



ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

DRAFT SCOPING REPORT

**ESTABLISHMENT OF THE NAMAKWA SPECIAL ECONOMIC ZONE ON PORTION 1 OF
THE FARM BLOEMHOEK 61 AND ON THE REMAINDER OF THE FARM AROAMS 57,
NORTHERN CAPE**

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1. INTRODUCTION

The purpose of this environmental Scoping Report is to identify all the possible issues and impacts from activities associated with the proposed construction and operation of the NAMAKWA SEZ broadly and collaboratively.

This Scoping Report will therefore contain all the information that is necessary for an adequate understanding of the nature of issues or impacts associated with this proposed development, the access roads, and all other associated infrastructure and services. The EIA report that will follow the Environmental Scoping Report will focus on identifying the impacts on the physical and biological environment and to some extent the social environment, along with the impact mitigation thereof.

The planning and eventual construction and operation of the proposed NEMAKWA SEZ represent the legal trigger for the Environmental Impact Assessment (EIA) process to follow in terms of the List of Activities and Competent Authorities identified in term of Sections 24 & 24D of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), Listing notice R983 and R984 of 2014 as amended in GNR 326, 327, 325 and 324 of 7 April 2017.

Various listing activities have been identified and will be updated if any new activities might possibly be triggered. Listed activities will be included in the legal review section of this report.

A plan of study for the EIA phase will be submitted with this report to the relevant authorities for approval.


1.1 OBJECTIVES OF THE SCOPING REPORT

The objectives of the Scoping report are to, through a consultative process-

- (a) identify the relevant policies and legislation relevant to the activity;
- (b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- (c) Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
- (d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focussing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- (e) Identify the key issues to be addressed in the assessment phase;
- (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extend of future 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, extend, 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 risk that need to be managed and monitored.

The **objective of this Scoping Report** is to identify the issues that are associated with the proposed establishment of the NAMAKWA SEZ, in terms of environmental, biophysical and socio-economic aspects. The Scoping report provides as much as possible technical information against the background of the fact that some information deficiencies may occur and still need to be obtained during the planning process.

1.2 DETAILS OF THE EAP

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REC Services Pty Ltd specializes in Environmental Impact Assessments and Management during the planning and development stages of a range of development projects. REC Services Pty Ltd is a streamlined firm with an integrated approach to environmental impact assessments, networking with expertise where necessary, while always keeping a holistic view on assignments. Our 20 + years of experience is across a broad range of development projects and clients involved in assignments in the urban and rural environments.

The two individuals that will be dealing with this application is presented below.

Mr. Pieter van der Merwe is the managing director REC Services Pty Ltd. Pieter's responsibilities extend towards reviewing project reports, conducting liaison and participation exercises and using his experience to guide his project team. Pieter obtained his qualifications at the University of Pretoria and includes a BSc. in Botany and Geology, a B. Hons degree in Botany (UP) and a B. Hons degree in Environmental Management (UP for CHE). Pieter has 30 years of experience in the Environmental Management field and has operated his own company, REC Services Pty Ltd, for more than 20 years.

Mr. Arno van den Berg undertook his studies at the University of Johannesburg and obtained an M.Sc. degree in Environmental Management in 2009. Before this, he obtained his B. Hons degree in Botany and B.Sc. in Environmental Science. He has been part of REC Services Pty Ltd for 12 years. Arno is registered with the South African Council for Natural Scientific Professions (SACNASP) in 2015 in the field of Environmental Sciences. CV of EAP attached in Appendix 5.

2 LOCALITY AND STUDY AREA

The proposed SEZ will be situated on Portion 1 of the Farm Bloemhoek 61 and on the remainder of the Farm Aroams 57. The location of the SEZ is roughly 10 km to the East of the town Aggeneys. The proposed Namakwa SEZ is strategically located along a bulk commodity corridor, which runs from a planned port on the Atlantic coast (the Boegoebaai Deep Port Harbour) through Aggeneys to the large urban centre of Upington and beyond to the concentrations of iron ore and manganese ore at Sishen and Kathu. The land is owned by Black Mountain Mining Pty Ltd

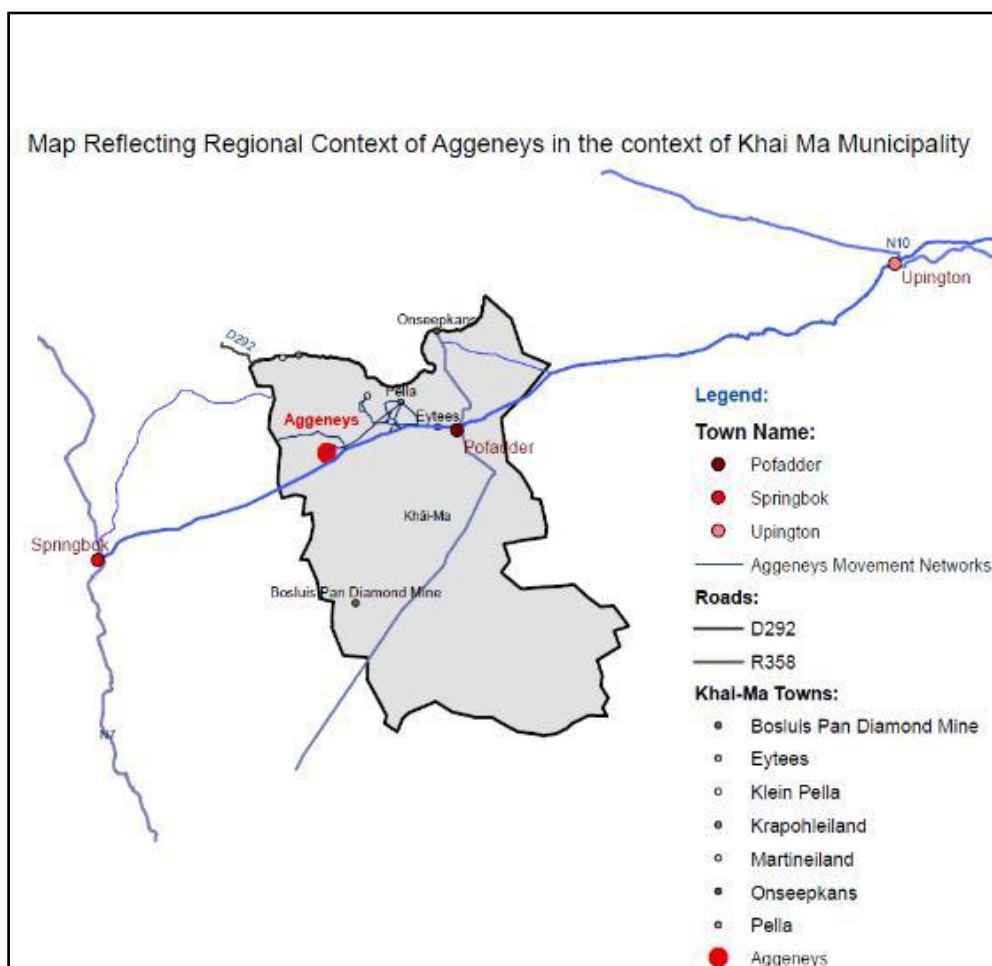


Figure 1: Map reflecting the regional context of Aggeneys

The town Aggeneys is located approximately 67 kilometres south west of Pofadder, on the N14 highway to Springbok, on the farm Aggeneys 56. The town is located in the Khâi-Ma Local Municipality, which falls within the Namakwa District Municipality, in the northern part of the Northern Cape Province.

The proposed NAMAKWA SEZ will be located on two separate farms namely the Remainder of Aroams 57 and on Portion 1 of the Farm Bloemhoek 61. [Figure 2](#) and [Figure 3](#) below illustrate the extend of the various farm portions on which the project will be situated.

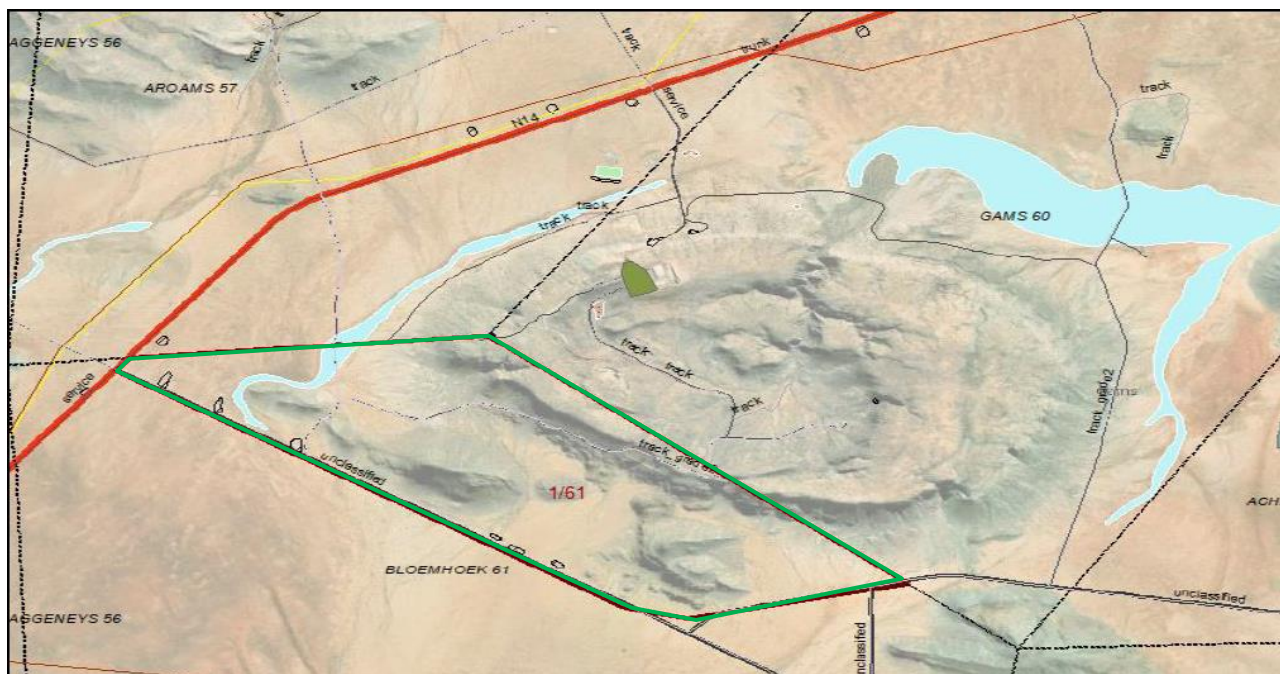


Figure 2: Map reflecting the Portion 1 of Bloemhoek 61 in green.

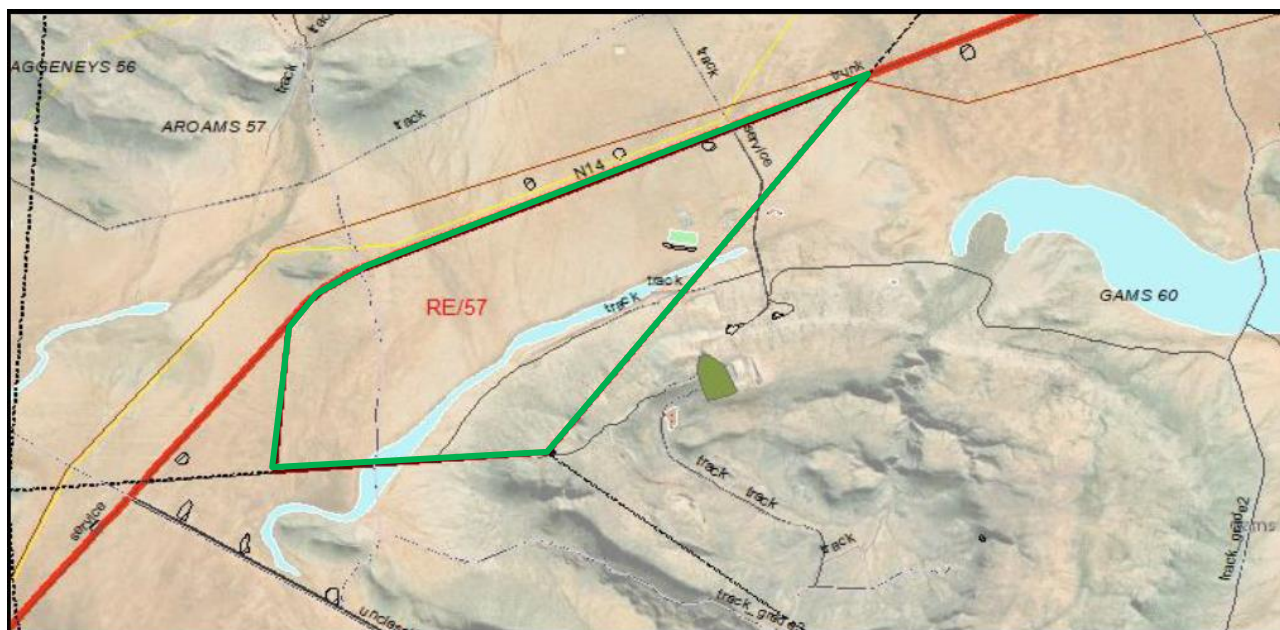


Figure 3: Map reflecting RE of Aroams 57 in green.

The site layout as presented in [Figure 4](#) below illustrated the total development of the NAMAKWA SEZ that would include the new smelter and additional extensions of mining operations. It should be noted that the smelter and all mining related activities will not be covered by this EIA process as it will be subject to EIA processes to be completed by Black Mountain Mining Ltd.



Apart from the Site layout, a site development plan has been proposed that includes the proposed solar installations. The site development plan currently includes biodiversity sensitivities that was sourced from previous studies conducted by Black Mountain Mine Pty Ltd.

