

Cnr. Paul Smith Street & 10th Avenue
Unit 269, Block F, Ravenswood Mews
Boksburg North
Cell: 072 361 9527
Tel: 011 863 1079
Fax: 086 605 5488
Email: mphoto@manyabeconsultancy.co.za



DRAFT SCOPING REPORT FOR THE PROPOSED CYFERFONTEIN 2 CLAY QUARRY MINING RIGHT APPLICATION

DMR REF. NO: LP30/5/1/2/2/10149MR

PROJECT CODE: 201717

Prepared for:



AQUARELLA
INVESTMENTS 389 (PTY) LTD

Farm 2, Old Potchefstroom Road
PO Box 2247
Vereeniging, 1930
Tel: (016) 930 3600
Fax: (016) 930 3650

Prepare by:



Unit 269, Corner Paul Smith Street and 10th Avenue
Ravenswood Mews, Block F
Boksburg North, 1459
Tel: 072 361 9527
Fax: 086 605 5488

Contact Person: Ms Mpho Manyabe

Date: November 2017

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MANAGING DIRECTOR: MPHO MANYABE
REG. NO: 2014/063679/07



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

DRAFT SCOPING REPORT

FOR LISTED ACTIVITIES ASSOCIATED WITH MINING RIGHT AND/OR BULK SAMPLING ACTIVITIES INCLUDING TRENCHING IN CASES OF ALLUVIAL DIAMOND PROSPECTING.

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

NAME OF APPLICANT: [AQUARELLA INVESTMENTS 389 \(PTY\) LTD](#)

TEL NO: [016 930 3600](#)

FAX NO: [016 930 3995](#)

POSTAL ADDRESS: [PO BOX 2247, VEREENIGING, 1930](#)

PHYSICAL ADDRESS: [FARM NO 2, OLD POTCHEFSTROOM ROAD, VEREENIGING](#)

FILE REFERENCE NUMBER SAMRAD: [LP30/5/1/2/2/10149MR](#)

IMPORTANT NOTICE

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

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

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

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

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

OBJECTIVE OF THE SCOPING PROCESS

- 1) The objective of the scoping process is to, through a consultative process—
 - (a) identify the relevant policies and legislation relevant to the activity;
 - (b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
 - (c) identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
 - (d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
 - (e) identify the key issues to be addressed in the assessment phase;
 - (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks

the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and

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

SCOPING REPORT

2) Contact Person and correspondence address

a) Details of:

i) **The EAP who prepared the report**

Name of The Practitioner: Mpho Manyabe

Tel No.: 011 863 1079

Fax No.: 086 605 5488

e-mail address: mpho@manyabeconsultancy.co.za

ii) **Expertise of the EAP.**

(1) **The qualifications of the EAP**

(With evidence attached as **Appendix 1**). **Copies of qualifications have been appended in Appendix 1.**

The EAP has acquired the following qualifications from various institutions:

- **Master of Science (MSc) in Environmental Science (Current), University of South Africa (UNISA)**
- **BSc Honours in Environmental Management, UNISA, 2016**
- **National Diploma Environmental Sciences, Tshwane University of Technology (TUT), 2008**

(2) **Summary of the EAP's past experience.**

(Attach the EAP's curriculum vitae as **Appendix 2**).

Mpho Manyabe has eleven (11) years of work experience in the field of Environmental Management from different consulting companies.

She was previously nominated to be in the Gauteng Department of Agriculture and Rural Development (GDARD) EIA EAP committee which was launched on 31 March 2015 comprising of EAPs and GDARD officials to provide quarterly reports to the Executive Authority (Member of the Executive Committee (MEC)) on issues identified as blockages to the improved efficiencies the department seeks to achieve.

She has also been nominated to become a member of the Academic Advisory Committee for the Environmental Science programme in the Department of Environmental, Water and Earth Sciences in the Faculty of Science at the TUT, to serve for a period of three (3) years, where she will be assisting with preparation and provision.

She has good understanding of environmental legislation. She has excellent knowledge of Integrated Environmental Management (IEM) tools, including EIAs, Strategic Environmental Assessments (SEAs), Social Impact Assessments (SIAs), Environmental Management Frameworks (EMFs), Safety, Health and Environmental Management, waste management and environmental law in general.

Refer to Appendix 2 for the EAP CV, with all the project related experience.

b) Description of the property.

Farm Name:	Portion 11 and Portion 34 of Farm Cyferfontein 457-KR
Application area (Ha)	259.46 ha
Magisterial district:	Waterberg District Municipality DC36
Distance and direction from nearest town	The site is located at approximately 11.23 km to the south east of Modimolle (previously Nylstroom).
21-digit Surveyor General Code for each farm portion	T0KR0000000045700034 T0KR0000000045700011

c) Locality map

(show nearest town, scale not smaller than 1:250000 attached as **Appendix 3**).

d) Description of the scope of the proposed overall activity.

i) Listed and specified activities

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1: 10 000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on site and attach as

Appendix 4.

NAME OF ACTIVITY (All activities including activities not listed) (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m ²	LISTED ACTIVITY Mark with an X where applicable or affected.	APPLICABLE LISTING NOTICE (GNR 544, GNR 545 or GNR 546)/NOT LISTED
Clearance of vegetation	2 594 641 m ²	x	Activity 15 of Listing Notice 2:
Access roads	(23mx8000m)184 000m ²	X	Activity 24 of Listing Notice 1
Topsoil Storage	236 305m ²	x	n/a
Mining Site	216.647575 ha	x	n/a
Bulk sampling (trenching)	6 250m ³	x	n/a
Water Management	0		
Water Supply	2000 l per week	x	n/a
Site camp/ office	6.25m ²	x	Activity 17 of Listing Notice 2:
Ablution facility	4m ²	x	Activity 17 of Listing Notice 2:
Sample storage	1 600m ²	x	n/a

ii) Description of the activities to be undertaken

(Describe Methodology or technology to be employed, and for a linear activity, a description of the route of the activity)

The proposed project is for the mining of general clay and shale/ brick making clay for a period of four (4) months in a year of clay on Portion 11 and Portion 34 of Farm Cyferfontein 457-KR. The property to be mined is approximately 259.4641 ha in extent. Aquarella will produce clay, which will be hauled to the SAMCA Wall Tiles factory (hereunder referred to as SAMCA), located in Hammanskraal. The raw clay will be transported to the SAMCA for production of high quality, fashionable, glazed (vitrified) porcelain ceramic tiles and sanitaryware. Though SAMCA is exclusively geared towards manufacturing wall tiles, some of the mined mineral will be hauled to the Gryphon tile manufacturing factory for the production of high quality, fashionable, glazed (vitrified) porcelain ceramic tiles and sanitaryware. The Gryphon tile factory is located on Portion 184 of the Farm Vanderbijlpark 550 IQ.

The application for authorisation of the mining activities is being undertaken in terms of Chapter 4, Section 22 of the Mining and Petroleum Resources Development Act.,2002 (Act No. 28 of 2002) [MPRDA].

Activities listed in terms of the EIA Regulations, 2014 promulgated in terms of the NEMA that are triggered by the proposed activity are as follows:

- Activity 14 of Listing Notice 1: The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres. It is however not envisaged that the proposed mining would require storage and handling of 80m³ or more would be required during operation.
- Activity 24 of Listing Notice 1: The development of a road (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road (a) which is identified and included in activity 27 in Listing Notice 2 of 2014; (b) where the entire road falls within an urban area; or (c) which is 1 kilometre or shorter.
- Activity 15 of Listing Notice 2: The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for the undertaking of a linear activity; or maintenance purposes undertaken in accordance with a maintenance management plan.
- Activity 17 of Listing Notice 2: Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the MPRDA, including (a) associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource or (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.

e) Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process);	REFERENCE WHERE APPLIED
National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended	An Environmental Authorisation is currently being lodged with the DMR.
Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2008) as amended	A Mining Right is currently being lodged with the DMR.

f) Need and desirability of the proposed activities.

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

Aquarella supplies clay to Ceramic Industries Limited (CIL), the largest manufacturer of tiles and sanitaryware in Southern Africa. Clay is 80% of the raw material needed to manufacture these products. Aquarella ensures that the factories have a constant supply of the clay to ascertain the longevity of business.

Aquarella will produce clay, which will be hauled to the SAMCA Wall Tiles factory (hereunder referred to as SAMCA), located in Hammanskraal. The raw clay will be transported to the SAMCA for production of high quality, fashionable, glazed (vitrified) porcelain ceramic tiles and sanitaryware. Though SAMCA is exclusively geared towards manufacturing wall tiles, some of the mined mineral will be hauled to the Gryphon tile manufacturing factory for the production of high quality, fashionable, glazed (vitrified) porcelain ceramic tiles and sanitaryware. The Gryphon tile factory is located on Portion 184 of the Farm Vanderbijlpark 550 IQ.

