



## 2. List of activities applied for

The proposed project entails the prospecting (drilling) for the commodities Aggregate (RM), Stone Aggregate (from waste dump)(Stw), Stone Aggregate; Gravel (St) ,Sand manufactured from hard rock (QH) and Sand general (QY).

	Total activity
	Undetermined / Unknown
	Grouped activity

NAME OF ACTIVITY	ARIAL EXTENT OF THE ACTIVITY HA OR M <sup>2</sup>	LISTED ACTIVITY	APPLICABLE LISTING NOTICE
<p>(E.g. For prospecting – drill site, site camp, ablution facility, accommodation, equipment, storage, sample storage, site office, access route etc ... etc ... etc</p> <p>E.g. For mining – excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, stormwater, control berms, roads, pipelines, power lines, conveyors etc... etc... etc.)</p>		<p>Mark with an X where applicable or affected.</p>	<p>(GNR 544, GNR 545 or GNR 546)</p>
<b>Total Application</b>	<b>± 5 ha</b>		
<b>Mining</b>	<b>&lt; 4 ha</b>		<b>NEMA 2017, GNR 327, Listed 1, Activity 27:</b> The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation is required for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan
Excavations	Total: < 3 ha Per area: 0.06 ha	X	<b>NEMA 2017, GNR 517, Listed 1, Activity 21:</b> Any activity including the operation of that activity which requires a mining permit in terms of Section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act no 28 of 2002), as well as any other applicable activity as contained in this listing notice or in listing notice 3 of 2014, required to exercise the mining permit.
Topsoil and Overburden	< 0.2 ha		

NAME OF ACTIVITY	ARIAL EXTENT OF THE ACTIVITY HA OR M <sup>2</sup>	LISTED ACTIVITY	APPLICABLE LISTING NOTICE
Ore dumps	< 0.3 ha	X	<p><b>NEMA 2017, GNR 517, Listed 1, Activity 21F:</b> Any activity including the operation of that activity required for the reclamation of a residue stockpile or a residue deposit as well as any other applicable activity as contained in this listing notice or in listing notice 3 of 2014, required for the reclamation of a residue stockpile or a residue deposit</p> <p><b>NEMWA 2015, GNR 633, Category A, Activity 15:</b> The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act no 28 of 2002).</p>
Waste dumps	<0.17 ha	X	
Stockpiles	< 0.3 ha		
<b>Mine related infrastructure</b>	<b>± 0.6074 ha</b>		
Office site	0.0025 ha	X	<p><b>NEMA 2017, GNR 517, Listed 1, Activity 21:</b> Any activity including the operation of that activity which requires a mining permit in terms of Section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act no 28 of 2002), as well as any other applicable activity as contained in this listing notice or in listing notice 3 of 2014, required to exercise the mining permit</p> <p><b>NEMWA 2014, GNR 449, Category A (Hazardous Waste), Activity 12:</b> Oil wastes and wastes of liquid fuels (except edible oils): (a) waste hydraulic oils, (b) waste engine, gear and lubricating oils, (c) waste insulating and heat transmission oils (d) oil/water separator contents (e) waste of liquid fuels, (f) hazardous portion of other oil wastes</p>
Processing plant	0.5 ha		
Ablution facility	0.0008 ha	X	
Vehicle parking	0.0933 ha		
Parking lot	0.02 ha		
Wash-bay	0.006 ha		
Parts storeroom	0.0048 ha		
Scrap Yard	0.0625 ha		
Temporary workshop facility	0.005 ha		
Chemical and hydrocarbon fluid storage	0.0025 ha		

NAME OF ACTIVITY	ARIAL EXTENT OF THE ACTIVITY HA OR M <sup>2</sup>	LISTED ACTIVITY	APPLICABLE LISTING NOTICE
Diesel storage	0.0025 ha		
Domestic waste facility	0.0008 ha		
Access road and traverses	0.4 ha	X	<b>NEMA 2017, GNR 517, Listed 1, Activity 21:</b> Any activity including the operation of that Activity which requires a mining permit in terms of Section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act no 28 of 2002), as well as any other applicable activity as contained in this listing notice or in listing notice 3 of 2014, required to exercise the mining permit
Legislative required structures			
Security points		X	<b>NEMA 2017, GNR 517, Listed 1, Activity 21:</b> Any activity including the operation of that Activity which requires a mining permit in terms of Section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act no 28 of 2002), as well as any other applicable activity as contained in this listing notice or in listing notice 3 of 2014, required to exercise the mining permit
Stormwater control			

### 3. Typical impacts of activities

- Vegetation loss - Loss of indigenous plant species and erosion.

The severity of impact, before mitigation, is rated as **Low**, and should all mitigation measures be implemented and adhered to the severity of the impact can have a positive impact on the vegetation loss.

- Noise disturbance - the processing plant as well as earth moving equipment will have a localised effect on noise disturbance. This will however be within the mining areas as set out and should not have an adverse effect on neighbouring farms. Again, the noise will be much localized and therefore a severity rating of **Low** with no lasting effects.

- Air quality loss - Minor dust upliftment may occur due to moving vehicles. Dust created and released into the air during excavational and hauling activities. By using biodegradable dust suppressant, the dust should be limited.
- Soil pollution - Pollution with hydrocarbon fluids because of accidental breakdowns and or leakage. Ground erosion during rainfall and/or storm events

The severity of impact, before mitigation, is rated as **Medium**, but should all mitigations measures be implemented and adhered to the severity of the impact can be reduced to an overall rating of **Low**, with no long-term effects. If rehabilitation of these areas is done correctly and timeously full recovery of the environment is possible.

