

Application for a Mining Permit Section 27 of the MPRDA (2002)

PORTION 77 OF THE FARM KROKODILSPRUIT 290-JR, DISTRICT OF BRONKHORSTSPRUIT

BACKGROUND INFORMATION DOCUMENT

MARCH 2016

Applicant:

Mr Chris van der Walt

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BACKGROUND INFORMATION DOCUMENT

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INTERESTED AND AFFECTED PARTY CONSULTATION REPORT

1 Introduction

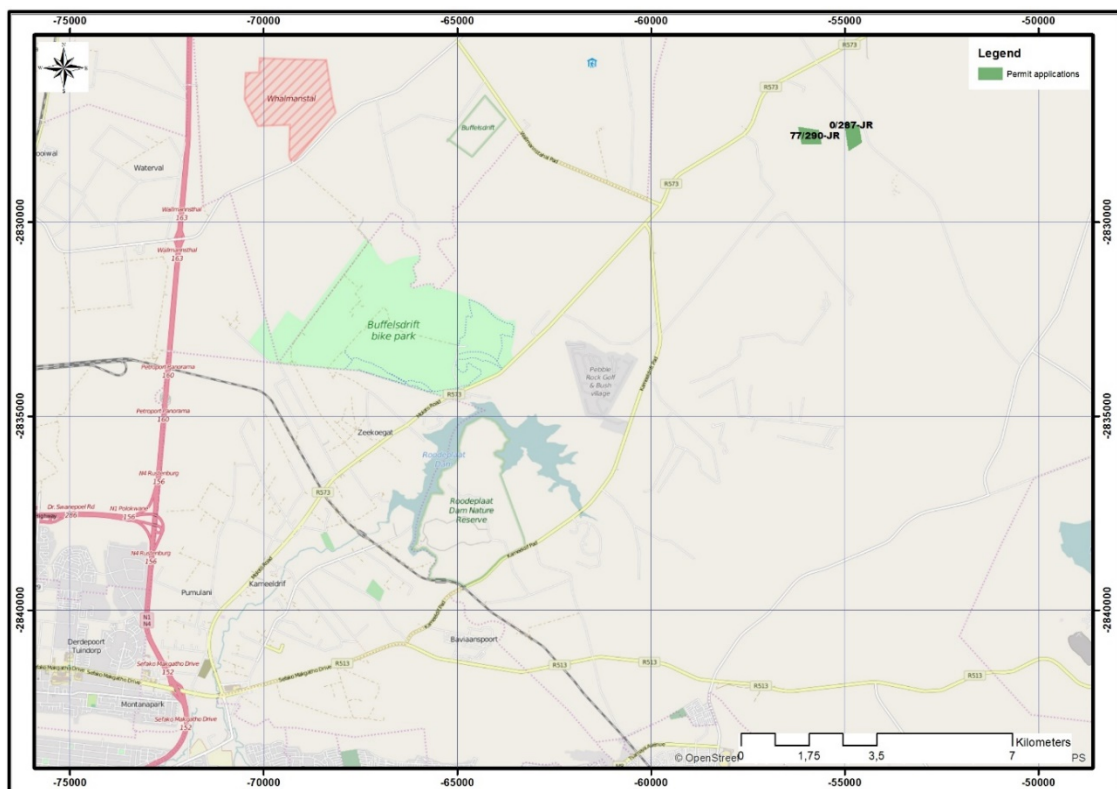
Mr. Chris van der Walt, the Applicant, is applying for a mining permit on Portion 77 of the farm Krokodilspruit 290-JR, district of Bronkhorstspuit for the mining of sand. The property is owned by Mr. Jacob van der Walt.

Mining on the property commenced before 2004 and continued until at least 2008. Although mining has stopped, there are still sand resources on the property and the applicant wishes to remove this sand and rehabilitate the disturbed area as part of his mining action.

Application for the mining permit is done in terms of the Minerals and Petroleum Resources Development Act (MPRDA). The condition of a Mining Permit is a limit of 5 hectares and a 2-year period renewable for a maximum of 5 years. There is no infrastructure on the area where mining is proposed. The mine can be put in production immediately after the permit has been approved.

The application also has to comply with the National Environmental Management Act (NEMA). Part of NEMA is the requirement to consult with neighbours and other interested and affected parties and incorporate concerns in the Environmental Management Plan (EMP). This Background Information Document (BID) serves the purpose of providing I&AP's with the information that will allow them to participate in the EIA and to raise comments and concerns, should there be any. These issues will then be incorporated into the EIA and EMP.

