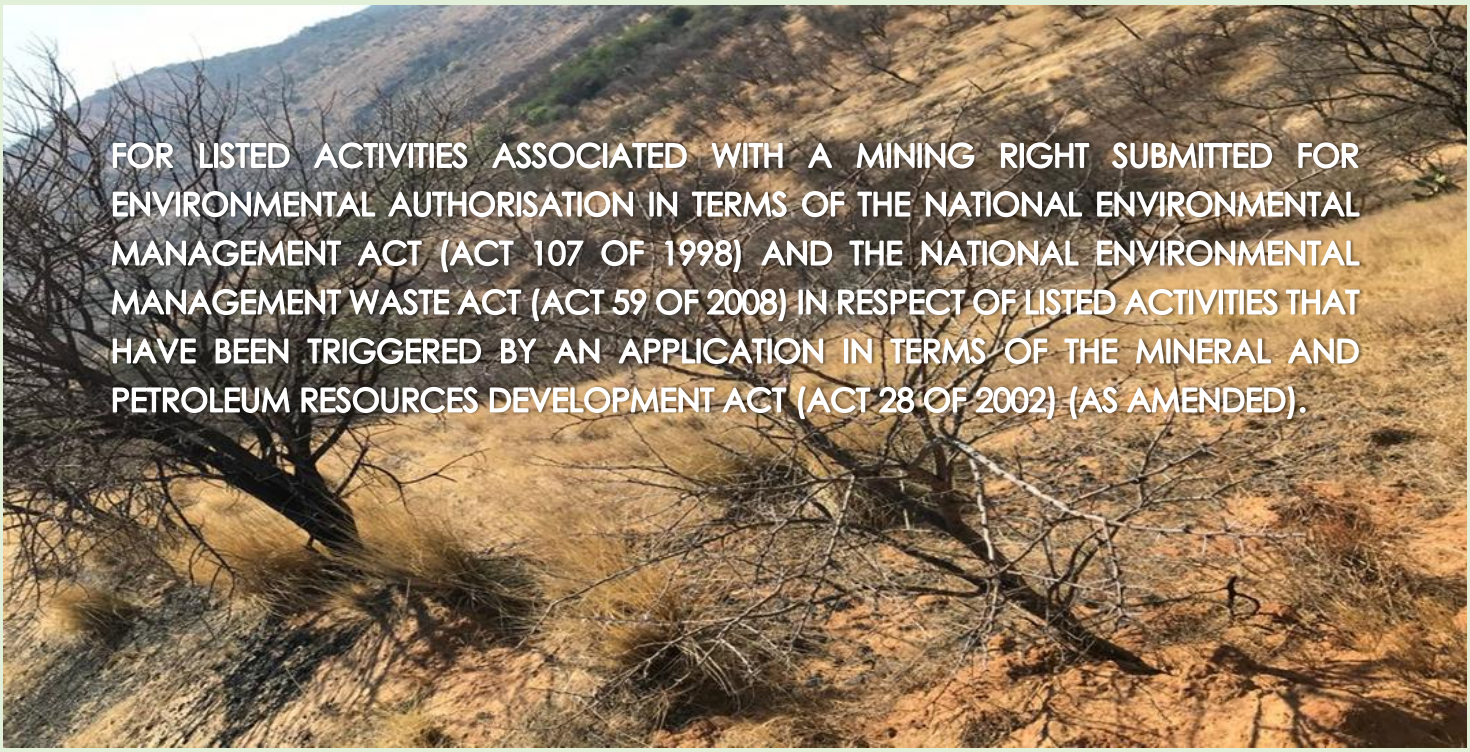
FINAL AMENDED SCOPING REPORT:

APPLICATION FOR MINING RIGHT FOR THE PROPOSED THEMBATHINA (PTY) LTD RECLAMATION COAL MINE, UTRECH, KWAZULU-NATAL PROVINCE.



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REFERENCE NUMBER: KZN30/5/1/2/2/10099MR

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

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

It is therefore an instruction that the prescribed reports required in terms of applications for an environmental authorization for listed activities triggered by an application for a right or permit are submitted in the exact format 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 Authorization 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 uninterpreted information and that it unambiguously represents the interpretation of the applicant.

OBJECTIVES OF THE SCOPING PROCESS

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

(a) Identify the relevant polices 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 alternatives 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 key issues addressed in the assessment phase; including the methodology to be applied, the expertise required as well as the extend 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.

EXECUTIVE SUMMARY

KwaZulu-Natal has been extracting coal for over 100 years. However, since 1982, the province has been subject to a steady decline in production with associated mine closures. The reasons for this demise are mining of various coal deposits in the Province has been challenging because of the geological setting which makes the deposits structurally complicated. Furthermore, the original depositional history of the coal was one that led to the development of several thin seams which for commercial purposes are less than one meter thick and have been below the minimum efficient mining width. When combined with the extreme topography of the Province, access to these seams is difficult.

However, a few years ago, that was not the case. The process was done anyhow, which resulted to several environmental issues. Thembathina Mining (Pty) Ltd (hereafter the applicant) has appointed BGES (PTY) LTD to undertake environmental authorizations associated with the proposed Utretch Coal dump reclamation. The applicant has lodged the Mining Right on the 11th of September 2020 with the KZN Department of Mineral Resources, the application was subsequently accepted on the 25th of November 2020 (reference number KZN30/5/1/2/2/10099MR). The application area of a mining right covers the following properties: Townlands of Utrecht 266 HT in extent of 41.5ha.

The proposed project relates to the reclamation mining extracting the coal of approximately 3 492 903 m^3 of reclaimable duff over a period of approximately eight years. Thembathina mining is a private company incorporated and registered in accordance with the Companies Act, 2008 (Act No. 71 of 2008) intends to reclaim, rehabilitate and clean-up derelict and abandoned dump in a previously mined-out areas in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) and section 28 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

The project entails rehabilitation of surface dumps as well as old mining infrastructure. The primary objective of the proposed project is to restore an acceptable state of the physical, chemical, and biological quality of land and water regimes disturbed by mining. It must be noted that the dump has been in existence more than 50 years, as such it is assumed and expected that the biota has adapted to the status of the environment.

For the proposed reclamation to be undertaken, the applicant is required to apply for a mining right with the DMR. In support of the application to obtain the mining right, the applicant is required to conduct a Scoping and Environmental Impact Assessment (S&EIA) process that need to be submitted to the DMR for adjudication, which includes activities triggered under the Environmental Impact Assessment Regulations of 2014 (as amended) promulgated under the National Environmental Management Act, 1998 (Act 107 of 1998) and activities triggered under the National Environmental Management: Waste Act, 2008 (NEM:WA) (Act 59 of 2008).

This Scoping Report sets out the proposed scope of the environmental impact assessment that will be undertaken for the proposed ThembaThina project. This includes the range of alternatives that will be evaluated for various aspects of the project, the key environmental impacts and issues that need to be addressed, the specialist studies that will be undertaken, terms of reference of the specialist studies and the qualifications and experience of the study team.

This Scoping Report will be updated after the public review period, based on comments received, finalized, and submitted to the competent authority and other commenting authorities for comment and approval.

Contents

LIST OF TABLES

LIST OF ABBREVIATIONS

BID: Background Information Document

DEA: Department of Environmental Affairs

DMR: Department of Mineral Resources

DWS: Department of Water and Sanitation

EA: Environmental Authorisation

EIA: Environmental Impact Assessment

EIAR: Environmental Impact Assessment Report

EMPr: Environmental Management Programme

GIS: Geographic Information System

GN: Government Notice

HIA: Heritage Impact Assessment

I&AP: Interested & Affected Party

IWULA: Integrated Water Use Licence Application

LoM: Life of Mine

MPRDA: Minerals and Petroleum Resources Development Act, 2002

Mtpa: Million tons per annum

NEM: WA: National Environmental Management: Waste Amendment Act, 2008

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

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

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

PPP: Public Participation Process 14 RoM: Run of Mine

SAHRA: South African Heritage Resources Agency

SANS: South African National Standard

SCC: Species of Conservation Concern

S&EIA: Scoping and Environmental Impact Assessment

WMA: Water Management Area

1. INTRODUCTION AND BACKGROUND

South Africa is known for its abundance of mineral resources. It is estimated to have the world's fifth-largest mining sector in terms of gross domestic product value and its mining companies are key players in the global industry. South African mining and mining real estate remains attractive for development. Further advances in prospecting and eventual mining application would lead to more community involvement within the projects and result in more sustainable job creation strategies within the surrounding communities as well as attracting foreign investment. However, significant economic development in the mining sector is shadowed by environmental damages and pollution caused by the mining activities. The disturbance of the natural environment by mining companies has triggered the South African government to formulate laws which ensures that financial provision for negative environmental impacts must be paid.

The proposed rehabilitation project is located approximately 6 km SW from the Utrecht town on The Townlands of Utrecht no. 266 HT, within the Magisterial District of Amajuba in KwaZulu Natal Province. The town of Newcastle lies about 46 km West of Utrecht. Thembathina Projects (Pty) Ltd (hereafter the applicant) has appointed Beyond Green Environmental Services (Pty) Ltd to undertake environmental authorisations associated with the proposed Utrecht Coal dump reclamation project. The application of a mining right to the DMR includes the above-mentioned property and extent. An application for both a mining right and environmental authorisation (EA) was lodged with the DMR on 11 September 2020 (reference number KZN30/5/1/2/2/10099MR). The application for mining right was accepted on 25 November 2020.

Access to the site is via R34, on the west of Utrecht town area. The extent of the area applied for covers approximately 41.5 hectares.

1.1 BRIEF PROJECT DESCRIPTION

The project area is represented in the figure below. The proposed project relates to the coal reclamation of coal mine of approximately 3 492 903 m^3 of reclaimable duff available. The applicant plans to produce at a rate of 400 000 tonnes per year hence the life of mine was determined to be 8 years. The construction phase is expected to commence in the first (Q1) quarter of 2022, with operational phase planned in Q2 of 2022. Water supply will be sourced from the Emadlangeni local municipality, an SLA will be signed prior to executing of the Mining Right. The applicant will consult and get an authorisation from DWS prior to use of any water resource in the area. The operation will have following support infrastructure:

- Screening and crushing machine
- Mobile office complex
- Portable water tank (Jojo tanks)
- Ablution facility
- 2 x Hydraulic Excavators
- 6 x Articulated 6X6 Dump Trucks
- 6 x D65 Bulldozer
- 1 x Motor Grader
- 1 x 12 000 litre Water Browser for dust suppression
- Security gate (boom gate) and fence (Clear-Vu fence)
- General and hazardous waste bins

The proposed coal reclamation mining operations constitutes various listed activities which have been listed within the scheduled activities in Government Notice Regulation No 324, 325 and 327 (amended 7 April 2017) and therefore require a full Scoping and EIA process to be followed. Prior to any listed activity being approved by the DMR, it is required that an environmental process be undertaken, and a report is submitted to the relevant environmental authority for consideration. The purpose of the S&EIA process is to ensure that potential environmental, economic, and social impacts associated with operation and closure/ rehabilitation of a project are

identified, assessed, and appropriately managed. The Proposed Project therefore requires Environmental Authorisation (EA) in terms of the NEMA and the NEM: WA and will follow an S&EIA process in terms of the EIA 2014 Regulations, as amended. There are two primary phases, namely the scoping phase and the impact assessment phase.

1.2 DETAILS OF THE APPLICANT AND EAP

DETAILS OF EAP

Thembathina Projects (Pty) Ltd has appointed Beyond Green Environmental Services (Pty) Ltd as an independent Environmental Assessment Practitioner (EAP) to undertake a Scoping and Environmental Impact Assessment (S&EIA) process that is required to support the application for a mining right.

EAP contact details.

Company	Beyond Green Environmental Services (Pty) Ltd
Contact Person	**Mr. Mcebo Zulu**
Purpose:	Project Assistant and EAP
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Address Telephone	Regus Kingsmead 11 Walnut Road Durban 4001 071 339 8193 / 031 003 2913
Email	mcebo@beyondges.co.za or nonkululeko@beyondges.co.za

DETAILS OF THE PROPONENT

For purposes of this project, the following person may be contacted:

Proponent's contact details

Contact Person	**Mr. Martin Fuwela**
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Email	thembathinacoal@gmail.com

1.3 PROJECT LOCATION

Property description details for the proposed Utretch Coal mine are provided in Table 2-3. All farm names applicable to this S&EIA is listed below, although several S&EIA processes would have to be followed for the proposed mining operations as discussed in the introduction above.

