be discussed in this meeting)

MM outlined the four major capital projects as well as the mining right amendment which will form part of the S&EIA process. The context of the four capital projects and locations were presented at the meetings.

In addition to this, MM indicated the environmental authorisation (NEMA and NWA) process as well as the activities which triggered the relevant environmental authorisations associated with the capital projects.

4 Listed activities query

MM indicated that guidance from the DMRE was required on the following aspects.

Storage of Dangerous Goods
MM indicated that the approach for this S&EIA process would like to take would be to apply for the storage of dangerous goods individually for each of the four capital projects, integrated into this one application, instead of property. **TK** indicated this was acceptable and he agreed with the approach.

Clearance of Indigenous Vegetation
MM indicated that the preferred approach was to apply for clearance of vegetation per individual capital project instead of individual surface infrastructure. **TK** indicated that this was acceptable and he agreed with the approach.

Mining Right Amendment
MM explained AAP has acquired the mining right for portion 1 of the farm Middellaagte 382 KQ. AMB would like to include this mining right into the existing AMB Mining Right. A Section 102 Application has been submitted to the DMRE for the inclusion of the mining right. **MM** requested confirmation that the amendment of the mining right could be included in this environmental authorisation process. **TK** indicated that this was possible and must be done.

Change to the Mine Work Programme
MM indicated that due to the change in the mine work programme a Section 102 was required, thus triggering Activity 21D of Listing Notice 1. **MM** asked whether Activity 21D must be applied for for the whole project or per individual capital project. **TK** indicated that Activity 21D can be applied for per individual capital project.

5 Specialist Studies

MM highlighted that the Department of Forestry, Fisheries and Environment (DFFE) screening tool was used to identify which specialist studies were required. Based on this a full suit of specialist studies were being undertaken for the project.

TK had no additional comments on the specialist studies.

6 Stakeholder Engagement

MM outlined that the NEMA requirements would be followed in terms of the public participation process. Public meetings/ open days will be undertaken for both the S&EIA Phases.

MM enquired whether a public participation plan was still required. **TK** indicated this was no longer required.

In addition to this **MM** asked whether we need to send draft copies of the Scoping Report and the EIA Report to the commenting authorities. **TK** confirmed the DMRE no longer sends copies to the commenting authorities and the onus is now in the applicant/ EAP to do so.

HF enquired whether an electronic signature with verification was acceptable for the environment application form or whether a wet signature was required. **TK** indicated that an electronic signature would suffice for the application form.

7 Discussion and way forward

TK indicated that in terms of the EIA regulations, a full S&EIA application fee must be paid and not the amount of an EMPr amendment.

In addition to this, **TK** noted should any waste activities be required this will need to be assessed by the Department of Water and Sanitation (DWS). This was noted by the project team. **MM** also indicated that the Water Use Licence Application will be done in parallel with the S&EIA thus these two processes will be aligned.

TK also indicated that the DMRE does not need to review draft reports, however, three hard copies and one soft copy of each of the final reports must be submitted to the DMRE.

Minutes taken by: Michelle Miles

Appendix C: Screening Report

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

EIA Reference number: LP 30/5/1/2/3/2/1(048)EM

Project name: Future of Amandelbult (FOA)

Project title: Future of Amandelbult (FOA) Capital and Supporting Infrastructure Project

Date screening report generated: 22/03/2023 09:22:00

Applicant: Anglo American Platinum Limited

Compiler: SRK Consulting (Pty) Ltd

Compiler signature: .....

Application Category: Mining|Beneficiation|Mineral

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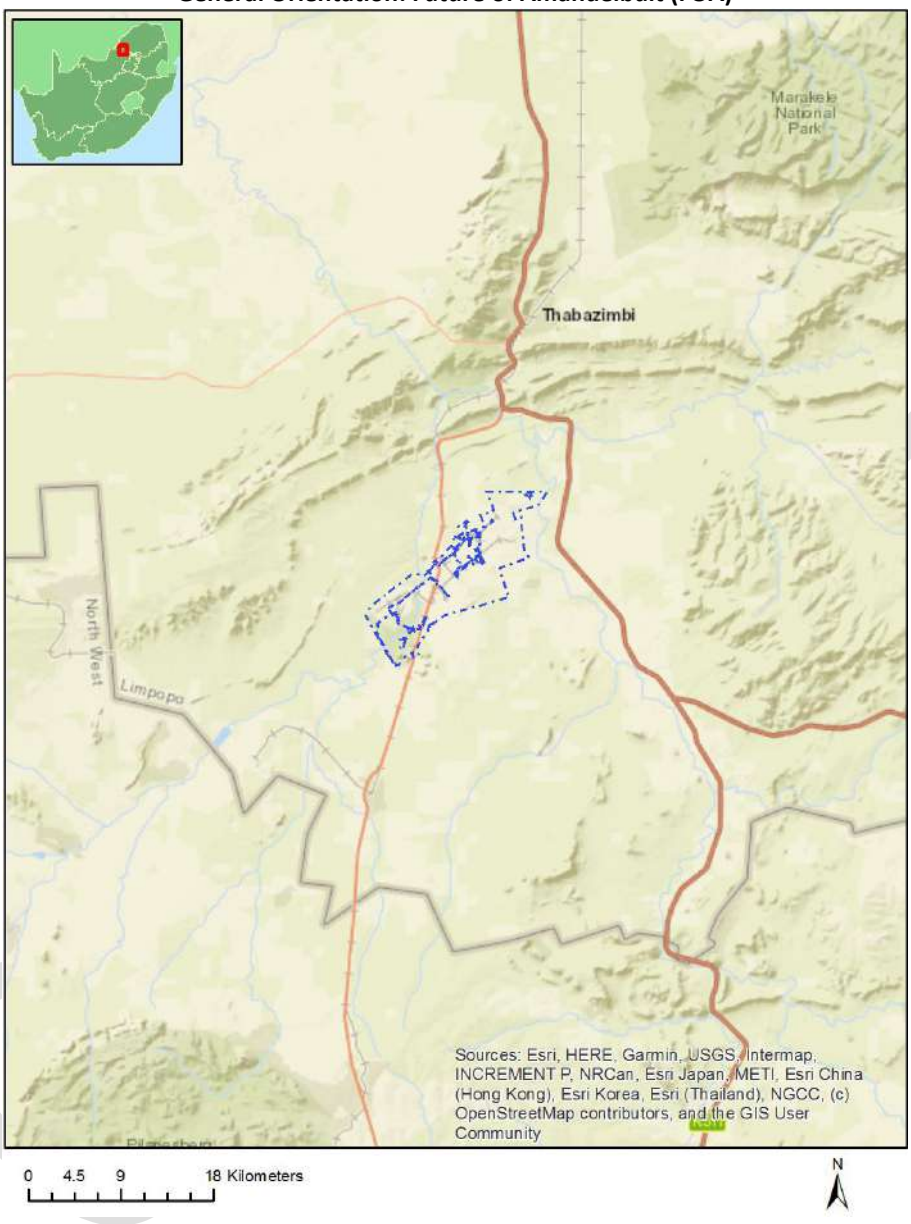
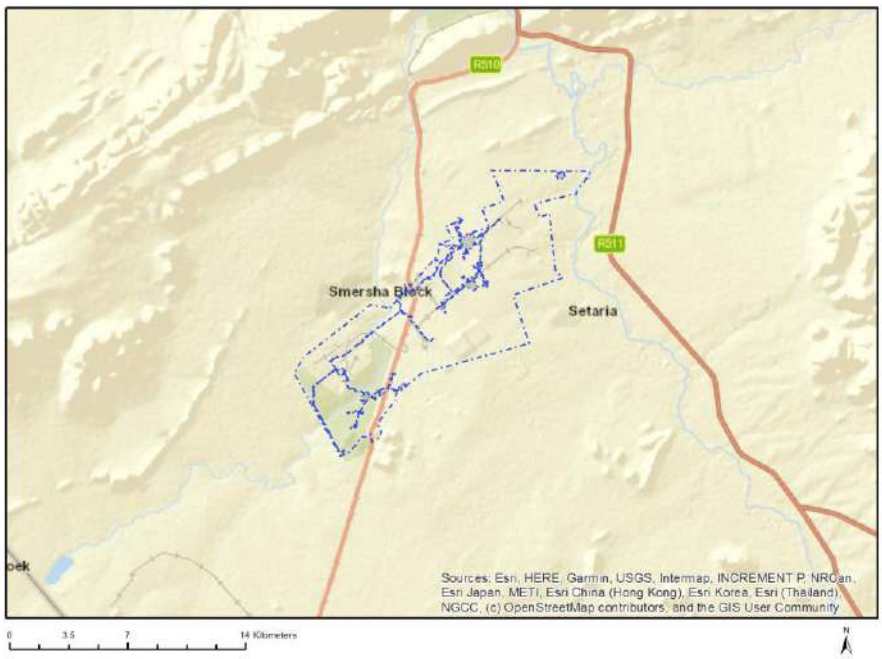
Proposed Project Location

