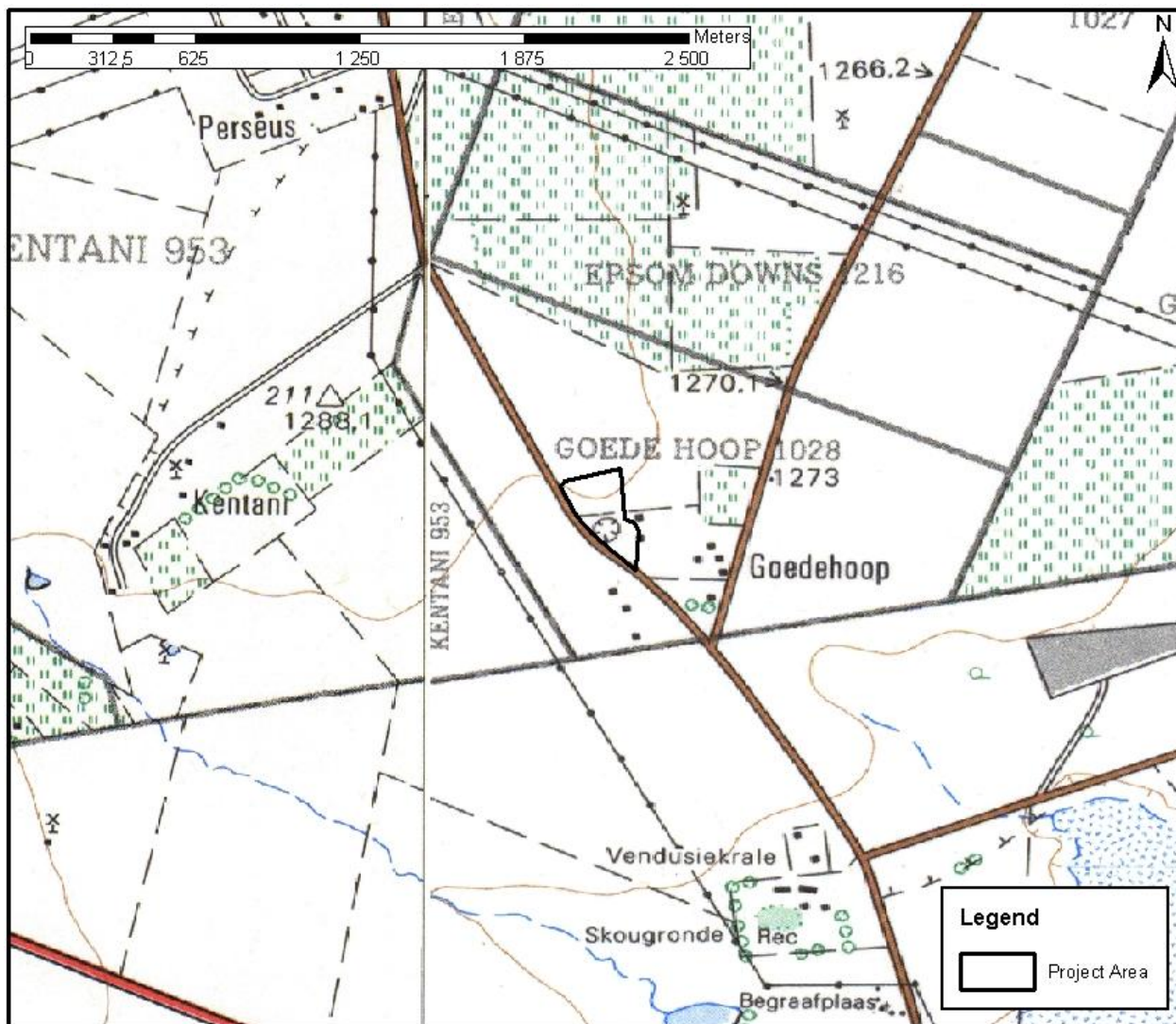


SUMMARY OF THE PROPOSED MINING OPERATION

PROJECT REFERENCE: FS 30/5/1/3/2/10456 MP

1. Project Details

The proposed application is for a portion of the farm Goede Hoop 1028 (in extent approximately 4.992 hectares), situated in the magisterial district of Boshof. The project area is located approximately 3 km North of Dealesville and is easily accessed via the R64 regional road.



2. List of activities applied for

The project entails small-scale, opencast mining of Stone Aggregate and Gravel.