Property descriptions of the proposed Thembathina Coal Mine

Farm Name:	Remainder of Townlands of Utretch 266 HT
Application is (ha):	41.5 Ha
Magisterial district:	Amajuba Magisterial District
Distance and Direction from the nearest town:	Approximately 1 km SW from the Utrecht town, The town of Newcastle lies about 46 km west of Utrecht.
21 Digit Surveyor General Code for farm portion:	N0HT00000000026600000
Landowner	Emadlangeni Local Municipality

The study area for the Mining Right application falls in the Majuba District Municipality and e-Madlangeni Local Municipality, KwaZulu-Natal Province. The Mining Right application is located on a hill approximately 400m to the north of the R34 and 6 km SW from the Utrecht town and about 46 km west of Newcastle town. The project area covers an area of approximately 935m x 470m (41.5HA). The coordinates of the centre of the project area are: 270 39' 10.55" S 300 18' 23.82" E.

Figure 1-1: Locality map of the proposed coal mine including the nearest towns.

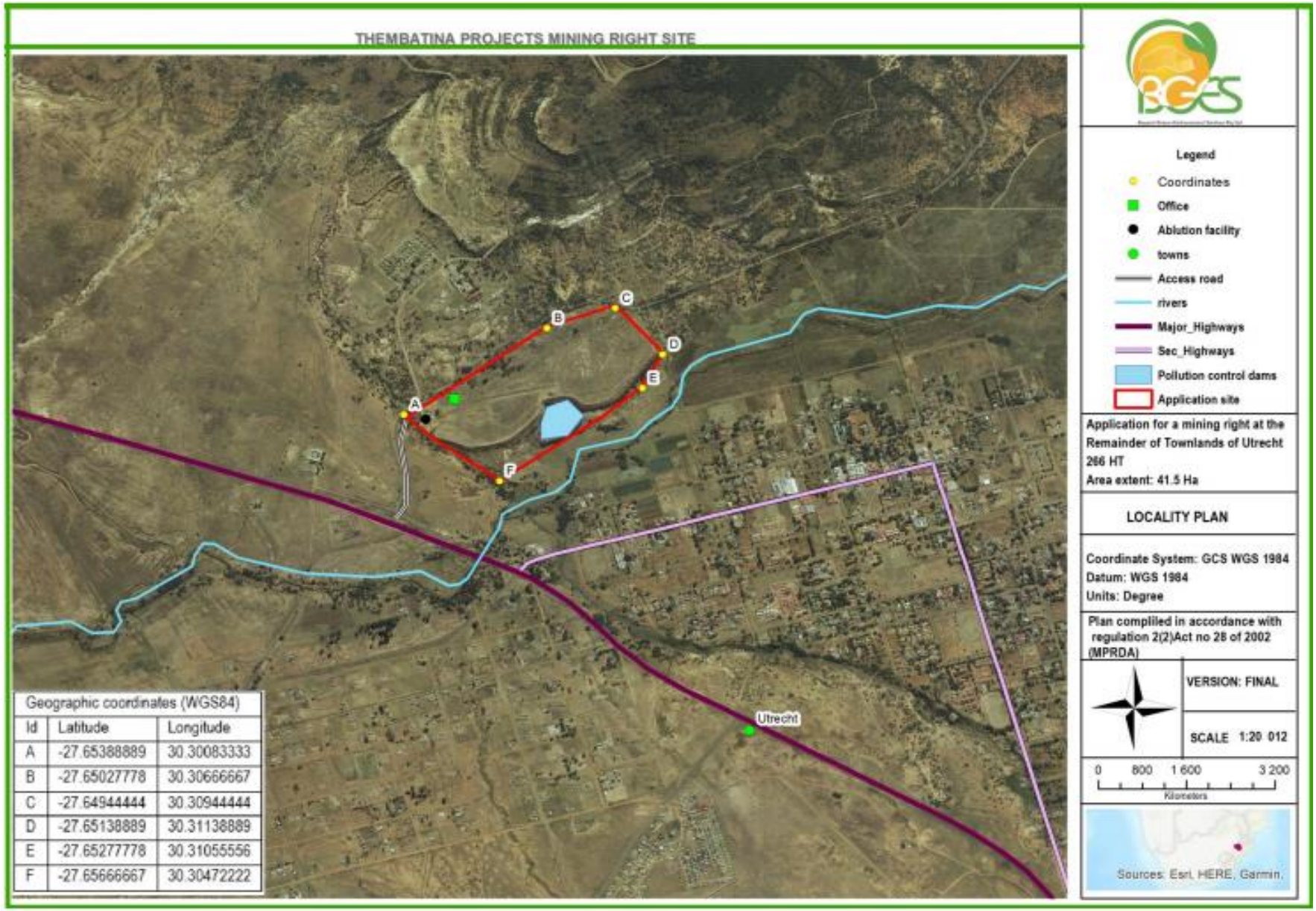


Figure 1-2: Layout map of the proposed coal mine

1.4 POLICY AND LEGISLATIVE CONTEXT

This section provides an overview of the governing legislation identified which may relate to the proposed project.

Constitution of The Republic of South Africa, Act 108 Of 1996 As Amended.

Section 24 states: "Everyone has the right —

(a) to an environment that is not harmful to their health or well-being.
(b) and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that—
  (i) prevent pollution and ecological degradation.
  (ii) promote conservation; and
  (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".

Mineral and Petroleum Resources Development Act

The Mineral and Petroleum Resources Development Act, 2002 (MPRDA), outlines the procedural requirements an applicant must follow to get a mining right who wishes to proceed with a mining project, part of which requires the applicant to obtain Environmental Authorisation (EA) in terms of the National Environmental Management Act (1998, as amended). The MPRDA is administered by the Department of Mineral Resources (DMR) and governs the sustainable utilisation of South Africa's mineral resources.

The MPRDA aims to "make provision for equitable access to, and sustainable development of, the nation's mineral and petroleum resources". If the proposed activities require material (e.g., sand, gravel, aggregate) for the purposes of construction then the provisions of the MPRDA may apply. In support of the application to obtain the mining right, the applicant is required to conduct a Scoping Report, EIA /EMPr and I&AP consultation process that need to be submitted to the DMR for adjudication.

National Environmental Management Act

The main aim of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) is to provide for co-operative governance by establishing decision-making principles on matters affecting the environment. In terms of the NEMA EIA regulations, the applicant is required to appoint an environmental assessment practitioner (EAP) to undertake the EIA, as well as conduct the public participation process. In South Africa, EIA became a legal requirement in 1997 with the promulgation of regulations under the Environment Conservation Act (ECA). Subsequently, NEMA was passed in 1998. Section 24(2) of NEMA empowers the Minister and any MEC, with the concurrence of the Minister, to identify activities which must be considered, investigated, assessed, and reported on to the competent authority responsible for granting the relevant environmental authorisation. On 21 April 2006, the Minister of Environmental Affairs and Tourism promulgated regulations in terms of Chapter 5 of the NEMA. These regulations, in terms of the NEMA, were amended in June 2010 and again in December 2014. The December 2014 NEMA regulations are applicable to this project. Mine Dump reclamation activities officially became governable under the NEMA EIA in Dec 2014.

The objective of the Regulations is to establish the procedures that must be followed in the consideration, investigation, assessment, and reporting of the activities that have been identified. The purpose of these procedures is to provide the competent authority with adequate information to make decisions which ensure that activities which may impact negatively on the environment to an unacceptable degree are not authorized, and that activities which are authorized are undertaken in such a manner that the environmental impacts are managed to acceptable levels.

In accordance with the provisions of Sections 24 (5) and Section 44 of the NEMA the Minister has published Regulations (GN R. 982) pertaining to the required process for conducting EIA's to apply for, and be considered for, the issuing of an Environmental Authorisation (EA). The Proposed Project therefore requires Environmental Authorisation (EA) in terms of the NEMA and the NEM: WA and will follow a S&EIA process in terms of the EIA 2014 Regulations, as amended.

A Scoping and EIA process is reserved for activities which have the potential to result in significant impacts which are complex to assess. Scoping and EIA accordingly provides a mechanism for the comprehensive assessment of activities that are likely to have more significant environmental impacts.

National Water Act

The National Water Act, 1998 (NWA) also has a role to play in regulating mining. Mining almost always uses water and/or has an impact on a water resource such as a stream, wetland, or river. The NWA is administered by the Department of Water and Sanitation (DWS). The NWA section 21 defines eleven water uses that require an environmental authorisation:

21 (a): taking water from a water resource;(b): storing water; (c): impeding or diverting the flow of water in a watercourse; (d): engaging in a stream flow reduction activity; (e): engaging in a controlled activity; (f): discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit; (g): disposing of waste in a manner which may detrimentally impact on a water resource; (h): disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process; (i): altering the bed, banks, course, or characteristics of a watercourse; (j): removing, discharging, or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and k): using water for recreational purposes.

The proposed mine is in the process of applying for an Integrated Water Use Licence (IWUL) as per the water uses that are triggered from the list above.

National Environmental Management: Waste Act

The National Environmental Management: Waste Act, 2008 (NEM: WA) (Act 59 of 2008) lists activities triggered for the mining project and for the management of waste that will be generated as part of this project to prevent environmental pollution and littering. On 2 June 2014, the National Environmental Management: Waste Amendment Act came into force. Waste is accordingly no longer governed by the MPRDA but is subject to all the provisions of the National Environmental Management: Waste Act, 2008 (NEM: WA). Section 16 of the NEMWA must also be considered which states as follows:

A holder of waste must, within the holder's power, take all reasonable measures to-

- "Avoid the generation of waste and where such generation cannot be avoided, to minimise the toxicity and amounts of waste that are generated.
- Reduce, re-use, recycle and recover waste.
- Where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner.
- Manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour, or visual impacts.
- Prevent any employee or any person under his or her supervision from contravening the Act; and
- Prevent the waste from being used for unauthorised purposes."

These general principles of responsible waste management will be incorporated into the requirements in the EMPr to be implemented for this project.

The NEM: WA provides for specific waste management measures to be implemented; as well as providing for the licensing and control of waste management activities.

Waste management activities will be applicable to Category A, B and C according to GN R 921 (Nov 2013) and the proposed residue stockpiles in terms of Category B, Activity 11 of GNR 921, and, therefore, form part of the application process.

NEMWA The Planning and Management of Residue Stockpiles and Residue Deposits Regulations, 2015 (Gn R 632):

This regulates the planning and management of residue stockpiles and residue deposits from a prospecting, mining, exploration, or production operation.

NEMWA National Norms and Standards for The Assessment of Waste for Landfill Disposal, 2013 (Gn R. 635).

These norms and standards prescribe the requirements for the assessment of waste prior to disposal to landfill. The aim of the waste assessment tests is to characterise the material to be deposited or stored in terms of the above-mentioned waste assessment guidelines set by the DEA.

NEMWA Waste Classification and Management Regulations, 2013 (Gn R. 634)

Chapter 9 of the above-mentioned Regulations stipulates the requirements for a motivation for and consideration of listed Waste Management Activities that do not require a Waste Management License. The motivation must:

- Demonstrate that the waste management activity can be implemented without unacceptable impacts on, or risk to, the environment or health,
- Must provide a description of the waste.
- Description of waste minimisation or waste management plans.
- Description of potential impacts, etc.
- The transitional provisions under Chapter 6 of this Regulation prescribes timeframes in which all waste must be classified within 18 months from the date of commencement of these regulations (23 August 2013).

Waste streams generated from mine activities will, where applicable, be classified accordingly to determine their nature (i.e., general, or hazardous), and subsequently managed and disposed of in accordance with the relevant legislative requirements.

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT

The National Environmental Management: Air Quality Act (NEM: AQA) (Act No. 39 of 2004 as amended) is the main legislative tool for the management of air pollution and related activities. The Object of the Act is:

- To protect the environment by providing reasonable measures for-
  - the protection and enhancement of the quality of air in the republic.
  - the prevention of air pollution and ecological degradation; and
  - securing ecologically sustainable development while promoting justifiable economic and social development; and
- Generally, to give effect to Section 24(b) of the constitution to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and wellbeing of people.

In summary, the Act aim to prescribe the requirements that pollution prevention plans of greenhouse gases declared as priority air pollutants need to comply with, in terms of the NEM: AQA. The regulations specify who needs to comply, and by when, as well as prescribing the content requirements.