Orientation map 1: General location

General Orientation: Future of Amandelbult (FOA)



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	MIDDELDRIFT	379	0	24°47'38.2S	27°24'20.95E	Farm
2	AMANDELBULT	383	0	24°48'10.1S	27°21'21.03E	Farm
3	ZONDEREINDE	384	0	24°49'55.1S	27°20'41.42E	Farm
4	LANGPAN	371	0	24°43'33.22S	27°21'12.83E	Farm
5	HAAKDOORNDRIFT	374	0	24°43'10.01S	27°24'41.12E	Farm
6	ELANDSKUIL	378	0	24°45'19.14S	27°23'25.9E	Farm
7	MIDDELLAAGTE	382	0	24°46'12.27S	27°21'10.68E	Farm
8	MODDERGAT	389	0	24°51'9.66S	27°15'28.1E	Farm
9	SCHILDPADNEST	385	0	24°48'12.14S	27°18'3.43E	Farm
10	ZWARTKOP	369	0	24°46'2.54S	27°18'25.31E	Farm
11	VLAKPOORT	388	0	24°48'3.49S	27°14'29.97E	Farm
12	VRUGBAAR	387	0	24°49'2.42S	27°22'26.14E	Farm
13	ELANDSFONTEIN	386	0	24°50'10.94S	27°17'43.47E	Farm
14	HAAKDOORNDRIFT	374	4	24°43'45.35S	27°23'12.83E	Farm Portion
15	ELANDSKUIL	378	1	24°45'32.34S	27°22'56.15E	Farm Portion
16	AMANDELBULT	383	1	24°48'1.29S	27°20'45.97E	Farm Portion
17	ELANDSFONTEIN	386	0	24°50'22.65S	27°17'21.24E	Farm Portion
18	ZONDEREINDE	384	2	24°49'41.13S	27°21'17.47E	Farm Portion
19	SCHILDPADNEST	385	1	24°47'43.12S	27°16'51.43E	Farm Portion
20	ZWARTKOP	369	32	24°47'7.74S	27°19'29.21E	Farm Portion
21	ZWARTKOP	369	24	24°46'59.44S	27°19'41.78E	Farm Portion
22	HAAKDOORNDRIFT	374	2	24°43'6.62S	27°23'35.06E	Farm Portion
23	MIDDELLAAGTE	382	0	24°46'25.21S	27°21'11.85E	Farm Portion
24	MIDDELLAAGTE	382	1	24°45'2.25S	27°21'4.38E	Farm Portion
25	ZWARTKOP	369	17	24°47'4.94S	27°19'15.19E	Farm Portion
26	ZONDEREINDE	384	0	24°50'10.51S	27°20'1.65E	Farm Portion
27	HAAKDOORNDRIFT	374	3	24°44'1.41S	27°25'22.62E	Farm Portion

28	MIDDELDRIFT	379	3	24°48'14.67S	27°24'40.19E	Farm Portion
29	MIDDELDRIFT	379	5	24°46'46.07S	27°23'37.54E	Farm Portion
30	VLAKPOORT	388	1	24°48'24.45S	27°15'57.76E	Farm Portion
31	ELANDSKUIL	378	2	24°44'3.59S	27°23'59.13E	Farm Portion
32	ELANDSKUIL	378	3	24°44'26.68S	27°24'5.48E	Farm Portion
33	MODDERGAT	389	0	24°50'54.27S	27°15'59.02E	Farm Portion
34	ELANDSFONTEIN	386	1	24°49'34.93S	27°18'41.84E	Farm Portion
35	SCHILDPADNEST	385	2	24°48'27.85S	27°19'4.1E	Farm Portion
36	SCHILDPADNEST	385	0	24°48'20.62S	27°18'24.47E	Farm Portion
37	ZWARTKOP	369	30	24°46'55.83S	27°19'25.36E	Farm Portion
38	MIDDELDRIFT	379	0	24°47'10.14S	27°24'3.14E	Farm Portion
39	ZWARTKOP	369	28	24°47'10.72S	27°17'56.32E	Farm Portion
40	ZWARTKOP	369	33	24°46'38.83S	27°19'15.89E	Farm Portion
41	ZWARTKOP	369	18	24°46'0.82S	27°19'46.28E	Farm Portion
42	LANGPAN	371	0	24°43'33.22S	27°21'12.83E	Farm Portion
43	ELANDSKUIL	378	0	24°46'4.12S	27°24'16.18E	Farm Portion
44	VLAKPOORT	388	4	24°48'51.42S	27°14'55.63E	Farm Portion
45	ELANDSFONTEIN	386	2	24°49'55.17S	27°18'33.31E	Farm Portion
46	SCHILDPADNEST	385	0	24°48'28.2S	27°19'30.84E	Farm Portion
47	ZWARTKOP	369	26	24°46'44.56S	27°18'36.9E	Farm Portion
48	ZWARTKOP	369	31	24°46'25.53S	27°19'18.23E	Farm Portion
49	AMANDELBULT	383	0	24°48'17.14S	27°21'49.06E	Farm Portion
50	MIDDELDRIFT	379	4	24°48'0.22S	27°23'31.37E	Farm Portion
51	VRUGBAAR	387	0	24°49'1.05S	27°23'2.95E	Farm Portion

Development footprint[1] vertices:

Footprint	Latitude	Longitude
1	24°43'28.59S	27°24'14.1E
1	24°43'38.79S	27°24'16.59E
1	24°43'39.33S	27°24'16.44E
1	24°43'40.12S	27°24'13.5E
1	24°43'39.84S	27°24'13.35E
1	24°43'40.25S	27°24'11.92E
1	24°43'41.67S	27°24'12.67E
1	24°43'41.7S	27°24'12.71E
1	24°43'42.24S	27°24'12.72E
1	24°43'42.03S	27°24'12.22E
1	24°43'40.56S	27°24'11.43E
1	24°43'43.08S	27°24'2.72E
1	24°43'38.72S	27°24'2.51E
1	24°43'38.75S	27°24'2.28E
1	24°43'38.41S	27°24'1.96E
1	24°43'38.3S	27°24'2.11E
1	24°43'37.2S	27°24'1.32E
1	24°43'36.5S	27°24'2.44E
1	24°43'32.93S	27°23'59.5E
1	24°43'32.58S	27°23'59.81E
1	24°43'30.5S	27°24'7.46E
1	24°43'29.8S	27°24'7.19E
1	24°43'31.05S	27°24'2.54E
1	24°43'30.75S	27°24'2.42E
1	24°43'30.63S	27°24'2.69E