- Littering pollution - Improper waste management may cause disturbance to the overall environment.

Littering during the mining activities can happen and may have a **Medium** impact on the environment depending on the type of littering and the remediation thereof. Should all mitigations measures be implemented and adhered to the severity of the impact can be reduced to an overall rating of **Low**, with no lasting effects.

- Water pollution – Possible pollution to surface run-off water during rain events due to hydrocarbon fluid spillages. Chemical contaminated water from the storage facilities bears a risk to the environment. This impact is regarded as **Medium**, but should proper mitigation and/or remediation measures be implemented and adhered to the severity of the impact can be reduced to an overall rating of **Low**, with no long-term effects. Proper stormwater managements systems should also be in place and adhered to.

#### **4. Duration of each activity**

All of the listed activities will be occurring in phases and the time frame applied for at the Department of Mineral and Petroleum Resources is 5 years.

#### **5. Details regarding intended operation**

The Mining activities on the proposed project area will be in the form of opencast mining. The following three phases will be incorporated during the course of the said activity.

##### ○ Construction

The construction stage will primarily focus on site preparation, physical demarcation, and the setup of mobile infrastructure. Because a portion of the application area intersects a historical excavation void and features pre-existing surface alterations, clearing of undisturbed ground will be carefully managed.

The total construction and layout footprint for the site is regulated at 4.9727 ha. During this phase, the mine will precisely survey and mark the boundaries for all operational areas, which include:

Storage and dumps: Ore dumps (0.03 ha), waste dumps (0.17 ha), and general stockpiles (0.03 ha).

- Operational

Once the site is established, the operational phase involves the mechanical excavation of the dolerite and sand reserves, followed by dry processing within the plant area. The primary mining methodology and technology consist of the following steps:

- Excavation and block sizing: Mining will take place using opencast methods within the earmarked excavation zone. To minimize open environmental exposure, extraction will be confined to an active operational footprint of approximately 20 m x 30 m at any given time. Hardrock material will be mechanically excavated from the face. The processing plant will screen out material larger than 120 mm, and these oversized pieces will be broken down using a hydraulic impact hammer mounted on a heavy excavator.
- Crushing and screening: The excavated material is transferred via conveyor to a mobile crushing and screening plant for dry processing. The system removes the fine fractions mechanically and processes the larger rock material through primary and secondary crushing phases. The final products are sorted into specific aggregate sizes and sand grades without the use of process water, then transferred to product stockpiles for commercial dispatch
- Water use and dust suppression: Water required for non-process operational uses, primarily dust suppression on internal hauling roads, stockpiles, and transfer points, will be drawn directly from the designated water extraction zone within the historical excavation void. This local sourcing eliminates the necessity for drilling new regional groundwater supply boreholes
- Waste recovery and progressive rehabilitation: Non-saleable mineral waste, reject material, and dry fines from the plant will be systematically transferred back into the mined-out voids to serve as backfill. The mine will follow a strict rolling rehabilitation protocol. As an active 20 m x 30 m block is exhausted, the operation moves forward while the completed section is backfilled, sloped to match the natural topography, covered with the preserved overburden and topsoil from the perimeter berms, and monitored to facilitate natural vegetation regrowth

- Decommissioning

At the end of the project life or upon expiration of the permit, the operation transitions into the final closure stage to return the land to a stable baseline compatible with the surrounding agricultural environment.

- Infrastructure removal: All remaining progressive rehabilitation within the final excavation blocks will be completed. Every temporary and mobile structure including the crushing and screening plant, mobile offices, workshop containers, fluid storage tanks, and water pumps will be completely dismantled and removed from the property
- Soil rehabilitation and loosening: To address surface compaction caused by heavy haulage and processing machinery, all internal roads, loading footprints, and infrastructure pads will be thoroughly cross-ripped. This process loosens the subsoil, enhances water infiltration, and prevents surface erosion
- Post-closure care and maintenance: The decommissioned footprint will enter a dedicated care and maintenance period. During this time, regular site inspections will be conducted to control and eradicate alien invasive vegetation, ensuring the successful re-establishment of stable local cover.

## **6. Environmental Sensitive sites with their protection buffers**

- Farm buildings, Cemetery: Any prospecting and/or prospecting related activities must stay at least 50 m from any farmstead fence or farm building infrastructure demarcated area.
- Storage dam and Windpumps: All water resources must be avoided and protected as stipulated by the National Water Act. A buffer zone of 50 m from the edge of the dam/structure will be implemented and the area should be avoided during any prospecting and/or prospecting related activity.
- Non-perennial pans, dry pans: All natural water resources must be avoided and protected as stipulated by the National Water Act. A 'buffer zone' of 100 m (also the floodline) from the bank of the surface water body will be implemented and the area should be avoided during any prospecting and/or prospecting related activity.
- Public roads: All public roads must be avoided as regulated by the South African National Roads Agency. A servitude area of 50 m from the edge of the road will be implemented and the area avoided during any prospecting and/or prospecting related activity.
- Roads - Regional R59
- Agricultural land
- Reservoirs
- Telephone lines