THE NATIONAL HERITAGE RESOURCES ACT

The National Heritage Resources Act (NHRA) (Act 25 of 1999) stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34(1) of the NHRA states that, "no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority" In the latter cases the feedback from the relevant heritage resources authority is required by the State and Provincial Departments managing these Acts before any authorizations are granted for development. NHRA governs the management of heritage resources which are of cultural significance. A Notice of Intent to Develop the area has been submitted to SAHRA for this project.

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT

The overarching aim of the National Environmental Management: Biodiversity Act (No 10 of 2004) (NEMBA), within the framework of NEMA, is to provide for:

- The management and conservation of biological diversity within South Africa, and of the components of such biological diversity.
- The use of indigenous biological resources in a sustainable manner; and
- The fair and equitable sharing among stakeholders of benefits arising from bioprospecting involving indigenous biological resources.

There is no biodiversity of significance within the immediate vicinity of the application.

THE CONSERVATION OF AGRICULTURAL RESOURCES ACT

To provide for control over the utilization of the natural agricultural resources in South Africa to promote the conservation of the soil, the water sources and the vegetation and the combating of weeds and invader plants; and for matters connected therewith.

SPATIAL PLANNING AND LAND USE MANAGEMENT ACT 16 OF 2013 (SPLUMA)

In 2013, land use planning was influenced by the promulgations of the Spatial Planning and Land Use Management Act (2013) (SPLUMA) which outlines a set of principles to influence spatial planning, land use management and land development. The general principles of SPLUMA are that spatial planning, land use management and land development must promote and enhance spatial justice, spatial sustainability; efficiency; spatial resilience, and good administration. Integrated Development Plans (IDP) and Spatial Development Frameworks (SDF) are the key planning instruments used by municipalities for new developments (whether residential or commercial). While this does not form part of this document, it is assumed that it will not be required since the area was an existing mining operating for the past 50 years.

1.5 LISTED ACTIVITIES TRIGGERED

In terms of the 2014 Environmental Impact Assessment (EIA) Regulations enacted in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended), the proposed Thembathina project will involve activities that fall within the ambits of Government Notice (GN) 984 (08 December 2014). The proposed project will require authorisation from the Department of Mineral Resources (DMRE) through the Scoping and EIA process as outlined in GNR 982.

The applicant has applied for a mining right and environmental authorisation for the reclamation of a mine dump and supporting infrastructure for the reclamation project. Application was accepted (refer to Appendix C for signed letters). The listed activities that require environmental authorisation in terms of the NEMA EIA Regulations GN R.326/324/325/327 amended on 7 April 2017, the Waste Management Activities listed in terms of the NEM: WA GN R. 921 (2013) and GN R. 633 (amended 2015) and the water

uses in terms of section 21 of are indicated in Table 1-1 and Table 1-2 below, respectively.

Table 1-1: Listed activities according to NEMA requiring environmental authorisation.

Name of activity Mining (E.g., Excavations blasting, stockpiles, discard dumps o dams, Loading, hauling and transport Water supply dams and boreholes accommodation, offices, ablution, stores workshops, processing plant, stormwater	**Aerial extent of the activity (ha)[2] Ha or m²**	**Listed activity. Mark with an X**	**Applicable listing notices as amended GNR 327, GNR 325 or GNR 324**	**Waste management authorisation (Indicate whether an authorisation is required in terms of the WMA). (Mark X)**	**Water use licence. authorisation**
Reclamation of the Coal Dumps, including slurry receiving facility, screening facility storage. Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures, and earthworks, directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).	41.5ha	X	Listing Notice 2: R.325 on 7 April 2017	GNR 921 – A 12) GNR 921 -B (11) R.633 -B (11)	21(c) & (i)

Table 1-2: Water uses according to NWA requiring environmental authorisation.

Section 21 Water use	21 b	storage of water
	21 c	impeding or diverting the flow of water in a watercourse
	21 f	discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit
	21 g	disposing of waste in a manner which may detrimentally impact on a water resource
	21 i	altering the bed, banks, course, or characteristics of a watercourse

1.6 DEA Screening Tool

Purpose of the Screening Tool

The Department of Environmental Affairs (DEA) Screening Tool allows to study the environmental sensitivities of a proposed development site, assist with the identification of specific zones, or plans such as industrial development zones or Environmental management Frameworks may be applicable to the proposed development site, and it acts as a guideline as to which specialist assessments may need to be undertaken as part of the environmental assessment process. The selection of the specialist investigations that were undertaken as part of this environmental assessment process was determined with the assistance of this tool as well as a desktop environmental assessment.

The DEA Screening Tool has identified the following environmental sensitivities for the

development site:

Development Area Themes	**Environmental Sensitivity**
Agricultural Theme	Medium sensitivity
Animal Species Theme	High sensitivity
Aquatic Biodiversity Theme	Very High sensitivity
Civil Aviation Theme	High sensitivity
Plant Species Theme	Low sensitivity
Defense Theme	Low sensitivity
Terrestrial Biodiversity Theme	Very High sensitivity

Specialist Investigations

The DEA Screening Tool has identified that the following specialist investigations are potentially to be included in the environmental impact assessment process:

Recommended Assessment	Status	Motivation for Inclusion/Exclusion of Assessments
Agricultural Impact Assessment	Excluded	Technical desktop investigation did not indicate the need for this assessment. The area is in the hill.
Landscape/Visual Impact Assessment	Excluded	The nature and scope of the activity does not require the undertaking of such an assessment.
Archaeological and Cultural Heritage Impact Assessment	Included	The proposed development triggers an investigation in terms of the NHRA.
Paleontological Impact Assessment	Included	As above.
Terrestrial Biodiversity Impact Assessment	Included	The key underlying impacts will be assessed in the Freshwater Impact Assessment.
Aquatic Biodiversity Impact Assessment	Included	Desktop investigation identified that the site falls within the buffer zones of a wetland and/or other watercourses

Hydrology Assessment	Included	As above
Socio-Economic Assessment	Excluded	Technical desktop investigation does not indicate the need for this assessment.
Plant Species Assessment	Included	
Animal Species Assessment	Included	
Traffic Impact Assessment	Excluded	The nature and scope of the activity does not require the undertaking of such an assessment.

1.7 NEED AND DESIRABILITY OF PROPOSED ACTIVITIES

This section will examine the need and desirability of the proposed Thembathina Coal Reclamation project as well as the importance of coal as a resource and the desirability of coal mining rehabilitation operations at the proposed study area.

1.7.1 Coal as an important resource

South African mining and mining real estate remains attractive for development. Mining creates an environment that led the community to be more involved in the projects and result in more sustainable job creation strategies within the surrounding communities as well as attracting foreign investment.

Mining within e-Madlangeni mainly comprises of coal. Most of the mines within Amajuba district closed in the late 90s due to the international fall in coal prices however, some of these mines have reopened. The municipality is strategically linked to the Richards Bay Coal terminal via the R34 where high grading coal from the municipal area is shipped to international markets (e-Madlangeni LED strategy: 209/20).

In addition, the South African economy is currently very poor more than 28% of youth is unemployed, the economy heavily relies on the mining sector. The processing of existing abandoned coal surface dumps will be boosting the current struggling national economy and create employment opportunities for communities with Utrecht City Local Municipality. The primary objective of the proposed project is to:

- Protect the environment and public health and safety by using safe and responsible rehabilitation practices.
- What the affected community want, the affected community gets.
- Reduce loss of biodiversity.
- Comply with the relevant local and national regulatory requirements!

- Minimize potential environmental effects, such as surface or ground water impacts.
- Remove any waste or potentially hazardous substances from site.
- Prevent further soil, groundwater, and surface water contamination!
- Develop landforms that, within reasonable and practical limits, blend with the surrounding terrain.
- Work towards achieving water quality standards in downstream watercourses consistent with the standards set in the National Water Act, 1998.
- Establish vegetation that is self-sustaining, perpetual and provide habitat for local fauna and successive flora species, and to achieve long-term stabilization and protection of the previously disturbed/artificial landforms consistent with the proposed end land use.
- Development of end land use that takes into account the beneficial uses of the site and surrounding areas (which is predominantly residential use);
- Leave a rehabilitated site that does not represent a risk to the health and safety of the community.
- Reduce the requirement for long-term monitoring and maintenance by establishing stable rehabilitated areas.

Should the proposed rehabilitation operation be authorized, the following economic development activities will result:

- Job creation
- Development of skills
- Potential for business opportunities
- Establishment of bursaries and scholarships
- Stimulate economic activities in the local vicinity.

2. SCOPE OF THE PROPOSED OVERALL ACTIVITY

a. Mining operations.

The mining right application is for 41.5 ha and falls within ward 2, remainder of Townlands of Utrecht 266 HT coalfields KwaZulu-Natal. The proposed project will involve excavation of the surface dumps and the material will be loaded to the trucks and transported off-site for treatment and processing.

Hazardous and industrial waste such as chemical containers, spent oil, diesel and grease will be stored in dedicated containers and collected at regular intervals by a registered sub-contractor and disposed of at a licensed disposal site.

The scope of the project includes engineering, landscape architectural, and environmental aspect. Project engineering activities will involve erosion control measures, river flow control, creation of attenuation ponds where necessary, and energy dissipaters (weirs), whilst landscaping entails clean-up and rehabilitation of surface dumps and degraded riverine sections as well as development of pedestrian bridges over the rivers crossing to Utrecht town. Stormwater infrastructure such as culverts and cut-of trenches/channels will be required to allow proper drainage of stormwater and to avoid erosion on site and contamination of water resource. All stormwater management measures will be designed to meet the requirements of the Regulations GN 704, dated June 1999, under the National Water Act, 1998 (Act 36 of 1998) and the DWS's Best Practice Guideline (Department of Water and Sanitation, 2006. Best Practice Guideline G1: Stormwater Management).

Environmental aspect of the proposed project entails obtaining applicable Environmental Authorisations from the Department of Mineral Resources (DMRE) and Water Use Licence from the Department of Water and Sanitation (DWS).

b. Mining methodology

Mining methods vary widely and depend on the location, type, and size of mineral resources. Surface mining methods are most economical in situations where mineral deposits occur to the surface (e.g., coal, salts and other evaporite deposits) or form

part of surface deposits (e.g., alluvial gold and diamonds, and heavy mineral sands). For this specific project, the mining of coal reclamation by means of surface mining methods are viable since the resource is situated to the surface. Typical surface mining methods include strip mining and open pit mining, as well as dredge. These activities always disrupt the surface and this, in turn, affects soils, surface water and near-surface ground water, fauna, flora and all alternative types of land-use.

The generally low strip ratios and wide surface area of the project area makes it ideal for the reclamation truck and shovel mining method. Also, the mining method applicability is driven by technical applicability, economic viability, safety, equipment, and infrastructure. The proposed mining method and sequence comprised of the following main mining activities for both waste and coal reclamation:

c. Construction Phase

Construction phase for the proposed Coal dump reclamation project is expected to commence in the first quarter (Q1) of 2022, whilst the operational phase (production) is scheduled for April (second quarter) 2022.

d. Reclamation process

The mine is planning to recover all the material that may be recovered. However, it is our understanding that it is not possible to reclaim everything, there will be undesirable contaminated material that will require final disposal. The material requiring final disposal must be tested and disposed according to its waste hierarchy. Such material will stockpiled as a discard dump which will be covered and vegetated as most of it will be less contaminated compared used to stockpiled in a

e. Rehabilitation

Once reclamation is completed, the area will then be assessed for contamination (particularly in terms of soil contamination) contaminated soils will be removed, and the land levelled to original a functioning topography level. Following reclamation, it is anticipated that the land will be made available according to the zoning of the site – which is grazing.

f. Access Roads

Existing access road will be used on site. No new roads will be constructed. Access to the site is via R34 within Utrecht town area.

g. Security and Access Control

A permanent security house and boom gates will be constructed at the site for access control. The structures will comprise of brick and mortar and will be supplied with electricity from a diesel driven generator.

h. Water Supply

Process water supply for the operation will be sourced from water service providers or Emadlangeni Local Municipality and will be carted onto the site in a tanker. A 2000 litre water cart will be adequate for the size of this operation. The water will be used for dust suppression of access roads. Dust suppression will be conducted as and when necessary. No water will be abstracted in terms of section 21(a) of National Water Act, 1998 (Act no. 36 of 1998).

i. Portable Water Supply

Potable water required for the proposed reclamation operation is approximately 40 litres per day (ℓ/day). The water will be used for drinking purposes and will be sourced from local water vendors within Utrecht. The water will be supplied in cooled water dispensers.