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

1	24°43'30.77S	27°24'2.81E
1	24°43'29.56S	27°24'7.48E
1	24°43'30.29S	27°24'7.72E
1	24°43'28.59S	27°24'14.1E
2	24°44'49.73S	27°20'54.29E
2	24°44'52.08S	27°20'57.63E
2	24°44'54.84S	27°20'55.96E
2	24°45'1.73S	27°20'51.91E
2	24°45'7.23S	27°20'50.64E
2	24°45'16.77S	27°20'54.86E
2	24°45'24.05S	27°20'57.67E
2	24°45'23.34S	27°20'58.91E
2	24°45'22.78S	27°21'1.79E
2	24°45'16.76S	27°21'19.01E
2	24°45'16.14S	27°21'21.09E
2	24°45'15.1S	27°21'23.84E
2	24°45'16.31S	27°21'24.11E
2	24°45'21.95S	27°21'23.54E
2	24°45'25.78S	27°21'25.95E
2	24°45'18.92S	27°21'33.83E
2	24°45'17.21S	27°21'35.93E
2	24°45'18.85S	27°21'36.78E
2	24°45'22.16S	27°21'33.13E
2	24°45'24.13S	27°21'30.69E
2	24°45'26.26S	27°21'27.56E
2	24°45'29.02S	27°21'24.25E
2	24°45'30.52S	27°21'23.95E
2	24°45'33S	27°21'22.96E
2	24°45'36.44S	27°21'21.53E
2	24°45'35.64S	27°21'24.06E
2	24°45'33.09S	27°21'31.13E
2	24°45'32.95S	27°21'31.25E
2	24°45'31.9S	27°21'33.59E
2	24°45'35.68S	27°21'33.55E
2	24°45'35.08S	27°21'32.24E
2	24°45'35.02S	27°21'32.18E
2	24°45'34.68S	27°21'30.65E
2	24°45'34.85S	27°21'29.01E
2	24°45'37.48S	27°21'22.11E
2	24°45'38S	27°21'21.11E
2	24°45'39.99S	27°21'21.75E
2	24°45'42.89S	27°21'15.27E
2	24°45'43.24S	27°21'13.46E
2	24°45'41.69S	27°21'12.48E
2	24°45'42.76S	27°21'10.06E
2	24°45'41.95S	27°21'9.41E
2	24°45'42.76S	27°21'7.95E
2	24°45'51.09S	27°21'10.73E
2	24°45'51.62S	27°21'9.28E
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2	24°46'42.67S	27°21'5.43E
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2	24°46'33.32S	27°21'13.51E

2	24°46'35.51S	27°21'15.29E
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2	24°45'21.48S	27°21'35.29E
2	24°45'17.87S	27°21'37.97E
2	24°44'56.75S	27°22'4.54E
2	24°44'47.75S	27°22'15.29E
2	24°44'50.1S	27°22'16.06E
2	24°45'12.34S	27°21'47.01E
2	24°45'18.22S	27°21'39.9E
2	24°45'22.31S	27°21'37.2E
2	24°45'35.38S	27°21'36.74E
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2	24°46'51.88S	27°21'27.83E
2	24°46'56.19S	27°21'21.97E
2	24°46'56.54S	27°21'21.18E
2	24°46'54.61S	27°21'19.24E
2	24°46'53.58S	27°21'17.15E
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2	24°46'51.41S	27°21'12.54E
2	24°46'52.6S	27°21'10.74E
2	24°46'48.47S	27°21'6.8E
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2	24°47'19.44S	27°20'25.03E
2	24°47'17.82S	27°20'23.63E
2	24°46'40.37S	27°21'15E
2	24°46'38.98S	27°21'13.33E
2	24°47'1.22S	27°20'42.58E
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2	24°46'18.73S	27°20'17.57E
2	24°45'56.46S	27°20'38.78E
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2	24°45'42.75S	27°20'39.92E
2	24°45'41.27S	27°20'39.7E
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4	24°50'47.87S	27°16'34.49E
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4	24°49'10.89S	27°17'8.79E
4	24°49'9.27S	27°17'10.87E
4	24°49'9.71S	27°17'12.25E
4	24°49'11.91S	27°17'13.66E
4	24°49'12.93S	27°17'12.86E
4	24°49'15.36S	27°17'14.67E
4	24°49'16.78S	27°17'16.31E
4	24°49'17.63S	27°17'14.16E
4	24°49'17.9S	27°17'12.56E
4	24°49'14.01S	27°17'8.29E
4	24°49'14.29S	27°16'55.53E
4	24°49'42.88S	27°16'14.82E
4	24°50'13.18S	27°16'14.89E
4	24°51'36.68S	27°17'5.1E
4	24°51'33.71S	27°17'11.58E
5	24°49'35.23S	27°17'20.91E
5	24°49'32.76S	27°17'21.57E
5	24°49'30.58S	27°17'20.16E
5	24°49'29.58S	27°17'19.39E
5	24°49'28.65S	27°17'20.06E
5	24°49'22.83S	27°17'15.56E
5	24°49'21.89S	27°17'14.31E
5	24°49'22.31S	27°17'14.04E
5	24°49'21.64S	27°17'12.74E
5	24°49'25.25S	27°17'6.18E
5	24°48'58.38S	27°16'46.28E
5	24°48'50.26S	27°17'0.57E
5	24°48'51.37S	27°17'6.15E
5	24°48'39.26S	27°17'26.33E
5	24°48'30.52S	27°17'38.31E
5	24°48'24.57S	27°17'47.69E
5	24°48'22.9S	27°17'47.92E
5	24°48'19.07S	27°17'53.31E
5	24°48'18.08S	27°17'53.27E
5	24°48'14.6S	27°17'58.13E
5	24°48'14.98S	27°17'58.87E
5	24°48'11.2S	27°18'2.83E
5	24°48'10.46S	27°18'2.83E
5	24°48'9.72S	27°18'5.34E
5	24°48'8.92S	27°18'5.55E
5	24°48'0.56S	27°18'16.71E
5	24°48'0.79S	27°18'17.17E
5	24°47'59.61S	27°18'18.74E
5	24°47'59.99S	27°18'19.77E
5	24°47'56.22S	27°18'24.07E
5	24°47'52.67S	27°18'29.72E
5	24°47'51.24S	27°18'32.02E
5	24°47'49.81S	27°18'33.48E
5	24°47'48.46S	27°18'36.37E
5	24°47'33.23S	27°18'59.01E
5	24°47'32.74S	27°19'0.38E
5	24°47'30.81S	27°19'1.7E
5	24°47'31.5S	27°19'4.4E
5	24°47'33.47S	27°19'3.01E

5	24°47'40.8S	27°19'17.77E
5	24°47'40.33S	27°19'19.72E
5	24°47'41.57S	27°19'24.15E
5	24°47'50.05S	27°19'21.21E
5	24°47'52.26S	27°19'27.7E
5	24°48'24.02S	27°19'54.47E
5	24°48'23.19S	27°19'55.92E
5	24°48'24.2S	27°19'56.65E
5	24°48'18.96S	27°20'4.57E
5	24°48'20.64S	27°20'5.93E
5	24°48'21.1S	27°20'5.47E
5	24°48'19.86S	27°20'4.16E
5	24°48'24.99S	27°19'56.42E
5	24°48'23.87S	27°19'55.68E
5	24°48'24.75S	27°19'54.5E
5	24°47'52.74S	27°19'27.35E
5	24°47'50.62S	27°19'20.96E
5	24°47'50.17S	27°19'20.6E
5	24°47'42.01S	27°19'23.35E
5	24°47'41.13S	27°19'19.34E
5	24°47'42.19S	27°19'17.49E
5	24°47'33.71S	27°19'0.33E
5	24°47'49.22S	27°18'36.54E
5	24°47'50.37S	27°18'33.67E
5	24°47'52.03S	27°18'32.43E
5	24°47'57.04S	27°18'24.47E
5	24°48'0.77S	27°18'19.9E
5	24°48'0.33S	27°18'18.93E
5	24°48'1.52S	27°18'17.18E
5	24°48'1.36S	27°18'16.83E
5	24°48'9.29S	27°18'6.07E
5	24°48'10.04S	27°18'5.96E
5	24°48'11.02S	27°18'3.57E
5	24°48'11.34S	27°18'3.6E
5	24°48'15.88S	27°17'59.21E
5	24°48'15.43S	27°17'58.27E
5	24°48'18.65S	27°17'54.09E
5	24°48'19.78S	27°17'54.04E
5	24°48'23.41S	27°17'48.74E
5	24°48'25.09S	27°17'48.61E
5	24°48'31.12S	27°17'38.94E
5	24°48'40.34S	27°17'26.32E
5	24°48'52.28S	27°17'6.46E
5	24°48'51.1S	27°17'0.55E
5	24°48'58.79S	27°16'47.81E
5	24°49'7.75S	27°16'54.43E
5	24°49'24.59S	27°17'6.32E
5	24°49'20.69S	27°17'12.65E
5	24°49'21.56S	27°17'13.44E
5	24°49'20.95S	27°17'14.26E
5	24°49'22.19S	27°17'15.97E
5	24°49'26.58S	27°17'19.57E
5	24°49'32.17S	27°17'23.78E
5	24°49'33.07S	27°17'22.74E
5	24°49'35.91S	27°17'22.13E
5	24°49'35.23S	27°17'20.91E
6	24°47'3.28S	27°20'30.24E
6	24°47'2.7S	27°20'31.04E
6	24°47'2.9S	27°20'31.45E
6	24°47'0.96S	27°20'34.02E