Figure 1 Locality map



1 Applicant

1.1 Name and address

Mr. Chris van der Walt
PO Box 938
Cullinan
1000

Tel: 076 666 5727

1.2 Life of the mine

5 years, maximum. The expected rate of mining is 6,000m³ per quarter. This equates to about 2,000m³ per month, or about 100m³ per day resulting in about 6 daily trips per truck.

2 Existing Status of the environment prior to mining

2.1 Current land use

The Krokodilspruit mining site was previously mined for sand, which was discontinued. Not all sand resources have been removed. The works area is 5 ha in extent and is located on a portion of Portion 77 of the farm Krokodilspruit 290-JR; situated in the Bronkhorstspuit district.

2.2 Geology

The geology of the property consists of the following:

ITEM	DETAIL
Type of mineral	Mining area: Alluvial material; Soil, gravel and other undifferentiated surface deposits.
Depth of the mineral below surface	0 to more than 6 metres

2.3 Topography and drainage

The site is on the edge of a broad floodplain; the floodplain is a result of a build-up of alluvial material washed down from higher lying areas.

Due to the flat nature of the site, water infiltrates the sand rapidly after storm events; or flow as laminar flow to depressions left by past mining activities.

2.4 Soil conditions

The soil described in GAPA is Longlands (sLo1); Dundee (dDu1) and deep Avalon (aAv1) land units. This classification is somewhat misleading as it signifies the original condition. The soil has now been completely modified by removing the top layers, including the topsoil. The land has no agricultural potential.

2.5 Water Resources

The proposed area falls within the Limpopo River catchment area following along the Krokodilspruit which flows into the Moretele River. The closest water course is the Krokodilspruit, 500 metres to the west of the proposed mine.

2.6 Flora

The regional vegetation is described by Mucina and Rutherford as Central Sandy Bushveld (Svcb12). The general vegetation is a rather open savanna dominated by *Combretum apiculatum*, *Acacia erubescens* and *Commiphora* species; dominant shrub species are *Grewia monticola*, *Grewia bicolor*, *Grewia flava* and *Euclea undulata*. The dominant grass is *Eragrostis rigidior*, *Urochloa mosambicensis* and *Eragrostis congesta*.

There are scattered clumps of indigenous bush on the north western corner of the property is often associated with termitaria and is dominated by *Acacia erubescens*, *Acacia mellifera* and *Dichrostachys cinerea*. The remainder of the property is disturbed with very few plants, mainly pioneer grasses and herbs.

2.7 Fauna

2.7.1 Amphibians

Breeding in African frogs is strongly dependent on rain, especially in the drier parts of the country where surface water only remains for a short duration. Frogs utilise ephemeral pans or inundated grasslands for their short duration reproductive cycles. No such habitats occur on the property. No threatened species were identified in the literature or during the field investigation.

2.7.2 Reptiles

As a result of the previous mining and agricultural activities on the site and surrounding areas, coupled with increased habitat destruction and disturbances (illegal reptile collecting, indiscriminate killing of all snake species, frequent fires) the alterations to the original reptilian fauna are expected to have already occurred.

2.7.3 Birds

Species observed during the field survey are common, widespread and typical of disturbed bushveld. No scarce or endangered species were encountered, or are likely to occur in the mining area. Due to the high levels of human disturbance on the site and surrounding areas it is regarded as unlikely that study area consisting of 5 ha of disturbed land will have an impact of more than a low significance on the conservation status of any bird species.

2.7.4 Mammals

No mammal survey was undertaken. Mammal species recorded during previous surveys in similar habitats as well as published data within the study area as well as those that may occur within the study area; are widespread and common.

3 The environment likely to be affected by the mining activities

3.1 Climatic conditions

Dust pollution will be from trucks moving in the mining area. This may impact on surrounding property owners. During the winter months when dust tends to be more problematical, the prevailing wind direction is from the north to west. Dust and windblown sand may occur under windy conditions.

Exhaust fumes emitted from vehicles on the road and earth movement equipment within the mining area may potentially influence surrounding land users. Once again, remedial measures will have to be implemented to reduce the potential impact.

3.2 Current land use

3.2.1 Surrounding properties

The land uses of surrounding properties include mining, agriculture and residential, both formal and informal. There are some areas that were planted to pastures in the past.