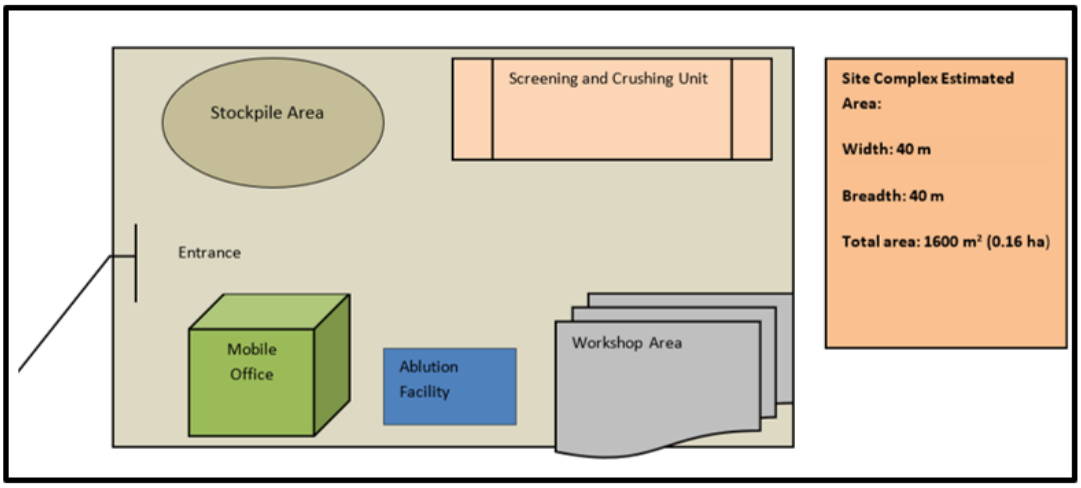
j. Ablution Facility

Ablution facility at the proposed project site will utilize a package sewage treatment plant. All raw sewage from this facility will be disposed of into the nearest wastewater treatment works, all located within the Magisterial District of Amajuba.

k. Office Complex

Project office complex will be established on site and will include the following:

- Vehicles and equipment area
- Ablution facility (chemical mobile toilet)
- Mobile office (mobile container).



l. Accommodation

No accommodation for workers will be provided on site. Employment will be sourced from Utrecht and surroundings which is a walking distance from the site.

m. Blasting

No blasting will take place on site.

n. Operational Phase

The following activities will be conducted during the operational phase of the project:

•Excavation and removal of surface dumps (including all aggregate material). The tailing waste material from the abandoned coal dumps will be exploited using excavators and articulated dump trucks or tipper trucks (truck and shovel mining method). An excavator will be used to break hard matter and load it into a tipper truck. The material will be stockpiled and transported to a processing plant for treatment. Approximately 40 000 tonnes per month of tailing waste will be removed loaded to a treatment and processing plant.

•Soil layer of about 5 m below the surface of the tailing's dumps will be removed and the site will be shaped, and topsoil will be applied as well as re-vegetation.

•The proposed reclamation operation will employment 15-20 full-time employees.

•Only minor repairs will be done on site. A PVC lining and drip trays will be used during maintenance and accidental spills will be cleaned up immediately by removing of the contaminated soil material. The small volume of contaminated soil will be disposed of in a registered hazardous landfill facility such as the Emadlangeni Landfill Site.

•Hazardous and industrial waste such as chemical containers, spent oil, diesel and grease will be stored in dedicated containers and collected at regular intervals by a registered sub-contractor and disposed of at a licensed disposal site. The applicant must ensure that a contract is signed prior to commencing with reclamation activities.

•The trucks will transport tailing waste from the site 5 days a week, operating during the week only between 7h30 and 17h00 during normal working hours. No operations will take place over weekends.

•Old, abandoned infrastructure will be demolished and material will be crushed, levelled, and used for the backfilling of all existing borrow pits on site.

•The engineering remedial works will involve:

O Erosion control measures through development of gabions.

O River flow control and energy dissipation through establishment of weirs and cascades within the rivers.

O Re-development of attenuation ponds where necessary

O Rehabilitation or remedial works along the river or wetlands reaches must consider recurrence flood intervals from 1:50 to 1:10 years.

o. <u>Landscaping will involve:</u>

- Clean-up and rehabilitation of severely polluted and degraded sections of the area.
- Development of pedestrian pathway along the open spaces
- Development of pedestrian bridges over the river below the proposed area where evident tracks crossing over the rivers can be seen.
- Planting of trees throughout the open spaces.
- Removal of alien invasive plant species.

- As part of this phase training of personnel in the implementation of the EMPr will be undertaken and the implementation of the environmental awareness plan as part of the EMPr will be an on-going process.

p. Decommissioning and Closure Phase

Planning for closure and restoration from the beginning of an operation makes the process more efficient:

• Waste will be removed as it is created,

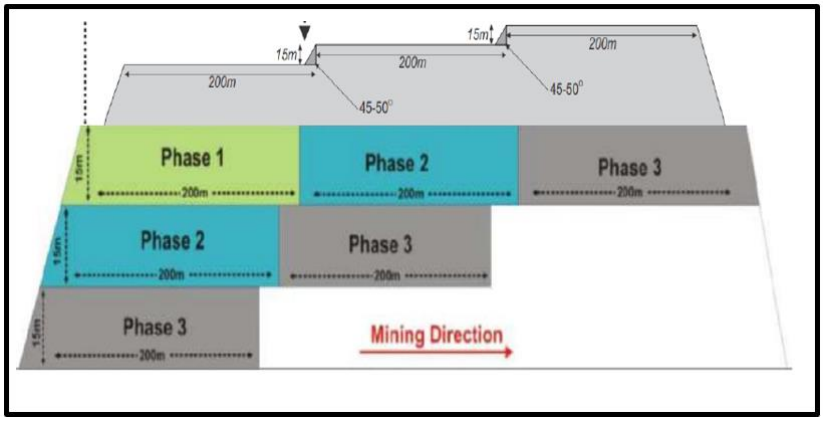
• Excavation will be planned so that topography restoration is less complicated, and

• Topsoil can be re-used at shorter interval, note that the area has minimal topsoil, it is mainly covered by coal sawdust.

• Site rehabilitation will ensure that the land more valuable and attractive for resale.

• Rehabilitation of the site will be done in accordance with a rehabilitation plan. Rehabilitation and proposed Master layout Plans should also aim at promoting social activities such as grazing area, play areas, and conservation area. Mining will commence from east to west direction, see conceptual plan below on **figure 2-3.**

Figure 2-3: Preliminary mining layout for the proposed Thembathina Coal Mine



3. PROJECT ALTERNATIVES

The identification and investigation of alternatives is a key aspect during the S&EIA process. All reasonable and feasible alternatives must be identified and assessed during

the scoping phase to determine the most suitable alternatives to consider and assess during the EIA phase. There are however some significant constraints that must be considered when identifying alternatives for a project of this scope. Such constraints include social, financial, and environmental issues, which will be discussed in the evaluation of the alternatives. The preferred option is to be highlighted and presented to the authorities.

Alternatives can typically be identified according to:

- Location alternatives.
- Process alternatives.
- Associated infrastructure location and layout alternatives
- Technological alternatives; and
- Activity alternatives (including the No-go option).

For any alternative to be considered feasible such an alternative must meet the need and purpose of the development proposal without presenting significantly high associated impacts. The are no alternatives for this study. Hence, there is no further indication of alternatives considered feasible and/or better from a technical as well as environmental perspective.

3(a) Location Alternatives

No alternative location. The proposed Utrecht rehabilitation project is located on portion of the farm 266 of Utrecht Town lands. This property is owned by Utrecht Municipality. According to the available information from the KwaZulu Natal Regional Land Claims Commissioner, a few claims have been lodged by the local community. The property deed enquiry documents are attached on the Public Participation Report attached.

3(b) The type of activity to be undertaken.

Excavation and removal of surface dumps. The tailing waste material from the abandoned coal dumps will be exploited using excavators and articulated dump trucks or tipper trucks (truck and shovel mining method). An excavator will be used to break hard matter and load it into a tipper truck. The material will be stockpiled and

transported off-site to a licenced and active mining operation for treatment and processing. Approximately 40 000 tonnes per month of tailing waste will be removed from the site for off-site treatment and processing.

- Soil layer of about 5 m below the surface of the tailing's dumps will be removed and the site will be shaped, and topsoil will be applied as well as re-vegetation.
- The proposed rehabilitation operation will employment 15-20 full-time employees.
- Only minor repairs are done on site. A PVC lining and drip trays will be used during maintenance and accidental spills cleaned up immediately by removing of the contaminated soil material. The small volume of contaminated soil will be disposed of in a registered hazardous landfill facility such as the Utrecht Landfill Site.
- Hazardous and industrial waste such as chemical containers, spent oil, diesel and grease will be stored in dedicated containers and collected at regular intervals by a registered sub-contractor and disposed of at a licensed disposal site.
- The trucks will transport tailing waste from the site 5 days a week, operating during the week only between 7h30 and 17h00 during normal working hours. No operations will take place over weekends.
- Old, abandoned buildings will be demolished and material will be crushed and used for the backfilling of all existing borrow pits on site.

The engineering remedial works will involve:

- Erosion control measures through development of gabions.
- River flow control and energy dissipation through establishment of weirs and cascades within the rivers.
- Development of attenuation ponds where necessary.
- Stabilisation of the riverbanks.
- Rehabilitation or remedial works along the river or wetlands reaches must consider recurrence flood intervals from 1:50 to 1:10 years.

Landscaping will involve:

- Clean-up and rehabilitation of severely polluted and degraded sections of the rivers.
- Development of pedestrian pathway along the open spaces.
- Development of strategic waste collection points.

- Removal of alien invasive plant species.

3(c) The design or layout of the activity

The preferred and only location for rehabilitation activities is on the earmarked portion of the farm 266 Townlands of Utrecht. The preferred and only technology is the use of Front-End Loaders or Excavators and dump trucks to remove tailing waste material. There are therefore no other reasonable or feasible sites, layouts, activities, technologies, or operational alternatives for further consideration in the impact assessment component, other than the mandatory "no-go" alternative that must be assessed for comparison purposes as the environmental baseline.

3(d) The technology to be used in the activity.

Rehabilitation will involve the use of mechanized moving equipment (an excavator and front-end loaders as well as dump trucks or tipper trucks) to move the unconsolidated tailing waste, rubble, and aggregate material on site.

3(e) No-Go Alternative

The no-go alternative would entail not reclaiming and cleaning the coal dump reserve and leaving the area as coal dump.

Employment opportunities will not be generated on the site. The land will remain polluted, degraded and not economically viable. The present ecological status and habitat integrity of the site will not be improved. The fight against crime and illegal mining activities in the area will not be achieved. The national asset (in this case, coal), that will not be made available for economic benefit to the South African people, will remain on the property. The social benefits will not be obtained from the creation of 10-20 employment opportunities for 8 years and the land will not be conducive for residential development or promoting social activities such as play areas, sports fields, and picnic areas.

Whether the No-Go alternative is viable cannot be addressed at this time and will be discussed in more detail during the EIA phase once specialist inputs have been received. The brief overview of the No-Go alternative is by no means an in-depth

assessment and the impacts need to be assessed and discussed in detail in the EIA report.

4. PUBLIC PARTICIPATION REPORT

Objectives of the Public Participation

- Provides Interested and Affected parties (I&APs) with an opportunity to voice their support, concerns and questions regarding the project, application, or decision.
- Provides an opportunity for I&APs, Environmental Assessment Practitioners (EAPs) and the Competent Authority (CA) to obtain clear, accurate and understandable information about the environmental, social, and economic impacts of the proposed activity or implications of a decision.
- Provides I&APs with the opportunity of suggesting ways of reducing or mitigating negative impacts of an activity and for enhancing positive impacts.
- Enables the applicant to incorporate the needs, preferences and values of affected parties into the application.

Legislation

The PPP must comply with the several important sets of legislation that require public participation as part of an application for authorisation or approval; namely:

- The Mineral and Petroleum Resources Development Act (Act No. 28 of 2002 - MPRDA);
- The National Environmental Management Act (Act No. 107 of 1998 - NEMA);
- The National Environmental Management Waste Act (NEM: WA, Act No. 59 of 2008); and
- The National Water Act (NWA, Act No. 36. Of 1998).

Adherence to the requirements of the above-mentioned Acts will allow for an Integrated PPP to be conducted, and in so doing, satisfy the requirement for public participation referenced in the Acts.

The details of the Integrated PPP are attached as Appendix below.