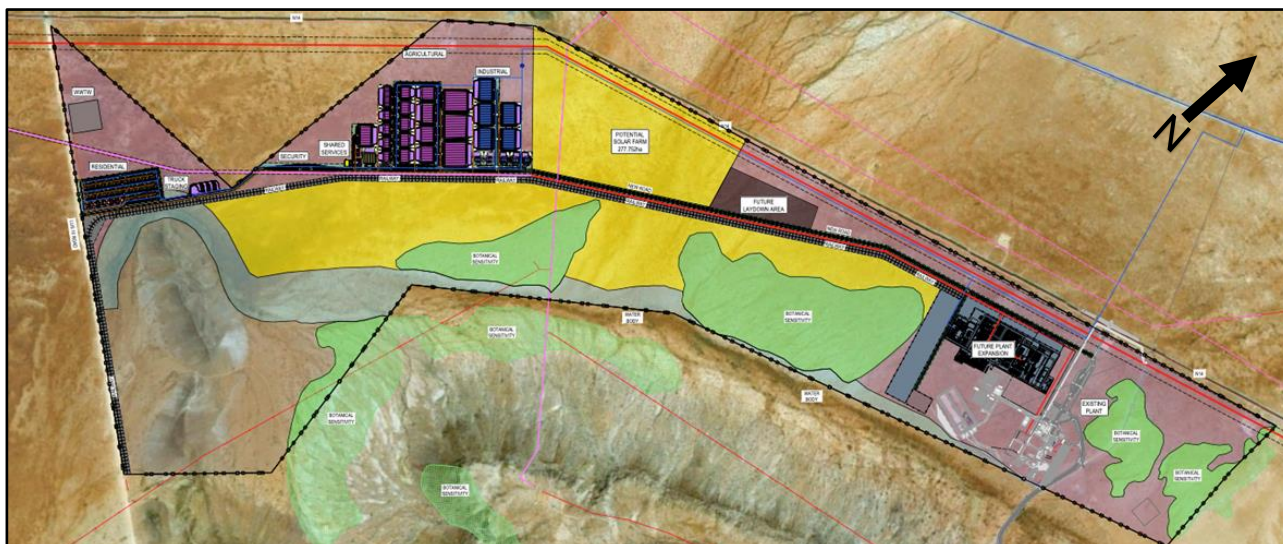


Figure 5: Site Development Plan of the proposed SEZ

The Site Development plan above is indicative of the full development t plan including the Noxious industries, mining related activities and the planned new smelter. This EIA will not deal with any of those aspects as they will be handled in a separate EIA by the mine.



Figure 6: Site Development Plan focus area for this EIA of the proposed SEZ

Apart from the site layout presented above, the development will be explained in separate sections below within the Scope and Project Description.

3 SCOPE OF THE PROPOSED ACTIVITY AND PROJECT DESCRIPTION

The Namaqua SEZ is an initiative driven by NCEDA to unlock the industrial potential afforded by the mining proximity and the agricultural economy of the Northern Cape. The planned SEZ reflects a trend in South African industrial planning. The South African National government drives the creation of industrial parks and SEZs as a means to cluster together businesses that can benefit from proximity to one another.

In addition, local manufacturing is boosted through incentives, duty-free imports, and tax rebates. The policy of SEZ development aims to attract new skills and develop new industries. To ensure economic growth that will lead to increased development and prosperity for the people of the Northern Cape Province, a conscious effort is required to change the economic trajectory of the Province. The development of the Namaqua SEZ is an ideal economic catalyst. The Namaqua SEZ will adhere to the following identified developmental outcomes and focus areas:

- Agriculture and Agro-Processing
- Mining and Mineral Beneficiation
- Manufacturing and Trade
 - Competitive Infrastructure Development
 - Employment and Skills Development
 - Innovation and the Knowledge Economy



Figure 7: SEZ Development outcomes

The SEZ as a whole will focus on an Agri Hub, Mining manufacturing, Shared services, and Noxious industry. This Noxious industry part of the SEZ will be handled by the Black Mountain Mining Pty Ltd and all Hazardous and or Noxious elements will not be handled or included in this EIA.

3.1 RESIDENTIAL AREA AND TRUCK STAGING AREA

The residential area will be developed in a few phases. The residential development area and truck staging areas are illustrated in below.

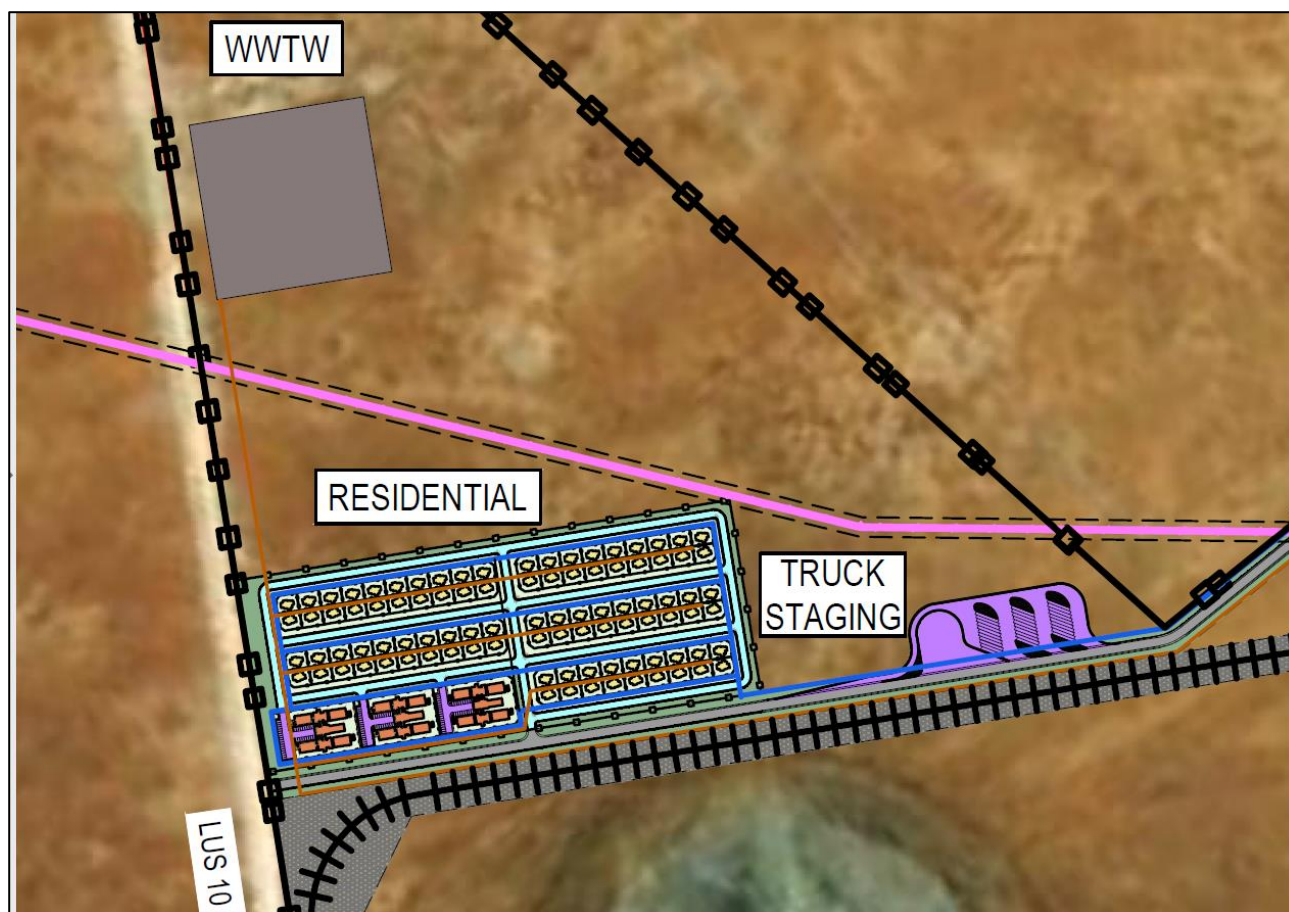


Figure 8: Proposed residential and truck staging area.

It is important to note that the new planned railway will run adjacent of all proposed development elements.

The truck staging area will accommodate delivery trucks to ensure that there is no traffic build-up.

3.2 AGRICULTURAL AND INDUSTRIAL AREAS

The agricultural and Industrial areas are located beside the shared services area. These areas make provision for potential tenants within the Agricultural and Industrial areas. The Vendor list will only be finalised once various companies showed interest in moving into the SEZ area. It should be noted that once any of these tenants require any other permitting or licensing in terms of activities to be undertaken which triggers any other EIA listing on process from other legislation, they will have to individually apply for approval from the relevant authorities.

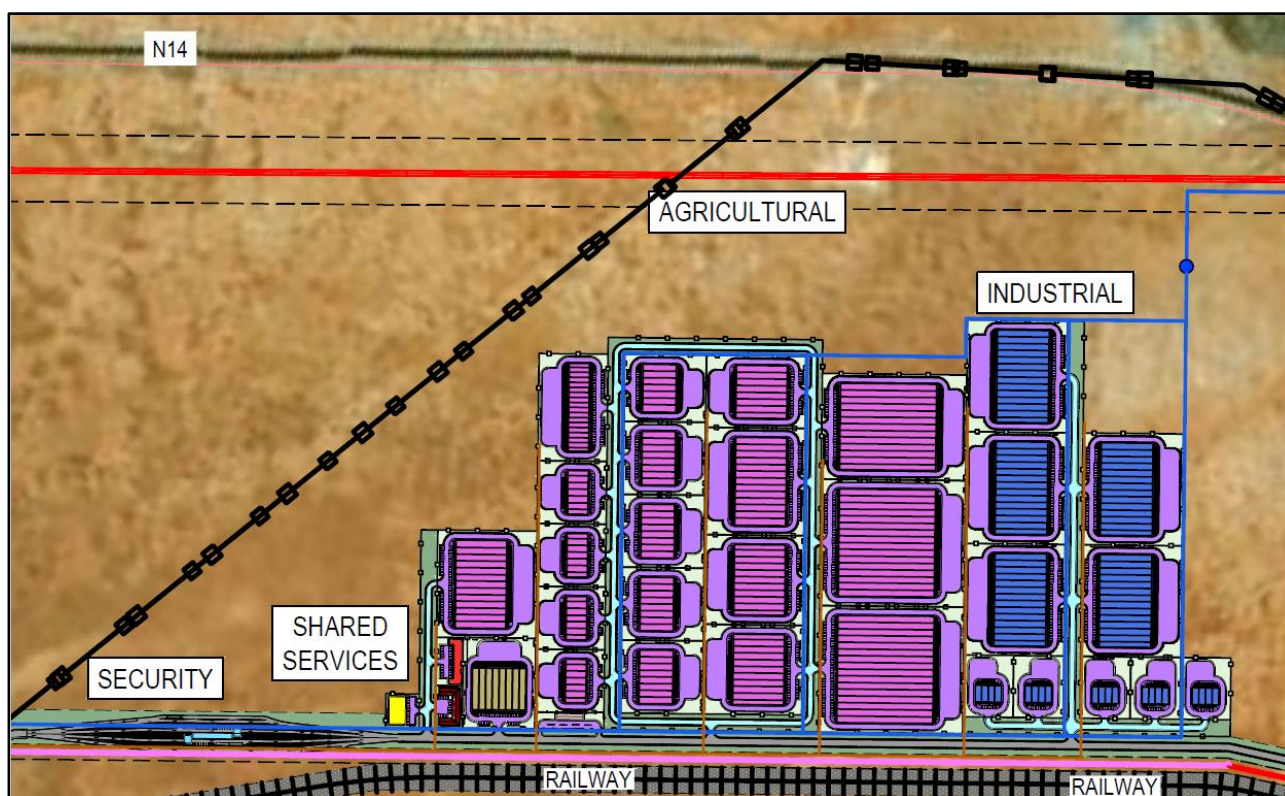


Figure 9: Agricultural and Industrial areas

3.3 RAILWAY LINE

A railway line is proposed that will run past the Residential area, Industrial and Agricultural area and connect onto the mine infrastructure at the smelter. The railway will transport zinc-product to the existing loop 10 siding on the Sishen-Saldanha railway line.

3.4 ROADS AND TRAFFIC

The planned SEZ site is adjacent, on the eastern side, to the N14 National road between Springbok / Aggeneys and Pofadder. Access was provided from the N14 Road when Phase 1 of the new developed Gamsberg mine came into operation in 2018.

This access was approved by SANRAL and will also provide the connection for the planned operations of the Smelter and the Phase 2 of the Gamsberg mine to the N14 Road. The proposed terrain of the planned SEZ run further to the west along the N14 road, up to the Loop 10 road. Loop 10 road is a single carriageway, two lane gravel graded road with grave; shoulders.

This road is a gravel dirt road and was previously used by Vedanta/Black Mountain to transport the product from the Black Mountain Deeps mine to the Loop 10 Railway siding on the Sishen Saldanha railway line, approximately 160 km south-east of the mine. The Loop 10 Road is a provincial road and is maintained by the Northern Cape Roads Department in Kimberly.

3.5 SERVICES

3.5.1 Groundwater

According to the 2013 Black Mountain Mining Environmental Management Programme Amendment report, very little natural water is encountered underground. Orange River water is used for service and drinking, and also in the backfill plant when cemented fill toppings are being thrown. The bulk of the water being pumped from underground originates from backfill drainage.

Dirty water pumps deliver unsettled water from underground to a water clarifier on surface. The underflow from this clarifier is sent to the tailings dam, while the clarified water is mainly used for backfilling operations, with any surplus being sent to the conductor. Groundwater is mainly found within secondary fractured-rock aquifers and tends to be found along fractures within hydraulically isolated rocks of low permeability, which are commonly found in the surrounding areas. The report also states that no regional aquifers have developed. The area is categorized as hyper-arid, where potential evapotranspiration is almost 20 times greater than rainfall experienced.

3.5.2 Portable water

According to the 2019 Revised Khai-Ma Spatial Development Framework, the Khâi-Ma LM is the Water Services Authority and Sedibeng Water Board and the Black Mountain Mining Company are the Water Services Providers for Aggeneys. Water is currently sourced from the Orange River at the Pelladri Abstraction point at 28ML/day where it is treated at the water treatment plants.

The maximum allowed abstraction capacity according to the Water Use License is 44 ML/day. The water supply is pumped via two pipelines. One older 400 mm steel underground pipeline and a new 500mm DI pipeline that was recently constructed to include the supply for the Gamsberg development.

Figure 10 shows the pipeline and the location of the reservoirs along the pipeline. These two pipelines supply the water to two Horseshoe Reservoirs from where it gravity flows Aggeneys and Gamsberg irrespectively. The pipeline does not fall part of this EIA process and is applied for by a separate EIA from Black Mountain Mine.