6	24°47'0.36S	27°20'33.74E
6	24°46'59.89S	27°20'34.59E
6	24°47'0.82S	27°20'35.34E
6	24°47'1.61S	27°20'33.98E
6	24°47'3.18S	27°20'31.86E
6	24°47'3.64S	27°20'31.64E
6	24°47'3.64S	27°20'31.63E
6	24°47'4.19S	27°20'30.94E
6	24°47'4.42S	27°20'30.54E
6	24°47'4.66S	27°20'30.13E
6	24°47'4.65S	27°20'29.87E
6	24°47'4.68S	27°20'29.73E
6	24°47'4.43S	27°20'29.5E
6	24°47'4.28S	27°20'29.58E
6	24°47'4.07S	27°20'29.46E
6	24°47'3.88S	27°20'29.48E
6	24°47'3.28S	27°20'30.24E
7	24°47'17.77S	27°20'17.18E
7	24°47'13.57S	27°20'23.75E
7	24°47'16.26S	27°20'25.85E
7	24°47'20.01S	27°20'20.88E
7	24°47'20.48S	27°20'21.38E
7	24°47'20.35S	27°20'21.65E
7	24°47'20.59S	27°20'21.89E
7	24°47'21.02S	27°20'21.42E
7	24°47'22.22S	27°20'21.25E
7	24°47'19.92S	27°20'24.17E
7	24°47'18.48S	27°20'25.96E
7	24°47'19.46S	27°20'27.17E
7	24°47'21.46S	27°20'29.64E
7	24°47'29.19S	27°20'22.57E
7	24°47'33.9S	27°20'27.93E
7	24°47'36.6S	27°20'26.91E
7	24°47'36.37S	27°20'26.25E
7	24°47'33.97S	27°20'27.47E
7	24°47'29.42S	27°20'21.65E
7	24°47'28.38S	27°20'18.64E
7	24°47'29.26S	27°20'13.04E
7	24°47'27.27S	27°20'11.61E
7	24°47'21.2S	27°20'19.87E
7	24°47'20.98S	27°20'19.58E
7	24°47'17.77S	27°20'17.18E
8	24°49'53.45S	27°17'51.52E
8	24°49'47.29S	27°17'23.47E
8	24°49'38.69S	27°17'16.31E
8	24°49'31.53S	27°17'10.72E
8	24°49'31.42S	27°17'14.95E
8	24°49'29.52S	27°17'18.81E
8	24°49'37.05S	27°17'18.64E
8	24°49'38.13S	27°17'19.27E
8	24°49'38.98S	27°17'18.28E
8	24°49'46.47S	27°17'24.46E
8	24°49'52.52S	27°17'51.9E
8	24°49'54.45S	27°17'59.81E
8	24°49'56.72S	27°17'59.52E
8	24°49'57.28S	27°18'2.28E
8	24°49'56.12S	27°18'2.75E
8	24°49'55.85S	27°18'2.94E
8	24°49'56.42S	27°18'4.45E
8	24°49'57.52S	27°18'3.79E

8	24°49'59.71S	27°18'7.52E
8	24°49'50.73S	27°18'17.08E
8	24°49'52.62S	27°18'19.42E
8	24°49'52.12S	27°18'22.51E
8	24°49'48.74S	27°18'21.43E
8	24°49'44.25S	27°18'34.14E
8	24°49'45.14S	27°18'37.91E
8	24°49'21.37S	27°18'45.3E
8	24°49'20.64S	27°18'47.73E
8	24°49'20.81S	27°18'51.12E
8	24°49'23.53S	27°18'51.12E
8	24°49'23.64S	27°18'46.31E
8	24°49'45.37S	27°18'39.53E
8	24°49'50.16S	27°18'53.84E
8	24°49'41.98S	27°19'0.61E
8	24°49'39.75S	27°19'1.87E
8	24°49'38.97S	27°19'5.54E
8	24°49'38.52S	27°19'10.98E
8	24°49'42.59S	27°19'10.49E
8	24°49'42.63S	27°19'6.81E
8	24°49'45.38S	27°19'6.57E
8	24°49'45.58S	27°19'2.71E
8	24°49'43.56S	27°19'1.68E
8	24°49'51.36S	27°18'53.95E
8	24°49'45.34S	27°18'34.47E
8	24°49'49.32S	27°18'22.35E
8	24°49'49.36S	27°18'22.38E
8	24°49'50.11S	27°18'24.54E
8	24°49'51.82S	27°18'26.3E
8	24°49'52S	27°18'29.56E
8	24°49'58.28S	27°18'29.79E
8	24°49'58.71S	27°18'20.51E
8	24°49'55.04S	27°18'20.66E
8	24°49'51.69S	27°18'17.07E
8	24°50'1.44S	27°18'7.23E
8	24°50'3.17S	27°18'10.48E
8	24°50'2.46S	27°18'10.81E
8	24°50'2.53S	27°18'12.95E
8	24°50'5.93S	27°18'13.13E
8	24°50'6.06S	27°18'9.96E
8	24°50'3.84S	27°18'9.81E
8	24°50'2.04S	27°18'6.77E
8	24°50'9.66S	27°17'53.98E
8	24°50'25.54S	27°17'45.12E
8	24°50'25.61S	27°17'49.17E
8	24°50'29.32S	27°17'49.42E
8	24°50'29.21S	27°17'44.08E
8	24°50'31.52S	27°17'44.05E
8	24°50'31.31S	27°17'40.67E
8	24°50'55.6S	27°17'34.61E
8	24°50'56.04S	27°17'34.34E
8	24°50'55.89S	27°17'26.23E
8	24°50'51.29S	27°17'26.08E
8	24°50'51.05S	27°17'33.06E
8	24°50'54.18S	27°17'33.29E
8	24°50'54.18S	27°17'34.36E
8	24°50'28.57S	27°17'40.81E
8	24°50'28.61S	27°17'35.42E
8	24°50'28.96S	27°17'22.88E
8	24°50'29.55S	27°17'22.68E

8	24°50'29.55S	27°17'22.63E
8	24°50'30.13S	27°17'21.45E
8	24°50'29.55S	27°17'20.84E
8	24°50'28.79S	27°17'19.88E
8	24°50'28.29S	27°17'20.78E
8	24°50'27.89S	27°17'20.95E
8	24°50'27.73S	27°17'21.33E
8	24°50'28.11S	27°17'21.5E
8	24°50'28.31S	27°17'22.79E
8	24°50'28.62S	27°17'22.83E
8	24°50'28.28S	27°17'35.12E
8	24°50'27.85S	27°17'34.82E
8	24°50'26.69S	27°17'34.45E
8	24°50'25.2S	27°17'34.68E
8	24°50'24.69S	27°17'35.12E
8	24°50'24.18S	27°17'34.52E
8	24°50'23.65S	27°17'35.7E
8	24°50'23.99S	27°17'36.1E
8	24°50'24.61S	27°17'36.13E
8	24°50'24.58S	27°17'38.95E
8	24°50'25.15S	27°17'39.34E
8	24°50'26.01S	27°17'39.45E
8	24°50'26.23S	27°17'40.15E
8	24°50'26.23S	27°17'40.91E
8	24°50'26.89S	27°17'40.96E
8	24°50'26.94S	27°17'42.52E
8	24°50'26.92S	27°17'43.01E
8	24°50'17.4S	27°17'48.83E
8	24°50'9.24S	27°17'53.69E
8	24°50'8.72S	27°17'54.22E
8	24°50'8.3S	27°17'53.97E
8	24°50'7.78S	27°17'53.84E
8	24°50'7.1S	27°17'53.45E
8	24°50'6.24S	27°17'51.49E
8	24°50'9.08S	27°17'49.75E
8	24°50'6.35S	27°17'43.48E
8	24°50'3.33S	27°17'45.18E
8	24°50'0.04S	27°17'46.66E
8	24°49'59.23S	27°17'47.34E
8	24°49'58.29S	27°17'47.64E
8	24°49'57.02S	27°17'48.45E
8	24°49'55.93S	27°17'48.61E
8	24°49'54.65S	27°17'49.21E
8	24°49'55.12S	27°17'50.76E
8	24°49'53.45S	27°17'51.52E
9	24°46'39.08S	27°21'47.85E
9	24°46'42.34S	27°21'50.95E
9	24°46'45.96S	27°21'47.09E
9	24°46'49.22S	27°21'48.01E
9	24°46'51.83S	27°21'44.21E
9	24°46'50.41S	27°21'41.5E
9	24°46'47.69S	27°21'39.21E
9	24°46'44.29S	27°21'38.65E
9	24°46'41.81S	27°21'42.12E
9	24°46'42.34S	27°21'45.03E
9	24°46'39.08S	27°21'47.85E
10	24°46'29.62S	27°20'58.7E
10	24°46'29.52S	27°21'2.82E
10	24°46'33.86S	27°21'3.37E
10	24°46'33.67S	27°20'59.17E