5. DESCRIPTION OF THE BASELINE ENVIRONMENT

The baseline environment is described within this Chapter. The baseline environment provides a status against which to assess the proposed project activities and potential impacts.

5.1 Geology

According to the information provided in the Geotechnical report undertaken within the Utrecht area, the site is underlain by sedimentary sandstone, shale (of the Ecca Group) which are overlain by post Karoo dolerite (of the Drakensburg Group). The site is located inside a mountainous rocky area covered by resistive dolerite plateaus which form the topography of the area escarpment consisting of hills and cliffs. Where dolerite has weathered it tends to form deep red residual soils. The runoff from the dump site washes the sediments into a stream located approximately 0.5km downhill.

The sandstone and shale rocks are hard and tight and their potential as water bearing aquifers is low. Where affected by faulting and fracturing, they form secondary aquifers of limited storability but potentially high transmissivity, particularly in the sandstones. Contact between dolerite intrusions and surrounding country rock often tends to act as water conduits. The site is in an area where faults and fracture zones seem not so prominent and therefore the likelihood of encountering groundwater is potentially low. This is subject to detailed follow-up ground geophysics surveys at closer spacing being done to verify this postulation.

5.2 Topography

The local topography in the vicinity of the site is active serious sheet erosion resulting in the formation of dongas (gulley's) where is a large bare patch of veld with a hard surface and low amounts of organic material, making plant growth virtually impossible. These dongas have formed when flowing water cuts a channel into the soil. Where ground falls away, a donga head forms that gradually works its way upstream, widening and deepening the donga on the west and east of the application. The water and soil run-off direction are to the South direction via surface drainage features, downslope towards the nearby river.

Outcrops of sandstones are seen on surrounding of the site. In essence, this geology has given rise to many of the in -situ characteristics of soils that are found in the area. Erosion has exposed and cut into the sandstone to reveal these outcrops.

Dolerite boulders ranging from fresh, to partly weathered and to completely weathered soils have been observed.

5.3 Ecology (flora and fauna)

From the desktop Ecological Impact Assessment, it is evident that the site does not fall within a critically endangered or endangered ecosystem. The site is further not associated with any CBA or ESAs, nor with any protected or conservation areas. However, the site is situated within a proximity of an informally protected area, namely the Utrecht Town Park Private Nature Reserve.

The mining site itself does not have much growing plantation, it is made up of patches of grasses and outcrop of dump material, coal duff and considered transformed. The impacted nature of the site, together with the expanse of transformed vegetation to the west and north of the site lead to the suggestion that the study site is not regionally ecologically important.

5.4 Hydrological Conditions

According to the desktop study undertaken, there are few water bodies in the area, full assessment has not been conducted and the internal risk assessment matrix will further indicate the need for a full hydrological assessment. There is an existing river on the bottom valley of the proposed mining. Although the topographical map shows several drainage lines running on the sideways of the site, it was determined during the site visit that these are not drainage but dongas that could have occurred because of the low-lying areas caused by the Dump hill and slope factor. The NFEPA database does indicate few wetlands or river systems to be situated within 500m of the proposed site. From digital satellite imagery it is evident that the western portion of the study area, and the immediate area to the west are associated with erosion dongas. This erosion dongas have resulted over a period due to the susceptibility of the soils to erosion.

Figure 5-1. General View of the Coal Discard Dump Area to be Mined and water resources in the area.

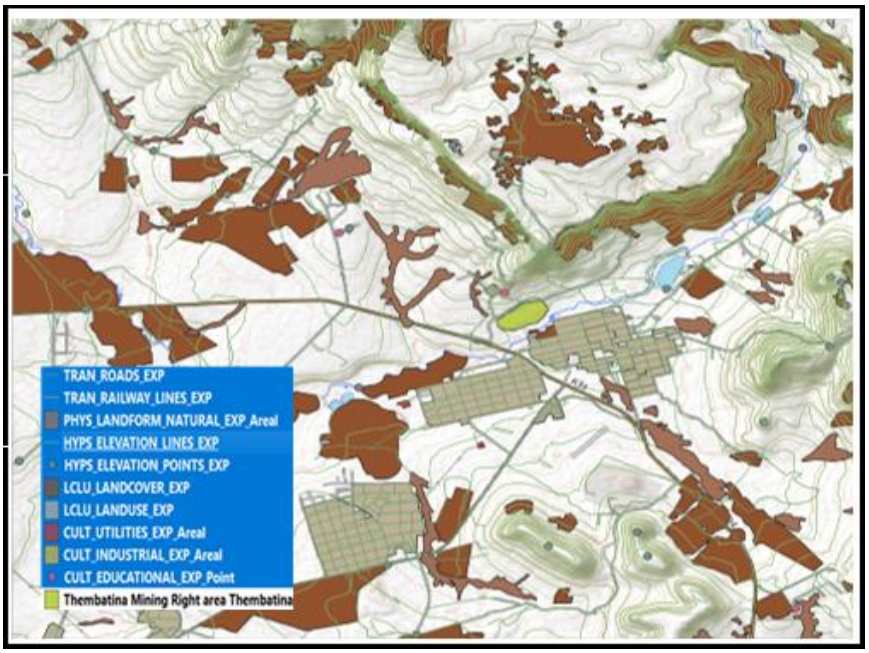


Figure 5-2. Topography and contour map of Coal Dumps and surrounding areas

The topography varies from 1237 metres above mean sea level (mamsl) directly west of Dump, to 1207 mamsl directly south-east of dump. The height of the dump is approximately 18m high. The dump consists of steep side slopes.

5.5 Soils, Land Use and Land Capability

5.5.1 Soil & Land Capability

The desktop conducted indicate that the study area falls in a deeply weathered soil, dominated by residual sandstone which means that most of the soil will be of a cohesive nature. The proposed area has no agricultural capability/potential. As a historical mining site, the area is not ideal for supporting urban development. This includes land

currently occupied by the mine dumps. The land capability of the old dumps is considered as wilderness. The proposed mining at Thembathina Coal Mine has a potential to directly impact on the water resource downstream and the capability of the area. E-Madlangeni comprises of good to moderate agricultural land potential. There is a small segment on the eastern and south-central portions of the municipality which runs in a band that have very restricted agricultural potential. The western, south central, and north central portions have good agricultural potential.

5.5.2 Land Use

The predominant land use within the catchment area is grassland, low shrubland and thicket and bush, as presented in Figure 5-3 below. It is essentially undeveloped land with little evidence of anthropogenic influences. The greatest portion of the area is covered by disturbed grasslands.

Figure 5-3. General View of the Land Cover Conditions Within the Proposed Thembathina Project Coal Dump Mine Site Boundary

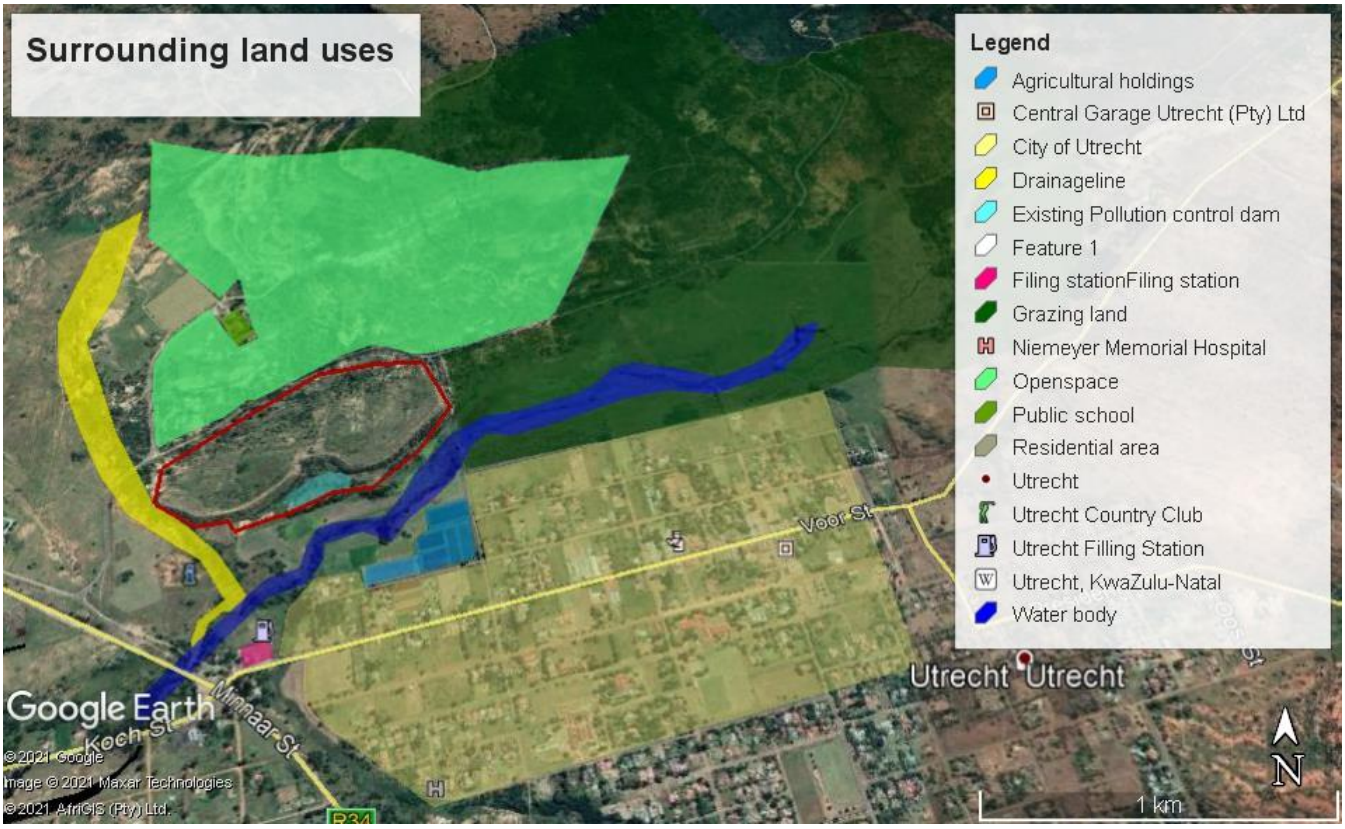


Figure 5-4. Land use Map around the coal dump area

5.6 CLIMATE

Precipitation

The percentage of days in which various types of precipitation are observed in figure 5-5 below, excluding trace quantities: rain alone, snow alone, and mixed (both rain and snow fell in the same day). A wet day is one with at least 0.04 inches of liquid or liquid-equivalent precipitation. The chance of wet days in Utrecht varies very significantly throughout the year.

The wetter season lasts 5.5 months, from October 8 to March 23, with a greater than 31% chance of a given day being a wet day. The chance of a wet day peaks at 59% on December 16. The drier season lasts 6.5 months, from March 23 to October 8. The smallest chance of a wet day is 3% on July 1. Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. Based

on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 59% on December 16.

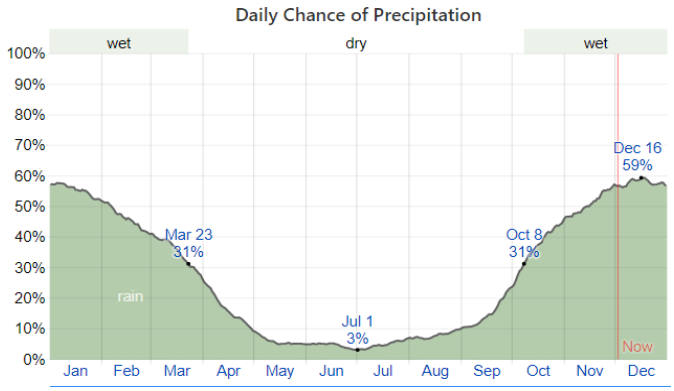


Figure 5-5: Daily Chance of Precipitation

5.7 SURFACE HYDROLOGY

The Vryheid Formation is the most extensive Formation in northern KZN. The basal beds comprise shales, siltstones and sandstone, overlain by coarse-grained, cross-bedded sandstone and grits. Sediments were transported from the east and northeast and deposited in the river systems as well as related deltas during several regressive cycles (Hancox and Gotz, 2014). Accumulation of rotting vegetation in swampy environments gave rise to coal deposits, which encompasses thick coarse-grained sandstone beds and carbonaceous shale with thin coal seams in the Colenso area. Coal deposits occur in the Klip River, Utrecht, and Vryheid coal fields.