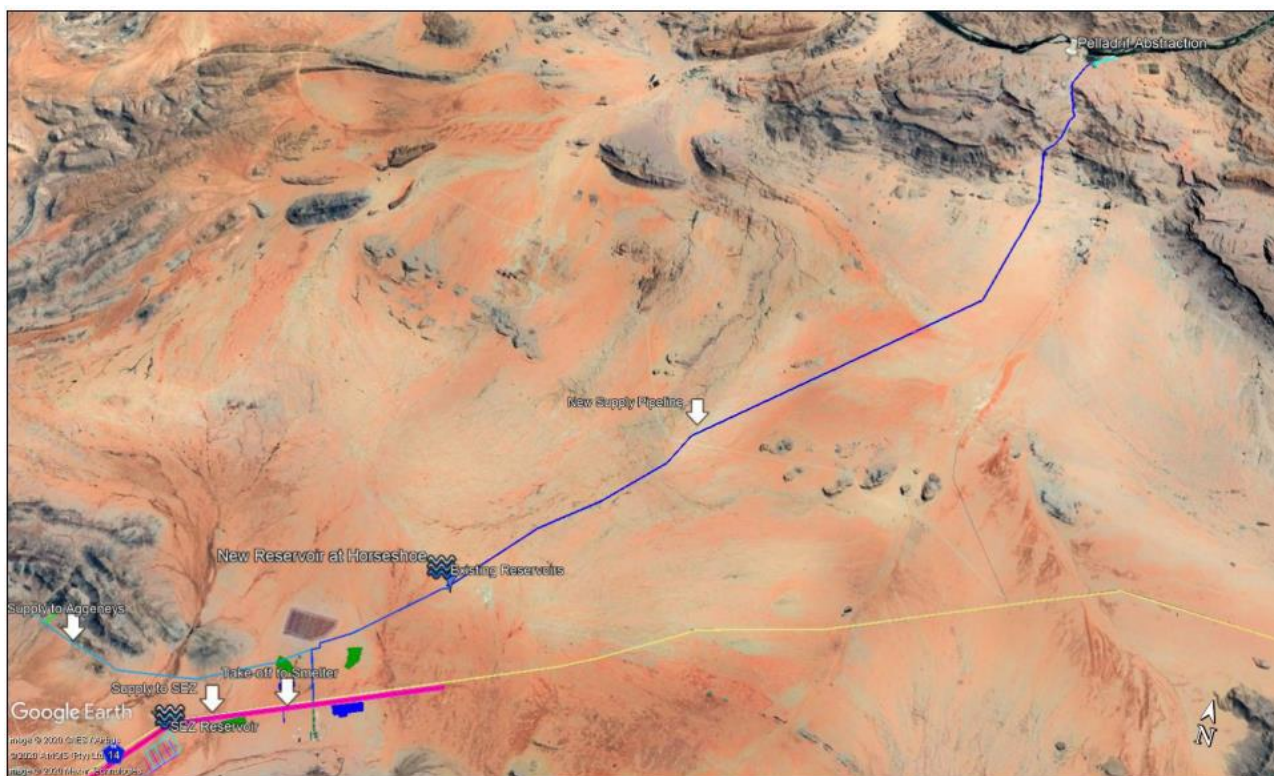


Figure 10: Route of the new pipeline and position of the reservoir.

Around 3.8 to 6 Kl of portable water per day will be needed for the SEZ and this will be delivered by the same pipeline currently in process for the mine. Water supply for the SEZ will be licenced in a new Water Use License Application currently lodged by REC Services Pty Ltd. The exact figures will be determined in the EIA phase.

The abstraction point will abstract water from the Orange River that will be treated at the Pelladrift water treatment works, which will have to be upgraded to accommodate the additional 22.5 ML/day. The Water Use License that allows the abstraction of 44 ML/day will have to be upgraded to at least 51 ML/day.

From the abstraction point the water will be pumped to a new booster reservoir and from the booster reservoir it will be pumped to a third reservoir at Horseshoe. From Horseshoe Reservoir, the water will be able to gravity flow to Gamsberg for the smelter and the conductor and also to the SEZ Reservoir that will have a storage capacity of 24 hours (± 4 ML).

3.5.3 Sanitation

The residential area will have a sewer line that will gravitate to the proposed Waste Water Treatment Plant (WWTP) also presented above. The wastewater from the smelter and mine will be handled by the mine itself and will not form part of the treatment plant planned here.

For a development, such as the SEZ, with a daily effluent of approximately 1ML/day, a diffused air activated sludge and effluent treatment plant is recommended. These plants are self-contained and can treat domestic waste. The WWTP will be required to treat 1ML/d of effluent. This translates into 1000 cubic litres of treatment capacity. Therefore, the treatment of effluent will not trigger Activity 25 of Listing Notice 1 of the EIA regulations which requires a minimum limit of 2000 cubic litres.

It is important to note that the plant will not be able to accommodate toxic substances like pesticides, the industries in the SEZ with these types of waste will be responsible for treatment and disposal thereof.

The plant will consist of the following screening processes:

- Buffer tanks
- Activated sludge reactors
- Aeration
- Clarification
- Disinfection

The waste generated at the plant will have to be disposed of at regular intervals

3.5.4 Electricity

The proposed SEZ will most likely source electricity from existing power lines. There will be areas where new lines will be constructed to distribute electricity to areas within the SEZ and along the railway line. The activity will be investigated in more detail within the EIA phase of the project.

3.5.5 Roads and Traffic

The planned SEZ site is adjacent, on the eastern side, to the N14 National road between Springbok / Aggeneys and Pofadder. Access was provided from the N14 Road when Phase 1 of the new developed Gamsberg mine came into operation in 2018.

This access was approved by SANRAL and will also provide the connection for the planned operations of the Smelter and the Phase 2 of the Gamsberg mine to the N14 Road.

The proposed terrain of the planned SEZ run further to the west along the N14 road, up to the Loop 10 road. Loop 10 road is a single carriageway, two lane gravel graded road with grave; shoulders. This road is a gravel dirt road and was previously used by Vedanta/Black Mountain to transport the product from the Black Mountain Deeps mine to the Loop 10 Railway siding on the Sishen Saldanha railway line, approximately 160 km south-east of the mine.

The Loop 10 Road is a provincial road and is maintained by the Northern Cape Roads Department in Kimberly.

The following road infrastructure is proposed for the SEZ development;

- Construction of a new road, called the SEZ-Connection Road, from the Loop 10 road, connecting the new developed industrial site in the south, north along the N14 Road up to the existing Gamsberg Mine Access Road from the N 14-Road.
- From this road access will also be given to the Smelter site, the propose sulfuric acid plant and a possible fertilizer plant.
- An additional access can be given from the N14 National road in the middle of the SEZ development. This access will only be an option under the condition that SANRAL will approve the application to construct another T-junction on the N14- National Road.

The provision of this road infrastructure will include the following:

- Upgrading of the first section of the Loop10 gravel road to a sealed surfaced road that can accommodate high volume traffic and higher mass loads.
- Construction of the internal SEZ- road from Loop 10, built to a standard that can accommodate the traffic between the two industrial areas and the transport of zinc-product directly to the Loop 10 Railway siding.
- This internal road will cross small natural dry-river beds and storm water canals and storm water crossing will be provided as part of the total infrastructure
- An additional T- Junction connection will be constructed on the N14- National road and connected to the internal SEZ- Road.

3.5.6 Storm Water Management

The water course from the North will be avoided as far as possible with regards to infrastructure. The development will not be constructed close to the river embankments.

The only storm water infrastructure will be a culvert bridge for the road between the SEZ and the Gamsberg area.

3.5.7 Electricity

There are two options for the bulk supply of the SEZ development. Option No. 1 is to utilize the existing 66 kV OH line feeding the present Gamsberg Operations. Vedanta is in the planning stage in collaboration with Eskom to construct a new 132 kV, 250 MVA OH line to the Smelter development area.

The smelter will have a demand of 210 MVA and the plant will have a demand of 30 MVA. The new Gamsberg Operations substation will be located within this Smelter development area. The metering point of the existing 66 kV OH line is located within the Aggeneys MTS. The 66 kV OH line infrastructure after the metering point is the property of Vedanta. This existing line have sufficient capacity and no additional upgrades will be required, except for the erection of a new 66 kV/11 kV substation for power distribution within the SEZ development area. Ownership needs to be transferred from Vedanta to Eskom.

Option No. 2 is to create a T-off from Eskom's 66 kV line on the northern side of the N14 road. A MV metering point must be installed after the T-off to monitor the bulk supply of the SEZ development. Eskom will be responsible for the wayleave and construction of the new 66 kV OH line after the metering point up to a new 66 kV/11 kV substation that will be required for power distribution within the SEZ development area. Option No. 1 will be much more cost effective than Option No. 2 due to utilizing existing infrastructure.

3.5.7.1 Concept

The concept of the preliminary planning is that the SEZ development will acquire a 66 kV bulk supply point from Eskom. This 66 kV bulk supply will feed a 66/11 kV substation from where the power will be distributed at 11 kV throughout the SEZ development. The 11 kV power distribution will be done OH due to its cost effectiveness, ease of operation and maintenance. Transformers/mini-substations will be installed at the distribution areas for LV power distribution. The LV power distribution and street lights will also be done OH due to the same reasons mentioned above. The routing of the MV and LV power distribution will be the same where possible to utilize poles for multiple services.

A major decision to be made is who will take responsibility for the power distribution within the SEZ development area.



The preferred option will be Eskom due to having the technical capacity and resources within the area. Eskom will thus sell electricity directly to the consumers without the involvement of another party.

The second option will be to have a 66 kV bulk metering point which must be registered in the name of the party who will take responsibility for distributing power in the SEZ development area. This party must also obtain an electricity distribution license from NERSA who will regulate the electricity sale tariffs.

The design of the power distribution infrastructure must be according to Eskom's specifications. They will have an interest in the business opportunity it will provide and it is also in their nature of business. The other possible parties won't necessarily be interest in the nature of this business.

4 LEGISLATIVE CONTEXTS

Various legislative requirements need to be fulfilled surrounding the proposed project. The legislative requirements are presented below:

4.1 ENVIRONMENTAL IMPACT ASSESSMENT

A Full scoping and EIA process need to be followed for the activities that will be triggered in terms of the 2014 EIA regulations as amended, promulgated in terms of the National Environmental Management Act 107 of 1998 as amended. Because there is basic assessment and Full Scoping and EIA activities listed in the table below, a Full Scoping and EIA process will apply.

Activity	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1 (GN R327)	Describe the portion of the proposed project to which the applicable listed activity relates.
1	The development of facilities or infrastructure for the generation of electricity from a renewable source where-(i) the electricity output is more than 10 megawatts but	100MW solar is planned and will not be within an urban area or on existing infrastructure.
9	The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water- (i)with an internal diameter of 0.6 metres or more (ii) with a peak throughput of 120l per second or more	A new pipeline is planned from Pelladrift to the SEZ. The new pipeline will be handled by an external EIA. However, a split off from this pipeline to the SEZ will be needed.
10	The development and related operation of infrastructure exceeding 1000 metres in length for the bulk transportation of sewage, effluent, process water, return water, industrial discharge or slime- (i)with an internal diameter of 0.6	The new pipes shall be installed o transport sewage to the new sewage treatment plant (WWTP). This will not be within a road reserve or railway line reserve and will not occur within an urban area.

	metres or more (ii) with a peak throughput of 120l per second or more	
11	The development of facilities or infrastructure for the transmission and distribution of electricity- (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275kilovolts or more.	Distribution of electricity to the various parts of the SEZ.
14	The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	The establishment of the Namakwa SEZ will include activities where storage of fuel, storage of chemicals and storage of other dangerous goods will be conducted which is associated with the automotive industry.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;	This activity is applicable where development will approach any riparian area. This activity will be refined as more information becomes available.
24	The development of a road (ii) with a reserve wider than 13,5m, or where no reserve exists, where the road is wider than 8 metres.	Establishment of roads for the proposed project.
27	The clearance of an area of 1 ha or more but less than 20 ha of indigenous vegetation, excluding where such	The clearance of 1 hectare or more of indigenous vegetation might be needed. The exact extent of vegetation clearance will be



	clearance of indigenous vegetation is required for - i) the undertaking of a linear activity; or ii) maintenance purposes undertaken in accordance with a maintenance management plan.	established by the vegetation impact assessment to be undertaken.
28	Residential, mixed, retail, commercial, industrial or institutional development where such land was used for agriculture on or after 1 April 1998 and where such development: ii) will occur inside an urban area, where the total land to be developed is bigger than 5 ha;	This activity was listed because the land to be developed for commercial and residential use.
Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 2 (GN R325)	Describe the portion of the proposed project to which the applicable listed activity relates.
4	The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more Than 500 cubic metres.	Storage of dangerous goods combined may exceed the 500 cubic metres mark. Clarity will be given if more information becomes available.
12	The development of railway lines, stations or shunting yards excluding (i) in industrial complexes or zones (ii) underground railway lines (iii) additional railway lines within the railway line reserve.	A railway line is planned.

15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity (ii) maintenance purposes	Clearance of indigenous vegetation over 20 ha in size. This activity will be investigated as more information becomes available.
Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3 (GN R324)	Describe the portion of the proposed project to which the applicable listed activity relates.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan (G) in Northern Cape (ii) Within CBA areas	This activity is applicable as there are some patches of vegetation that falls within areas identified as Ecologically Supported Areas or Critical Biodiversity Areas.
14	The development of: (ii) infrastructure or structures with a physical footprint of 10 square metres or more where such development occurs-(a) within a watercourse; (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse in (g) Northern Cape (ii) outside urban areas (ff) Critical biodiversity areas.	This activity is applicable for any activity that might be needed within 32m of the adjacent river and/ or stream. This includes buildings, roads, infrastructure. More clarity will be given after the scoping phase.



4.2 WATER USE LICENSE APPLICATION

A water use license application in terms of Activity Section 21 of the National Water Act 36 of 1998 will be needed and will be applied for to the Department of Water Affairs.

This application will include:

A water use license will be applied for in support of Section 21 (a)(b)(c)(i) and (g) of the National Water Act, 1998 (Act No. 36 of 1998) for the proposed development.

4.3 HERITAGE IMPACT ASSESSMENT

In accordance with the National Heritage Resources Act 25 of 1999, any development larger than 500 square metres need to have an application in terms of Section 38 of the Act. A Heritage and Archaeologist input will be done for this site. The Heritage Assessment will form part of the studies to be conducted within the EIA phase of the process.

4.4 NATIONAL ENVIRONMENTAL MANAGEMENT BIODIVERSITY ACT 10 OF 2004.

The Biodiversity Act regulates the need for studies such as biodiversity, wetlands and ecology. The NAMAQUA SEZ is situated within a biodiversity Hotspot. Some species of importance exist on the overall site area and will be investigated in the specialist studies.

4.5 TOWN PLANNING APPLICATION

A township establishment application must be submitted in accordance with the municipal bylaws. The application is handled and will be submitted by BVI Consulting Engineers.

4.6 NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (NEM: AQA) 39 OF 2004

It IS Not anticipated that any activities undertaken within the SEZ covered by this EIA will require any authorization in terms of the NEM: AQA. The planned smelter will be constructed by the adjacent mine and will be covered in the EIA to be undertaken by them.

5 PROJECT NEED AND DESIRABILITY

5.1 ECONOMIC DRIVERS

The proposed development site is located in close proximity to the town of Aggeneys, therefore it is reasonable to draw a link between the economy of the town and the presence of existing mining operations.