Mining will take place by means of quarrying, utilising earth-moving equipment such as backactors and front-end loaders. Aquarella will make use of contractors, who will be the suppliers of the necessary infrastructure, services and labour to mine the clay deposit.

Beneficiation will take place at the SAMCA factory. Quarrying operations will be conducted during the dry, winter months of the year, over a period of approximately 4 months. Where soil has to be removed, it will be stockpiled to a height not exceeding 2 metres and will be spread within six months to avoid degradation.

The necessity for the proposed quarry is motivated by the following:

1. Aquarella needs a constant supply of material to the factories, in order to continue current revenue generation. Should the Environmental Authorisation application process not be approved, the factories will lose a vital supply of raw material.
2. The project will have a positive economic impact, contributing to the Gross Domestic Product (GDP) and foreign exchange earnings.

g) Period for which the environmental authorisation is required

A mining right is granted for a maximum period of 30 years provided that the holder is entitled to apply for renewal for periods not exceeding 30 years. Therefore, the Environmental Authorisation is required for a period equal to the Mining Right.

h) Description of the process followed to reach the proposed preferred site.

NB!! – This section is not about the impact assessment itself; It is about the determination of the specific site layout having taken into consideration (1) the comparison of the originally proposed site plan, the comparison of that plan with the plan of environmental features and current land uses, the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout as a result.

The EIA procedures and regulations stipulate that the environmental investigation needs to consider feasible alternatives for any proposed development. Therefore, a number of possible proposals or alternatives for accomplishing the same objectives should be identified and investigated.

All considered alternatives have been presented in this Scoping Report. The identified alternatives will be assessed in the EIA Reports which will be submitted to the DMR for approval.

To give effect to the principles of NEMA and Integrated Environmental Management (IEM), an EIA should assess a number of reasonable and feasible alternatives that may achieve the same end result as that of the preferred project alternative.

i. Details of all alternatives considered.

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to:

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Alternative 1: Site/ Location Alternatives:

Aquarella has been granted a prospecting right on 31 May 2017 on the proposed area to be mined. The proposed site is located adjacent to the existing Cyferfontein Clay Quarry (CCQ), which is located on the Remainder of Portion 1 of the Farm Cyferfontein 457-KR. The site is currently being prospected. The period of prospecting is from 31 May 2017 to 30 May 2022. The sites adjacent to the site have the mineral resources i.e. General Clay and Shale/ Brick Making Clay, and are currently being mined. Therefore, at this stage, no site alternatives for the proposed project are being considered as the proposed site is being prospected and is believed to have economically viable resources.

Alternative 2: Layout Alternatives:

Alternative layout plans will be finalised from the specialist studies' findings which are being undertaken and have been identified to be imperative for the proposed EIA. The proposed studies will be undertaken to inform the Environmental Impact Reporting (EIR) phase. Layout alternatives will be proposed based on the environmental sensitivities identified on site. These alternatives will be investigated and

assessed within the EIR phase.

Alternative 3: No Development Alternative:

The 'no-go' or 'do nothing' alternative would be applicable if the proposed quarry is not approved by the DMR. This would imply that the status quo of the site will remain. Should the proposed quarry not be mined, the area will not be affected by any operational phase impacts. Therefore, the present state of the biophysical, social and economic environment will remain, unaffected. The positive economic impact e.g. the proposed project contributing to the GDP and foreign exchange earnings will not be experienced. Should the DMR not grant the environmental authorisation, and or the mining right, the 'No-Go' option will be followed and the status quo of the site will remain (i.e. the site will remain as agricultural use).

ii. Details of the Public Participation Process Followed

Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.

Interested and Affected Parties (I&APs) representing the following sectors of society have been identified in terms of Regulation 55 of the EIA Regulations R543 of 2010:

- National Authorities;
- Provincial Authorities;
- Local Authorities;
- Ward Councillors;
- Parastatal/ Service Providers;
- Non-governmental Organisations;
- Local forums/ unions; and
- Adjacent Landowners.

PROVIDE DESCRIPTION HERE

The EAP has taken into account all relevant guidelines applicable to public participation as contemplated in section 24J of the NEMA and are giving notice to all I&APs of the application which is being subjected to public participation by undertaking the following:

The following processes are being undertaken to announce the project process and the Draft Scoping Report:

For the announcement of the project process and the Draft Scoping Report availability, MC have compiled and are announcing the availability of Draft Scoping Report. The draft report is being subjected to a public participation process of at least thirty (30) days and will reflect the incorporation of comments received subsequent to public review, including any comments from the DMR.

- An I&AP database has been opened and will be maintained throughout the project, and has included all potential I&APs in respect of the application in accordance with Regulation 42.
- Letters are being sent to all I&APs, written in any of the manners provided for in section 47D of the NEMA, announcing the project and the availability of the Draft Scoping Report, containing

project information and a locality map to the municipal councillor of the ward in which the site is situated and any organisation of ratepayers that represent the community in the area, the municipality which has jurisdiction in the area, any organ of state having jurisdiction in respect of any aspect of the activity; and any other party as required by the competent authority.

- Affected parties who cannot be reached via mail, fax or e-mail are being visited for delivery of the letters. The letters have attached a sheet which allows I&APs to register and/ or /comment.
- Two (2) site notice boards are being fixed at a place conspicuous to and accessible by the public at the boundary of the site where the activity to which the application relates and any alternative site.
- One (1) advertisement has been placed in one local newspaper.
- Subsequent to the 30 days period, all comments and representations received from I&APs will be considered and recorded in Comments and Responses Report (CRR). All I&APs who would have participated in the public participation process will be thanked, and their comments acknowledged.

The following process will be undertaken throughout the project:

Announcement of the Draft Environmental Impact Assessment (EIR) Report availability. The following processes will be undertaken to announce the Draft EIR:

MC will compile and announce the availability of Draft EIR, which will include an Environmental Management Programme (EMPr). The report will be subjected to a public participation process of at least thirty (30) days and will reflect the incorporation of comments received, including any comments from the DMR.

- Letters will be sent to all I&APs, written in any of the manners provided for in section 47D of the NEMA, announcing the availability of the Draft EIR to the municipal councillor of the ward in which the site is situated and any organisation of ratepayers that represent the community in the area, the municipality which has jurisdiction in the area, any organ of state having jurisdiction in respect of any aspect of the activity; and any other party as required by the competent authority.
- Subsequent to the 30 days period, all comments and representations received from I&APs will be considered and recorded in CRR. All I&APs who would have participated in the public participation process will be thanked, and their comments acknowledged.

Announcement of the Decisions- Environmental Authorisation and Mining Right

MC will ensure that all registered I&APs are provided with access to the decisions and the reasons for such decisions. I&APs will be drawn to the fact that an appeal may be lodged against the decisions in terms of the National Appeals Regulations, if such appeal is available in the circumstances of the decisions. The decisions will be advertised through the following methods:

- Personalised letters to individuals and organisations on the stakeholder database; and
- Newspaper advert in the same local newspaper where the project process and the availability of the Draft Scoping Report was announced.

PPPs will be conducted in terms of Regulations 39 - 44.

Scoping Report

- iii. **Summary of issues raised by I&Aps. This table will be populated subsequent to the public review of the Draft Scoping Report and announcement of the project. All the identified applicable I&APs are being consulted.**

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

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Consultation Status (consensus dispute, not finalised,etc)
<u>AFFECTED PARTIES</u>					
Landowner/s					
Lawful occupier/s of the land					
Landowners or lawful occupiers on adjacent properties					
Municipal councillor					
Municipality					
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA e					
Communities					
Dept. Land Affairs					

Scoping Report

Traditional Leaders					
Dept. Environmental Affairs					
Other Competent Authorities affected					
<u>OTHER AFFECTED PARTIES</u>					
<u>INTERESTED PARTIES</u>					

iv. **The Environmental attributes associated with the sites**

1) **Baseline Environment**

(a) **Type of environment affected by the proposed activity.**

(its current geographical, physical, biological, socio- economic, and cultural character).

PHYSICAL ENVIRONMENT

(i) **Geology**

Regional Geology and Stratigraphy

The site is located near the contact zones of regional geological formations. The contact between the Rooiberg Group's Schrikklouf Formation that consists of Volcanic rocks, sandstone and quartzite. The site is located east of this contact on the Waterberg Group's Nylstroom Formation, which consists of coarse sandstone, greywacke, siltstone, shale and conglomerate. South east of the study area is the contact of the Nylstroom Formation and to the south is the contact between the Karoo Sequence's Clarens Formation sandstone and shale.