10	24°46'29.62S	27°20'58.7E
11	24°46'17.52S	27°21'23.79E
11	24°46'11.88S	27°21'21.08E
11	24°46'9.43S	27°21'28.04E
11	24°46'6.13S	27°21'28.57E
11	24°46'4S	27°21'30.46E
11	24°46'5.42S	27°21'33.02E
11	24°46'7.96S	27°21'32.02E
11	24°46'10.02S	27°21'29.67E
11	24°46'13.46S	27°21'31.82E
11	24°46'15.51S	27°21'28.36E
11	24°46'17.52S	27°21'23.79E
12	24°45'57.23S	27°21'2.4E
12	24°45'57.01S	27°21'5.81E
12	24°46'0.8S	27°21'6.74E
12	24°46'1.13S	27°21'3.06E
12	24°45'57.23S	27°21'2.4E
13	24°45'46.58S	27°21'1.77E
13	24°45'46.82S	27°21'6.44E
13	24°45'52.22S	27°21'6.35E
13	24°45'51.66S	27°21'1.94E
13	24°45'46.58S	27°21'1.77E
14	24°46'0.69S	27°20'8.43E
14	24°46'0.73S	27°20'11.85E
14	24°46'4.39S	27°20'12.32E
14	24°46'4.19S	27°20'8.28E
14	24°46'0.69S	27°20'8.43E

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

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	14/12/16/3/3/1/969	Solar PV	Approved	18.9
2	14/12/16/3/1/969	Solar PV	Approved	18.9
3	12/12/20/2129	Solar PV	Approved	12

Environmental Management Frameworks relevant to the application

Environmental Management Framework	LINK
Waterberg District Municipality EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/WDEMF_Final_EMF_Report.pdf

Environmental screening results and assessment outcomes

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

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this footprint are indicated below.

Incentive, restriction or prohibition	Implication

Air Quality-Waterberg-Bojanala Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/gg39489_nn1207a.pdf

Proposed Development Area Environmental Sensitivity

The following summary of the development footprint environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

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

Specialist assessments identified

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

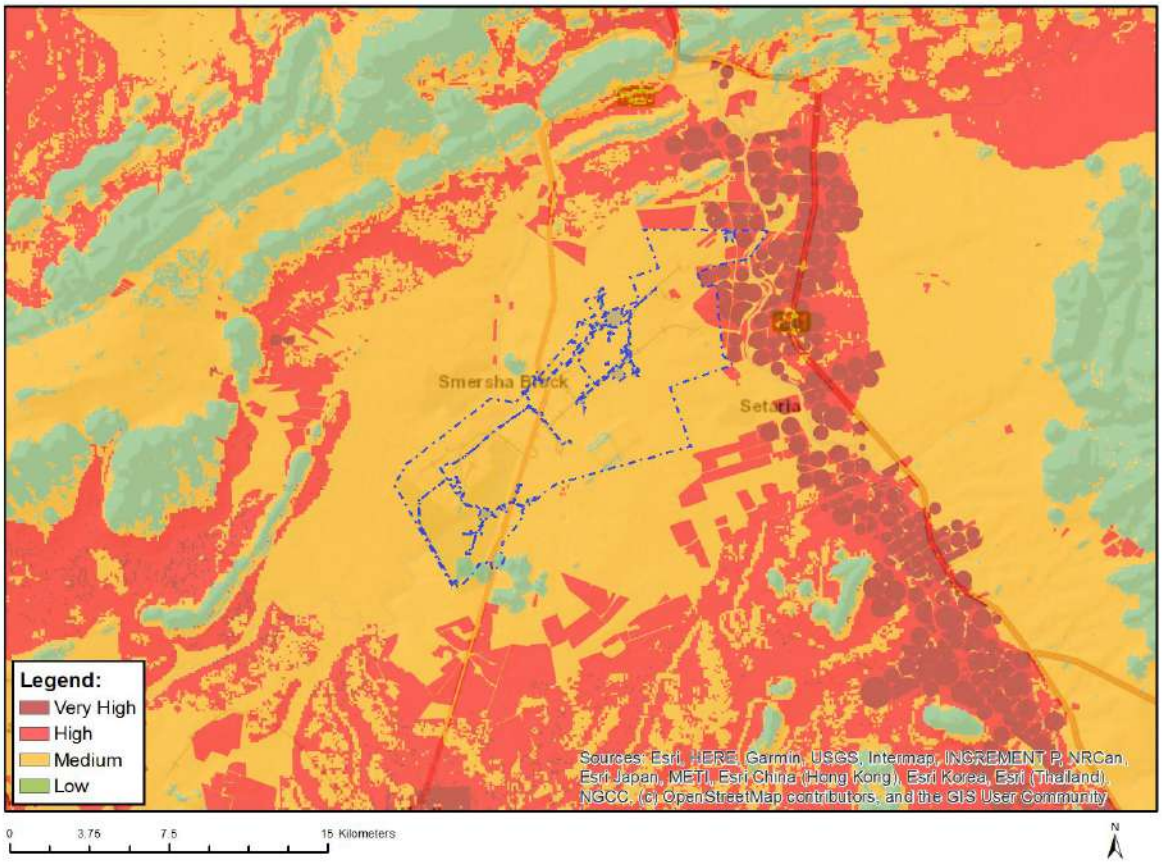
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requir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

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

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed footprint for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