The Klip River coalfield includes the whole coal-bearing area between Ladysmith and Newcastle in northern KZN (Hancox and Gotz, 2014). This area is bounded in the east by the Buffalo River and west by the foothills of the Drakensburg. The Vryheid Formation is exposed by the deeply incised Thukela River valley east of Colenso where it is intruded by numerous dolerite sills {Hancox, 2014, South Africa's coalfields- A 2014 perspective}. Based on petrological and chronological data, nine types of dolerite sill have been distinguished in northern KZN, the four major ones from oldest to youngest being the Zuinguin, Utrecht, Ingogo, and Talana dolerites (Hancox and Gotz, 2014).

Mining activities can potentially impact on the surface water and groundwater; however, dump reclamation will have zero to minimal impact on groundwater due to the nature of the operation, that is surface mining. Hydrological specialist was appointed and proposed to conduct the following studies:

A hydrological impact assessment of the mining activities on the receiving hydrological environment; and

- Delineation of the 1:50 and 1:100-year return period flood lines for four drainage lines bordering the site; and
- Stormwater Management Plan (SWMP).

5.8 ECOLOGY AND BIODIVERSITY

Fauna and Flora

The study area is located predominantly in the area dominated by Sandy grassland, covered by thicket/dense bush, Acacia trees in particular. Other grasses commonly found include *Heteropogon contortus*, *Elionurus muticus*, *Tristachya leucothrix and Eragrostis Racemosa*. The desktop biodiversity assessment identified three (3) habitat types as follows:

- Sand grassland.
- Shrub forestland
- Degraded grassland.

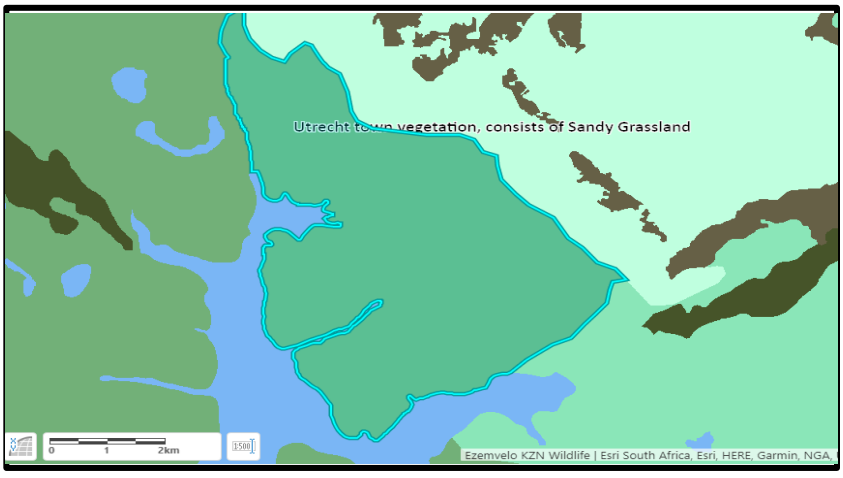


Figure 5-6: Utrecht vegetation Map

5.9 SOCIAL ASPECTS

The study area is located at EMadlangeni Local Municipality within the Amajuba District Municipality (ADM), KwaZulu-Natal Province. The demographics, households, economics, education, and service delivery aspects for the area are discussed below to provide a background of the area and initial insights for the socio-economic assessment that will be done and be presented in the EIA phase. The information was obtained from Emadlangeni Municipality (IDP ,2020). According to the Emadlangeni Municipality (IDP ,2020), the Utrecht population is of low-Living Standards Measurement with a low access to services. This places the community as vulnerable to impact. The community also has a high unemployment rate.

Demographics

According to Statistics South Africa (Stats SA), the ELM had a population of approximately 34 442 people in 2011. The community survey that Stats SA released in 2016, the ELM population has increased to 36 869 people. This marks an increase of 1.37%. Households increased from 6252 to 6667 during the same period. There are The ELM has the smallest population size within the district as it accounts for only 6% of the district population. The ELM population is spread unevenly among the six electoral wards with 10% residing in urban areas. Most of the population resides in rural settlements and in commercial farmlands.

Social Infra-structure

The infrastructure in the area is generally poor and need either of replacement or upgrading. A range of projects have been identified by the community and are reflected in the SDM and ELM's Integrated Development Plan (IDP) programmes. These projects will be implemented by the municipality as funding is approved. The projects for this Social and Labour Plan still needs to be identified which will be in line with the IDP of the Municipality and will be further and more specifically finalised in collaboration with the municipal authorities.

5.10 HERITAGE AND CULTURAL

A Phase I Heritage Impact Assessment (HIA) was done as part of the specialist investigations. The objectives for the cultural and archaeological study were:

- To obtain a good understanding of the overall archaeological and cultural heritage conditions of the area through a brief desktop study.
- To locate, identify, record, photograph and describe sites of archaeological and cultural importance.
- Should any sites be identified to propose a study method forward.
- Ensure that all requirements of the local South African Heritage Resources Agency (SAHRA) are met; and
- Report on the results of the archaeological and cultural heritage survey adhering to minimum standards as prescribed by the SAHRA and approved by the Association for Southern African Professional Archaeologist (ASAPA).

A first phase heritage survey of the proposed Thembatina Mining project near Utrecht identified no heritage sites or features on the footprint. The area is also not part of any known cultural landscape. A desktop palaeontological assessment will be undertaken, waiting for AMFA to comment on the project.

5.11 AIR QUALITY

Potentially air pollution may arise because of particulates entering the atmosphere. These particulates arise as dust from haul roads, on overburden stockpiles, R.O.M and product stockpiles. Mining activities at the proposed Utrecht Coal Mine will occur on the surface through reclamation mining and thus these activities may have impact on surface air quality. The associated surface infrastructure components are also potential sources of dust.

Desktop Air Quality specialist will be appointed, and the assessment will be made available during the EIA phase.

6. PROPOSED METHOD OF ASSESSING THE ENVIRONMENTAL ASPECTS

Methodology

Direct, indirect, and cumulative impacts of the issues that will be identified during the specialist investigations will assessed in terms of these standard rating scales to determine their significance. The rating system used for assessing impacts (or when specific impacts cannot be identified, the broader term issue should apply) is based on five criteria, namely:

i. Status of impacts (Table 6-1) – determines whether the potential impact is positive (positive gain to the environment), negative (negative impact on the environment), or neutral (i.e., no perceived cost or benefit to the environment).
ii. Spatial scale of impacts (Table 6-2) – determines the extent of the impact on a scale of localised to global effect. Potential impact is expressed numerically on a scale of 1 (site-specific) to 5 (global).
iii. Temporal scale of impacts (Table 6-3) – determines the extent of the impact in terms of timescale and longevity. Potential impact is expressed numerically on a scale of 1 (project duration) to 5 (permanent).
iv. Probability of impacts (Table 6-4) –quantifies the impact in terms of the likelihood of the impact occurring on a percentage scale of 95% (definite); and
v. Severity of impacts (Table 6-5) – quantifies the impact in terms of the magnitude of effect on environment (receptor) and is derived by consideration of points 1, 2 and 3 above. For this study, a conservative approach is adopted for severity (e.g., where spatial impact was 2 and temporal impact was 3, a value of 3 would be adopted as a conservative estimate for severity of impact).

Table 6-1: Status of Impacts

Rating	Description	Quantitative Rating
Positive	A benefit to the receiving environment (positive impact)	+
Neutral	No determined cost or benefit to the receiving environment	N
Negative	At cost to the receiving environment (negative impact)	-

Table 6-2: Spatial scale of Impacts

Very Low	Site Specific – impacts confined within the project site boundary	1
Low	Proximal – impacts extend to within 1 km of the project site boundary	2
Medium	Local – impacts extend beyond to within 5 km of the project site boundary	3
High	Regional – impacts extend beyond the site boundary and have a widespread effect - i.e., > 5 km from project site boundary	4
Very High	Global – impacts extend beyond the site boundary and have a national or global effect	5

Table 6-3: Temporal scale of Impacts

Very Low	Project duration – impacts expected only for the duration of the project or not greater than 1 year	1
Low	Short term – impacts expected on a duration timescale of 1 to 2 years	2
Medium	Medium term – impacts expected on a duration timescale of 2-5 years	3
High	Long term – impacts expected on a duration timescale of 5-15 years	4
Very High	Permanent – impacts expected on a duration timescale exceeding 15 years	5

Table 6-4: Probability of Impacts

High Improbable	Likelihood of the impact arising is estimated to be negligible;	1
Improbable	Likelihood of the impact arising is estimated to be 5-35%.	2
Possible	Likelihood of the impact arising is estimated to be 35-65%	3
Probable	Likelihood of the impact arising is estimated to be 65-95%.	4
High Probable	Likelihood of the impact arising is estimated to be > 95%.	5

Table 6-5: Severity of Impacts

Very Low	Negligible – zero or very low impact	1
Low	Site specific and short-term impacts	2
Medium	Local scale and / or short-term impacts	3
High	Regional and / or long-term impacts	4
Very High	Global scale and / or permanent environmental change	5

These five criteria are combined to describe the overall significance rating (Table 6-6). Calculated significance of impact – determines the overall impact on (or risk to) a specified receptor and is calculated as: the product of the probability (P) of the impact

occurring and the severity (S) of the impact if it were to occur (Impact = P × S). This is a widely accepted methodology for calculating risk and results in an overall impact rating of Low (L), Low/Medium (LM), Medium (M), Medium/High (MH) or High (H). The significance of a particular impact is depicted in Table 6-7 and assigned a particular colour code in relation to its severity.

Table 6-6: Significance of Impacts

Low	P × S = 1-3 (low impact significance)	L
Low/Medium	P × S = 4-5 (low/medium impact significance)	LM
Medium	P × S = 6-9 (medium impact significance)	M
Medium/High	P × S = 10-12 (medium/high impact significance)	MH
High	P × S = 13-25 (High impact significance)	H

Table 6-7: Perceived Significance of Impacts

Probability (P)	Severity (S) 1	2	3	4	5
1	L	L	L	LM	LM
2	L	LM	M	M	MH
3	L	M	M	MH	H
4	LM	M	MH	H	H
5	LM	MH	H	H	H

The impact significance rating should be considered by authorities in their decision-making process based on the implications of ratings ascribed below:

- Insignificant: the potential impact is negligible and will not have an influence on the decision regarding the proposed development.
- Low: the potential impact is very small and should not have any meaningful influence on the decision regarding the proposed development.
- Low/Medium: the potential impact may not have any meaningful influence on the decision regarding the proposed activity/development.
- Medium: the potential impact should influence the decision regarding the proposed activity/development.
- Medium/High: the potential impact will affect the decision regarding the proposed activity/development; and
- High: the proposed activity should only be approved under special circumstances.

Practicable mitigation and optimisation measures are recommended, and impacts are rated in the prescribed way both without and with the assumed effective implementation of the recommended mitigation (and/or optimisation) measures. Mitigation and optimisation measures are either:

- Essential: measures that must be implemented and are non-negotiable; or
- Best Practice: recommended to comply with best practice, with adoption dependent on the proponent's risk profile and commitment to adhere to best practice, and which must be shown to have been considered and sound reasons provided by the proponent if not implemented.

The model outcome is then assessed in terms of impact certainty and consideration of available information. Where a particular variable rationally requires weighting or an additional variable requires consideration the model outcome is adjusted accordingly.

Identification of impacts
Potential impacts resulting from the proposed Thembathina projects Coal Mine to be identified during the scoping phase using input from the following sectors:

- Views of interested and affected parties (thus far);
- Existing information based on literature reviews and desktop assessments (EAP and specialist inputs);
- Sites visit with the project team.
- Guidelines; and
- Legislation.

The following potential impacts were identified:

- Surface Water contamination.
- Disturbance of Geology and Soils.
- Socio-economic Impacts.
- Flora and Fauna Impacts.
- Impacts on watercourses including wetlands.
- Dust and Air Quality Impacts.
- Noise Impacts.
- Paleontological /Heritage and cultural resource impacts; and
- Rehabilitation management plan.

Proposed Specialist Studies to Assess the Environmental Impacts during the EIA phase:

- Freshwater Impact Assessment (Ecology, Wetland Delineation and Aquatic Impact Assessment (PES and EIS).
- Surface water assessment.
- Floodline determination.
- Storm-water Management Plan,
- Heritage Impact Assessment; and
- Paleontological Desktop Assessment
- Geohydrological Assessment
- Air Quality Impact.