Figure 2: Surrounding land uses



3.2.2 The specific environmental and other features on the site applied for which may require protection, remediation, management or avoidance.

The property consists of open veld sloping towards the west towards the Krokodilspruit, 500 meters from the proposed mine. There are no other natural environmental features that require protection, remediation, management or avoidance.

There are no structures, wetlands, areas with natural unspoilt vegetation larger than 1 hectare; or any other environmental resources on site; neither are there any cultural heritage resources. There is a powerline that crosses the property, but which will not be affected by the current Mine Permit application.

There is an electrical transmission line the crosses the property. This will be conserved; and no mining will take place within the servitude or 30 metres from the power line.

3.2.3 Confirmation that the description of the environment has been compiled with the participation of the community, the landowner and interested and affected parties,

The landowner was consulted in the compiling of the natural and heritage resources on the property. The title deed, LG diagram and the Deeds Office GIS was used to identify servitudes.

3.3 Hydrology

3.3.1 Surface water

The stormwater flow over the property is currently diverted into a settlement and retention pond in the basin of the excavation. This water is not suitable for human use and will be used for dust suppression.

3.3.2 Groundwater

Groundwater will be obtained from a borehole on the property. This will be used for drinking water by workers and to supplement the processing water that will be pumped from the retention pond.

3.3.3 Water quality

The proposed mining activities will have no impact on water quality and no chemicals are used in the process.

3.4 Vegetation & Fauna

The land is poorly vegetated in its natural state and natural vegetation has already been affected by earthworks.

3.5 Socio-economic structure

Job opportunities will be limited to the vehicle drivers; operators of the washing plant and security personnel. The impact on the socio-economic structure relates mainly to the contribution of the mine towards community development in general.

4 The mining process

4.1 Mining method

Mining will consist of the removal and storing of the topsoil; the removal of the sand; screening and washing of the sand, transporting the sand to the market, levelling the mining area post mining, the sloping of the side walls; the return of the topsoil and the levelling thereof and the seeding and maintenance of the rehabilitated area.

Mining depth will be determined by the nature of the deposits and will adhere to the earthworks plan.

The infrastructure required is a mobile screen, a washing plant and shed that is used for the storage of reports and for shelter of staff; and toilet facilities. The existing access road and tracks used by the property owner will be used. Only one excavator will be used to do the excavation and the stockpiling of the sand and to load the sand onto trucks to be transported to the end-user.