	Total activity
	Undetermined / Unknown
	Grouped activity

NAME OF ACTIVITY (E.g. For prospecting – drill site, site camp, ablution facility, accommodation, equipment, storage, sample storage, site office, access route etc ... etc ... etc 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.)	ARIAL 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)
Total Application	± 5 ha		
Mining	< 4 ha		NEMA 2017, GNR 327, Listed 1, Activity 27: 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	NEMA 2017, GNR 517, Listed 1, Activity 21: 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 ²	LISTED ACTIVITY	APPLICABLE LISTING NOTICE
Ore dumps	< 0.03 ha	X	NEMA 2017, GNR 517, Listed 1, Activity 21F: 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
Waste dumps	<0.17 ha	X	
Stockpiles	< 0.03 ha		
Mine related infrastructure	± 0.6074 ha		
Office site	0.0025 ha	X	NEMA 2017, GNR 517, Listed 1, Activity 21: 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
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 ²	LISTED ACTIVITY	APPLICABLE LISTING NOTICE
Diesel storage	0.0025 ha		
Domestic waste facility	0.0008 ha		
Access road and traverses	< 0.4 ha	X	<p>NEMA 2017, GNR 517, Listed 1, Activity 21:</p> <p>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>
Legislative required structures			
Security points		X	<p>NEMA 2017, GNR 517, Listed 1, Activity 21:</p> <p>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>
Stormwater control			

3. Typical impacts of activities

- **Vegetation loss and habitat disturbance**

The proposed mining will result in the clearance of approximately 5 ha of vegetation. While the site is within a Critical Biodiversity Area (CBA 1) and the Vaal-Vet Sandy Grassland, historical agriculture has already modified the area. The primary impact is the potential loss of protected species such as *Aloe grandidentata* and *Olea europaea subsp. africana*. The severity of impact, before mitigation, is rated as **Medium**. Should all mitigation measures specifically the pre-clearing Species Search and Rescue and restricted footprint demarcation be strictly implemented, the residual impact can be reduced to **Low**, with a positive long-term effect on local biodiversity through controlled relocation.
- **Noise disturbance**

The operation of the crushing and screening plant, as well as the movement of earth-moving equipment, will generate localized noise. Given the site's distance from sensitive receptors and its location in a modified landscape, this disturbance will be confined to the 4.992 ha permit area. The noise will be highly localized with a severity rating of **Low**. Provided equipment is well maintained and work is limited to daylight hours, there will be no lasting effects on neighbouring farms.
- **Air quality and dust upliftment**

Minor dust upliftment is expected due to vehicle movement on internal haul roads and the excavation of aggregate. In the dry, windy conditions typical of the Free State, dust can spread to surrounding vegetation. The severity of impact, before mitigation, is rated as **Medium**. By using biodegradable dust suppressants on haul roads and maintaining stockpiles responsibly, the impact can be reduced to an overall rating of **Low**.
- **Soil pollution and erosion**

Soil pollution may occur through hydrocarbon leaks from machinery or accidental spillages during refuelling. Furthermore, due to the gentle northeast slope of the site, there is a risk of ground erosion and sediment loss during high intensity summer thundershowers. The severity of impact, before mitigation, is rated as **Medium**. With the implementation of bunded storage areas, spill kits, and the installation of silt traps or berms on the lower northeast boundary, the severity can be reduced to **Low**. Full recovery of the soil profile is possible through correct and timeous rehabilitation.
- **Littering and general waste pollution**

Improper waste management during the construction and operational phases may cause disturbance to the overall environment and pose a risk to local fauna. This includes domestic waste from staff and industrial waste from mining activities. Littering during the mining activities can happen and may have a **Medium** impact on the environment depending on the volume and the remediation thereof. However, the site is a CBA 1 area, making waste control even more critical to prevent habitat degradation. Should all mitigation measures including the use of animal-proof bins, regular site clean-ups, and the removal of all waste to a licensed facility be implemented and adhered to, the severity of the impact can be reduced to an overall rating of **Low**, with no lasting effects.
- **Heritage and palaeontological loss**

Physical excavation poses a risk to subsurface heritage remains and fossils. While the surface is considered sterilized due to 70 years of farming, the underlying geology is of High Palaeontological Sensitivity. The severity of impact, before mitigation, is rated as **Medium**. Through the application of a Heritage Chance Find Protocol and staff induction, the risk of permanent loss is reduced to **Low**. Should a significant discovery be made and correctly preserved, the impact could result in a positive scientific contribution.

- Water pollution (Surface run-off)
Potential pollution to surface run-off water during rain events may occur due to hydrocarbon spills or sediment-laden water leaving the site. There are no perennial wetlands on site, but managed run-off is essential to protect the wider catchment. This impact is regarded as **Medium**. Should proper mitigation (stormwater management systems and berms) be implemented, the severity of the impact is reduced to **Low**, with no long-term effects on the regional water table or surface resources.