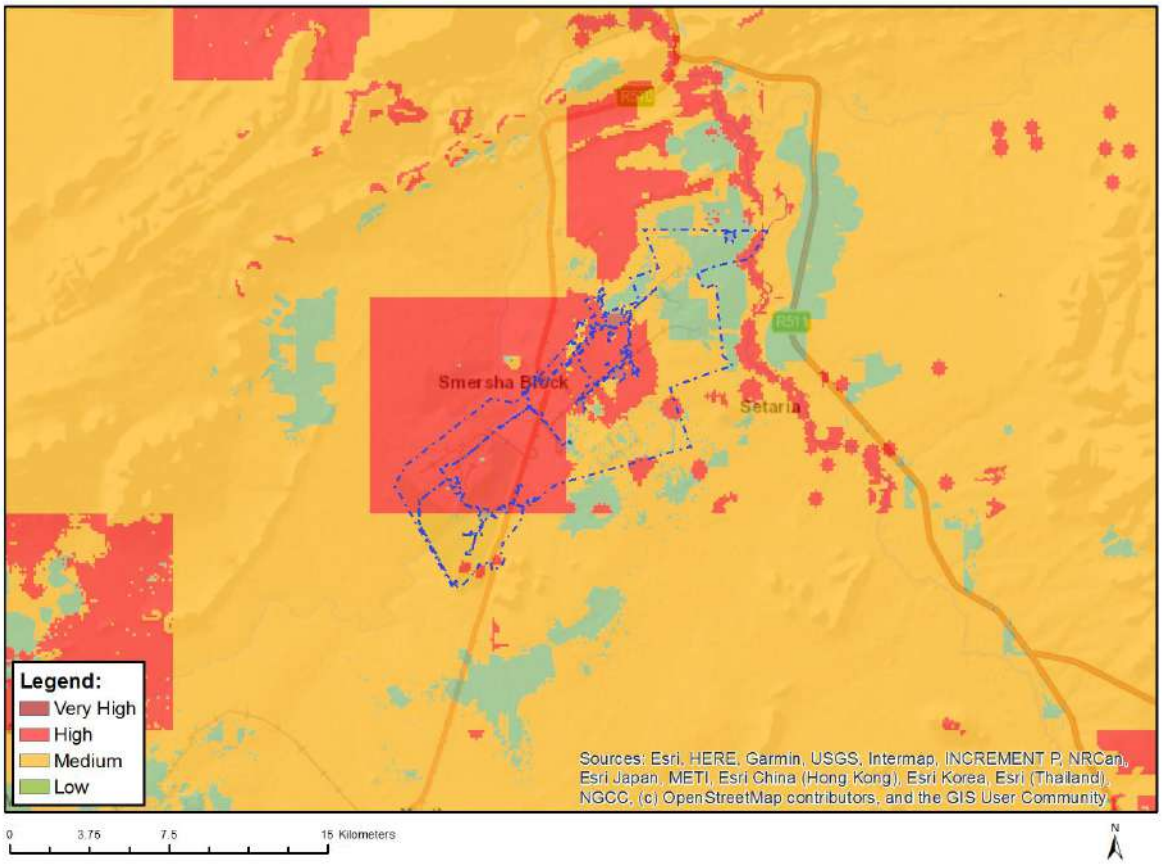


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



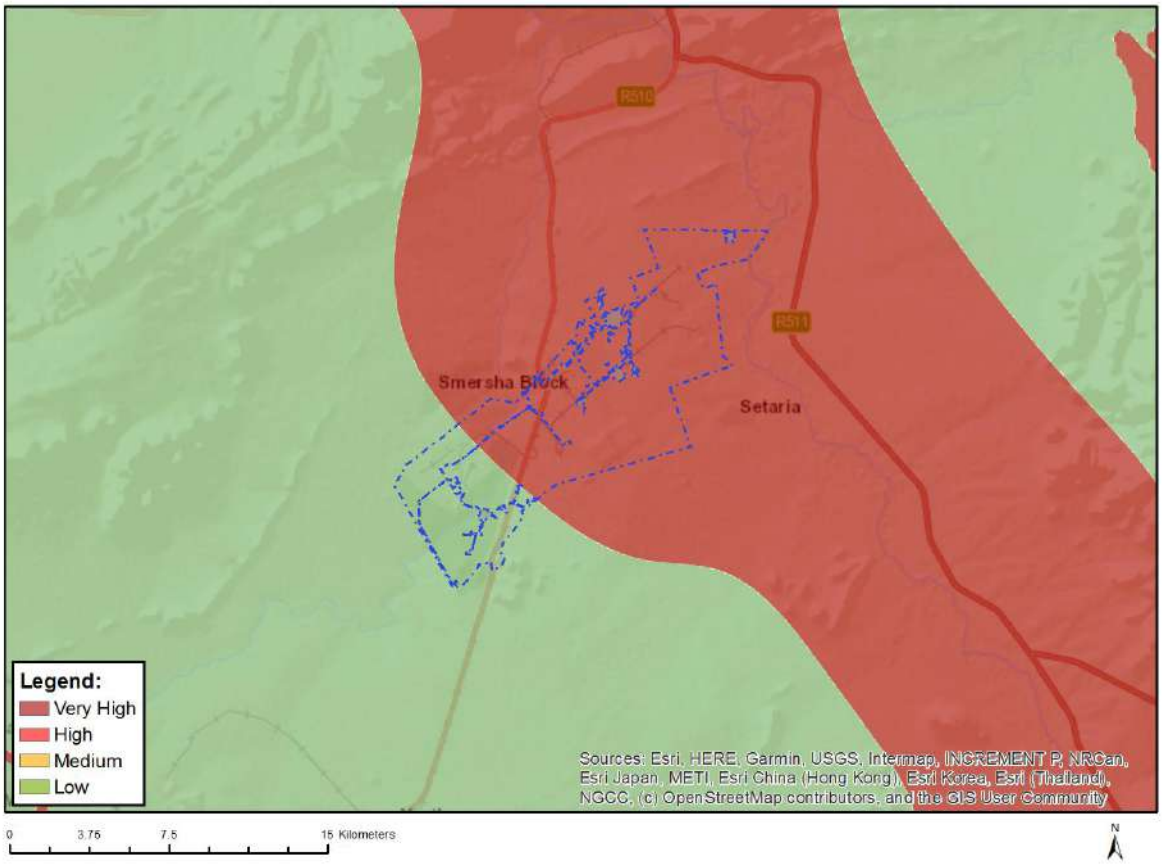
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Polemaetus bellicosus
High	Aves-Torgos tracheliotos
Low	Subject to confirmation
Medium	Aves-Aquila rapax
Medium	Aves-Podica senegalensis
Medium	Sensitive species 5