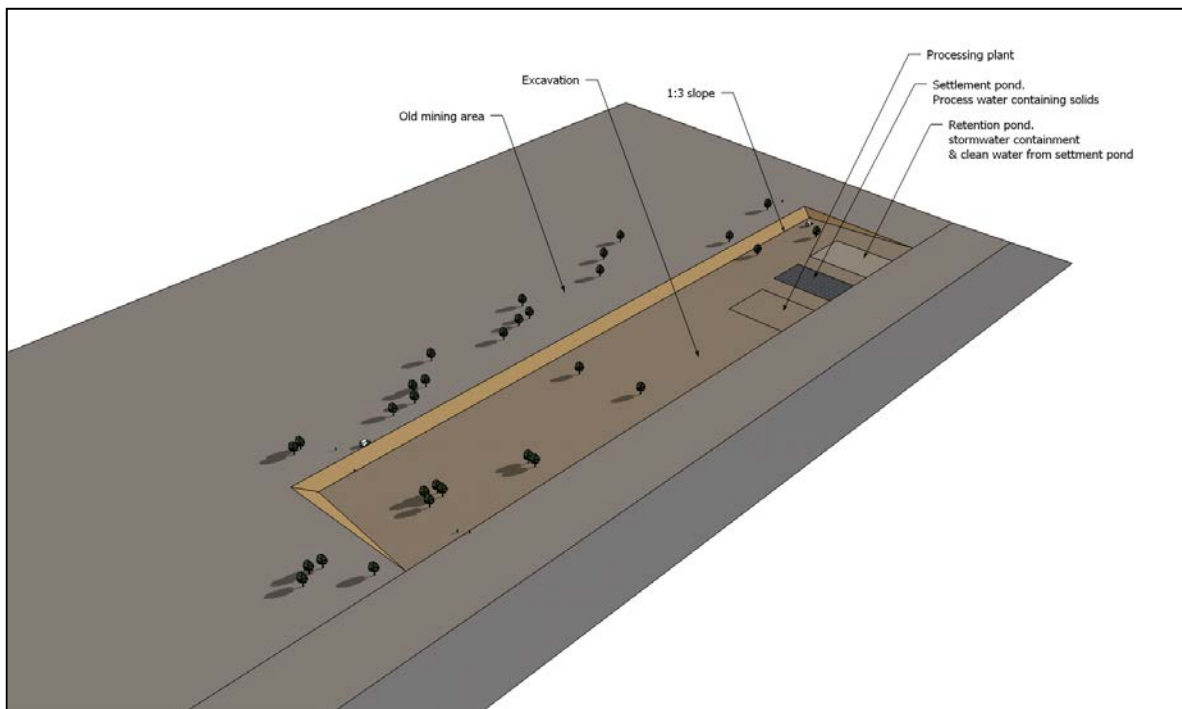
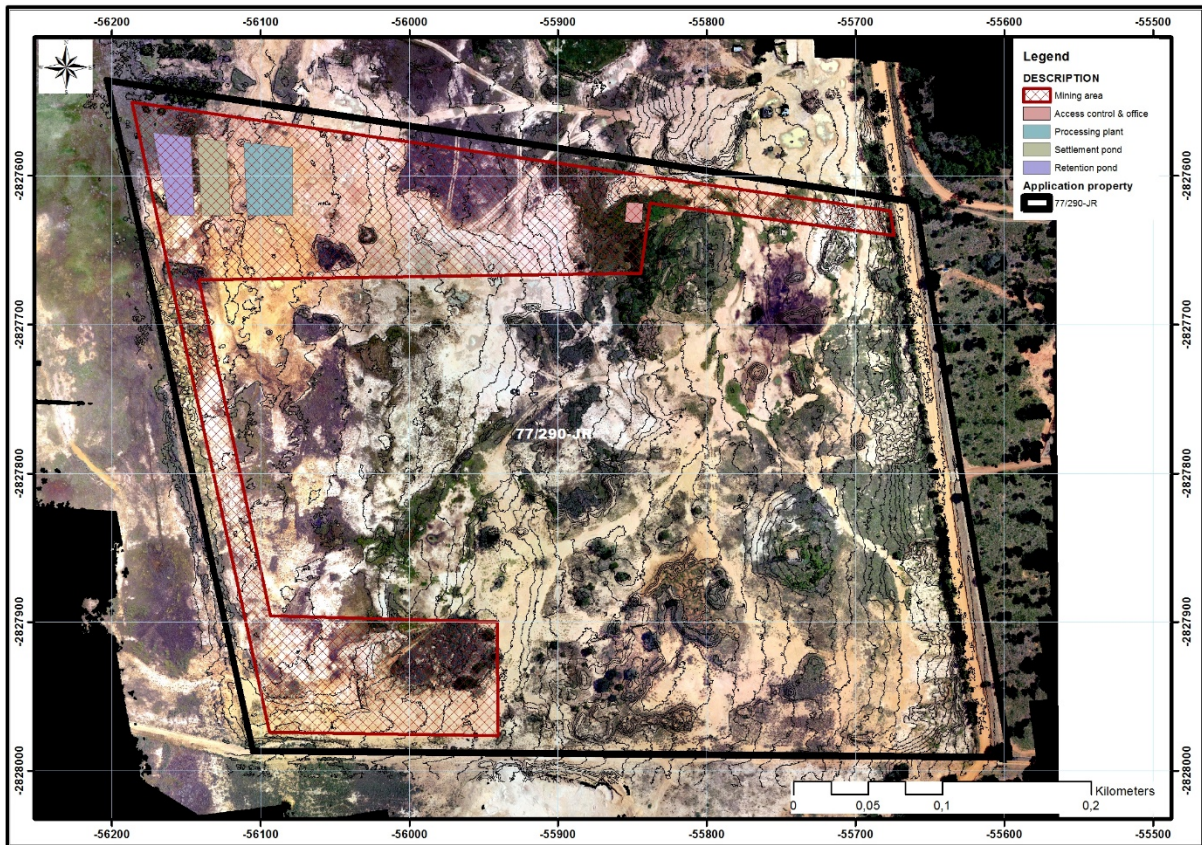
Staff will not be required or allowed to overnight on the property. Machines and equipment will be kept at the sheds on the farm which also has facilities for servicing. No oils, fuel or other substances that could result in pollution will be kept in the mining area.