The geology of the area forms a number of hydraulic zones that are controlled by the lithological units and the structural geology.

In the Modimolle and Alma areas, the lower part of the Waterberg Group is developed, in which the Swaershoek and the Alma Formations are distinguished. The Swaershoek Formation constitutes the base of the Waterberg Group and builds the Hoekberge to the west of Bela-Bela and the Swaershoek Mountains to the north of Modimolle. It rests unconformable on rocks of the Rooiberg Group and the Glentig Formation, and locally also on the Lebowa Granite Suite. It becomes thinner towards the west and eventually wedges out near Gatkop. Towards the north-east it is overlapped and covered by the Makgabeng Formation. There are high agricultural potential soils on site.

(ii) **Climate**

The area is characterised by a rainy summer season and a pronounced dry spell during winter. The area has a mean annual rainfall ranging from 580 millimetres (mm) – 755 mm. The area experiences mild winters, with a daily average temperature of 25°C experienced in July and warm summers, with a daily average of 28°C experienced in January (Modimolle Municipality, 2015).

Prevailing Wind Direction and Speed

The wind speed is light to moderate from the North East. Speed is 8.0 kilometres per hour.

(iii) **Topography**

The regional topography slopes from west-southwest to north-northeast. Locally, the highest elevation is to the north-east of the farm, at 1 353 mamsl. The local topographic gradient is very flat at 0.5 % towards the north-east. The study area is located on a flat plain.

(iv) **Soil**

The soil is 1 to 2 metres thick and is Lateritic in nature. There is a thin Calcrete layer up to 1 metre thick, underlain by up to 4 metres of bloating clay. The layer is not easily eroded.

(v) **Regional Land Uses**

As mentioned above, the proposed mining area is located on Portion 11 and Portion 34 of Farm Cyferfontein 457-KR, in Ward 6 of the Modimolle Local Municipality (MLM) within the Waterberg District Municipality, Limpopo Province. The R33 (Nelson Mandela Drive) remains the dominant spine. The Central Business District (CBD) exhibits a strong linear pattern. There are some business developments along the R101 (Thabo Mbeki Street) north of the R101's intersection with the R33. The fact that business development failed to penetrate along other main arterials is a reflection of the dominance of the R101 and the lower levels of traffic carried by the other major routes.

The main railway line is a very strong barrier that still impacts on the development of the town. The station on the railway line largely determined the development and character of the adjacent area. The main railway line will remain a strong barrier for development to the east. Should one consider development in this area it should be for uses not dependent on strong links with the business or residential areas of the town. It is clearly not suitable for residential development except if safe railway crossings can be provided. This area cannot be regarded as a priority development area.

(vi) Regional Land Cover

Land cover is an extension of land uses. It introduces the extent on natural phenomena such as plant cover and noticeable geological features. The area is characterised by the arid nature of the area and the farming techniques associated with dry land cultivation. The regional area is characterised by commercial farming, conservation, and settlement activities.

According to Mucina and Rutherford (2006), the study site is situated within the Springbokvlakte Thornveld, which is characterised as open to dense thorn savanna dominated by *Acacia* species or shrubby grassland with a low shrub layer. The vegetation of the study site grows on black, vertic clay soils that experience prolonged swelling and shrinking during wet and dry periods. Approximately only 1% of the vegetation unit is statutorily conserved in the Mkombo nature Reserve. It is further estimated that at least 50% of this vegetation unit has been transformed by cultivation and urban sprawl (Mucina & Rutherford, 2006).

Central Sandy Bushveld vegetation type occurs in Limpopo, Mpumalanga, Gauteng and North-West Provinces. The landscape is low and undulating with *catenas* and sandy plains supporting tall trees such as *Terminalia sericea* and *Burkea africana* while *Combretum* woodland dominates shallow soils. *Acacia*, *Ziziphus* and *Euclea* are found on eutrophic sands and less sandy soils (Mucina & Rutherford, 2006).

The Nationally Protected tree, *Sclerocarya birrea subsp. caffra* (Marula) is common in this vegetation type while endemic species include *Mosdenia leptostachys* and *Oxygonum dregeanum subsp. canescens var. dissectum*. According to Mucina & Rutherford (2006), Central Sandy Bushveld is classified as Vulnerable with less than 5% conserved and 24% transformed.

Waterberg Mountain Bushveld occurs in Limpopo Province and is located on the Waterberg Mountains including the foothills, escarpment and tablelands out of Lephalale and Marken and north of Bela-Bela and west of Mokopane. The vegetation consists of rugged mountains with the higher slopes dominated by *Faurea-saligna-Protea caffra* Bushveld through to broad-leaved deciduous Bushveld dominated by *Diplorhynchus condylocarpon* while the footslopes are dominated by *Burkea africana-Terminalia*

sericea savanna. This vegetation type is classified as Least Threatened with about 9% statutorily conserved in Marakele National Park and Moepel Nature Reserve (Mucina & Rutherford, 2006).

BIOLOGICAL ENVIRONMENT

(i) Vegetation

There is natural vegetation visible on site. In addition to this, there is an influx of invasive weedy species on the site. The predominant invasion by weedy plant and trees species was observed throughout the proposed site. The Conservation of Agricultural Resources Act, 1993 (Act No. 43 of 1983) (CARA), as amended in March 2001, sets out the regulations regarding the control of weeds and invasive plants and provides a list of declared plants, in which they are divided into three categories.

The alien invasive species on site must be manually removed for disposal at a registered waste facility. It is also advisable that these alien invaders be removed timeously, such that the subsequent propagation thereof throughout the site is limited.

(ii) Animal Life

The area is characterised by the presence of Duiker and Steenbok. The Nylsvley Conservancy, which is an internationally renowned RAMSAR1 site, stretches over 70km from Modimolle to Mkopane. It is approximately 4 000ha in extent and forms part of South Africa's largest flood-plain, the 16 000ha Nyl Rivier Flood-plain. The proposed site is located approximately 32km to the south west of the conservancy. The Nylsvley Conservancy provides sanctuary for some 72-mammal species, including a breeding herd of rare Roan Antelope. In years of high rainfall, as many as eighty thousand migratory water birds converge on the flood-plains, where up to 420 species have been identified. Of this number, 365 species have been identified within the reserve. In addition, the reserve provides habitat to 37 Red-Data species.

(iii) Surface Water

There are water courses within 500 metres of the site. A spring occurs approximately 1 km north-east from the site (Syferfontein). A wetland study is currently underway to confirm the potential water resources identified on site.

(iv) Surface water authority

The relevant water authority is the Department of Water and Sanitation (DWS) - Limpopo. Once the wetland specialist has provided with his finding, the imperativeness of engaging with the DWS will be determined then.

(v) Drainage Channels

The proposed site is situated in the primary catchment of the Limpopo River (catchment A) and in quaternary catchment A61C. Locally, the site is drained by north-east ward flowing non-perennial drainage courses which drain towards the Nyl River. These drainage courses are active during and after rain events. The local area has a poorly defined drainage system with local pans.

(vi) Air Quality

Mining activities potentially generate airborne particulate emissions (dust) which may impact on local air quality. Additional sources of particulate emissions include exposed surface areas which are not mining related - i.e. surrounding veld / undeveloped land. During the dry winter months, fugitive particulate (dust) emissions from such exposed surface areas may contribute significantly to ambient particulate concentrations.

(vii) Noise

Mining equipment generate significant noise which does not exceed 100 decibels (dB). No work is carried out on Sundays and public holidays.

(viii) Sites of heritage importance

There were obvious features which were found on site, of cultural significance. A heritage specialist has been appointed in order to demarcate those areas prior to mining. His findings and recommendations will be detailed in the EIR.

(ix) Visual Aspects

The site is located south of the N1 highway and west of the R33. The mined quarry will not be visible from the N1 highway, but stockpiles might be visible.

The landscape character of the site is comprised of existing elements and features, grassland with scattered trees. There are no large residential areas in close proximity to the site. The closest towns are Bela- Bela and Modimolle.

(x) Regional Socio-Economic Structure

The Waterberg District Municipality (WDM) derives its name from the Waterberg Mountains, given by the indigenous people of the area due to the many water streams flowing down the mountain slopes. The WDM covers an area of 4 951 881 ha. This amounts to 36% of the total area of Limpopo Province whereas the total area of the MLM amounts to 12.5% of the WDM area.

The MLM is bordered to the north by the Lephalele Local Municipality and the Mogalakwena Local Municipality, to the east by the Mookgopong Local Municipality and to the south and west by the Bela-Bela and Thabazimbi Local Municipalities. The Cyferfontein Quarry is situated in Ward 6 and the geographical area of the ward is 637.2 km².