7. POTENTIAL IMPACTS

Based on the investigation of the receiving environment, as well as the understanding of activities to be carried out for the reclamation of coal dump project, the potential impacts during the various phases of the operation will be identified and addressed in detail during the EIA phase. Currently, a comprehensive impact assessment cannot be conducted for the anticipated impacts; however, the anticipated impacts can be discussed, and an indication provided whether it will be positive or negative (Table 7-1).

Table 7-1: Potential Impacts prior to mitigation measures

Terrestrial Ecology:

Impact	**Status of Impact Prior to Mitigation**	**Proposed Mitigation/ Improvement Measures**
The clearance for the removal of coal dump will result in habitat loss	Negative	• Keep the footprint of the disturbed area to the minimum and designated areas only. • Unnecessary vegetation clearing should be avoided.
Displacement of flora and fauna species	Negative	• Keep the footprint of the disturbed area to the minimum and designated areas only. • An environmental induction for all staff members must be mandatory to discuss these impacts such as the presence of flora & fauna which may not be damaged, caught or removed without a permit.
Accidental introduction of alien species and invaders	Negative	• Eradication and/ or control of alien invasive plants and weeds as per the alien and invasive species monitoring programme. • Disturbance of natural areas should be avoided as far as possible and the spread of alien flora into natural areas should be controlled.

		• Continuous monitoring of the growth and spread of alien and invasive flora coupled with an adaptive management approach to identify suitable control mechanisms (e.g., mechanical, chemical, or biological control). Mechanical control is usually preferred. • Cleaning of vehicles and equipment before entering natural areas to remove large deposits of foreign soils and plant material sourced from elsewhere.
Faunal mortalities	Negative	• An environmental induction for all staff members must be mandatory in which specific issues related to the killing and/or disturbance of faunal species should be avoided. • All staff operating motor vehicles must undergo an environmental induction training course that includes instruction on the need to comply with speed limits, to respect all forms of wildlife (especially reptiles and amphibians) and, wherever possible, prevent accidental road kills of fauna. Drivers not complying with speed limits should be subject to penalties. • The proposed mining activities will result in the deaths of numerous fauna species. It is suggested that construction and mining operations occur from a predetermined area and move along a gradient to allow fauna species to relocate. • The ECO should monitor live animal observations in order to monitor trends in animal populations and thus implement proactive adaptable mitigation of vehicle movements. • Should holes or burrows be located on site, contact a zoological specialist to investigate and possibly remove any species located within them. • Where possible, barriers around excavation sites should be erected to prevent fauna from falling into the excavations.

Surface Water

Hydrology patterns	Negative	• Make use of permeable materials for pavements and walkways. There is no planned reduction in catchment size due to the nature of activities.
Water quality	Negative	• Baseline water quality needs to be established. Ongoing water monitoring during the operation phase and post-mining to demonstrate compliance and ensure reactive measures in case of pollution events. • Clean and dirty water separation must be undertaken, and clean water areas must be maximised.
Surface water contamination	Negative	• Prevention of contaminated surface runoff which might impact to the water resource used by downstream users. • All hydrocarbons, lubricants should be adequately stored, not brought onsite since there would be no workshop. • Spillages on open soil must be contained and removed and treated as hazardous waste. • Regular inspection should be conducted of storage facilities. • Implement effective concurrent rehabilitation of the reclamation pit area.
Excavated materials that are stockpiled in incorrect areas can interfere with the	Negative	• The areas excavated should have berms that are vegetated to separate dirty and clean water systems, and as an erosion control measure.

natural drainage, cause sedimentation and water pollution		• Upslope diversion and down slope silt containment structures should be constructed. • Monitoring of surface water resource pre-mining and during operation must be implemented as per the monitoring programme.
Destruction of wetlands and watercourses	Negative	• Minimise the planning of mining activities within 100 m or 1:100-year flood event of watercourses. • Mining activities undertaken within a watercourse or buffer area as determined by wetland specialist will result in application of a water use licence.

Geology and Soils

Site clearance and levelling during the reclamation of dump will cause some additional exposed areas and could trigger erosion and siltation, especially during rainy periods	Negative	• Prevent soil loss through erosion. • Develop appropriate storm water management system to control surface run off over exposed areas. • Ensure all vehicles stay within the designated areas (for example, away from watercourses). • Plan to construct most of the development during the dry winter months. • Have in place temporary erosion and sedimentation trapping control measures during the operational phase
Soils	Negative	• Structures that involve coralliferous material should have a compacted base layer which serves as a sealing layer to prevent contaminated water from seeping into the ground water system. Proper runoff control structures should be in place which channels all polluted water into a pollution control facility.

Social

Recruitment strategies for the mine	Positive	NA
Advantage to previously disadvantage individuals	Positive	NA
Community development programmes	Positive	NA
Upgrades and expansion of services will benefit local area	Positive	NA

Economic

Increased income generation for local community	Positive	NA
Increased job opportunities for local mining communities	Positive	NA
Economical injection to the area and KwaZulu-Natal	Positive	NA

Noise

Noise emanating from heavy machinery and transport vehicles	Negative	• Mining-related machine and vehicles must be serviced on a regular basis to ensure noise suppression mechanisms are effective e.g., installing exhaust mufflers where possible. • Noisy machinery to be used predominately during daylight hours. • Grievance mechanism to record complaints should be kept on site and investigated. • Regular monitoring of noise to take place.

Visual

Infrastructure (e.g., workshop, & stores	Negative	• To reduce the visual impact of permanent structures, walls etc. should be of a matt finish to reduce reflection. • Infrastructure should be located away from sensitive and elevated areas.
Location of stockpiles, pollution control dams and tailing dams	Negative	• Locate away from roads and settlements as far as possible. • Height of stockpiles to be kept as low as possible to reduce visual impact.

Heritage and Cultural

Heritage resources disturbed / destroyed	Negative	• The HIA investigation will identify resources and sites to be avoided or removed/ relocated. The specialist recommendations will be required.
Paleontological sites disturbed / destroyed	Negative	• The HIA investigation will identify resources and sites to be avoided or removed/ relocated. The specialist recommendations will be required
Cultural places disturbed / destroyed	Negative	• The HIA investigation will identify resources and sites to be avoided or removed/ relocated. The specialist recommendations will be required.

Traffic

Increased traffic volumes on the existing road networks	Negative	• Speed limits must be implemented on site as well as safety controls. • Construction of haul roads within safety limits from access road. • Create safe environment for pedestrians, animals, and motorists. • Create fauna underpasses where necessary (example bridge crossings).

Safety

Surrounding neighbours	Negative	• Personnel are not permitted on other properties without permission. • Avoid conflict with surrounding landowners.

Air Quality

Dust pollution	Negative	• The removal of vegetation will be minimised during stripping to reduce the effects of dust pollution because of exposed soil. • Water or dust control agents should be used in working areas, and roads will be sprayed for dust suppression on a regular basis in designated susceptible areas during heavy usage. • Dust monitoring must be undertaken in accordance with the monitoring programme. • Reduction of dust fallout levels and particulate matter. • All coal haul trucks must be covered by a tarpaulin.
Screening and crushing	Negative	• Very careful planning of screen layout has to be undertaken to take out the fine cut as early as possible to lessen the dust carried through the screening process. • Use water to both clean chip and allay dust, as water is the cheapest form of dust suppression.

		• The sloping of the stockpile's areas should be done facing away from receptors. • Implement stormwater management plan • Divert clean stormwater around construction areas • Surface water management structures be concreted first as to ensure that runoff and dirty water spills are contained • Check equipment for leaks and report such leaks • Use biodegradable solvents such as Spillsorb or similar products in the clean-up operation • Provide spill kits on site • Incase of spillage, the soils will be treated with a suitable decontaminant such as the Spillsorb range of products. • Spills will be remediated immediately

8. MITIGATION MEASURES

The impacts that are generated by the development can be minimised if measures are implemented to reduce the impacts. The mitigation measures ensure that the development considers the environment and the predicted impacts to minimise impacts and achieve sustainable development. This will be assessed and discussed in more detail during the EIA phase.

9. MOTIVATING THE PREFERRED SITE

As a result of the scoping phase impact assessment and the sensitivity mapping exercise, there is no preferred layout alternative that will be identified. The preferred site will be assessed further in the EIA phase assessment.

10. PLAN OF STUDY

The Scoping Phase has identified potential environmental impacts and discussed the alternatives considered (No alternative considered by this project). The section below outlines the proposed plan of study which will be conducted for the various environmental aspects during the EIA Phase. It is also important to note that the plan of study will also be guided by comment obtained from I&AP's and other stakeholders during the PPP.

10.1 The objectives of the impact assessment phase will be to

- Identify and assess the environmental (biophysical and social) impacts of the construction, operation, decommissioning and post closure impacts of the proposed

development. The cumulative impacts of the proposed development will also be identified and evaluated.

- Alternative activities and locations will be determined and assessed in parallel with the proposed activity.
- Identify and evaluate potential management and mitigation measures that will reduce the negative impacts of the proposed development and enhance the positive impacts.
- Compile monitoring, management, mitigation, and training needs in the EMPR; and
- Provide the decision-making authorities with sufficient and accurate information to make a sound decision on the proposed development.

10.2 Tasks to be undertaken during the impact assessment phase.

The Impact Assessment Phase has four key elements, as follows:

- Specialist Studies: Specialist studies identified during the Scoping Phase, and any additional studies that may be required by the authorities, are undertaken as the initial phase of the EIA. The relevant specialists are appointed to undertake the various assessments. Specialists gather baseline information relevant to the study being undertaken and assess impacts associated with the development. Specialists also make recommendations to mitigate negative impacts and optimise benefits. The resulting information is synthesised into the draft EIA report that will be made available to I&APs for review
- Environmental Impact Assessment Report (EIAR): The main purpose of this Report is to gather environmental information and evaluate the overall impacts associated with the project, to consider mitigation measures and alternative options, and make recommendations in choosing the best development alternative. The EIAR also identifies mitigation measure/management recommendations to minimise negative impacts and enhance benefits. The draft EIAR and associated reports will be made available for public and authority review and comment for a period of 30 days. The availability of the draft EIAR will be communicated to all registered I&APs and will be easily accessible. After comments have been received the final EIAR will be compiled

and submitted to the competent authority (DMR) for review. This report will assist the DMR in making an informed decision.

- Environmental Management Programme (EMPr): The EMPr provides guidelines to the proponent and the technical team on how to best implement the mitigation measure/management recommendations outlined in the EIAr during the construction, operational and decommissioning/rehabilitation phase. The EMPr is a law binding document, and once approved cannot be amended without permission from the DMR.
- Public Participation Process: The PPP initiated during the Scoping Phase, is continued. This includes continuous engagement with I&APs and stakeholders which includes meetings, receiving comments, issues and concerns raised by I&APs and the authorities during the review period, and provides relevant responses to these comments.

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

According to the MPRDA and NEMA regulations, feasible alternatives need to be considered and assessed during the Scoping and Impact Assessment Phase of the project. However, there is no alternative considered for this project, the identified site is most preferred by the client due to the mineral found there.

10.4 Description of the aspect to be assessed as part of the environmental impact assessment process.

The following specialist studies will be undertaken for the overall application area focus on the dump and the surrounding areas. The site is sensitive in terms of stormwater due to the acts will be assessed further during the EIA phase investigation to be undertaken:

- Freshwater Impact Assessment (Wetland Delineation and Aquatic Impact Assessment (PES and EIS).
- Hydrological water assessment.
- Floodline determination.
- Storm-water Management Plan,

- Heritage Impact Assessment; and
- Paleontological Desktop Assessment
- Geohydrological Impact assessment.

In addition, the following will continue during the EIA phase:

- Public participation and consultation
- Environmental Management Programme
- Alternatives
- Amend site layout designs and Mining Works Programme

10.5 Proposed method of assessing the environmental aspects including the proposed method of assessing alternatives.

Refer to section 6.1 above for more details.

10.6 The stages at which the competent authority will be consulted.

Competent authorities will be consulted during the initial notification period, the scoping phase, and during the EIA phase.

A consultation meeting will be held with the DWS. No additional Authority meetings are scheduled during the scoping phase; unless an authority requires a meeting one will be arranged. The purpose of the Authority meeting would be to explain the project in detail to authorities and clarify the process going forward.

Other stakeholders that will be included are the District and Local Municipalities, Ward Councillors, and others identified during the Scoping Phase.

The consultation process to be followed as part of the review and decision-making stages include:

- Scoping review and decision-making stage.
- Environmental impact assessment review and decision-making stage; and
- The environmental authorisation decision making and appeal process stage.