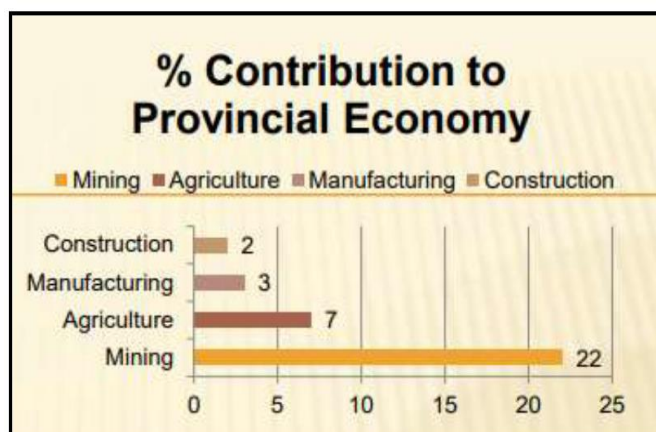


Figure 11: Economic contributors to NC

While the economy of Aggeneys is made up of a variety of economic sectors, the mining industry is by far the greatest contributor to the town's economic success. This is supported by the graphic below which shows the most prominent economic contributors to the economy of the Northern Cape as a whole.

Mining is Aggeneys' dominant economic base. The Black Mountain Mine, located near Aggeneys, mines and produces a multitude of metals such as lead, copper, zinc and silver. Mining is the biggest contributor to the Northern Cape's provincial economy and is of considerable importance in terms of the economic wellbeing and economic sustainability of the region and its inhabitants. Mining and its related, associated socio-economic development and benefits, is an economic lifeline to the residents and inhabitants of the region and should be encouraged and promoted.

5.1.1 Economic Investment and Socio-Economic Stability in Aggeneys

In its essence, the economic injection achieved through the investment in housing development, are closely related, interlinked and interconnected to direct and indirect socio-economic development and sustainability. These components cannot be separated or isolated from each other, as they inform, impact, create, sustain and uphold each other.

5.1.2 The Externalities of the Namakwa Special Economic Zone

The table below further explores the expected Long-Term and Short-Term socioeconomic benefits of the proposed development and discusses how this will be key in contributing to the development and growth of Aggeneys and the surrounding areas.

Table 1: Short and long term economic and social benefits of the proposed development

	Short Term (Static Economic Benefits= direct and straightforward, easily measured and quantified)	Long Term (Dynamic Benefits (harder to measure and quantify))
Employment	Employment opportunities generated through the construction and procurement process of local labour, materials and knowledge.	Indirect employment opportunities generated through the construction and procurement process.
Tax revenue	Larger government revenues.	Establishment of a larger community with a bigger tax base.
Socio-economic benefit	Income generated in terms of salaries and wages.	Regional economic benefit in terms of: <ul style="list-style-type: none"> • Higher employment levels • Higher Household Income • Lower Poverty levels • Greater Social wellbeing • Lower Levels of crime and moral decay • Greater social sustainability
Benefits for local SMME's:	Larger potential markets and client base for local business and entrepreneurial ventures.	Investment injection in to the local and regional economy, an influx and inflow of money, to the benefit of local and regional business and entrepreneurial ventures.
Skills and Training:	Upgrading of skills and knowledge transfer.	Economic prosperity, as homeownership provides economic benefits.
Sustainability:	Regional economic injection.	Spatial resilience and spatial sustainability.



The application for the establishment and creation of the Namakwa SEZ is a ground breaking project which will significantly contribute towards stimulating economic activity in the region while also improving the health, safety, convenience and over quality of life of residents within the community.

The proposed development will significantly assist the community of the Khâi-Ma Municipality as it will serve as a developmental stepping-stone which may open the door for further investment and development within this municipality and region. The development will not only contribute towards alleviating the housing backlog within the municipality, it will also provide a much-needed economic boost and generate

The introduction of this development will be a ground-breaking developmental step in the right direction by diversifying the economic ecosystem of Aggeneys while also decreasing the economy's reliance on just mining activities.

In addition, the new development will include a significantly large residential component which will measure 57.069ha, approximately 4.56% of the entire site. The inclusion of this component is important as it provides a solution for the immense backlog of service in the region, particularly housing.

The residential component of the site will be open for occupation by the public, but most importantly it will be a viable accommodation option for the employees of firms within the SEZ, the surrounding mines as well as other residents of Aggeneys and its surrounding areas. This is of significance as mining employs the second largest segment of the population in the Khâi Ma local municipality, followed by the service sector. These individuals employed by these sectors need housing and residential developments to cater to their housing needs.

6 DETAILS OF THE ENVIRONMENTAL PROCESS FOLLOWED

6.1 ACTIONS TO BE UNDERTAKEN

During the course of this environmental study the following actions and steps will still be followed in accordance with the Regulations set out in Government Notice No. 982 of 2014 of the NEMA regulations as amended:

- An Application for Authorisation, signed by the Applicant, together with a Declaration of Independence, which was signed by the environmental consultant, will be submitted to DENC with the scoping report.
- The public participation process will inform the public about the proposed process and will be asked for input, comments and suggestions.
- The draft Scoping report was made available for comments to I&APs, the local authorities and other stakeholders. The draft Scoping report will include a Plan of Study for the EIA phase.
- The Final Scoping report will be made available for comments to stakeholders and the public.
- Once DENC accepted the final Scoping Report, an Environmental Impact Assessment Report with an attached Environmental Management Programme will be compiled and completed. All issues from the Scoping Report will be addressed in the draft and Final EIA Report, as well as issues and impacts identified by the Environmental Practitioner as well as by the specialist studies.

The Draft EIA with attached EMP report will be made available for comments to the registered I&AP's. Comments received from I&AP's regarding the EIA and EMP report will

be incorporated into the draft and final EIA and EMP report. By making the Draft report available it ensures that all issues have been identified.

Alternatives will be assessed including location alternatives and the scope of assessment.

The EIA Report will contain specialist studies. The following specialist studies will be conducted:

- **Vegetation Survey:** Vegetation assessment will include a survey of all plants that occur in and around the site, a desktop study into the current conservation status of the vegetation ecology and mitigation measures to be implemented. The study area transverses through areas classified as Terrestrial Critical Biodiversity Area 2 (T2) within the Aggeneys Gravel Vygieveld, Terrestrial Critical Biodiversity Area (CBA) 1 (T1) and parts within the Terrestrial Ecological Supported Area (ESA-T1) which includes the NDM Terrestrial Migration Corridor. The vegetation assessment will include a species composition list as presented on site, species known to occur in a wider geographical area and probable red or orange data plant species that could occur on site. The vegetation assessment will include a sensitivity assessment, impact assessment and recommendation if the development should be considered favourable or not.
- **Riparian delineation** to identify and delineate the riparian buffers. A water course delineation and report will be compiled for the water use license application.
- **Heritage Impact Assessment** will be conducted under Section 38 of the National Heritage Resources Act 25 of 1999. All surveys and assessments are conducted strictly in accordance with known scientific methods, statutory requirements, recommended standards, terms of reference and best practices. All heritage and archaeological resources are protected in terms of Section 35 of the NHRA. All development therefore has to assess the potential development area for heritage and archaeological significance.
- **Avi-Fauna Assessment** to assess the impact of the proposed development on known red data species historically observed within the study area surroundings. The site is close to an Important Bird Area. Previous studies in the area indicated the presence of red data Avi-Fauna species in the area. The site will be assessed to determine the potential impact of the development on these birds species, and their habitat. An Avi-Faun

Assessment will include a sensitivity assessment, Impact assessment and species composition.

- **Fauna Assessment** will focus on mammals, amphibians and reptiles. A List of mammals, reptiles and amphibians which are likely to occur at the project site will be drawn up based on historic distribution records. Literature resources will be consulted and additional information will be extracted from the Animal Demographic Unit (ADU) web portal. The species list will be based on species known to occur in the broader geographical area and a preliminary assessment of suitable habitat. The fauna assessment will include a site visit and sensitivity assessment.
- **Water use license application** under the National Water Act 36 of 1998. Section 21 of the Water Act has a list of activities that is the triggering water uses for a water use license application.
- **Social Impact Assessment** will be conducted to establish and assess the social impact of the proposed development on the area.

6.2 ALTERNATIVES

No alternatives have been assessed in **this report**. The applicant already did a feasibility study in terms of this project. Therefore, various layout alternatives considered in the feasibility report can be presented but the final alternative was already considered and chosen prior to the Scoping and EIA.

The development layout was based on previously available sensitivity assessments made due to historical studies conducted by Black Mountain Mining Pty Ltd. All of the existing sensitivities were mapped and avoided in the development of the layout plan.

Because of these two alternative considerations as already assessed in the desktop study stage, and the fact that the applicant altered their original plans to accommodate and avoid sensitivities with the layout, no other alternatives will be assessed.

6.2.1 Location alternative

In terms of the SEZ area there were no location alternatives that could be considered. The following are the reasons as to why the location was chosen:

The location of the proposed area is ideally located within close proximity of the existing Black Mountain Mining Pty Ltd. This operation is already a catalyst for development in the area. This location of the proposed SEZ will coincide with the development potential of the mine and the proposed new smelter to be constructed.

6.2.2 Site layout alternatives

Site layout alternatives permit consideration of different spatial configurations of an activity on a particular site. This may include particular components of a proposed development or may include the entire activity. Site layout considerations were already altered due to sensitive areas already identified by historical studies.

6.2.3 Transport alternative

Transport alternatives were not evaluated. The SEZ will rely on a railway line to transport goods to and from the site. The provision of ample truck staging areas and large enough roads will ensure that transport runs smoothly into and out of the SEZ area.

6.2.4 Electricity Alternative

The SEZ will not be able to run on solely renewable energy as it is an industrial and commercial use park and indications from potential tenants is that processes to be undertaken will need higher power demands. A solar PV plant is planned as part of the SEZ development and will feed into the SEZ power requirements. The rest of the energy demands will be sourced from Eskom. There are a few options regarding electricity supply already described in section 3.5.3 above.

6.2.5 No Go Alternative

The proposed project construction has to be assessed against the backdrop of the project not going forward. This is done to ensure that any impact assessments, environmental aspects and impacts to be imposed on the proposed site, can be measured against a baseline. The No Go alternative will therefore form part of the Impact Assessment methodology to be used in the Environmental Impact Assessment stage of this project after approval of the scoping phase.

As per a desktop analysis, if the project did not continue, the baseline information would include no noise pollution, no air pollution due to manufacturing processes. No increase in traffic will be experienced. As part of negative impacts if the project **did not continue**, there would be no new job opportunities, no new economic benefit for the GDP of the area and the applicant themselves. The project job creation would not materialise and South Africa will lose the economic benefit of the SEZ which forms part of a development corridor.

The no go alternative will be assessed as part of the EIA phase.

7 PUBLIC PARTICIPATION

7.1 INTRODUCTION

A public participation process is in process as part of the Environmental Scoping process. Stakeholders and I&AP's were given the opportunity to participate in this process and their comments, whether positive or negative, will have to be considered in the evaluation process by the Authorities.

The public participation process aims to enlighten the public on the positive and negative aspects that the proposed development will have on their immediate surroundings. The applicant is compelled to mitigate impacts to an acceptable status, the significant impacts, as well as consider suitable alternatives as identified during the process.

The public participation exercise kicked off on 1 September 2020. Meetings were held with various stakeholders such as Vedanta Mine, Khai-Ma Local Municipality, Namakwa District Municipality and representatives of DENC and DEA. More information regarding these meetings will be discussed below.

7.2 OBJECTIVES OF THE PUBLIC PARTICIPATION PROCESS

The public participation process has the following objectives:

- To inform Interested and Affected parties of the proposed development;
- Provide an opportunity for I&AP's to raise environmental issues/concerns;
- To promote transparency and an understanding of the project and its consequences;
- To serve as a structure for liaison and communication with I&AP's;
- To serve as a data gathering mechanism (of local knowledge);
- To identify issues that can easily be overlooked in the initial stages of planning.

To summarise, the objective of the on-going public participation process is to promote openness and transparency concerning the proposed development, during the length of the project. The process should by no means be regarded as a vehicle to temper opposition or objections. Any conclusions agreed upon must be socially, financially and

technically acceptable and feasible in order to meet the requirements of both the NEMA and the vision of the proponent.

The aim is to identify all I&AP's and remain in contact with them during the EIA process. The public participation process does not terminate at the completion of the Scoping Report, but proceeds up to the stage of submission of the draft and final EIA report.

7.3 THE GUIDELINES FOLLOWED FOR THE PUBLIC PARTICIPATION PROCESS

The Public Participation Process (PPP) for this project was conducted by REC Services Pty Ltd, and undertaken strictly according to the Regulations of 2014 as amended.

7.4 PUBLIC PARTICIPATION PROCESS

The following public participation process is being conducted:

- Identification of key Interested and Affected Parties.
- Compilation of the Background Information Document to be submitted to the ward councillor.
- Various stakeholder meetings.
- Placement of a press notice informing the Public of the proposed development in two local newspaper.
- Placement of site notices.
- Making the Draft Scoping Report available for public comment and Stakeholder comments for 30 days.
- Receiving written comments from I&AP's to address in this scoping report.
- Correspondence with I & AP's, and addressing I & AP's comments.
- Set up a register of I&Aps.
- Compile a comments and response sheet.

7.4.1 Identification of key Interested and Affected Parties

I&AP's were identified by the help of stakeholders, Vedanta and the identification of adjacent land owners. Meetings were held with the municipality, district municipality and representatives of DEA and DENC. A conference call was conducted with a representative of DWAS.

7.4.2 Compilation and distribution of the Background Information Documents (BID)

The aim of a BID is to provide all I&AP's with a brief description of the proposed development. The BID also contains the details of the proponent and the environmental consultant. Furthermore, it serves as an overview of the public participation process. A comment sheet was attached to the BID, which the I&AP's were asked to complete and return to REC Services Pty Ltd if they had any suggestions or comments. BIDs were distributed to ward councillors for discussion and distribution to the community. BIDs were distributed to all stakeholders that formed part of stakeholder meetings. A Bid was forwarded via email to Gerhard Visser who is the Chairman of the Boere Vereeniging.

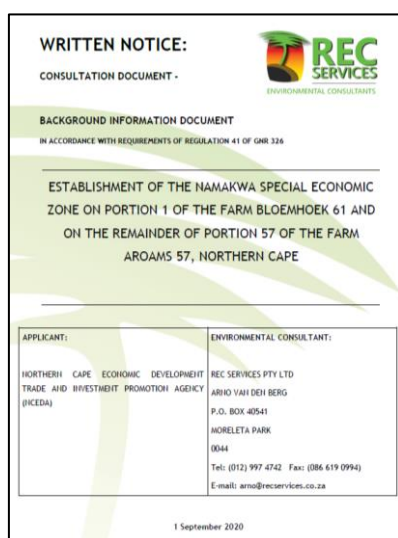


Figure 12: Front page of BID

Figure to the left illustrates the front page of the BID distributed to stakeholders and I&APs.

Please refer to Appendix 2B for copies of the BIDS and to Appendix 2C for the Acknowledgment of Receipt of the BIDs.

7.4.3 Placement of the press advertisement

Two adverts were placed in two different local newspapers. An Afrikaans advert was placed in the Plattelander on 11 September 2020 as presented in Figure 13 and another in English in the Gemsbok on 18 September 2020 as presented in Figure 14 below.