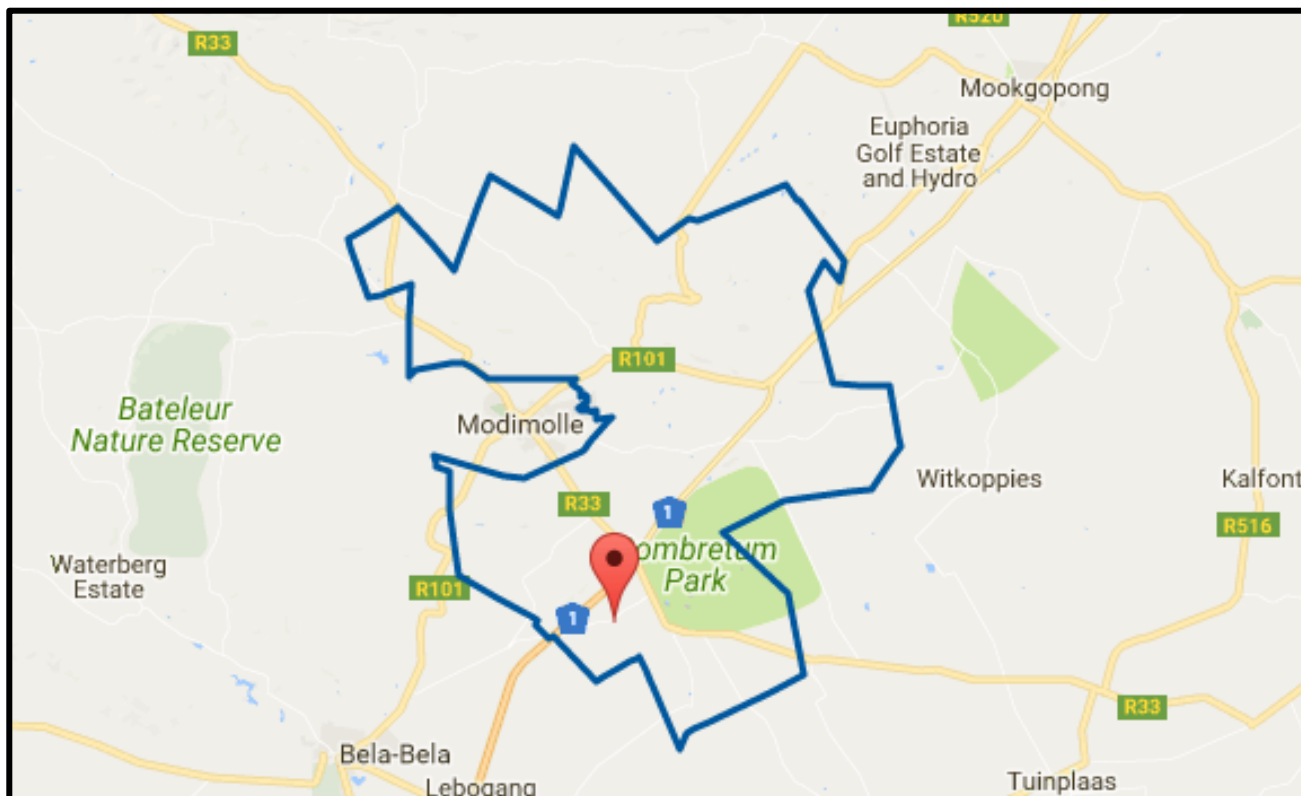


Figure 1: Ward 6 Locality

The MLM is one of the largest, but least populous local authorities in the Limpopo Province.

Within the MLM, the majority of the African population speaks Sepedi whereas the Coloured and White population speaks Afrikaans and the Indian population mainly speaks English.

The largest portion of the population is 4 years and younger, followed by the age group 5 - 19 years. The majority of the population is younger than 20 years of age (15 366 females and 15 352 males), followed by 20 - 39-year olds (12 305 females and 12 698 males) and 40 - 59-year olds (5 658 females and 5 628 males). The economically active population amounts to 49% of the total population and with such a large segment of the population being younger than 20 years old, the non-economically active population constitutes 35% of the population. A total of 16% of the economically active population is unemployed.

In terms of occupation, data indicates that African and Coloured males work mainly as craft and trade workers, skilled agricultural workers and service workers. The African and Coloured females are employed as clerks, service workers and agricultural workers. White and Indian males mainly work as legislators, senior officials and managers and the females as senior officials, managers and clerks.

The African and Coloured population is mainly employed in agriculture, followed by the wholesale and retail trade and manufacturing and construction. The Indian population is mainly employed in the wholesale and retail trade and the white population in wholesale and retail trade and the agriculture industries.

Various factors impact on the calculation of population growth rates and influence estimates made by demographers. The most important factors are the impact of HIV/AIDS and migration (also illegal immigration to areas in the province). Additional social facilities and municipal infrastructure will be

needed to accommodate the expected increase in population and an increase in population also necessitates the upgrading of existing social facilities and infrastructure.

The WDM generated a reasonable contribution towards the provincial economy over the years. The mining, electricity and service sectors dominate the local economy, resulting in fairly high levels of economic concentration. The mining sector is by far the largest contributor to the WDM Gross Geographic Product (GGP) amounting to 40.75%.

Compared to all the district municipalities within the Limpopo Province, the WDM is the highest contributor to the provincial GGP in at least 3 sectors, namely mining (57.59%), agriculture and forestry (28.80%) and electricity and water (48.83%). The WDM is also the largest contributor to the total GGP of the Limpopo Province, contributing 26.79% of the provincial GGP.

The MLM area is rich in tourism facilities and has a direct impact on the economic well-being of the local municipality. These facilities include holiday resorts, private game reserves and game farms. Areas of specific environmental and conservation value include the Golden Horseshoe, the Waterberg Biosphere and several national heritage sites.

Educational Facilities

Education is often a way to expand the range of career options that a person may choose from and has a direct influence on a person's income and ability to meet basic needs and therefore it is an important indicator of human development. Education plays a pivotal role on community development. It provides a set of basic skills for development, creativity and innovative abilities within individuals. The South African provides that everyone has a right to education, which includes Adult Basic Education. The majority of people have a primary school level education with 43.3% of the people falling in this category. Approximately 11.6% of the population have no schooling and only 2.8% have grade 12 exemption. It would be worthwhile to ensure that literacy lessons in the language of instruction are conducted to ensure high levels of comprehension of the reading material in the subjects that are offered by the educational programme.

(b) Description of the current land uses.

As mentioned above, the proposed mining area is located on Portion 11 and Portion 34 of Farm Cyferfontein 457-KR, in Ward 6 of the MLM within the Waterberg District Municipality, Limpopo Province. The R33 (Nelson Mandela Drive) remains the dominant spine. The CBD exhibits a strong linear pattern. There are some business developments along the R101 (Thabo Mbeki Street) north of the R101's intersection with the R33. The fact that business development failed to penetrate along other main arterials is a reflection of the dominance of the R101 and the lower levels of traffic carried by the other major routes.

The main railway line is a very strong barrier that still impact on the development of the town. The station on the railway line largely determined the development and character of the adjacent area. The main railway line will remain a strong barrier for development to the east. Should one consider development in this area it should be for uses not dependent on strong links with the business or residential areas of the town. It is clearly not suite for residential development except if safe railway crossings can be provided. This area cannot be regarded as a priority development area.

(c) Description of specific environmental features and infrastructure on the site.

Land cover is an extension of land uses. It introduces the extent on natural phenomena such as plant cover and noticeable geological features. The area is characterised by the arid nature of the area and the farming techniques associated with dry land cultivation. The regional area is characterised by commercial farming, conservation, and settlement activities.

According to Mucina and Rutherford (2006), the study site is situated within the Springbokvlakte Thornveld, which is characterised as open to dense thorn savanna dominated by *Acacia* species or shrubby grassland with a low shrub layer. The vegetation of the study site grows on black, vertic clay soils that experience prolonged swelling and shrinking during wet and dry periods. Approximately only 1% of the vegetation unit is statutorily conserved in the Mkombo nature Reserve. It is further estimated that at least 50% of this vegetation unit has been transformed by cultivation and urban sprawl (Mucina & Rutherford, 2006).

Central Sandy Bushveld vegetation type occurs in Limpopo, Mpumalanga, Gauteng and North-West Provinces. The landscape is low and undulating with *catenas* and sandy plains supporting tall trees such as *Terminalia sericea* and *Burkea africana* while *Combretum* woodland dominates shallow soils. *Acacia*, *Ziziphus* and *Euclea* are found on eutrophic sands and less sandy soils (Mucina & Rutherford, 2006).