The planned mining rate is for approximately 6,000m³ per quarter. Theoretically, this equates to 2,000m³ per month, or 90m³ per day, or 6 truckloads per day. Activities shall take place between 07h00 and 17h00 during week days. No mining is anticipated during weekends.

4.2 Mine design map

The existing and final mine is indicated below:

Figure 3: Mine Plan



5 An assessment of the environment likely to be affected by mining as land use

Mining is normally done in phases. The first is the construction phase to establish the infrastructure and is used to identify impacts/aspects. In this instance no construction will take place. The second phase, i.e. the operational phase refers to implementation; which includes the extension of the mining area, creating a working bench and the mining of the deposits. The third is rehabilitation.

	CONSTRUCTION PHASE.			IMPLEMENTATION PHASES.			REHABILITATION.				
	No construction	* Excavation	* Energy Use.	* Offices and Control.	PHASE-1 EXPOSING SOIL	* Removal of Topsoil	* Mining and stockpiling soil & gravel	* Loading and	* Covering of exposed area with topsoil	* Applying fertilizer.	* Seed and maintenance
IMPACTS											
Land Disturbance.											
*Soil Loss.		0	0	0		I	I	0	0	0	0
*Compaction.		0	0	0		0	s	0	0	0	0
*Instability of slopes.		0	0	0		I	I	0	0	0	0
*Soil contamination due to accidental spills		0	0	0		s	s	s	s	s	0
Air Quality.											
*Increased Ambient Particulates.		0	0	0					s	0	0
*Air Pollution-Exhaust Gases.		0	0	0		s	s	s	s	0	0
*Energy Use.		0	0	0		0	0	0	0	0	0
Hydrology.											
*Alteration or modification of hydrological regimes.		0	0	0		I	s	0	s	0	0
*Surface water flow alteration		0	0	0		I	0	0	0	0	0
*Ground water contamination thru spills		0	0	0		s	s	s	s	0	0
*Overuse of water.		0	0	0		0	0	0	0	0	0
*Increased Nutrient Concentrations.		0	0	0		0	0	0	0	s	0
Ecology and biodiversity.											
*Loss of natural habitats and biodiversity.		0	0	0		I	0	0	0	0	0
*Loss of rare and endangered species.		0	0	0		0	0	0	0	0	0
*Effects on riverine ecology.		0	0	0		0	0	0	0	0	0
*Impacts due to emissions or effluents.		0	0	0		0	0	0	0	0	0
Socio-Economic and Cultural Impacts.											
*Sensitive areas-Graves, historical sites. There are no sensitive areas on site.		0	0	0		0	0	0	0	0	0
*Infrastructure-Pipelines, sewage, roads, railway and power-line.		0	0	0		0	0	0	0	0	0
*Land use- Grazing, game farming		0	0	0		s	0	0	0	0	0
*Public safety		0	0	0		s	s	s	s	0	0
*Occupational health and safety.		0	0	0		I	I	I	I	0	0
*Visual effects.		0	0	0		I	I	0	0	0	0
*Noise and vibrations issues.		0	0	0		I	I	I	I	0	0
* Increased potential for respiratory disorders.		0	0	0		I	I	I	I	0	0
Resources.											
*Agricultural Land Loss.		0	0	0		s	0	0	0	0	0

I; Large impact s: Moderate to small impact

0: No impact / not applicable

COMMENT SHEET

DECLARATION PERTAINING TO PROPOSED MINING PERMIT APPLICATION ON POTION 77 OF THE FARM KROKODILSPRUIT 290-JR, DISTRICT OF BRONKHORSTSPRUIT.

I, the undersigned, ID Number,
in my capacity as (mark please)

Land owner	
Direct neighbour	
I&AP	
Other	

Hereby acknowledge the receipt of the Stakeholder Consultation documents explaining the process of the proposed mining operation and the possible impacts.

I wish to raise the following issues at this stage and/or propose the following amendments to the BID.

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.....

.....

I also wish to make the applicant aware of the following cultural heritage resources on my property:

.....

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.....

I further reserve the right to raise additional issues or concerns within the next 30 days so that these may be included in the Environmental Management Plan (A copy of this form is to be faxed to 086 644 1160 or e-mailed to admin.index@iafrica.com).

For further information or clarification, please contact the Public Participation Consultant on 012-346-5307 or 082-553-3787.

If neighbour or land owner; please indicate property name and number:

.....

Yours faithfully,

Date Signature

Contact number..... E-Mail