Bladsy 2
[DIE PLATTELANDER - NUUS VIR ALMAL OP DIE N-7 & N-14]
11 September 2020



social development

Department:
Social Development
NORTHERN CAPE

Bid NC/SOC/010/2020 Closing Date: 09 October 2020
Closing Time: 11:00

SUPPLY AND DELIVERY OF FOOD PARCELS AND FOOD VOUCHERS IN THE NORTHERN CAPE PROVINCE

Required by: Department Social Development
Northern Cape Provincial Government

Specifications and bid documents are available at the Department of Social Development. However, due to COVID-19 bidders are advised not to visit the offices but to request bid documents via e-mail

OR Download from the E-Tender Publication Portal: www.etenders.gov.za

Bid closes at (postal address): Department Social Development,
Private Bag X5042, Kimberley, 8300
257 Barkly Road, Homestead, Latlhi
Mabolo Complex, Ground Floor, Block C,
Kimberley

Street Address:

Contact Persons:
Telephone: Adelaide Wax or Kedi Flatela
053 874 9215 or 053 874 9180
Facsimile: 086 225 7666 or 086 581 8668
Email:
awax@ncpg.gov.za or kflatela@ncpg.gov.za

PLEASE NOTE:

- From 18 April 2016, the South African Revenue Services (SARS) has introduced an enhanced electronic Tax Compliance Status (TCS) system which makes it easier for bidders to obtain Tax Clearance Certificate (TCC) – Tender as well as obtain a TCS Pin which can be used by authorised third parties to verify your compliance status online via SARS eFiling. In view of the above, a valid, printed tax clearance certificate – Tender – (not a tax clearance certificate “Good Standing”) **must** be submitted at closing date and time (bid document NCP 2 refers).
- This bid will be evaluated and adjudicated in terms of the 80/20 point system prescribed by the Preferential Procurement Policy Framework Act, 05 of 2000 and revised Regulations 2017.
- The Department intends to apply pre-qualification criteria for preferential procurement to advance certain designated groups in terms of section 2(1)(f) of the PPPFA and section 4 (1) (c) (i-v) of the revised regulation as follows:
* *The successful tenderer must subcontract a minimum of 30% of the value of the contract to an EME or QSE which is 51% owned by black people, black youth, black women, black people with disability, black people living in rural or underdeveloped areas or townships (All Districts in the Northern Cape Province). Only tenderers following within the specific tendering condition may respond. Should the bidder fall within the objective criteria, then sub-contracting will not be necessary.*
- In order to qualify for preference points a valid, originally certified copy of bidders' B-BBEE status level verification certificate or sworn affidavit signed by the Exempted Micro Enterprise (EME) representative and attested by a Commissioner of Oath must be submitted at bid closing date and time.
- Bidders are required to submit their detailed Central Suppliers Database (CSD) registration report (not the summary report) together with the bid document.
- The Department reserves the right to award the contract to various bidders complying with bid specifications and scoring the highest points for price & B-BBEE. The bid will be awarded per district.
- Names of bidders that submitted bids will be published on the website of the Office of the Premier: www//northern-cape.gov.za and/or e-tender portal on Friday, 23 October 2020.
- Bidders could obtain details of successful/ unsuccessful information on e-tender portal after 120 days after closure of bid.

KENNISGEWING VAN OMGEWINGSIMPAKSTUDIE PROSES

Hiermee word kennis gegee in terms van Regulasie 41 van die Omgewingsimpakstudie Regulasies soos gepubliseer in Staatskoerant 40772 op 7 April 2017, en onderhewig aan Hoofstuk 6 van die Nasionale Omgewingsbestuurs Wet van 1998 (Wet 107 van 1998), vir n vol Omgewingsimpak en Omvangsbepalings studie vir die volgende:
VESTIGING VAN DIE NAMAKWA SEZ OP GEDEELTE 1 VAN DIE PLAAS BLOEMHOEK 61 EN OP DIE RESTANT VAN GEDEELTE 57 VAN DIE PLAAS AROAMS 57, NOORD KAAP

Projek beskrywing
Die Suid-Afrikaanse Nasionale regering dryf die skepping van nywerheidspare en SEZ's as 'n middel om ondernemings saam te voeg wat voordeel kan trek uit die nabyheid van mekaar. Die ontwikkeling van die Namakwa SEZ is 'n ideale ekonomiese katalisator. Die Namakwa SEZ sal voldoen aan die volgende geïdentifiseerde ontwikkelingsuitkomst en fokusareas: Landbou en landbouverwerking, mynbou en minerale veredeling, vervaardiging en handel, mededingende infrastruktuurontwikkeling, indiensneming en vaardigheidsontwikkeling, innovasie en die kennisekonomie.

Ligging
Die voorgestelde SEZ sal geleë wees op Gedeelte 1 van die plaas Bloemhoek 61 en op die restant van Gedeelte 57 van die plaas Aroams 57. Die ligging van die SEZ is ongeveer 10 km oos van die dorp Aggeneys. Die dorp is geleë in die Khâi-Ma Plaaslike Munisipaliteit, wat binne die Namakwa-distriksmunisipaliteit val, in die noordelike deel van die Noord-Kaap Provinsie.

Applikant
Northern Cape Economic Development Trade and Investment Promotion Agency (NCEDA)

Ander wetgewing:
'n Watervrbruiklisensie is nodig vir aktiwiteite wat in Artikel 21 (a) (b) (c) (i) en (g) van die Nasionale Waterwet 36 van 1998 geïdentifiseer is. So 'n aansoek om watergebruik is tans aan die gang. Enige kommentaar in hierdie verband kan binne 60 dae by REC ingedien word by die onderstaande besonderhede. 'N Erfenis-impakstudie sal gedoen word ooreenkomstig artikel 38 van die Wet op Nasionale Erfenisulphbronne 25 van 1999. Enige kommentaar hieroor kan aan Timothy gestuur word by timothy@nbkb.org.za.

Omgewingskonsultant
Arno van den Berg. P O BOX 40541, Moreleta Park, PRETORIA, 0044
Tel (012) 997 4742. E-mail: arno@recservices.co.za

Om u as belangstellende en / of geaffekteerde party te registreer, moet u u naam, kontakligting en belangstelling in die aangeleentheid binne 30 dae by die bostaande adres indien.

Die aanvanklike registrasies sal op 9 Oktober 2020 sluit.



Figure 13: Proof of advert in the Plattelander

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

Notice is hereby given in terms of Regulation 41 of the Regulations published in Listing Notice 1 of 4 December 2014 (as amended) and Chapter 6 of the National Environmental Management Act, 1998 (Act no. 107 of 1998), for a Scoping and EIA application for the following activities:

ESTABLISHMENT OF THE NAMAKWA SPECIAL ECONOMIC ZONE ON PORTION 1 OF THE FARM BLOEMHOEK 61 AND ON THE REMAINDER OF PORTION 57 OF THE FARM AROAMS 57, NORTHERN CAPE

Project Description:

The Namakwa SEZ will adhere to the following identified developmental outcomes and focus areas: Agriculture and Agro-Processing, Mining and Mineral Beneficiation, Manufacturing and Trade, Competitive Infrastructure Development, Employment and Skills Development, Innovation and the Knowledge Economy.

Location:

The proposed SEZ will be situated on Portion 1 of the Farm Bloemhoek 61 and on the remainder of portion 57 of the Farm Aroams 57. The location of the SEZ is roughly 10 km to the East of the town Aggeneys. The town is located in the Khâi-Ma Local Municipality, which falls within the Namakwa District Municipality, in the Northern Cape Province.

Proponent:

Northern Cape Economic Development Trade and Investment Promotion Agency (NCEDA)

Other legal matters:

A Water use licence will be needed for activities identified in Section 21 (a)(b)(c)(i) and (g) of the National Water Act 36 of 1998. Any comments in this regard can be submitted within 60 days to REC at the details below. A Heritage Impact Assessment will be undertaken in accordance with Section 38 of the National Heritage Resources Act 25 of 1999. Any comments in this regard can be forwarded to Timothy at rtimothy@nbkb.org.za.

Environmental Consultant:

Mr. Arno van den Berg/ Pieter van der Merwe
P O BOX 40541, Moreleta Park, PRETORIA, 0044
Tel (012) 997 4742 • E-mail: arno@recservices.co.za

In order to register as an interested and/or affected party, please submit details within 30 days to the address given above. Closing of initial registrations will be 16 October 2020.

Figure 14: Proof of advert in the Gemsbok

Please refer to Appendix 2D for a copy of the press notice that was placed in a local newspaper.

7.4.4 Placement of on-site notice(s)

Site Notices were placed on various strategic locations to attract the attention of potential interested and/or affected parties. [Figure 15](#) below indicates the areas where site notices were placed in and around the project site.

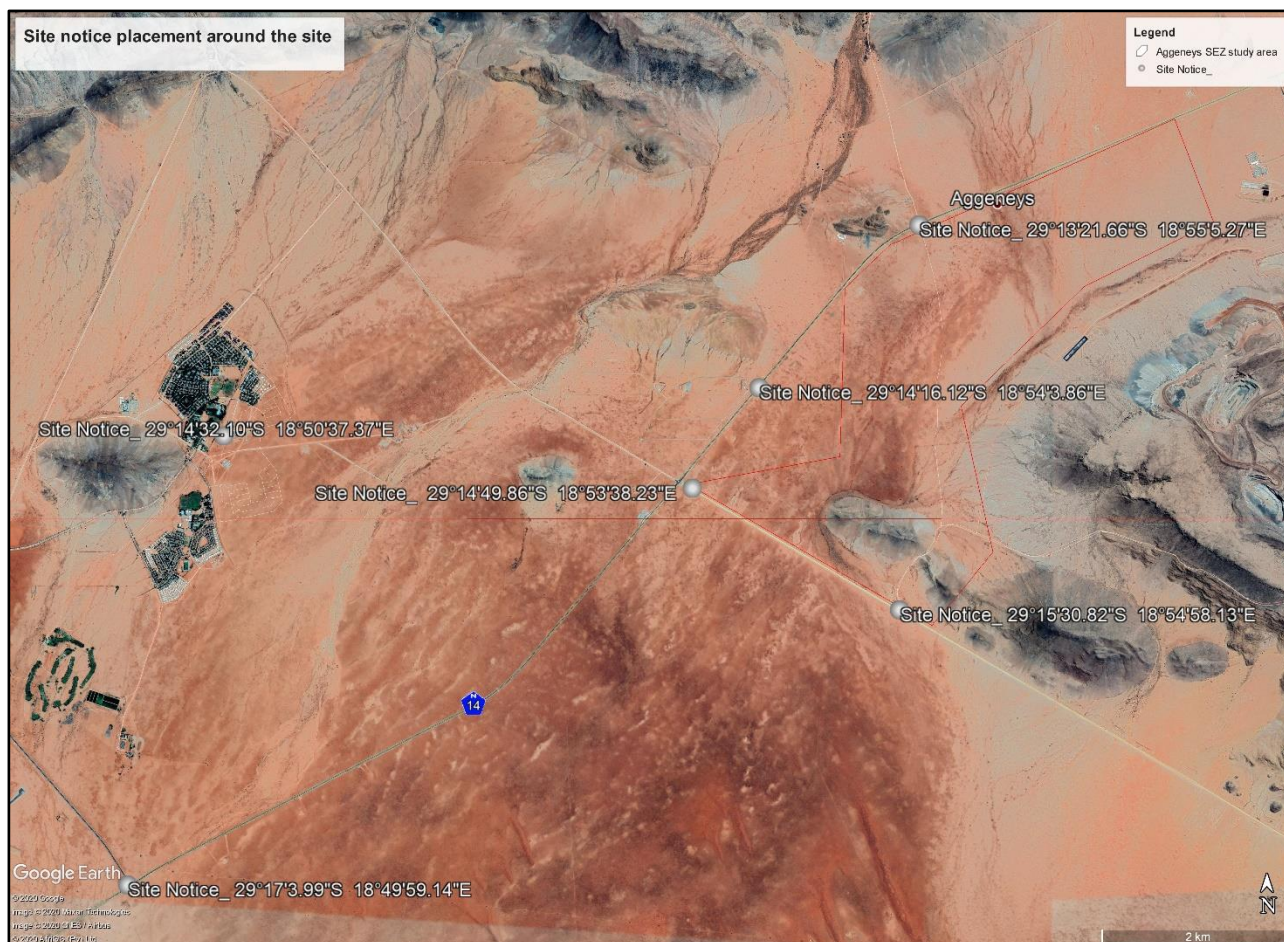


Figure 15: Position of site notices around the site

Site notices were placed at 4 strategic points around the actual proposed development site. One site notice was erected at the Aggeneys Post office, one at the access road to Aggeneys and various others were placed at the municipal buildings in Pella, Springbok, Onseepkans and Pofadder.

Please refer to Appendix 2E for a copy of the site notice that was placed on various locations.



Figure 16: Site notices as erected at various locations

8 ENVIRONMENTAL DESCRIPTION

In order to determine the environmental impacts and identify possible issues associated with the proposed development, it is necessary to provide baseline environmental information. Following comprehensive site investigations and desk studies, as well as discussions with Interested and Affected Parties, the following section provides a description of the environmental conditions and important elements within the study area.

8.1 MAIN LAND USE ASPECTS

The land uses surrounding the site are predominantly mining activities which are driven by the Gamsberg Mine. The rest of the land use is dominated by agricultural activities. The study area is currently vacant land as illustrated in [Figure 17](#) below.