The Nationally Protected tree, *Sclerocarya birrea subsp. caffra* (Marula) is common in this vegetation type while endemic species include *Mosdenia leptostachys* and *Oxygonum dregeanum subsp. canescens var. dissectum*. According to Mucina & Rutherford (2006), Central Sandy Bushveld is classified as Vulnerable with less than 5% conserved and 24% transformed.

Waterberg Mountain Bushveld occurs in Limpopo Province and is located on the Waterberg Mountains including the foothills, escarpment and tablelands out of Lephalale and Marken and north of Bela-Bela and west of Mokopane. The vegetation consists of rugged mountains with the higher slopes dominated by *Faurea-saligna-Protea caffra* Bushveld through to broad-leaved deciduous Bushveld dominated by *Diplorhynchus condylocarpon* while the footslopes are dominated by *Burkea africana-Terminalia sericea* savanna. This vegetation type is classified as Least Threatened with about 9% statutorily conserved in Marakele National Park and Moepel Nature Reserve (Mucina & Rutherford, 2006).

(d) Environmental and current land use map.

(Show all environmental, and current land use features)

Please refer to the Attached Map (Appendix 6)

v) Impacts identified

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability and duration of the impacts)

The following key impacts have been identified and will be carried forward into the EIR phase for further investigation and assessment:

Biophysical Impacts:

- Potential impacts on surface water resources that occur within the site (the potential Non-FEPA wetland);
- Landform disturbance and soil compaction due to the movement of vehicles on site;
- Potential impacts on ground and surface water quality due to hydrocarbon spillages from vehicles during operational phase of the proposed project;
- Topsoil degradation and erosion as a result of site clearance;
- Potential impacts on soils due to hydrocarbon spillages from vehicles during operational phase of the proposed project;
- Destruction of flora within the proposed area from mining activities such as vegetation clearing and topsoil stripping within the site; and
- Faunal displacement.

Socio-Economic Impacts:

- Impact on the local economic industry during operational phases;
- Increased dust and noise generation during the operational phase;
- Impacts on farming activities such as cultivation and grazing land;
- Possible impact on heritage resources;
- Safety and security for landowners;
- Influx of people (looking for jobs) into the area;
- Change in the visual character of the area; and
- Job creation during the operational phase of the proposed project.

Cumulative Impacts:

- Possible increased loss of agricultural/ grazing land; and
- Increased visual impacts associated with additional mining activities.

vi) Methodology used in determining the significance of environmental impacts

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

The technical team from MC has identified and gathered the information and data that would be required for the impact assessment about the receiving environment from reliable sources. MC has also reviewed all existing data and information available from Aquarella. A detailed background research has been undertaken.

The following specialist studies are being undertaken, and their findings will be incorporated into the EIR:

- Heritage Impact Assessment (HIA), including Palaeontological Study;
- Ecological Assessment (Flora and Fauna) Assessment;
- Soil and Agricultural Potential;
- Social and Labour Plan; and

- **Wetland Impact Assessment.**

The impact assessment methodology is in place which will be used to determine the significance, probability, and duration of the aforesaid identified impacts in order to decide the extent to which the initial site layout needs revision. This will be detailed in the EIR for public review and ultimate decision making by the DMR. Refer to the proposed method of assessing the environmental aspects including the proposed method of assessing alternatives below.

vii) The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected.

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

As discussed above, Aquarella has been granted a prospecting right on 31 May 2017 on the proposed area to be mined. The period of prospecting is from 31 May 2017 to 30 May 2022. The sites adjacent to the site have the mineral resources i.e. General Clay and Shale/ Brick Making Clay, and are currently being mined. Therefore, at this stage, no site alternatives for the proposed project are being considered as the proposed site is being prospected and is believed to have economically viable resources.

However, the following positive and negative impacts / advantages and disadvantages that the proposed mining would have on the environment and the community, based on the preferred/ initial alternative have been outlined below:

Potential positive impacts/ Advantages:

1. **Job creation:** Job creation will be created during mining operations. However, the level of job creation is very low due to the scale and nature of the project. Positive outcome of the mining activities has a potential of creating more jobs which will be created during establishment and the actual mining.
2. **Economic growth:** The mining activities have a positive impact on the economy of the MLM. Constant supply of the clay material to the CIL will enable their factories to continue to function optimally and therefore sustain jobs, which is healthy for the economy as it will strengthen economic activity in the MLM.

Potential negative impacts/ Disadvantages:

1. **Floral destruction and faunal displacement:** Floral destruction may take place during the clearing of vegetation on site to make a way for the mining activities. Floral destruction and increase in noise levels are the common causes of faunal displacement. Fauna relocates to locations that are quieter and more vegetated for more safety and comfort.
2. **Disturbance of heritage resources:** There are graves which were identified on site. They could be disturbed during mining activities.
3. **Loss of topsoil:** Loss of top soil may occur during mining activities. If top soil is not well managed by stockpiling it and ensuring that it is barricaded, it could also be lost. Loss of topsoil may also occur if it is mixed with other soil layers during backfilling.

4. **Soil erosion:** Soil erosion is likely to occur in areas where vegetation will be cleared to access the mineral. Bare and disturbed soil is likely to be subjected to erosion when there is runoff, as a result of heavy rainfall.
5. **Soil pollution:** Soil pollution could occur as a result of hydrocarbon spillages, contaminating the soil. Soil can possibly mix with the foreign material occurring in the vicinity of the soil stockpile. Waste material put on soil stockpiles may result in soil pollution. Usage of contaminated soil for backfilling may result in further soil contamination.
6. **Dust generation:** Dust is likely to be generated throughout the life of mining activities. This is not likely to have a significant impact on the community because the neighbours to the properties within which the site is located are quite distant.
7. **Land disturbance and soil compaction:** Soil compaction may occur if the backfilling is not properly done. Should the backfilling be undertaken as per the approved EMP, soil compaction will be very minimal.
8. **Noise impact:** The use of machinery and equipment during clay mining on site may result in generation of noise that exceeds the level of ambient noise.

viii) The possible mitigation measures that could be applied and the level of risk.

(With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/ discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

MITIGATION MEASURES:

Floral destruction and faunal displacement:

- No open fires shall be allowed on site under any circumstances, fires will only be permitted in adequate facility within the crew camp.
- Erosion must not be allowed to develop on a large scale before effecting repairs;
- Make use of existing roads and tracks where feasible, rather than creating new routes through vegetated areas;
- Surrounding natural vegetation should not be disturbed to minimise chances of invasion by alien vegetation.
- All mining vehicles and equipment should be free of plant material. Therefore, all equipment and vehicles should be thoroughly cleaned prior to access on to the mining site.

Disturbance to heritage resources:

- All heritage sites must be delineated and buffered as recommended by an archaeologist must be adhered to.
- Workers must be informed as to how heritage sites can be identified.
- In terms of the NHRA, mining personnel must be alert and must inform the local heritage agency should they come across any additional findings of heritage resources within 24 hours.
- Should any archaeological artefacts be exposed during mining activities, work on the area where

the artefacts were found must cease immediately and the environmental officer must be notified within 24 hours.

- Upon receipt of such notification, the environmental officer will arrange for the excavation to be examined by an Archaeologist.
- Aquarella should therefore keep in mind that archaeological sites might be exposed during mining activities. If anything is noticed, mining in that area should be stopped and the occurrence should immediately be reported to the Provincial Heritage Resources Authority or a museum, preferably one at which an archaeologist is available.
- Under no circumstances must archaeological artefacts be removed, destroyed or interfered.

Loss of topsoil, land disturbance and soil compaction:

- All stockpiled material must be easily accessible without any environmental damage.
- All temporarily stockpiled material must be stockpiled in such a way that the spread of materials is minimised.
- Stockpiles are to be stabilised prior to the loss of soils due to erosion.
- Soils from different horizons must be stockpiled such that topsoil stockpiles do not get contaminated by sub-soil material.
- Topsoil stockpiles must be clearly demarcated as no-go areas.
- Stockpiles must not be higher than 2m to avoid compaction thereby maintaining the soil integrity and chemical composition.

Soil erosion:

- Any clearing must be done immediately before mining, rather than leaving soils exposed for months.
- Sediment barriers and other erosion control structures must be used where necessary and are to be regularly maintained and cleared so as to ensure effective drainage. These must be designed according to sound engineering principles using appropriate material.

Soil pollution:

- Topsoil stockpiles should be grassed to prevent dust emissions.

Dust generation:

- Dust suppression must be performed according to the seasonal changes and according to the prevailing site-specific circumstances.