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

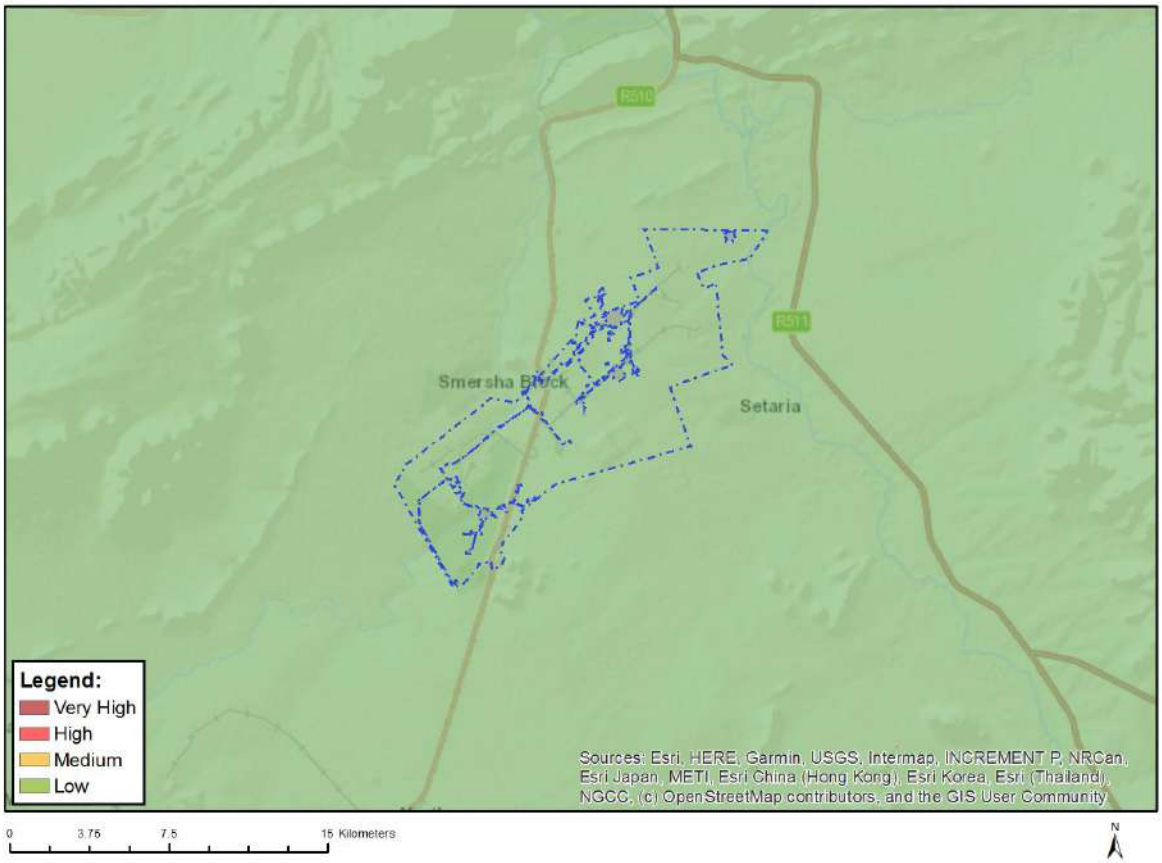


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

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

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

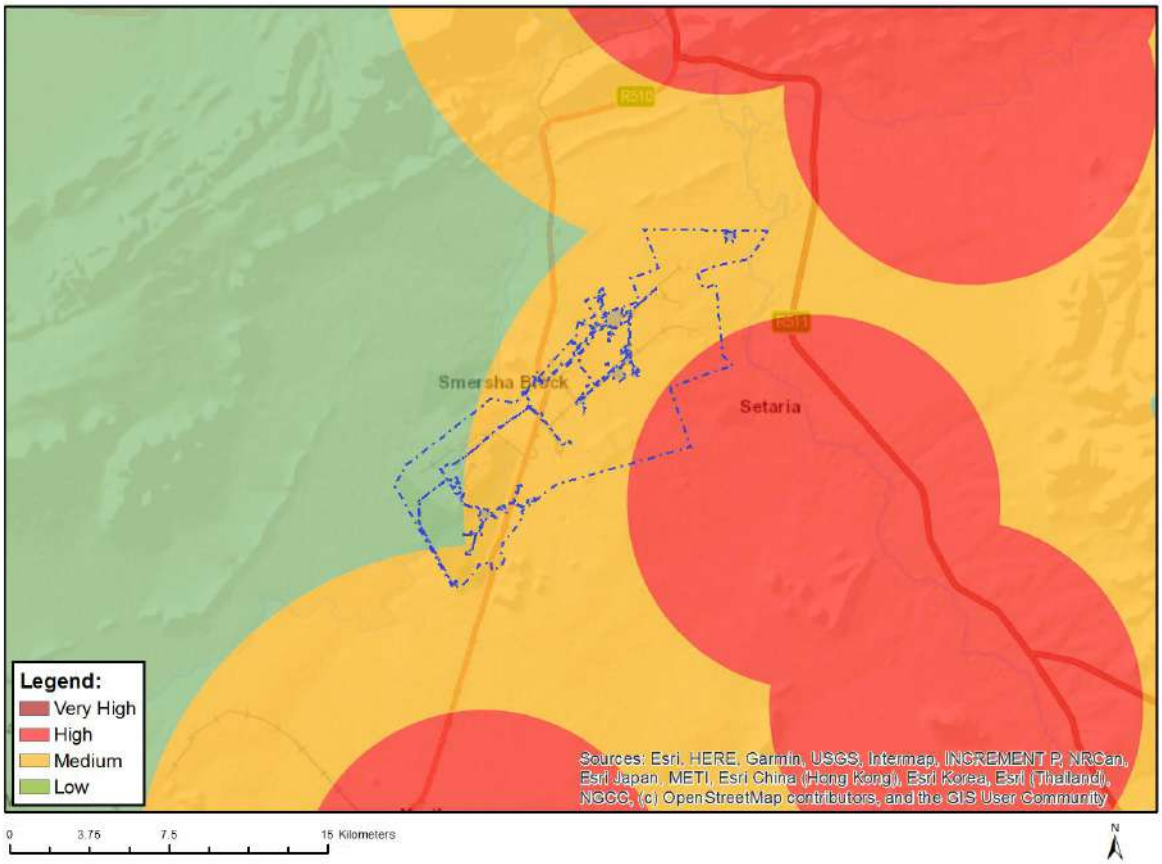


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

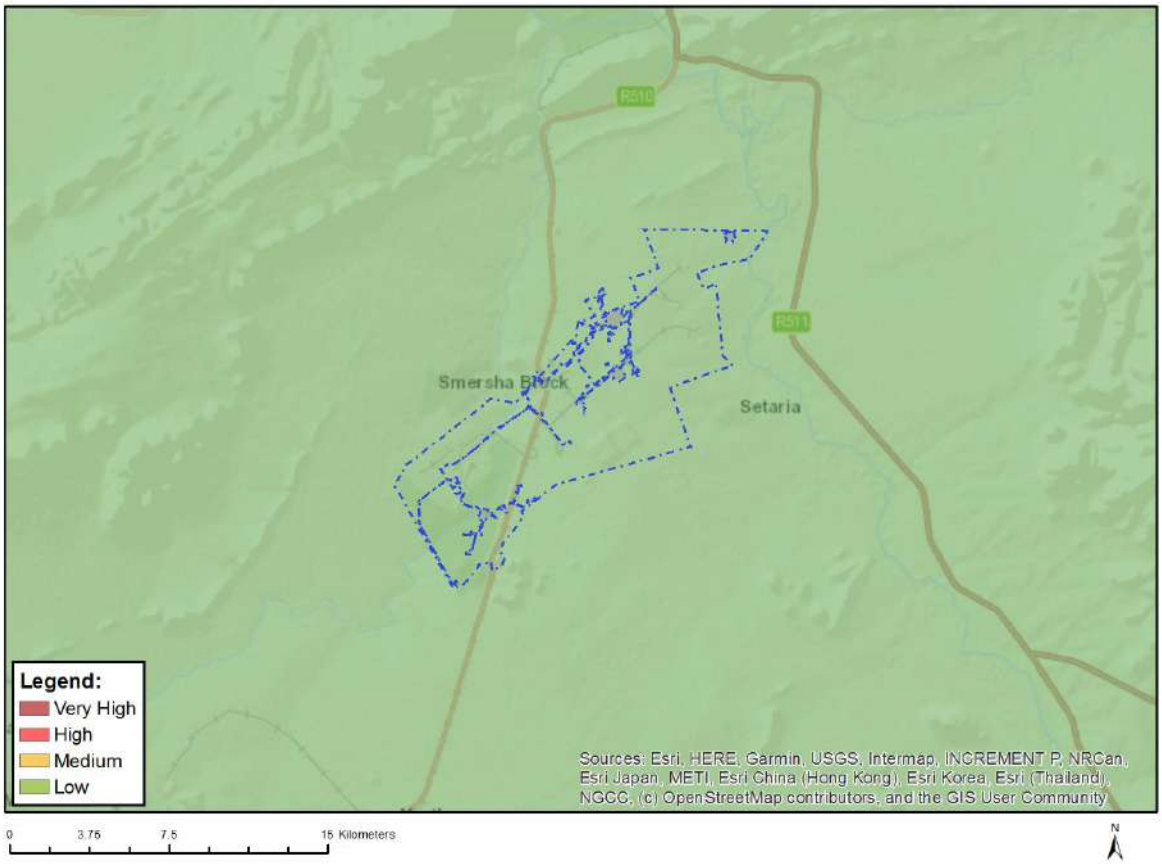


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

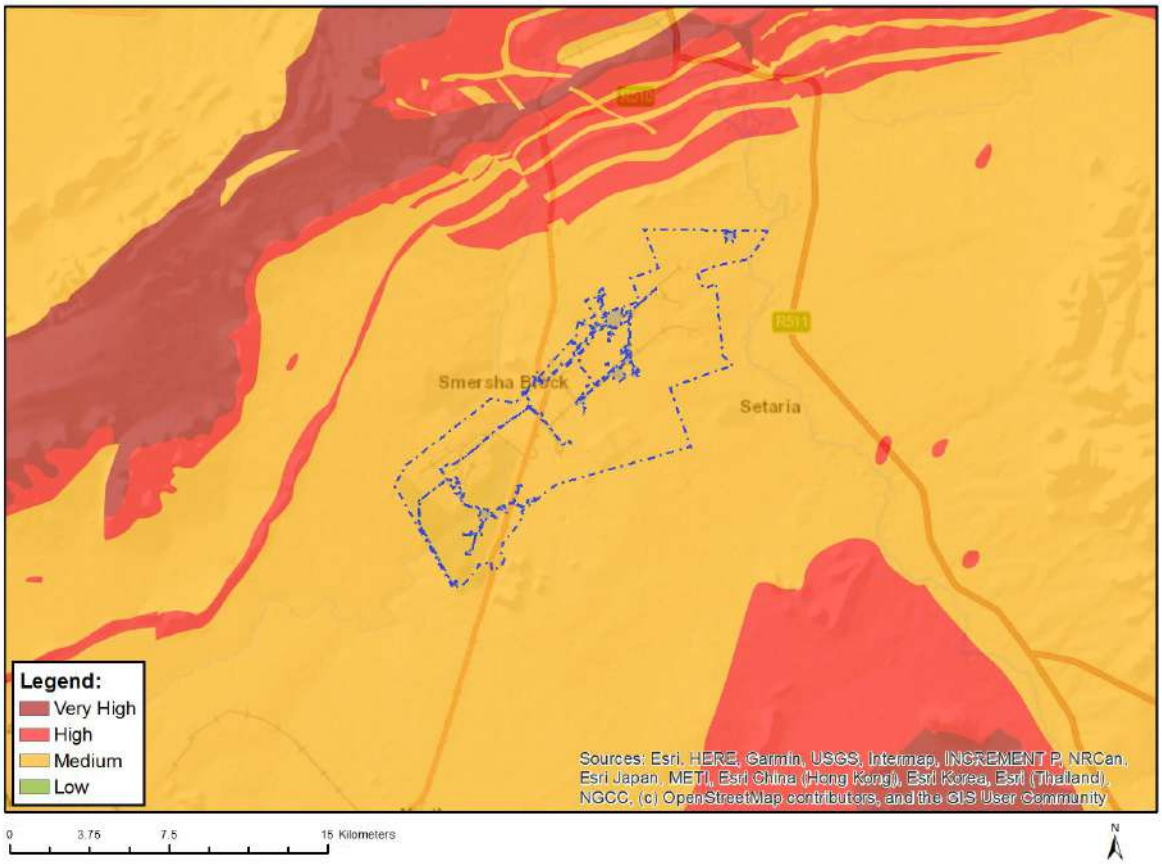


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

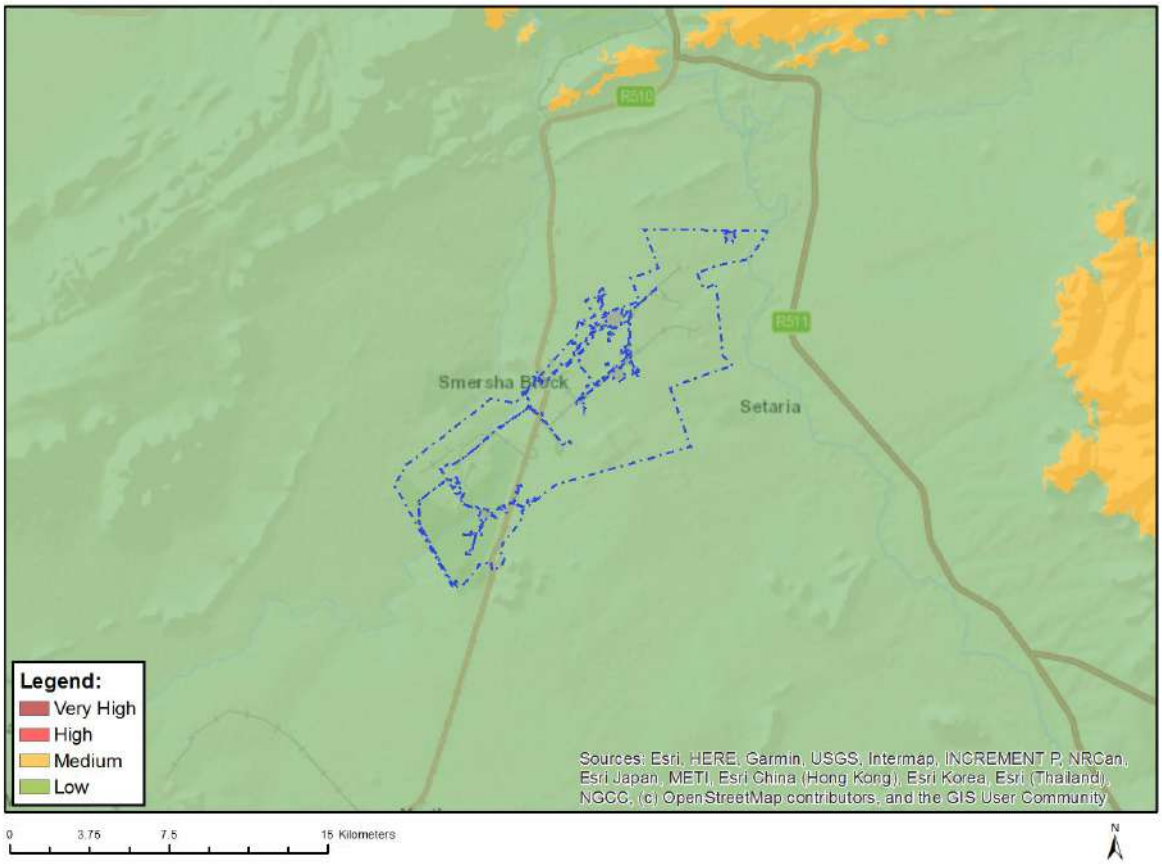


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

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

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



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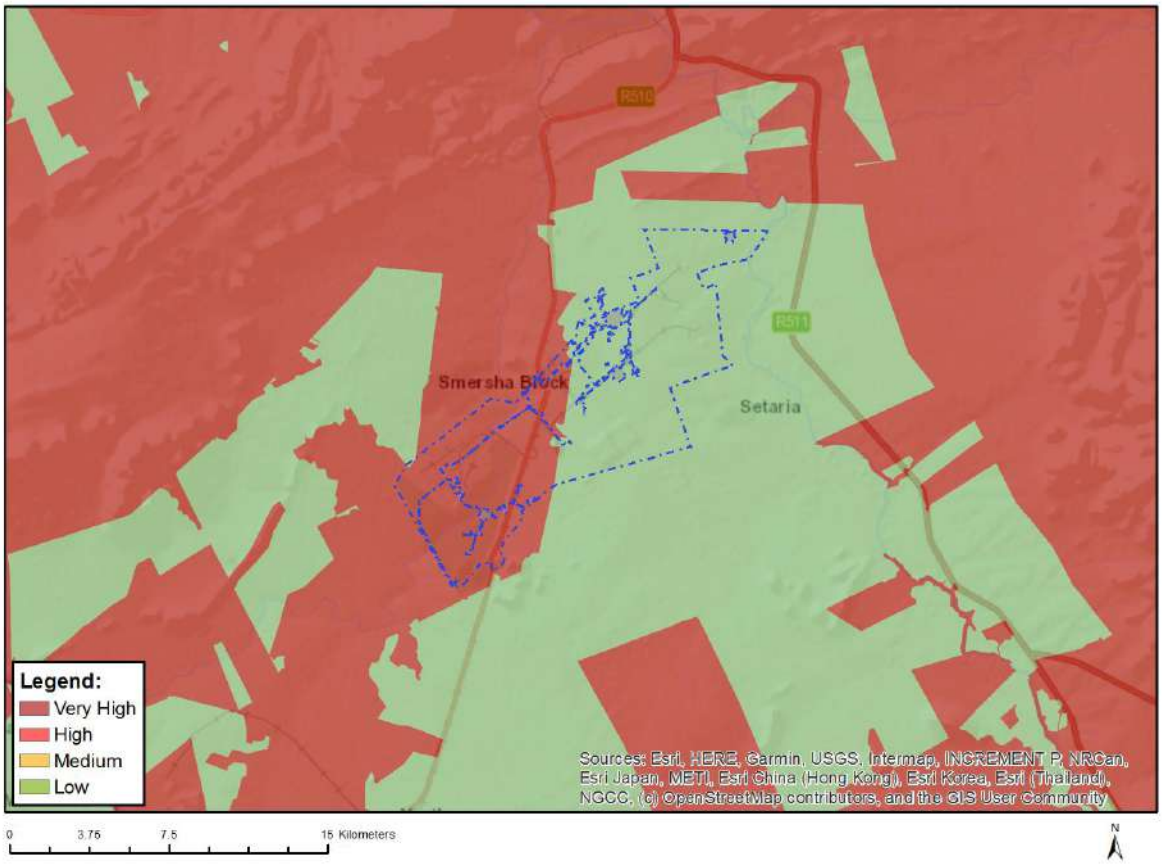
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

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

SRK Report Distribution Record

Report No.	572200/ DSR for Public Review