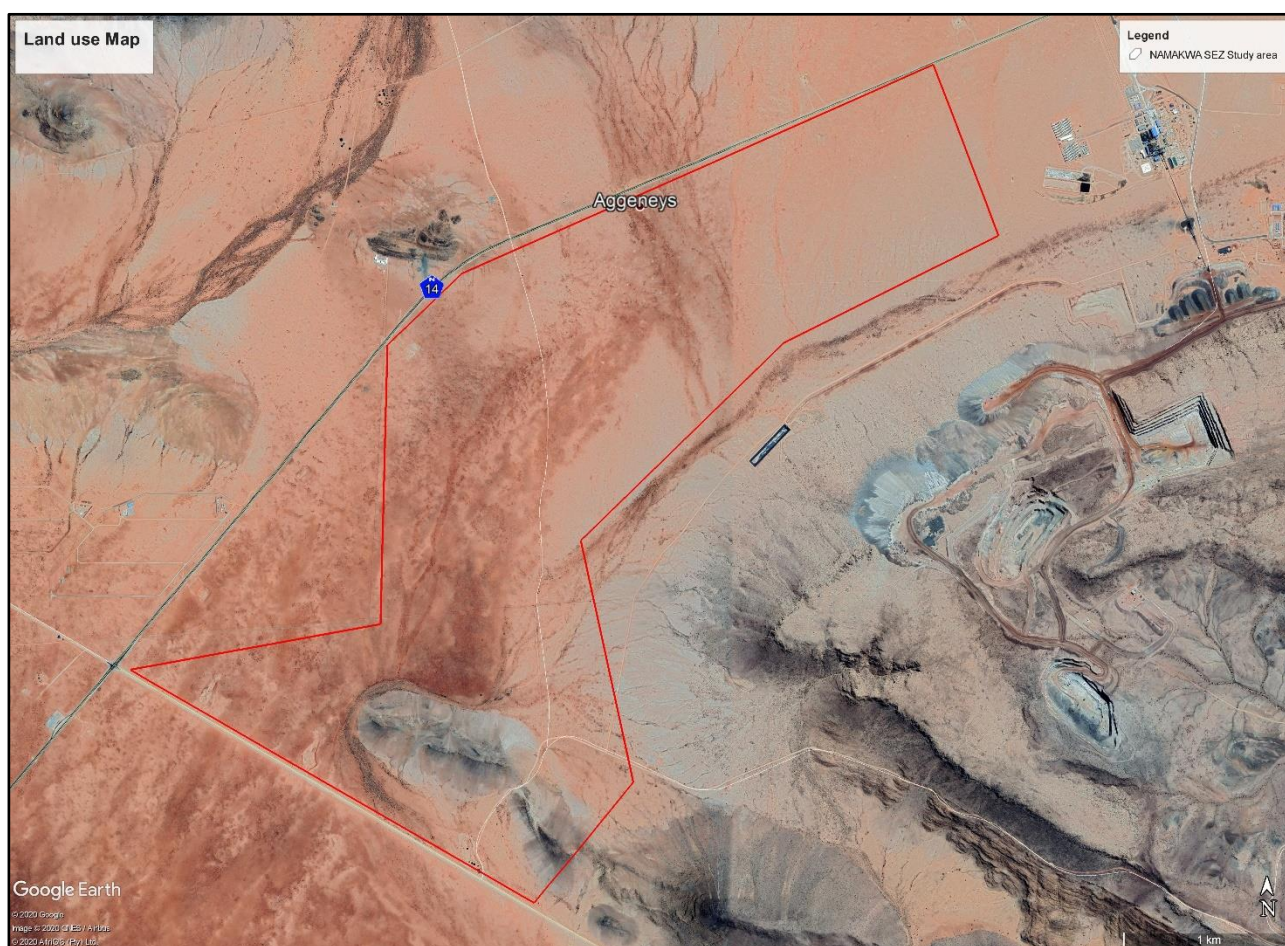


Figure 17: Google earth image indicating the current land use of the study site in red

8.2 CLIMATE

The climate of the Nama Karoo is harsh with droughts common and extreme temperature fluctuations both daily and seasonally. Rainfall, ranging between 100 and 500 mm, is unseasonal, but generally peaks between December and March. The area has an arid climate (average of 98 mm/year) although rainfall occurs in summer and winter. Summers are hot and mean maximum temperatures in January, the hottest month, range between 30.7°C and 35.4°C. During winter, mean maximum temperatures range from 17.8°C to 20°C with significant temperature reductions at night. The prevailing winds in the region are southerly (mainly during the night) and westerly (mainly during the day). Wind speeds within the region are typically low, with monthly average wind speeds ranging from 3.3 m/s to 4.3 m/s.

8.3 SOCIO-ECONOMIC ANALYSIS (SRK, 2016)

Gamsberg mine is located in the Namakwa District Municipality and the Khai-Ma Local Municipality. Aggeneys is situated approximately 15 km west of Gamsberg. The town has recently been incorporated as an official town within the Khai-Ma Local Municipality. Aggeneys is the largest concentration of people in close proximity to the project location with an estimated population of 2 500 of whom approximately 750 are permanently employed at BMM.

Pella is 33 km north of Gamsberg and 13 km from the N14. Pella was established as a mission station on the banks of the Orange River station. Agriculture is the key economic activity for the 4 000 residents of Pella. Pofadder is the administrative seat of the Khai-Ma Local Municipality and has developed as an agricultural service centre for the surrounding farming community. It is approximately 45 km east of Gamsberg on the N14. Pofadder has an estimated population of 6 500. Springbok is the major economic centre of the area and is the seat of the Namakwa District Municipality. It is situated approximately 120 km west of Gamsberg. The population of Springbok is estimated at 8 400 people.

Despite the large area covered by the Namakwa District Municipality (126 747 km²), it has a small and dispersed population. The total population is estimated at over 115 842 with a population density of 0.91 people/km. In 2011, the Khai-Ma Local Municipality was home to 10.7 % of the District's population. The Khai-Ma Local Municipality recorded a

population growth rate of 0.8 % over the past 10 years. The contribution of the Northern Cape economy to the national Gross Domestic Product (GDP) has remained constant at between 2 and 2.2 %, throughout the period 1996 to 2011. This indicates that the province has kept pace with economic growth in general but has not experienced accelerated economic development. Mining was the largest sector with a 27 % contribution to Gross Geographic Product. Mining is followed by general government services at 13 %; finance, real estate and business services at 12 %; and wholesale, retail and motor trade including catering and accommodation at 10 %. Tourism is of growing importance in the District Municipality with the main attraction being the wild flower displays which occur from August to October.

The Namakwa District Municipality's regional GDP amounted to R3.77 billion in 2007. The Khai-Ma Local Municipality contributed approximately 10.3 % with mining operations in Aggeneys making the most significant contribution. In 2007, the mining sector contributed 52 % to the District's GDP. However, the sector's contribution to employment has been declining as a number of mines have closed. The unemployment rate in the Northern Cape decreased to approximately 27.4 % in 2011 compared to 35.6 % in 2001. The mining sector is the dominant employer in the Namakwa District Municipality - the mining sector provided 21 % of all employment opportunities in 2007 followed by agriculture and fishing at 18 %. Although these sectors remain major employers, their relative contributions declined between 1995 and 2007 by approximately 5 % each. The wholesale retail trade, catering and accommodation sector showed the greatest proportional increase in job creation over the period up from 11 % in 1995 to 14 % in 2007. The rate of unemployment decreased for the Northern Cape Province and Namakwa District Municipality from 2001 to 2011. In 2011, the lowest unemployment rate was recorded for the Province and the District. However, this trend is not the case for the Khai-Ma Local Municipality, which experienced a significant increase in the unemployment rate from 15.3 % in 2001 to 22.1 % in 2011. Due to the high unemployment rate and the quality of jobs (in relation to the skills levels) a significant proportion of the Khai-Ma Local Municipality population falls below the poverty line, leading to an increased reliance on State support.

8.4 TOPOGRAPHY AND SOILS

The general topography of the site consists out of broad, open stretches of land with mountainous outcrop rising above the surrounding plain. A large portion ($\pm 50\%$) of Khâi Ma is underlain with the Kalahari Group. The Kalahari basin is a flat, sand covered, semidesert region which contains, dry river beds and dunes.

The slope and the elevation of the study area is favourable for development, minimizing potential construction costs. Mountainous areas occur in the northern part along the Orange River and around Aggeneys town including Dabenoris Mountain, Elsberg, Groot Pellaberg, Namiesberg, Gamsberg, Aggeneys se Berg and Black Mountain, presenting steeper slopes varying between 9%-25%.

Gamsberg is located on a flat expansive plain with gentle rolling topography and inselbergs protruding above the plain. The soils present in the area are reddish and predominantly shallow and stony. The western and southern portions of the site have deeper red soils. The Gamsberg inselberg has been managed as a grazing-free site which has limited the level of land degradation compared to the surrounding farms. The gradual gradient of the slope and the elevation of the study area is favourable for development, minimizing potential construction costs.

8.5 HYDROGRAPHY

The proposed even experience very little mean rainfall (less than 200 mm a year) and can be classified as arid and dry. The erven are located in the Orange River basin. At present, the site will not be affected by the 1:50 and 1:100-year flood line, as is shown on the township layout plan submitted with this application.

Aggeneys has poor groundwater aquifer classifications. The area is flat and therefore, surface run-off is likely in the form of sheet-flow. The existing housing developments have storm water berms constructed around them.

8.6 AIR QUALITY AND NOISE

In arid areas, particulate matter (e.g. dust) generated by exposed soils (sparse vegetation) and entrainment by vehicles contributes to elevated dust levels.

Air quality in the vicinity of Gamsberg is affected by wind-blown dust from mining activities and traffic on gravel roads, while dust from the surrounding farms is also quite significant. The Particulate Matter of ten micrometres or less (PM₁₀), Sulphur dioxide (SO₂) and Nitrogen dioxide (NO₂) concentration levels in the surrounding area are generally within the limits set by the National Environmental Management: Air Quality Act 39 of 2004 and the South African National Standards (SANS).

Dust fallout levels do fluctuate in the area, with higher concentration levels recorded during the dry, windy seasons (i.e. July and September). There are instances during this period when dust concentration levels do exceed the SANS 1929:2005 standards. (Gamsberg EMPR Amendment Report, December 2016). Gamsberg is located in a sparsely populated region. Background noise in the area is generated by vehicles travelling on the N14 and gravel roads, as well as noise emanating from Aggeneys and current mining activities. According to the EIA (ERM, 2013), mining activities at Gamsberg do not generate noise levels above the daytime and night-time rural guidelines for sensitive receptors surrounding the mine. (Gamsberg EMPR Amendment Report, December 2016).

8.7 ELEMENTS OF CULTURE HISTORICAL IMPORTANCE

An Historical study of the site was conducted in 2013. In this study, three sites were identified of historical significance in and around the study site.

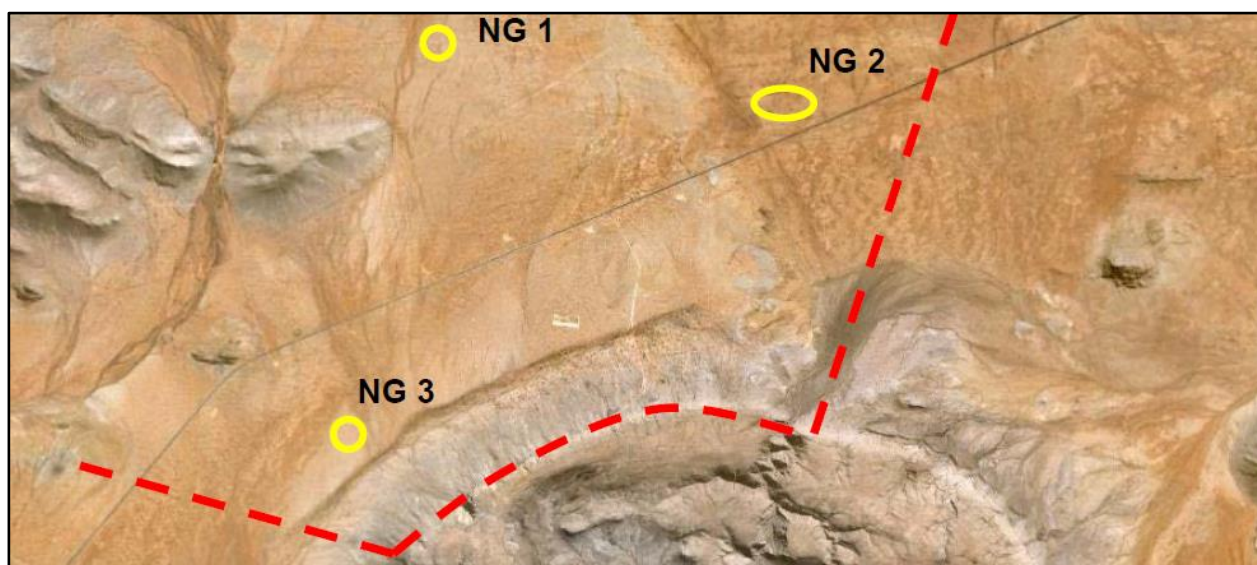


Figure 18: 3 sites of cultural importance found historically (Morris, 2013)

Figure 18 above indicates one of the heritage features found within the study site. The report found the significance as being low and described as follow:

Isolated Earlier Stone Age (ESA) cleaver found on the plain below the inselberg, noted by P. Desmet. Such isolated finds indicate off-site activity. Small clusters of ESA artefacts have been found in the basin. This single instance lacks context and is hence of limited archaeological significance.

The heritage aspect of the site will be investigated in the specialist studies to be undertaken.

8.8 VEGETATION

As stated in the 2016 Gamsberg Environmental Management Plan Amendment Report, the Gamsberg inselberg sits within the Bushmanland Inselberg Region (BIR). The vegetation found on the plains and along the warmer north-facing slopes is characteristic of the Nama Karoo Biome, whereas the vegetation of cooler higher elevation plains and south-facing slopes is characteristic of the Succulent Karoo Biome.

The vegetation found on the Bushmanland inselbergs forms a distinct centre of plant endemism located within the larger Eastern Gariep Centre of Endemism.

There are a number of species identified that are considered to be endemic to the Bushmanland inselbergs and the BIR itself, the region has been termed “Bushmanland Inselberg Centre of Endemism”.

The Gamsberg inselberg is considered to be the most regionally important inselberg in the BIR in terms of its biodiversity and composition. A total of 397 plant species were identified and recorded in the area.

These species are found within six vegetation types - Aggeneys Gravel Vygieveld, Bushmanland Inselberg Shrubland, Bushmanland Arid Grassland, Bushmanland Sandy Grassland, Azonal and Bushmanland Inselberg Succulent Shrubland.

8.9 FAUNA

According to the 2016 Gamsberg Environmental Management Plan Amendment Report, no Red Listed invertebrate species were identified in the EIA (ERM, 2013) in the Gamsberg region. Two ant species potentially endemic to the Northern Cape and Southern Namibia were identified.

At least 24 scorpion species are expected to occur in the Gamsberg and surrounding areas, which are well known for exhibiting exceptionally high diversity of this group. The area supports relatively low amphibian diversity. Three species of frog were recorded within the study area.

No Red Data species are known or expected to occur, but the three recorded frog species are protected. The Gamsberg area supports a relatively rich diversity of reptiles, given the diversity of habitats and the presence of mountainous, rocky terrain, which supports a number of species that do not occur on the surrounding low-lying plains.

A total of 46 bird species have been recorded in the area including four Red Listed and 14 range restricted bird species. The diversity of birds is relatively high within the regional context (~ 35% species representation at Gamsberg), which is driven largely by the diverse range of habitats.

A total of 37 mammal species were recorded in the Gamsberg area. The Gamsberg area supports over 50% of the expected regional diversity. (Gamsberg EMPR Amendment Report, December 2016).

All specialist studies will be concluded and included in the EIA phase of this project.

9. ACTIVITIES, IDENTIFIED IMPACTS AND PRELIMINARY ASSESSMENT

9.1 INTRODUCTION

This section of the Scoping Report provides a list of the biophysical and social issues that can be expected as a result of the proposed SEZ development. Some of the issues are localised in their effects, whilst others could influence a more extensive area. In light of the aim of the Scoping report is that issues need to be identified.