Noise impact:

- The speed limit and movement of the vehicles on site must be monitored and appropriately managed to reduce the generation of excessive dust.
- Working hours are restricted to daylight hours, and no drilling activities will take place during night time. The employees must keep noise levels to a minimum.
- Mining will not take place in close proximity to residential areas.

ix) The outcome of the site selection Matrix. Final Site Layout Plan

(Provide a final site layout plan as informed by the process of consultation with interested and affected parties)

Please refer to appendix 4 for the site layout plan.

x) Motivation where no alternative sites were considered.

No alternative sites were considered for the proposed mining activities.

As stated above, Aquarella has been granted a prospecting right on 31 May 2017. The proposed site is located adjacent to the existing CCQ, which is located on the Remainder of Portion 1 of the Farm Cyferfontein 457-KR. The site is currently being prospected. The period of prospecting is from 31 May 2017 to 30 May 2022. The sites adjacent to the site have the mineral resources i.e. General Clay and Shale/ Brick Making Clay, and are currently being mined. Therefore, at this stage, no site alternatives for the proposed project are being considered as the proposed site is being prospected and is believed to have economically viable resources.

xi) Statement motivating the preferred site.

(Provide a statement motivation the final site layout that is proposed)

The proposed site is located adjacent to the existing CCQ, which is located on the Remainder of Portion 1 of the Farm Cyferfontein 457-KR. The site contains the type and quality of clay desired for the quarrying with the aim of supplying the CIL. For this reason, no site alternatives for the proposed project are being considered.

The site is convenient because there is easy access and there are currently no activities that would be significantly affected by mining activities. The owners of the properties that form part of the site are in support of the proposed mining activities. Establishment of the proposed mining site, which is adjacent to the existing CCQ will minimise relocation costs.

(i) Plan of study for the Environmental Impact Assessment process

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

Alternative 1: Site/ Location Alternatives:

Aquarella has been granted a prospecting right on 31 May 2017. The proposed site is located adjacent to the existing CCQ, which is located on the Remainder of Portion 1 of the Farm Cyferfontein 457-KR. The site is currently being prospected. The period of prospecting is from 31 May 2017 to 30 May 2022. The sites adjacent to the site have the mineral resources i.e. General Clay and Shale/ Brick Making Clay, and are currently being mined. Therefore, at this stage, no site alternatives for the proposed project are being considered as the proposed site is being prospected and is believed to have economically viable resources.

Alternative 2: Layout Alternatives:

Alternative layout plans will be finalised from the specialist studies' findings which have been identified to be imperative for the proposed EIA. The proposed studies will be undertaken to inform the Environmental Impact Reporting (EIR) phase. Layout alternatives will be proposed based on the

environmental sensitivities identified on site. These alternatives will be investigated and assessed within the EIR phase.

Alternative 3: No Development Alternative:

The 'no-go' or 'do nothing' alternative would be applicable if the proposed quarry is not approved by the DMR. This would imply that the status quo of the site will remain. Should the proposed quarry not be mined, the area will not be affected by any operational phase impacts. Therefore, the present state of the biophysical, social and economic environment will remain, unaffected. The positive economic impact e.g. the proposed project contributing to the GDP and foreign exchange earnings will not be experienced. Should the DMR not grant the environmental authorisation, and or the mining right, the 'No-Go' option will be followed and the status quo of the site will remain (i.e. the site will remain as agricultural use).

- ii. **Description of the aspects to be assessed as part of the environmental impact assessment process** (The EAP must undertake to assess the aspects affected by each individual mining activity whether listed or not, including activities such as blasting, Loading, hauling and transport, and mining activities such as Excavations, stockpiles, discard dumps or dams, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.).

The following aspects will be assessed during the EIR phase of the project:

- Fauna and Flora (Ecological biodiversity);
- Soil;
- Agricultural Potential;
- Surface and groundwater resources;
- Socio-Economic Impacts; and
- Heritage resources.

- iii. **Description of aspects to be assessed by specialists**

The following specialist studies are being undertaken, and the reports will provide with technical and scientific input in assessing the impacts of the proposed project. Their finding will be incorporated into the Draft EIR:

- Heritage Impact Assessment (HIA), including Palaeontological Study;
- Ecological Assessment (Flora and Fauna) Assessment;
- Soil and Agricultural Potential;
- Social and Labour Plan; and
- Wetland Impact Assessment.

- iv. **Proposed method of assessing the environmental aspects including the proposed method of assessing alternatives**

The following process will be undertaken to identify, assess and rank the impacts and risks each individual activity.

Extent

Rating	Description
Footprint/ site (1)	Extends only as far as the activity, such as footprint occurring within the total quarry area.
Local Area (2)	Affect the site.
Regional (3)	Affect the regions.
National (4)	Affects other provinces throughout the country.
International (5)	Affects other countries outside South Africa.

Intensity

Rating	Description
Very low (1)	Natural processes not affected
Low (2)	Natural processes slightly affected
Medium (3)	natural processes continue but in a modified manner A few times a month
Medium-high (4)	Natural processes are modified significantly
High (5)	Natural processes disturbed significantly so that they cease to occur (temporarily / permanently)

Duration

Rating	Description
Short-term- few days (1)	The impact will eventually not be felt due to the implementation of mitigation measures 0-5 years.
Short-term- few months (2)	The impact will eventually not be felt due to the implementation of mitigation measures 0-5 years.
Medium-term (3)	5 to 15 years from mining.
Long-term (4)	The impact will last for the entire operational phase, but will end at the end of operational phase due to natural processes or human interventions.
Permanent (5)	Mitigation either by human or natural interventions/ processes will not occur in

	such a way or in such a time span that the impact can be considered transient.
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Probability

Rating	Description
Improbable (1)	The probability of an impact occurring is none, either due to the design, historic circumstances, design or experience.
Possible/ probable (2)	The probability is very low.
Likely (3)	The probability is low.
Highly probable/ possible (4)	It is most likely that the impact will occur.
Definite (5)	The impact will occur regardless of any prevention measures.

Determination of Significance without mitigation

Significance provides an indication of the importance of the impact in terms of both tangible and intangible characteristics. The significance of the impact without mitigation is the prime determinant of the nature and degree of mitigation required. Where the impact is positive, significance is noted as positive. Significance will be rated on the following scale:

SIGNIFICANCE = E+ I+ D + P

The minimum result should give a minimum value of 5, maximum of 25. This will determine whether the impact is negative or positive.

Rating	Description
No significance= <1	The impact is not substantial and does not require any mitigation action
Low = 1– 5	Low consequence, probably, minimal mitigation may be required.
Medium = 6 to 10	Medium consequence, probably, mitigation is advised / preferred. The impact is of importance and is therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
Medium–high = 11 to 15	Medium to high consequence, probably to very probable, mitigation is necessary. The impact is of major importance but through the implementation of the correct mitigation measures, the negative impacts will be reduced to acceptable levels.
High = 16 to 20	High consequence, probably / definite, mitigation is essential. The impact is of

	major importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.
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Mitigation

The impacts that are generated by the project activity can be minimised if measures are implemented in order to reduce the impacts. The mitigation measures ensure that the project activity considers the environment and the predicted impacts in order to minimise impacts and achieve sustainable development.

Determination of Significance with mitigation

Determination of significance with mitigation refers to the foreseeable significance of the impact after the successful implementation of the necessary mitigation measures. Significance with mitigation will be rated on the following scale:

Rating	Description
No significance:	The impact will be mitigated to the point where it is regarded as insubstantial.
Low	Low consequence, probably, the impact will be mitigated to the point where it is of limited importance.
Medium	Medium consequence, probably, the negative impact will remain of significance. However, taken within the overall context of the project, the persistent impact does not constitute a fatal flaw;
Medium-high	Medium to high consequence, probably to very probable, mitigation is necessary. The impact is of major importance but through the implementation of the correct mitigation measures, the negative impacts will be reduced to acceptable levels.
High	High consequence, probably / definite, mitigation is essential. The impact is of major importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.
Extreme	Very high consequence, definite, fatal flaw!

v. The proposed method of assessing duration significance

Please refer to section iv above.

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

The Competent Authority will be consulted during the review of the Draft and Final Scoping and

Environmental Impact Assessment reports.

vii. **Particulars of the public participation process with regard to the Impact Assessment process that will be conducted**

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

(These steps must include the steps that will be taken to ensure consultation with the affected parties identified in (h) (ii) herein).

Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.

I&APs representing the following sectors of society have been identified in terms of Regulation 55 of the EIA Regulations R543 of 2010:

- **National Authorities;**
- **Provincial Authorities;**
- **Local Authorities;**
- **Ward Councillors;**
- **Parastatal/ Service Providers;**
- **Non-governmental Organisations;**
- **Local forums/ unions; and**
- **Adjacent Landowners.**

PROVIDE DESCRIPTION HERE

The EAP has taken into account all relevant guidelines applicable to public participation as contemplated in section 24J of the NEMA and are giving notice to all I&APs of the applications which are being subjected to public participation by undertaking the following:

The following processes are being undertaken to announce the project process and the Draft Scoping Report:

For the announcement of the project process and the Draft Scoping Report availability, MC have compiled and are announcing the availability of Draft Scoping Report. The draft report is being subjected to a public participation process of at least thirty (30) days and will reflect the incorporation of comments received subsequent to public review, including any comments from the DMR.