10.7 Particular to the Public Participation Process with regards to the impact assessment process that will be conducted

Competent authorities, stakeholders and I&APs will be consulted during the initial notification period, the scoping phase, and during the EIA phase.

10.7.1 Steps to be taken to notify interested and affected parties.

A detailed description of the PPP conducted for the scoping phase is described in the attached PPP report. I&APs were notified of the proposed application via BID, newspaper advertisements, emails, site and public notices, registered letters, and facsimiles. The PPP will be undertaken in accordance with the NEMA process and the 2014 Regulations (as amended). A minimum of 30 days will be provided to the public to register as I&AP's and to provide initial comments, and 30 days will be provided to comment on the draft Scoping Report. The information submitted by I&AP's will be utilised during the Impact Assessment and compilation of the EIAR. Should the Final Scoping Report be accepted by the competent authority, an EIA process will be undertaken.

During the EIA phase I&APs, stakeholders and the competent authorities will be notified of the process to be undertaken (similar way as described in Section 7 above and as outlined in the NEMA regulations (2014, as amended), will be provided an opportunity to comment on the draft EIAR which will include specialist studies and attend a public meeting.

10.7.2 Details of the engagement process to be followed.

The process of identifying and contacting landowners, stakeholders and I&APs commenced when I&APs were notified as part of site and public notices, newspaper adverts, emails, registered letters, and distribution of the Background Information Document (BID). Landowners and their contact details was identified through the prospecting phase register, direct consultation and/or Title Deed search for the properties falling within the proposed study area. Proof of notifications and

documentation pertaining to the PPP will form part of the public participation records as part of the Scoping and Environmental Impact Assessment phase.

As mentioned above, during the EIA phase I&APs will be afforded the following opportunities to participate in the project:

- I&APs will be requested via notifications to provide their comments on the project, notified when the draft EIAR will be available for review and notified of a public meeting that will take place.
- The EIAR and EMPr will be available for comment for a period of 30 days at the same public places in the project area that the Scoping Report will be made available, sent to stakeholders who request a copy, and placed on the BGES website: http://www.beyondges.co.za/Home/Documents

All comments and issues raised during the public comment period will be incorporated into the Final EIAR and EMPr to be submitted to the competent authorities for review and the final decision-making stage.

I&APs will be notified about the decision of the competent authority within 14 days of receiving written letters and will specify any further process that is to be undertaken such as the appeal process.

10.7.3 Description of the information to be provided to Interested and Affected Parties

The following information but not limited to this will be made available to I&APs:

- Background Information Document: The aim of the BID is to inform all Interested and Affected Parties about the proposed project and process to be followed during the scoping and EIA phase which includes the undertaking of PPP and environmental impact assessment process for the compilation of the Environmental Impact Assessment, Environmental Management Programme and Waste Management Licence for the proposed mining activities.
- The site plan, scale and extent of activities to be authorised.
- Draft Scoping Report which will include:
  - the plan of study.

- list of activities to be authorized according to NEMA, NEM: WA and NWA.
- indication and discussion of the impacts of activities to be authorised.
- the proposed specialist studies that will be undertaken as part of the project.
- the proposed mining methods to be used.
- discussion of alternatives including location, process and methodology as well as the No-Go alternative; and
- Details of the MPRDA, NEMA, NEM: WA and NWA Regulations (including a list of other applicable regulations) that must be adhered to.

- Draft EIR and EMPr which will include the results from the specialist assessments will also be made available for public review and comment for a period of 30 days: and
- Information will also be made available as requested by the Interested and Affected Parties throughout the process.

10.8 Description of the tasks that will be undertaken during the EIA process.

As discussed in detail in the above sections and summarised below, the following tasks will be undertaken as part of the EIA phase of the project:

- Finalisation of the legislative context within which the activities are located and document how the proposed activity complies with and responds to this.
- Finalisation of the activities triggered under NEMA and NEM: WA based on the specialist assessments and the final design layout and specifications.
- Identification of the location of the development footprint within the preferred site based on impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment.
- Identification of the most ideal location for the activities within the preferred site based on the lowest level of environmental sensitivity identified during the assessment, especially with the proposed sitting of the mining infrastructure.

- Determination of the nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and degree to which these impacts can be reversed, may cause irreplaceable loss of resources, can be avoided, managed or mitigated.
- Identification of suitable measures to avoid, manage or mitigate identified impacts.
- Detailed specialist studies.
- Continued Public Participation Process.
- Compilation of the draft EIA report and EMPr, and once the consultation, review and commenting period has finished the finalisation of the EIA report and EMPr which will be submitted to the competent authority for review and final decision making.

10.9 Measure to avoid, reverse, mitigate, or manage identifies impacts and to determine the extent of the residual risks that needs to be managed and monitored.
Please refer to Table 6-8.

11. OTHER INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

11.1 Compliance with the provision of Section 24(4)(A) and (B) read with Section 24(3) (A) and (7) of the National Environmental Management Act (ACT 107 of 1998) The EIA Report must include the:

11.1.*1 Impact on the socio-economic condition of any directly affected person.*
Full details will be made available during the EIA phase after the specialist studies have been conducted and consultation with the community, stakeholders and other I&APs.

The proposed Thembathina Projects Coal Mine will provide employment opportunities, skills development, social development programmes, community upliftment and economic injection to the local area. Furthermore, impacts including visual, traffic, service delivery, land use changes and security and safety will be assessed and discussed during the EIA phase.

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

A Heritage Specialist has been appointed and the results of the assessment will be made available in the EIA phase.

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

Section 24(4)(b)(i) of the NEMA (as amended), provides that an investigation must be undertaken of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity. Alternatives have been discussed in Section 6 of this draft Scoping Report and will be addressed in detail during the EIA phase once the specialist assessments and comments received from I&APs, stakeholders and the competent authorities have been received.

13. ASSUMPTIONS, LIMITATIONS, AND UNCERTAINTIES

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

- This report is based on project information provided by the client.
- This report is based on a project description taken from client meetings, preliminary drawings and design specifications for the proposed mine that have not yet been finalised and which are likely to undergo a number of iterations and refinements before they can be regarded as definitive and proposed methodology for the mining operations. Detailed information will be provided in the EIA Phase.
- Most specialist studies have partially completed for the scoping phase. Descriptions of the environmental, economic, and social environments are based on limited desktop assessments and available literature for the area. More

detailed information will be provided in the EIA phase based on the outcomes of the specialist studies. Limited scoping-phase specialist input was obtained for inclusion in this report.

- The description of the baseline environment and where possible the up-to-date information has been obtained from various sources. More detailed information will be provided in the EIA phase based on the outcomes of the specialist studies, the finalization of the Mining Works Programme and design layout.
- A detailed impact assessment cannot be done at present as the levels of confidence are considered too low until detailed specialist input and comments from the I&APs are obtained which will be presented and discussed in more detail during the EIA phase.

14. UNDERTAKING BY THE EAP

14.1 REGARDING CORRECTNESS OF INFORMATION

I Mcebo Zulu herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected Parties has been correctly recorded in the report. and that the level or agreement with Interested and Affected Parties and stakeholders has been correctly recorded and reported herein.

Signature of the EAP

Date 28 May 2021

15. REFERENCES

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APPENDICES:

APPENDIX A: EAP CERTIFICATES AND CV

UNIVERSITY OF
KWAZULU-NATAL

INYUVESI
YAKWAZULU-NATALI

This is to certify that

Mcebo Goodman Zulu

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

Bachelor of Social Science
(Geography and Environmental Management)

having satisfied the conditions prescribed for the degree.

M H Makgoba
Vice-Chancellor

J J Meyerowitz
Registrar

N Gwele-Uzodike
Dean

19 April 2012

UV PROTECTED


USK Environmental & Waste Engineering
microbialinsights
Eijkelkamp
North America
COLUMBIA TECHNOLOGIES
RPI GROUP
ENVIRO WORKSHOPS
CERTIFICATE OF COMPLETION
AWARDED TO
Mcebo Zulu
For attendance of the Remediation Workshop and
4.0 Professional Development Hours (PDH)
Date
Executive Director
In partnership
SAME

Appendix B: Summary of experience

Mcebo Zulu (Environmentalist)

47-49 Joe Slovo Str, Durban, 4001, KZN, South Africa

E: mceboz63@gmail.com

C: +27 (0)73 512 400

Profession	Environmental Management (Land remediation)
Education	BSSc (Degree), Geography and Environmental Management,(University of KwaZulu-Natal), 2010 Cert, Bioremediation (EnviroWorshops) 2019, ISO14000 (Riskza) 2017, Fundamental Project Management (KweLanga training) 2016, Operations for non-operation employees (School of Transnet Pipelines) 2016.
Registrations/ Affiliations	Member of the Wildlife and Environmental Association of South Africa.
LinkedIn Profile	linkedin.com/in/mcebo-zulu-115a6270

Summary

Mcebo Zulu is a multi-disciplined individual who completed his Environmental management degree (Geography and Environmental Management) at the University of KwaZulu-Natal. He then further completed his Honours in Economic History and Masters in Public policy at the same institution.

He has extensive experience in Environmental Site Assessment (Pollution control), Environmental Impact Assessments, Environmental audits, environmental authorisations, and compliance requirements of all South African environmental legislation. Had exposure in various industries including Multi-Petroleum product Pipeline, Oil and Gas industry, Construction, Research and Education, as well as knowledge of Health and Safety.

Competences

- Specialist reports (Environmental remediation).
- Project management.
- Environmental impact assessment.
- Due diligence reports.
- Contaminated lands remediation protocols.
- Environmental compliance audits.
- Water use license applications.
- Environmental management programmes.
- Waste management training: Part 8

Key Experience: Environmental projects

Project description	Client	Role	Completion Date
Basic Assessment Process for the proposed aggregate mining operation at Gelegefountain	Trench and Bulk Blasting	Project assistant	In progress
Basic Assessment Process for the proposed coal mining operation at Newcastle	Convocado Pty Ltd	Project assistant	In progress
Environmental site assessment and pollution control at vehicle refuelling station, Dundee.	Puma Energy	Project assistant	Complete
Due diligent ESA for the construction of Aviation refueling station in Richard's bay Airport	Puma Energy	Project assistant	Complete
Environmental Compliance Auditing	Transnet Pipelines KwaZulu-Natal and Gauteng depots	Project assistant	Complete
EA application for the construction of Gabion for exposed Multi-Product Pipeline in Tweedie	Transnet Pipelines	Project Assistant	Complete
EA application for the construction of Gabion for exposed Multi-Product Pipeline in Schuinshoogte, Newcastle.	Transnet Pipelines	Project Assistant	Complete

Appendix C: Acceptance / Acknowledgement Letters from DMR

mineral resources & energy
Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Private Bag X 54307, Durban, 4000, 333 Anton Lembede Street, 3rd Floor Durban Bay House, Durban, Tel (031) 335 9600, Fax (031) 305 5801
Reference: KZN 30/5/1/2/2/ 10099 MR Enquiries: Mr. S. Njapha Email address: Sandile.njapha@dmr.gov.za, Date: 25th November 2020

REGISTERED MAIL

THE MANAGER
THEMBA THINA MINING (PTY) LTD
P.O BOX 250
WAKKERSTROOM
2480

Dear Sir/Madam

ACCEPTANCE FOR A MININING RIGHT IN TERMS OF SECTION 22 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, (ACT 28 OF 2002) [HEREIN AFTER REFERRED TO AS THE ACT] AS AMENDED BY SECTION 18 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT AMENDMENT ACT (ACT 49 OF 2008) TO MINE FOR COAL ON A PORTION OF THE FARM TOWNLANDS OF UTRECHT NO. 266-HT SITUATED IN THE MAGISTERIAL DISTRICT OF AMAJUBA: THEMBA THINA MINING (PTY) LTD

1. Please be informed that your application for mining of Coal on Portion of the Farm Townlands of Utrecht No. 266-HT situated in the Magisterial District of **Amajuba** is hereby accepted on the above-mentioned property in terms of Section 22 (4) of the Act as amended by Section 18 of the Amendment Act.

2. Take note that in light of the minimum requirements as stipulated on regulation 16 (1) and 16 (2) of the EIA Regulations, your application for an Environmental Authorisation was deemed incomplete as it was not accompanied by this acceptance letter as per Regulation 16 (1) (ix) and considering that it is now completed by this acceptance letter, you are hereby required to submit the documents as stipulated on Regulation 19 (1) to 19 (8) of the EIA Regulation (only

THE END