The identification and brief descriptions of the relevant physical, biological, socio-economic and heritage issues were conducted under the following headings in Table 6:

- Environmental aspects: defined as those actions on site that may potentially have an environmental impact;
- Environmental component to be impacted upon;
- Locality / applicable zone of the impact; and
- Nature and description of the impact or issue

An impact significance rating and evaluation, for the listed aspects, will form part of the EIA process/report to follow the environmental scoping process. The methodology of impact assessment and its significance rating is included in the attached Plan of Study for EIA. Most of the identified and anticipated negative impacts listed below will only take effect once the construction of the development commences; the main period of positive impact occurrence is during the long term “operational” phase when it is felt that the broader community will benefit from the project. The long term negative operational impacts however will also be experienced by the change in landscape and adverse effects on biodiversity.

9.2 METHODOLOGY

The impact assessment methodology used to determine the significance of impacts prior and after mitigation is presented below

Impact Significance Methodology

The **Significance** of Environmental Impacts is to be assessed by means of the following method:

Significance is the product of probability and severity. Probability describes the likelihood of the impact actually occurring, and is rated as follows:

-
- Improbable - Low possibility of impact to occur either because of design or historic experience.

1.1.1.1 Rating = 2

- Probable - Prominent possibility that impact will occur.

1.1.1.2 Rating = 3

- Highly probable - Most likely that impact will occur.

1.1.1.3 Rating = 4

- Definite - Impact will occur regardless of any prevention measures

1.1.1.4 Rating = 5

1.1.1.5 The severity rating is calculated from the factors given to intensity and duration. Intensity and duration factors are awarded to each impact, as described below.

The **Intensity factor** is awarded to each impact according to the following method:

-
- Low intensity - Nature and/or man-made functions not affected and a minor impact may occur.

1.1.1.6 Factor 1

- Moderate intensity
 - Environment affected but natural functions and processes can continue though often in a slightly altered manner.

1.1.1.7 Factor 2

- High intensity
 - Environment affected to the extent that natural functions are altered to the extent that it will temporarily or permanently cease.

1.1.1.8 Factor 4

Duration is assessed and a factor awarded in accordance with the following:

- Short term
 - ≤ 1 to 5 years

1.1.1.9 Factor 2

- Moderate term
 - 5 – 15 years

1.1.1.10 Factor 3

- Long term
 - Impact will only cease after the operational life of the activity, either because of natural process or by human intervention.

1.1.1.11 Factor 4

- Permanent
 - Mitigation, either by natural process or by human intervention, will not occur in such a way or in such a time span that the impact can be considered transient.

1.1.1.12 Factor 5

The **severity rating** is obtained from calculating a severity factor, and comparing the severity factor to the rating in the table below, for example:

The Severity factor

Intensity factor X Duration factor

$$2 \times 3 = 6$$

A Severity factor of 6 (six) equals a Severity Rating of Moderate severity (Rating 3) as per table below:

Table 2: Severity Ratings

FACTOR	
Low Severity (Rating 2)	Calculated values 2 to 4
Moderate Severity (Rating 3)	Calculated values 5 to 8
High Severity (Rating 4)	Calculated values 9 to 12
Very High Severity (Rating 5)	Calculated values 13 to 16 and more
Severity factors below 3 indicate no impact	

1.1.1.13 A Significance Rating is calculated by multiplying the Severity Rating with the Probability Rating:

1.1.1.14 The significance rating should influence the development project as described below:

- Low significance (calculated Significance Rating 4 to 6)
 - Positive impact and negative impacts of low significance should have no influence on the proposed development project
- Moderate significance (calculated Significance Rating ≥ 7 to 12)
 - Positive impact

1.1.1.15 Should indicate that the proposed project should be approved

Negative impact:

Should be mitigated or mitigation measures should be formulated before the proposed project can be approved

- High significance (calculated Significance Rating ≥ 13 to 18)

-

Positive impact:

Should points towards a decision for the project to be approved and should be enhanced in final design

Negative impact:

Should weigh towards a decision to terminate proposal, or mitigation should be formulated and performed to reduce significance to at least low significance rating.

Very High significance (calculated Significance Rating ≥ 19 to 25 and more)

9.3 ACTIVITIES, IMPACTS AND PRELIMINARY ASSESSMENT

The description and identification of anticipated impacts is based on the listing of **environmental aspects**. Environmental aspects, for the purposes of this document, is the term used to *describe the actions that may have an impact on one or more of the environmental components listed*. It is important to note that aspects that are clearly definable have been used in preference to those that are duplicative, redundant, difficult to measure, and/or obscure.

An impact is defined as any change in the physical, chemical, biological, cultural, and/or socio-economic environmental system that can be attributed to human activities relative to alternatives under study for meeting a project need. Therefore, the identified environmental aspects are said to have an impact on the components listed above if they result in change.

One of the most important objectives of conducting an Environmental Impact Assessment is to identify and evaluate these aspects and impacts. Consequently, the environmental management programme (EMPr) will consist of the preferred mitigation and management options for the identified impacts assessed as being significant. These will be described within the EIA (and EMP) report to follow.

The environmental aspect and the resultant impact can become manifest during the **construction phase (C)** and/or the **operational phase (O)**, which is the stage when the proposed SEZ is fully operational.

9.4 PRELIMINARY ISSUE / IMPACT ASSESSMENT FOR THE PROPOSED DEVELOPMENT

The following table provides a list of activities (environmental aspects) that will occur on site and it provides an outline of the potential impacts that these actions will have on the environment, the anticipated effects on the biophysical and social aspects. The identification of the aspects and impacts may be expanded as more information becomes available when the specialist study in noise is completed. At this stage, the table below provides a list of impacts and issues.

9.4.1 Construction phase

ASSESSMENT OF POTENTIAL IMPACTS DURING THE CONSTRUCTION PHASE					
ACTIVITY	ENVIRONMENTAL ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION	MITIGATION TYPE	SIGNIFICANCE AFTER MITIGATION
Construction of access road and internal roads	Soils	Soils will be stripped to construct proper roads. This could lead to and mixing of topsoil. Due to the presence of vehicles and equipment hydro-carbon spills may occur impacting on the quality of the soils.	MEDIUM	<ul style="list-style-type: none"> Roads will be constructed with clean rock material not containing any carbonaceous rock. Spill kits to be stored on site, and staff trained to act when spills occur. Contaminated soil to be removed and transported to a facility for remediation. Drip trays to be used for vehicles that stand overnight. 	LOW
	Vegetation	Vegetation will be removed during the construction of the roads	MEDIUM	<ul style="list-style-type: none"> Removal and storage of all usable soils to be used in rehabilitation. Access roads to avoid sensitive areas No construction within delineated and fenced vegetation important areas. 	LOW
	Surface water	Loose material can contaminate surface water in the event of a storm water run-off occurring during the construction of the roads. Runoff from areas where hydro-carbon spills are present may also cause deterioration in surface water quality.	MEDIUM	<ul style="list-style-type: none"> All hydrocarbon spills to be contained and soils removed. Proper storm water measures to be put in place to prevent contamination of surface water. 	LOW



	Air quality	Construction activities may cause dust that will influence the quality of air. Vehicle emissions can also cause deterioration in air quality.	MEDIUM	<ul style="list-style-type: none"> Dust depressing methods to be implemented while construction of the access roads and internal roads take place. Water cars to be used to make sure dust impact are minimized. 	LOW
	Background noise levels-	Construction activities may cause an increase in background noise levels.	MEDIUM	<ul style="list-style-type: none"> Servicing of all vehicles to be undertaken on a regular basis to prevent excessive noise from machinery. 	LOW
	Non perennial river areas	Construction activities may cause deterioration of the non-perennial areas	HIGH	<ul style="list-style-type: none"> Avoid non perennial drainage area in all phases 	LOW
Clearance of indigenous vegetation	Soils	Topsoil will be stripped and stockpiled within the construction phase. This may cause deterioration in soil quality. During the stripping process topsoil may be mixed. Due to the presence of vehicles and equipment hydro-carbon spills may occur impacting on the quality of the soils.	MEDIUM	<ul style="list-style-type: none"> Topsoil and subsoil to be stockpiled separately and documented. Stockpiles should not be allowed to be higher than 2.5 metres to preserve any potential seeds and regrowth potential Contaminated soil to be removed and transported to a facility for remediation. Drip trays to be used for vehicles that stand overnight. Avoid indigenous vegetation demarcated as no go areas for biodiversity importance. 	LOW
	Vegetation	Vegetation will be removed for construction phase activities	Medium	<ul style="list-style-type: none"> No mitigation for loss of vegetation. Proper storm management to be implemented to stop the formation of erosion. 	Medium



	Land use	Stripping of vegetation and topsoil will result in the current possible land use to cease completely.	MEDIUM	<ul style="list-style-type: none"> Land use currently vacant. Land use change could be beneficial for the area in terms of economic drivers 	LOW
	Surface water	Loose material can contaminate surface water in the event of a storm water run-off occurring during the stripping and stockpiling of topsoil. Runoff from areas where hydro-carbon spills are present may also cause deterioration in surface water quality.	MEDIUM	<ul style="list-style-type: none"> All hydrocarbon spills to be contained and soils removed. Proper storm water measures to be put in place to prevent contamination of surface water. This will include the activity of stripping and stockpiling of topsoil. 	LOW
	Air quality	Stripping and vegetation and stockpiling of topsoil may cause dust due to vehicle movement that will influence the quality of air. Material handling (topsoil) will generate dust and this and vehicle emissions can potentially cause deterioration in air quality.	MEDIUM	<ul style="list-style-type: none"> Dust depressing methods to be implemented while construction of the access roads and internal roads take place. Water cars to be used to make sure dust impact are minimized in limited quantities. Material handling has to be limited to as little as possible to prevent the generation of dust. 	LOW
	Background noise levels	Stripping and stockpiling activities may cause an increase in background noise levels.	MEDIUM	<ul style="list-style-type: none"> Construction activities to be limited to specified times. Area of activity to be in an industrial area 	LOW
Development of facilities for	Vegetation	Loss of vegetation due to transformation of land	Medium	<ul style="list-style-type: none"> Pick a site that falls within historically transformed areas or areas of low biodiversity concern. 	LOW



storage of dangerous goods-truck fuel stop; bulk fuel storage area and chemical storage areas.	Soil	Construction will lead to soil excavation for installation of areas with bund walls for dangerous goods such as Diesel and petrol storage to refuel trucks and for the generators up to 0.5 metres.		<ul style="list-style-type: none"> Avoid loss of topsoil, soil erosion, soil contamination. Storage of topsoil and subsoil in separate piles. Use subsoil and topsoil for rehabilitation and prevent soil degradation or loss. 	LOW
Development of PV Solar array	Vegetation	Construction will lead to the clearance of vegetation.	High	<ul style="list-style-type: none"> Clearance of vegetation should be avoided and vegetation should be kept as the PV panels is located on stands above the ground. PV array to be established outside of the demarcated area for red data plant species. Areas of vegetation importance to be demarcated and avoided completely. 	LOW
	Land use	Stripping of vegetation and topsoil will result in the current possible land use to cease completely.	MEDIUM	<ul style="list-style-type: none"> Land use currently vacant. The surrounding land use includes solar arrays. The land use will be acceptable. 	LOW
Construction of the NAMAKWA SEZ- Housing, industrial, commercial areas	Air Quality	<p>Site clearing, removal of topsoil</p> <p>During this activity, a number of operations take place such as land clearing, topsoil removal, loading of material. Initially, topsoil and subsoil will be removed with large scrapers. The topsoil will be stockpiled for rehabilitation in the infrastructure area. It is anticipated that each of the above-mentioned operations will have its own duration and potential for dust generation.</p>	Medium	<ul style="list-style-type: none"> The area of disturbance must be kept to a minimum and no unnecessary clearing of vegetation must occur. Topsoil should be re-vegetated to reduce the exposure areas. When using bulldozers and graders, there is need to minimise travel speed and distance and volume of traffic on the roads. 	LOW



				<ul style="list-style-type: none"> • Stockpiles should not be left for prolonged periods as wind energy generates erosion and causes more dust to form. • It should be noted that emissions generated by wind are also dependent on the frequency of disturbance of the erodible surface. • All stockpiles should be damped down, especially during dry weather or re-vegetated (hydroseeding is a good option for slope revegetation). 	
	Air Quality	<p>Construction of surface infrastructure (e.g. access roads, pipes, storm water diversion berms, change houses, admin blocks.</p> <p>During this phase, it is anticipated there will be construction of infrastructure. This will include access roads, pipes, storm water diversion berms, change houses, admin blocks etc. Activities of vehicles on access roads, levelling and compacting of surfaces will have implications on ambient air quality.</p>	MEDIUM	<ul style="list-style-type: none"> • Dust emitted during bulldozing activity can be reduced by increasing soil dampness by watering the material being removed thus increasing the moisture content. • Blasting should also not take place when poor atmospheric dispersion is expected i.e. early morning and late evening. • Material need to be removed to dedicated stockpiles to be used during rehabilitation. • Movement of materials should take place on roads which is being watered and/or sprayed with dust suppressant. • Constricting the areas and time of exposure of pre-strip clearing in advance of construction to limit exposed soil surfaces 	LOW



	Noise	General rise in ambient noise levels During construction phase increased noise levels can be expected at directly adjacent households to the proposed development.	MEDIUM	<ul style="list-style-type: none">• Communication between the receptors and the developer need to be implemented and maintained, highlighting the outcome of this study. The developer should consider co-ordinate the working time with periods when the receptors are likely not at home. An example would be to work within the 8 am to 4 pm time-slot to minimise the significance of the impact due to:• Normal daily activities will generate other noises that would most likely mask construction noises, minimizing the probability of an impact happening. Ensure a good working relationship between the project representative and all potentially sensitive receptors. Communication channels should be established to ensure prior notice to the sensitive receptor if work is to take place close to them. Information that should be provided to the potentially sensitive receptor(s) include:• Generally, construction activities should not take place before 8am and after 5pm and not on Sundays and public holidays. This would however not always be realistic, as deadlines and specific construction activities could take 12+ hours.	LOW
	Heritage	An archaeological find is situated on the SEZ site. This will be investigated further in the EIA process and specialist studies.	High	<ul style="list-style-type: none">• The site to be fenced and its significance determined.• A Heritage impact assessment is to be undertaken with specific recommendations.• Any artefacts or graves found at the subsoil level must be reported and work stopped for investigation	Medium