The following process will be undertaken throughout the project:

Announcement of the Draft Environmental Impact Assessment (EIR) Report availability. The following processes will be undertaken to announce the Draft EIR:

MC will compile and announce the availability of Draft EIR, which will include an Environmental Management Programme (EMPr). The report will be subjected to a public participation process of at least thirty (30) days and will reflect the incorporation of comments received, including any comments from the DMR.

- Letters will be sent to all I&APs, written in any of the manners provided for in section 47D of the NEMA, announcing the availability of the Draft EIR to the municipal councillor of the ward in which the site is situated and any organisation of ratepayers that represent the community in the area, the municipality which has jurisdiction in the area, any organ of state having jurisdiction in respect of any aspect of the activity; and any other party as required by the competent authority.
- Subsequent to the 30 days period, all comments and representations received from I&APs will be considered and recorded in CRR. All I&APs who would have participated in the public participation process will be thanked, and their comments acknowledged.

Announcement of the Decisions- Environmental Authorisation and Mining Right

MC will ensure that all registered I&APs are provided with access to the decisions and the reasons for such decisions. I&APs will be drawn to the fact that an appeal may be lodged against the decisions in terms of the National Appeals Regulations, if such appeal is available in the circumstances of the decisions. The decisions will be advertised through the following methods:

- Personalised letters to individuals and organisations on the stakeholder database; and
- Newspaper advert in the same local newspaper where the project process and the availability of the Draft Scoping Report was announced.

PPPs will be conducted in terms of Regulations 39 - 44.

2. Details of the engagement process to be followed.

(Describe the process to be undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings and records of such consultation will be required in the EIA at a later stage).

- An I&AP database has been opened and will be maintained throughout the project, and has included all potential I&APs in respect of the application in accordance with Regulation 42.
- Letters are being sent to all I&APs, written in any of the manners provided for in section 47D of the NEMA, announcing the project and the availability of the Draft Scoping Report, containing project information and a locality map to the municipal councillor of the ward in which the site is situated and any organisation of ratepayers that represent the community in the area, the municipality which has jurisdiction in the area, any organ of state having jurisdiction in respect of any aspect of the activity; and any other party as required by the competent authority.
- Affected parties who cannot be reached via mail, fax or e-mail are being visited for delivery of the letters. The letters have attached a sheet which allows I&APs to register and/ or /comment.
- Two (2) site notice boards are being fixed at a place conspicuous to and accessible by the public at the boundary of the site where the activity to which the application relates and any alternative site.
- One (1) advertisement has been placed in one local newspaper.
- Subsequent to the 30 days period, all comments and representations received from I&APs will be considered and recorded in Comments and Responses Report (CRR). All I&APs who would have participated in the public participation process will be thanked, and their comments

acknowledged.

3. Description of the information to be provided to Interested and Affected Parties.

(Information to be provided must include the initial site plan and sufficient detail of the intended operation and the typical impacts of each activity, to enable them to assess what impact the activities will have on them or on the use of their land).

- **Project information, including a description of all the listed activities being applied for);**
- **Description of the intended mining activities;**
- **Locality map and a Site Plan, showing the extent of the proposed mine;**
- **Details of the proponent;**
- **Alternatives considered for the project;**
- **Potential impacts of the activities to be authorised; and**
- **The duration of the activity.**

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

The technical team from MC will identify and gather the information and data that would be required for the impact assessment about the receiving environment from reliable sources. MC will also review any existing data and information that may be available from Aquarella. A detailed background research will be undertaken.

1.1.1.Specialist Studies

As detailed above, the following specialist studies are being undertaken, and their findings will be incorporated into the EIR:

- **Heritage Impact Assessment (HIA), including Palaeontological Study;**
- **Ecological Assessment (Flora and Fauna) Assessment;**
- **Soil and Agricultural Potential;**
- **Social and Labour Plan; and**
- **Wetland Impact Assessment.**

1.1.2.Compilation and submission of EIR and EMPR to the DMR

MC will within ninety (90) days of submission and subsequent receipt of the application by the DMR, submit a EIR and an EMPr. The reports would have been subjected to a public participation process for at least thirty (30) days and will reflect the incorporation of comments received, including any comments from the DMR.

A EIR will contain the information as set out in Appendix 1 of the EIA Regulations 2014.

The EIR will entail the following information:

- **Details of the EAP who prepared the report and the expertise of the EAP, including a curriculum vitae;**
- **The location of the activity, including: the 21-digit SG code of each cadastral land parcel, the physical address and farm name) and coordinates of the boundary of the proposed property.**
- **A Layout Plan which locates the proposed activity which will be applied for as well as associated**

structures and infrastructure at an appropriate scale.

- A description of the scope of the proposed activity, including the listed and specified activity triggered and being applied for; and a description of the activities to be undertaken including associated structures and infrastructure.
- A description of the policy and legislative context within which mining is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the activity and have been considered in the preparation of the report; and how the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks, and instruments.
- A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.
- A motivation for the preferred alternative.
- A full description of the process followed to reach the proposed preferred alternative within the site, including details of all the alternatives considered, details of the public participation process undertaken in terms of regulation 41 of the EIA 2014 Regulations, including copies of the supporting documents and inputs.
- A summary of the issues raised by I&APs, and an indication of the manner in which the issues were incorporated, or the reasons for not including them. the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects, the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed, may cause irreplaceable loss of resources and can be avoided, managed or mitigated.
- The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives. positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community, that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.
- The possible mitigation measures that could be applied and level of residual risk.
- The outcome of the site selection matrix.
- If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and a concluding statement indicating the preferred alternatives, including preferred location of the activity.
- A full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including a description of all environmental issues and risks that were identified during the environmental impact

assessment process; and an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.

- An assessment of each identified potentially significant impact and risk, including (I) cumulative impacts the nature, significance and consequences of the impact and risk, the extent and duration of the impact and risk, the probability of the impact and risk occurring, the degree to which the impact and risk can be reversed, the degree to which the impact and risk may cause irreplaceable loss of resources; and the degree to which the impact and risk can be avoided, managed or mitigated.
- A summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 of the 2014 EIA Regulations and an indication as to how these findings and recommendations have been included in the final report,
- An environmental impact statement which contains a summary of the key findings of the environmental impact assessment, a map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.
- Based on the assessment, impact management measures from specialist reports, the recording of the proposed impact management objectives, and the impact management outcomes for mining for inclusion in the EMPr.
- Any aspects which were conditional to the findings of the assessment either by the EAP or specialists which are to be included as conditions of authorisation.
- A description of any assumptions, uncertainties, and gaps in knowledge which relate to the assessment and mitigation measures proposed.
- A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.
- Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded, and the post mining monitoring requirements finalised.
- An undertaking under oath or affirmation by the EAP in relation to the correctness of the information provided in the reports, the inclusion of comments and inputs from stakeholders and I&APs, the inclusion of inputs and recommendations from the specialist reports where relevant, and any information provided by the EAP to the I&APs and any responses by the EAP to comments or inputs made by I&APs.

An EMPr will contain the information set out in Appendix 4 of the EIA Regulations 2014.

The EMPr will entail the following information:

- An EMPr must comply with section 24N of the NEMA and must include details of the EAP who prepared the EMPr; and the expertise of that EAP to prepare an EMPr, including a curriculum vitae.
- A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description.
- A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers.
- A description of the impact management objectives, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of mining including planning and design; pre-mining activities; mining activities; rehabilitation of the environment after mining and where applicable post closure; and where relevant, operation activities.
- A description and identification of impact management outcomes required for the aspects.
- A description of proposed impact management actions, identifying the manner in which the impact management objectives and outcomes and will be achieved, and must, where applicable, include actions to avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; comply with any prescribed environmental management standards or practices.
- The method of monitoring the implementation of the impact management actions
- The frequency of monitoring the implementation of the impact management actions
- An indication of the persons who will be responsible for the implementation of the impact management actions
- The time periods within which the impact management actions must be implemented;
- The mechanism for monitoring compliance with the impact management actions
- A program for reporting on compliance, taking into account the requirements as prescribed by EIA Regulations 2014,
- An environmental awareness plan describing the manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work; and risks must be dealt with in order to avoid pollution or the degradation of the environment.