4. Duration of each activity

All the listed activities will occur in phases, and the initial time frame applied for at the Department of Mineral Resources and Energy is 2 years.

It is intended that the permit will be renewed as allowed under Section 27(8)(a) of the MPRDA, which permits up to three additional one-year renewal periods. This brings the potential total duration of the mining operation to 5 years, depending on the availability of the resource and market demand.

The project phases are estimated as follows:

- Construction phase: Approximately 1 to 2 months for site preparation, including the establishment of the mobile screening plant, silt traps, and boundary demarcation.
- Operational phase: This will be the primary duration of the permit, involving the systematic excavation, crushing, and hauling of stone aggregate.
- Decommissioning and rehabilitation: Final rehabilitation of the 4.992-hectare footprint will be completed within the final months of the permit's life.
- Aftercare: A subsequent 2- to 3-year monitoring period will follow to ensure the successful re-establishment of vegetation and the control of invasive species.

5. Details regarding intended operation

The mining activities on the proposed project area will be conducted in the form of open-cast mining. The operation will incorporate the following three phases over the course of the mining permit duration.

- Construction - During the construction phase, an area of less than 1 hectare will be cleared to establish the mobile plant, storage area, and site office. This site will be clearly demarcated to ensure all activities remain within the approved 4.992-hectare footprint.

The precise location of these structures will be finalized once the permit is issued. At that stage, a site walk-through will be conducted by the Environmental Control Officer (ECO) to ensure the layout results in the least environmental damage possible, specifically avoiding any protected flora identified in the specialist scoping phase.

- Operational - During the operational phase, opencast strip-mining will be utilized. The excavations will be carried out in a systematic, phased manner to ensure manageable rehabilitation. The following methodological process will be implemented to ensure a cost-effective operation and successful, rolling rehabilitation:
 - Footprint management: The mine will restrict active work to a small footprint of approximately 20m x 30m at any given time. This approach allows for a rolling rehabilitation process where only a minimal area is disturbed at once.
 - Topsoil and overburden: Before excavation begins, the topsoil and any overburden will be stripped and stored in separate, designated stockpiles. These materials are vital for future growth and will be used exclusively for final rehabilitation.

- Extraction and processing: The stone aggregate and gravel will be removed and moved to the mobile processing plant. As the project focuses on stone aggregate, the material is processed through a dry screening and crushing plant. No water-intensive washing or settling dams are required.
 - Concurrent backfilling: As the mine moves from one 20m x 30m section to the next, the previously mined-out areas will be backfilled with waste rock and discard material. This ensures that the open void is kept to an absolute minimum throughout the life of mine.
 - Restoration: Once backfilling is complete, the stored overburden and topsoil will be spread back over the surface to restore the natural profile of the land and promote the re-establishment of indigenous vegetation.
 - Monitoring: Rehabilitated areas will be inspected regularly to monitor the rate of revegetation and to ensure that invasive plant species are removed before they can establish themselves.
- Decommissioning - Rehabilitation on-site will be finalized in accordance with the set standards and the Final Rehabilitation, Decommissioning and Closure Plan. All remaining waste material will be used for the final backfilling of any open excavations to ensure the surface is safe and free draining.

All mobile mining structures, including the plant and office, will be removed. Any compacted ground, such as the plant area or haul roads, will be ripped to allow for aeration before the final layer of topsoil is applied, allowing the area to return to its natural state.

6. Environmental Sensitive sites with their protection buffers

- Agricultural and farm infrastructure: A buffer zone of 50 meters applies to all existing farm buildings and identified agricultural lands. These features are strictly excluded from the active mining footprint to protect private property and existing farming operations.
- Critical Biodiversity Areas (CBA 1): The entire 4.992-ha area is within a CBA 1 zone. A "Zero-Expansion" policy is in effect for mining activities; however, this excludes the use of the designated access road and site entrance. No mining activity or unauthorized vehicle movement is permitted outside the surveyed 5-hectare boundary.
- Protected flora: Identified species (such as *Aloe grandidentata*) that are not relocated during the search and rescue phase must be demarcated with a 5-meter no-go buffer and fenced with danger tape.
- Heritage and palaeontology: A strict Stop-Work Protocol applies to the entire permit area. Any suspected fossil or heritage discovery requires the immediate cessation of work in that specific area until it is inspected and cleared by a specialist and SAHRA.
- Public roads (R64): As regulated by SANRAL, a servitude area of 50 meters from the edge of the road reserve must be maintained. No mining or related activity is allowed within this zone.
- Topography and run-off (Northeast Boundary): A 10-meter buffer on the lower northeast boundary is reserved for the placement of silt traps and earth berms to prevent sediment-laden run-off from leaving the site.