	Biodiversity	Loss of species of conservation concern Construction activities close to the identified vegetation important area will result in the potential loss of significant plant species.	Low	<ul style="list-style-type: none">• The recommendations of the ecological and botanical specialist studies must be strictly implemented as soon as these studies are concluded.• The recommendations of the fauna study must be adopted into the EMP.• Sensitive areas need to be avoided where possible.• Preventing the unnecessary destruction of any natural habitat and animal life within the boundaries of the proposed area of development and adjacent areas.• Animals may under no circumstances be handled, removed, killed or interfered with by the Contractor, his employees, his Sub-Contractors or his Sub-contractors' employees. This includes foraging, food and wood collecting outside of the construction site.• Conservation orientated clauses should be built into contracts for construction personnel, complete with penalty clauses for non-compliance.• Measures must be taken to ensure that workers are aware of laws and restrictions governing the hunting, capturing or trapping of animals and should be advised on the penalties associated with the needless destruction of wildlife.	LOW
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	Socio- Economic Local Economic Impacts	As a result of construction of buildings and other infrastructure, supply chain opportunities will be created that will benefit local suppliers		<ul style="list-style-type: none"> Procurement of suppliers must be as per strict requirements Apply employment/procurement policies and procedures (e.g. do not employ at the gate) to prevent unnecessary influx by job-seekers; 	
	Socio- Economic Local Economic Impacts	Impacts on economic well being	LOW POSITIVE	<ul style="list-style-type: none"> Address concerns with and ensure local job and procurement opportunities; Ensure compliance with socio-economic tools and legal requirements (BBBEE and Mining Charter); 	MEDIUM POSITIVE
		Impacts on local employment Job opportunities for the construction phase is not yet known but will be a high number in terms of the size of the project.	HIGH POSITIVE	<ul style="list-style-type: none"> Maximise the local content of the construction phase by using local labour, local contractors, SMMEs and local service providers wherever possible and make this compulsory for the main Contractor by including minimum thresholds in the Contractor Services Management plan (CSMP). 	HIGH POSITIVE
		Impacts on local economy Definite positive impacts for the local economy during the construction phase may occur It could be expected that the majority of construction material requirements will need to be sourced	MEDIUM POSITIVE	<ul style="list-style-type: none"> Do a Value Chain analysis of skills and services required for the construction phase. Communicate this with the local Ward Councillors and communities at least 4 months in advance to ensure that local groups are prepared to tender once the tender process commences. Once appointed, monitor the social performance of Contractors and determine how Contractors fair on each KPI. 	MEDIUM POSITIVE



	Socio- Economic Impact Skills development	Skills development, capacity building and social responsibility Due to the short duration of the construction period, skills development and capacity building is more focused on hands-on experience and on-site skills transfer.	HIGH POSITIVE	<ul style="list-style-type: none">Skills upgrading providing a greater pool of appropriately qualified people for new positions or to start their own businesses. This should be achieved by training provided by SEZ businesses and by other education and training institutions leveraged by the SEZ. On the job experience is also likely to play an important role.Technology transfer benefits allowing local enterprises to add value in the longer term and reduce the need for imports where appropriate. These benefits are likely to materialise to the extent that businesses locating in the SEZ introduce and are willing to share new forms of technology.	HIGH POSITIVE
	Surface water	A non-perennial river exists on the eastern side of the development. Flooding of this area may cause impact on planned structures. All the planned development areas may contribute to concentrated storm water production.	MEDIUM	<ul style="list-style-type: none">Development of the storm water management structures.Soils compacted by heavy machinery in areas that are not utilised post construction can be ripped to allow infiltration.Roads should be maintained regularly to ensure that surface water drains freely off the road preventing erosion; andEnsure that storm water management structures are within good working condition through regular inspection, especially after large storm events.	LOW



	Traffic	The proposed project will require various road upgrades	Medium	<ul style="list-style-type: none">• Sidewalks should be provided within the development to accommodate pedestrian movements.• Pedestrian sidewalks should be provided as follows:<ul style="list-style-type: none">○ Along the Proposed Access Road on the eastern side of the road; and○ Along the northern side of Alwyn Road between the Proposed Access Road and Bandura Street.○ A pedestrian sidewalk should be provided to link the development with the existing pedestrian bridge. This should be done to accommodate pedestrians walking to the Denneboom intermodal public transport facility as well as the township east of the development.	Low
Construction of the railway	Soils	Topsoil will be stripped and stockpiled within the construction phase. This may cause deterioration in soil quality. During the stripping process topsoil may be mixed. Due to the presence of vehicles and equipment hydro-carbon spills may occur impacting on the quality of the soils.	MEDIUM	<ul style="list-style-type: none">• Topsoil and subsoil to be stockpiled separately and documented.• Stockpiles should not be allowed to be higher than 2.5 metres to preserve any potential seeds and regrowth potential• Contaminated soil to be removed and transported to a facility for remediation.• Drip trays to be used for vehicles that stand overnight.• Avoid indigenous vegetation demarcated as no go areas for biodiversity importance.	LOW



9.4.2 Operational Phase

ASSESSMENT OF POTENTIAL IMPACTS DURING THE OPERATIONAL PHASE					
ACTIVITY	ENVIRONMENTAL ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION	MITIGATION TYPE	SIGNIFICANCE AFTER MITIGATION
Operation of the NAMAKWA SEZ	Socio-Economic Impacts: Impacts on employment	Employment opportunities During the operation phase it is, at this stage, anticipated that many job opportunities will be created.	MEDIUM POSITIVE	<ul style="list-style-type: none">Local employment is once again emphasised and workers that reside closest to the area should first be considered for employment.Establish a labour desk in collaboration with the Ward Councillor and local Municipality to determine the skills that are available locally before considering “outsiders”.	MEDIUM POSITIVE
		Local employment It is likely that all or the majority of the unskilled and semi-skilled workforce be sourced from the local and affected ward. However, the skilled positions require specialised training and a level of higher education, which could be sourced from the broader Metro. Benefits of employment for locals will increase if people from the direct impact sphere are considered for all levels of occupational categories. Due to existing limitations in local education and skill levels this might not be practical or feasible in the short term.	Few Benefits	<ul style="list-style-type: none">Establish a labour desk and do skills analysis of the local labour force before considering people from outside the project’s primary impact sphere.Involve the COTMM LED Unit, Ward Councillors and other community groups (Youth groups, Community development workers, etc.)Make gender-based issues a definite focus of the needs assessment and ensure that equity of minority groups (women, youth and the disabled) are included.	Some benefits
		Employment equity	Few Benefits		Some benefits



ASSESSMENT OF POTENTIAL IMPACTS DURING THE OPERATIONAL PHASE

ACTIVITY	ENVIRONMENTAL ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION	MITIGATION TYPE	SIGNIFICANCE AFTER MITIGATION
		Youth, women and the disabled generally fall under the category of minority groups. In South Africa, despite the perception that women are more reliable and less likely to misuse drugs and alcohol while in employment, it is very rare that females are hired for more physically challenging jobs. The result is a growing group of young people with severely limited access to formal sector employment, and limited means to do anything about this.			
	Socio-Economic Impacts: Skills development and social responsibility	Skills development, training and capacity building Structured training and development of employees on an on-going basis to enable them to perform their duties efficiently and effectively is required to achieve the company's strategic objectives and optimizing the capabilities and potential of all employees.	MEDIUM POSITIVE	<ul style="list-style-type: none">Do a skills analysis of the local community members in collaboration with the local Municipality and Ward Councillor to ensure that locals are considered for employment and training.Legislation stipulates that specific levels of training and skills are required. Only if skills are not available locally (nearby settlements and local Municipal area) will personnel be sourced elsewhere.	MEDIUM POSITIVE
	Socio-Economic Impacts: Community / Institutional arrangements	Attitude formation and mobilisation against the project At this stage no negative attitude formation that would result in negative community mobilisation has been observed	LOW	<ul style="list-style-type: none">Ensure that land owners and affected communities are continuously updated with regards to new developments that might affect them.Use a single line of communication and make the communication channels known to the affected	LOW



ASSESSMENT OF POTENTIAL IMPACTS DURING THE OPERATIONAL PHASE

ACTIVITY	ENVIRONMENTAL ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION	MITIGATION TYPE	SIGNIFICANCE AFTER MITIGATION
		Mismanagement of the operations and a lack in communication with local communities and landowners has the potential to result in negative impacts and community mobilisation against the project.		<p>parties, in case they want to raise complaints or make enquiries.</p> <ul style="list-style-type: none">Attend to issues as soon as they are being reported.Be vigilant not to raise unrealistic expectation amongst the local communities with regards to employment, skills requirements and new community projects. Continuously engage with the local communities and involve the Local Councillors and existing community structures in the processes.	
	Surface water	Alteration in surface water drainage patterns.	MEDIUM	<ul style="list-style-type: none">Implementation of the storm water management plan.Implementation of recommendations from the surface water study.Surface water monitoring to monitor changes in water quality.	LOW
	Air Quality	<p>General transportation and vehicle movement on site</p> <p>Transportation of the workers and materials in and out of the site will be a constant feature during the operational phase.</p>	MEDIUM	<ul style="list-style-type: none">Transporting of materials and transportation should take place in regularly serviced trucks and busses to prevent excessive smoke emissions.Speed limits need to be observed and adhered to.	LOW



ASSESSMENT OF POTENTIAL IMPACTS DURING THE OPERATIONAL PHASE

ACTIVITY	ENVIRONMENTAL ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION	MITIGATION TYPE	SIGNIFICANCE AFTER MITIGATION
		The planned park is a commercial and light industrial park. Activities to be undertaken will include boilers, welding, moulding and various other industries. The activities to be undertaken will not be enough to warrant an Air Emissions License.		<ul style="list-style-type: none">All vendors inside of the park must use the most advanced technology to prevent excessive air pollution.All vendors that will have a likely air pollution impact must implement a pollution monitoring programme. Records must be kept for 10 years.	
Operational impacts: Railway line	Noise	The railway line will be located close to the residential areas.	Medium	<ul style="list-style-type: none">The railway line should be buffered from the residential areas by berms or trenches.	Medium
	Vegetation	The railway line runs parallel on the southern side of the development. This may potentially affect the area where vegetation of high significance is located.	High	<ul style="list-style-type: none">No access into calcrete or quarts areas containing red data species will be allowed. The demarcation will be highlighted on sensitivity maps.	Low
	Waste	It is possible that the railway transporting product could potentially spill waste products at the transfer areas	Medium	<ul style="list-style-type: none">All transfer areas have to be located on concrete platforms and must be within the mining areas of Black Mountain.	Low
	safety	The railway line will run on electricity with overhead cables	Medium	<ul style="list-style-type: none">The railway should be secured and no access should be allowed onto the tracks, or on top of the train.	Low
Operational impacts: WWTP	Soil	Spillages could cause sewage spills on the soils	High	<ul style="list-style-type: none">The wwtp have to be maintained and it must be ensured that no spillages of sewage can occur.	Low
	River	Sewage spillages could pollute any river areas		<ul style="list-style-type: none">The river is a non-perennial drainage way. Clean up kits should be kept on site.	



9.4.3 Closure and Decommissioning Phase

ASSESSMENT OF POTENTIAL IMPACTS DURING THE OPERATIONAL PHASE					
ACTIVITY	ENVIRONMENTAL ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION	MITIGATION TYPE	SIGNIFICANCE AFTER MITIGATION
Closure of the Namakwa SEZ	General	Closure of the SEZ is not anticipated in the near future. This area is a SEZ and the nature of the development is to house vendors in a commercial park. Even after the initial idea is no longer applicable, the SEZ will be utilised in future for whatever market it is needed.	n/a	The closure phase of this SEZ will not realise for many years to come. When closure is needed in the future, all legislation from that time will need to be reviewed to ensure that adherence to all legislation is in line.	n/a

9.5 SITE SELECTION

The site that was chosen is situated within a piece of land adjacent to the existing Black Mountain Mining Company Pty Ltd. The aim is to have the SEZ fall into a synergetic use with the mine operations. Therefore, no other site was considered as an agreement could be reached with the owner of the land.

9.6 MOTIVATION FOR NOT CONSIDERING ALTERNATIVES

Alternative locations and technologies were not considered in this report. This does not mean that they were not taken into consideration. Proper planning and research from the applicant made it possible to identify the current potential site long before the EIA was to be undertaken. Technological alternatives have already been built into the project description. The site will utilise a 100MW solar PV array for its operations. The No-Go alternative was assessed as part of the application to include a baseline situation where the environmental conditions will stay the same.

10 CONCLUSIONS

The Scoping report was compiled and gives an overview of the environmental characteristics of the site, the proposed project description and potential impacts and mitigation measures of any identified aspects onto the environment. When the impact assessment is considered, it is clear that most of the impacts that is anticipated in the Construction phase can be mitigated to a low or very low significant rating. These measures will therefore be included in the EMP to be compiled in the EIA phase of this project. Activities that remained on a medium significance after mitigation includes the impact of the clearance of vegetation, construction of the SEZ and Heritage considerations.

The socio-economic impact significance is rated as having a positive impact significance.

The assessment undertaken for the operational phase revealed that potential noise by the railway could lead to a medium significance after mitigation. The operational phase will have an overall positive significance on Socio-Economic activities

The second phase of the Environmental Impact Assessment (EIA) process for the proposed project will follow this scoping process in the form of an Environmental Impact Assessment Report.

The site assessed in this assessment was the preferred alternative and no other alternatives were assessed as part of this process. The chosen alternative is a result of a process of elimination to determine the best alternative before a formal process was lodged



11 APPENDIXES



Appendix 1A:

Locality Map-Attached

Layout plan - Attached

Appendix 2:

Public Participation information - Attached

Appendix 2A: Site photos

Appendix 2B: Background information documents copies

Appendix 2C: Proof of Acknowledgement of BIDS

Appendix 2D: Proof of Press Advertisements

Appendix 2E: Proof of site notice placements and copies of the notices

Appendix 2F: Comment and Registration forms including Email Registrations

Appendix 2G: Comments received from I&APS

Appendix 2H: Comments and response sheet

Appendix 2I: Meeting registers of I&Aps and stakeholders

Appendix 2J: Proof of delivery of Scoping report

Appendix 2K_Register of I&APs



Appendix 2A: Site photos



Appendix 2B: Background information documents copies



Appendix 2C: Proof of Acknowledgement of BIDS

Proof of Acknowledgements of BIDs will be included in the final Scoping report



Appendix 2D: Proof of Press Advertisements



- Plattelander newspaper



Gemsbok- newspaper



Appendix 2E: Proof of site notice placements and copies of the notices



Appendix 2F: Comment and Registration forms including Email Registrations



Appendix 2G: Comments received from I&APS

None received yet



Appendix 2H: Comments and response sheet

The comments and response sheet will be compiled once comments were received. Currently, only registrations are available.



Appendix 2I: Meeting registers with I&As and Stakeholders



Appendix 2J: Proof of opportunity for comment of 30 days for all stakeholders and I&APs on Scoping

To be included in the EIA phase



Appendix 2K_Register of I&APs



Appendix 3:

Specialist reports:

Appendix 3a-Township establishment Draft

Appendix 4:
Plan of Study for EIA

ATTACHED



Appendix 5:

CV of EAP

ATTACHED