The EIR phase will focus on the proposed project and the associated impacts thereof. The next step of the S&EIR process is the development of guidelines for the execution of the impact assessment and the compilation of an EIR, as well as an EMPr. The compilation of these documents will take into account all comments and concerns raised by I&APs which are captured within the CRR as well as the findings of various specialist studies.

The Final EIR and EMPr will be submitted to the DMR for consideration towards Environmental Authorisation.

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

Scoping Report

ACTIVITY whether listed or not listed. (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.).	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.... etc...)	MITIGATION TYPE (modify, remedy, control, or stop) Through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. Modify through alternative method. Control through noise control through management and monitoring through rehabilitation.	POTENTIAL FOR RESIDUAL RISK
Clearance of vegetation	a) Floral destruction and faunal displacement b) Loss of topsoil c) Soil erosion	<ul style="list-style-type: none"> • An environmental officer should be appointed to oversee all the environmental aspects relating to mining. • Mining activities shall only take place within approved areas. • Soils that are to be impacted upon during mining will be removed and stockpiled for rehabilitation purposes. • Vegetation should only be removed in designated areas. • Re-establishment of plant cover on disturbed areas should take place as soon as activities have ceased. • The soil that is stripped during mining activities should be stockpiled in layers and protected by berms to prevent erosion. Grass should be established on the topsoil stockpiles to stabilise and prevent dust. • All stockpiles must be kept <1.5 m with slopes not exceeding 18 degrees. • Vehicles and machines must be maintained properly to ensure that oil spillages are kept to a minimum. 	Low

Scoping Report

<p>Development of access roads</p>	<p>a) Loss of topsoil</p> <p>b) Soil erosion</p>	<ul style="list-style-type: none"> • Development of the access roads must be undertaken where necessary. • The sizes of the access roads must be limited to the necessary size required for proposed activities. • No access road construction must be undertaken on sensitive areas as identified by specialist(s). • On completion of the mining operation, the affected area must be rehabilitated in accordance with the EMPr and the Rehabilitation Plan. 	<p>Low</p>
<p>Site camp</p>	<p>a) Environment (soil and air) and the residents</p>	<ul style="list-style-type: none"> • A site camp must be established on a specific location on site and the site camp must be properly demarcated. • The contractor must supply and maintain fire extinguishers of sufficient quantity at the appropriate locations. In all cases adequate fire extinguishers must be kept at hand and ready for instant use. 	<p>Low</p>
<p>Ablution facility</p>	<p>a) Environment (Soil)</p>	<ul style="list-style-type: none"> • Proper ablution facilities must be provided at specific location within the site camp. Chemical facilities or other approved toilet facilities such as a septic drain shall preferably be used and sited on the camp site in such a way that they do not cause water or other pollution. • Proper signage must be put to ensure that the site personnel are aware of the location. • Daily water requirements should be fulfilled by a water truck which will bring water on the site on a daily basis. Alternatively, the contractor may request permission from the landowners to utilise their water resources at a fee. It must be confirmed whether the water use activity is authorised prior to making use of the water source. • Storage of equipment must only be in a designated area. 	<p>Low</p>

		<ul style="list-style-type: none"> • Vehicles and machines must be maintained properly to ensure that oil spillages and leakages are kept to a minimum. 	
<p>Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).</p>	<p>a) Dust</p> <p>b) Noise</p> <p>c) Water Pollution</p> <p>d) Permanent Employment Opportunities and Skills Development</p>	<ul style="list-style-type: none"> • Mining should preferably take place during the dry season. • Mining times must be restricted to working hours (06:00-18:00). • All mining equipment or machinery should be switched off when not in use. • Mining equipment must be kept in good working condition. • Consideration should be given to the use noise-reduction devices such as mufflers for heavy vehicles. Appropriate directional and intensity settings are to be maintained on all hooters and sirens • Mining should preferably take place during the dry season. • Wet and seepage areas must be clearly defined and marked on site in consultation with the wetland specialist. These areas should be avoided by mining workers until mining work at the particular wet areas become necessary. • Unskilled and unemployed labour should be sourced from the surrounding local communities as far as possible. • Skills development opportunities should be granted to community members and local job seekers, where needed. • Project contracts between the applicant and the specialist contractor should stipulate the use of local labour for unskilled and semi-skilled positions and tasks. 	<p>Low</p>

	<p>e) Visual Impacts</p> <p>f) Waste Increase</p> <p>g) Traffic patterns within the area</p>	<ul style="list-style-type: none"> • All mining vehicles should be kept in good working conditions. • Where possible the proposed mine site must be orientated in such a way that it is not visible from other viewpoints. • The site should be cleaned on a daily basis and litter lying around should be removed immediately. • The applicant should implement a waste strategy and respond to the waste hierarchy of South Africa where and when possible. • The local municipality together with the managers of the proposed project should develop a waste management plan for the proposed mine site. • New and/or regular serviced trucks and vehicles must be used to avoid traffic congestions. • Provide detailed information on available travel choices to the proposed mine site. • Workers are encouraged not to come to work on their own cars but to use one vehicle that is made available by the applicant for the purpose of transporting the workers to and from work. 	
<p>Excavations</p>	<p>a) Impact on Soil Profile</p> <p>b) Dust</p>	<ul style="list-style-type: none"> • Start the site clearing exercise immediately after good rain. • Store the cut brush offsite until dry enough to give away. • Mining should preferably take place during the dry season. • Wet and seepage areas must be clearly defined and marked on site in consultation with the wetland specialist. 	<p>Low</p>

	<p>c) Noise</p> <p>d) Flora and Fauna Disturbance</p>	<ul style="list-style-type: none"> • Mining times must be restricted to working hours (06:00-18:00). • All mining equipment or machinery should be switched off when not in use. • Mining equipment must be kept in good working condition. • Consideration should be given to the use noise-reduction devices such as mufflers for heavy vehicles. Appropriate directional and intensity settings are to be maintained on all hooters and sirens • An environmental officer should be appointed to oversee all the environmental aspects relating to mining. • Mining activities shall only take place within approved areas. • Soils that are to be impacted upon during mining will be removed and stockpiled for rehabilitation purposes. • Vegetation should only be removed in designated areas. • Re-establishment of plant cover on disturbed areas should take place as soon as activities have ceased. 	
Hauling and transport	<p>a) Noise</p> <p>b) Water Pollution</p>	<ul style="list-style-type: none"> • Mining times must be restricted to working hours (06:00-18:00). • All mining equipment or machinery should be switched off when not in use. • Mining equipment must be kept in good working condition. • Consideration should be given to the use noise-reduction devices such as mufflers for heavy vehicles. Appropriate directional and intensity settings are to be maintained on all hooters and sirens • Mining should preferably take place during the dry season. • Wet and seepage areas must be clearly defined and marked on site in consultation with the wetland specialist. 	Low

	<p>c) Dust</p>	<ul style="list-style-type: none">• Appropriate dust suppression methods must be applied (wetting of exposed surfaces).• The clearing of vegetation must be kept to a minimum and only where required as practicably as possible.• Avoid unnecessary movement of mining vehicles on site.	
	<p>d) Flora and Fauna Disturbance</p>	<ul style="list-style-type: none">• All mining vehicles should be kept in good working conditions.• During mining, the mining area and immediate surroundings should be monitored regularly for emergent invasive vegetation.• Surrounding natural vegetation should not be disturbed to minimise chances of invasion by alien vegetation.• All alien seedlings and saplings must be removed as they become evident for the duration of mining and operational phase.	
	<p>e) Traffic patterns within the area</p>	<ul style="list-style-type: none">• New and/or regular serviced trucks and vehicles must be used to avoid traffic congestions.• Provide detailed information on available travel choices to the proposed mine site.• Workers are encouraged not to come to work on their own cars but to use one vehicle that is made available by the applicant for the purpose of transporting the workers to and from work.	

l) Other Information required by the competent Authority

- i. Compliance with the provisions of sections 24(4)(a) and (b) read with section 24 (3) (a) and (7) of the National Environmental Management Act (Act 107 of 1998). the EIA report must include the: -

(1) Impact on the socio-economic conditions of any directly affected person. (Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond mining on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as **Appendix 2.19.1** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12. herein).

N/A.

2) Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act. (Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond mining on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(j)(vi) and (vii) of that Act, attach the investigation report as **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12. herein).

N/A.

j) Other matters required in terms of sections 24(4)(a) and (b) of the Act.

(the EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as **Appendix 7**).

Attached as Appendix 7

k) UNDERTAKING REGARDING CORRECTNESS OF INFORMATION

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



Signature of the EAP

DATE: 10 November 2017

I) UNDERTAKING REGARDING LEVEL OF AGREEMENT

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



Signature of the EAP

DATE:

10 November 2017

-END-