Company	Copy	File Type	Date	Authorised by
Thabazimbi Local Municipality	1	Hard Copy	22 May 2023	Natasha Moodley
Thabazimbi Municipality Community Hall	2	Hard Copy	22 May 2023	Natasha Moodley
Smashblock Community	3	Hard Copy	22 May 2023	Natasha Moodley
Amandelbult Complex Tumela Entrance	4	Hard Copy	22 May 2023	Natasha Moodley
Amandelbult Social Performance Office	5	Hard Copy	22 May 2023	Natasha Moodley
Jabulani Community	6	Hard Copy	22 May 2023	Natasha Moodley
Moses Kotane Municipality	7	Hard Copy	22 May 2023	Natasha Moodley
Mantserre Traditional Authority Offices	8	Hard Copy	22 May 2023	Natasha Moodley
Bakgatla Ba Kgafela (BBK) Sifikile village Traditional Authority Offices	9	Hard Copy	22 May 2023	Natasha Moodley
Limpopo Department of Water Affairs and Sanitation	10	Hard Copy	22 May 2023	Natasha Moodley
Limpopo Department of Economic Development, Environment and Tourism	11	Hard Copy	22 May 2023	Natasha Moodley
South African Heritage Resources Agency	12	Electronic	22 May 2023	Natasha Moodley

Approval Signature:	