

**PROPOSED AGGREGATE MINE ON A PORTION OF
PORTION 1 OF FARM RUIGTEVLEY 97 KQ,
THABAZIMBI LOCAL MUNICIPALITY, LIMPOPO
PROVINCE**

SITE SENSITIVITY REPORT



DECEMBER 2024

REFERENCE NUMBER: LP 30/5/1/3/2/12396 MP

PREPARED FOR:

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EXECUTIVE SUMMARY

The Applicant, Inzalo Crushing and Aggregates (Pty) Ltd, applied for environmental authorisation (EA) and a mining permit to mine stone aggregate/ gravel on a portion of Portion 1 of Farm Ruigtevley 97 KQ, Thabazimbi Local Municipality, Limpopo Province.

The proposed mining footprint will be 4.9 ha and will be developed over an undisturbed area of the farm. The mining method will make use of blasting in order to loosen the hard rock; the material will then be loaded and hauled to the crushing plant where it will be screened to various sized stockpiles. The aggregate will be stockpiled until it is transported from site using tipper trucks. All mining related activities will be contained within the approved mining permit boundaries.

Project description

The proposed mining area is approximately 4.9 ha in extent and the applicant, Inzalo Crushing and Aggregates (Pty) Ltd, intends to win material from the area for at least 2 years with a possible extension of another 3 years. The aggregate to be removed from the quarry will be used for local road construction and building projects in the vicinity. The proposed quarry will therefore contribute to the upgrading / maintenance of road infrastructure.

The proposed project triggers listed activities in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and the Environmental Impact Assessment Regulations 2014 (as amended 2017) and therefore requires an environmental impact assessment (basic assessment process) that assess project specific environmental impacts and alternatives, consider public input, and propose mitigation measures, to ultimately culminate in an environmental management programme that informs the competent authority (Department of Mineral Resources and Energy) when considering the environmental authorisation. This report, the Draft Basic Assessment Report, forms part of the departmental requirements, and presents the first report of the EIA process.

Should the MP be issued and the mining of aggregate be allowed, the proposed project will comprise of activities that can be divided into three key phases namely the:

- (1) *Site establishment/construction phase* which will involve the demarcation of the permitted mining area. Site establishment will also necessitate the clearing of vegetation, the stripping and stockpiling of topsoil, and the introduction of mining machinery and equipment

- (2) *Operational phase* that will entail the mining of aggregate from the approved footprint area via conventional open cast mining methods. The mining method will make use of blasting in order to loosen the hard rock; upon which the loosened material will be transported to the crushing and screening processing plant where it will be screened to various sized stockpiles, before it is sold and transported from site to clients
- (3) *Decommissioning phase* which entails the rehabilitation of the affected environment prior to the submission of a closure application to the Department of Mineral Resources and Energy (DMRE). The permit holder will further be responsible for the seeding of all rehabilitated areas. Once the full mining area is rehabilitated, the mining permit holder will be required to submit a closure application to the DMRE in accordance with section 43(4) of the MPRDA, 2002. The Closure Application will be submitted in terms of Regulation 62 of the MPRDA, 2002, and Government Notice 940 of NEMA, 1998 (as amended).

The mining activities will consist out of the following:

- Stripping and stockpiling of topsoil;
- Blasting;
- Excavating;
- Crushing;
- Stockpiling and transporting;
- Sloping and landscaping upon closure of the site; and
- Replacing the topsoil and vegetation the disturbed area.

The mining site will contain the following:

- Drilling equipment;
- Excavating equipment;
- Earth moving equipment;
- Mobile crushing and screening plants
- Access Roads;
- Site Office (Containers);
- Site vehicles;
- Parking area for visitors and site vehicles;
- Vehicle service area;
- Wash bay;
- Workshop (Containers);
- Salvage Yard;
- Bunded diesel and oil storage facilities;

- Generator on bunded area;
- Ablution Facilities (Chemical Toilets);
- Weigh Bridge; and
- Demarcated general and hazardous waste area.

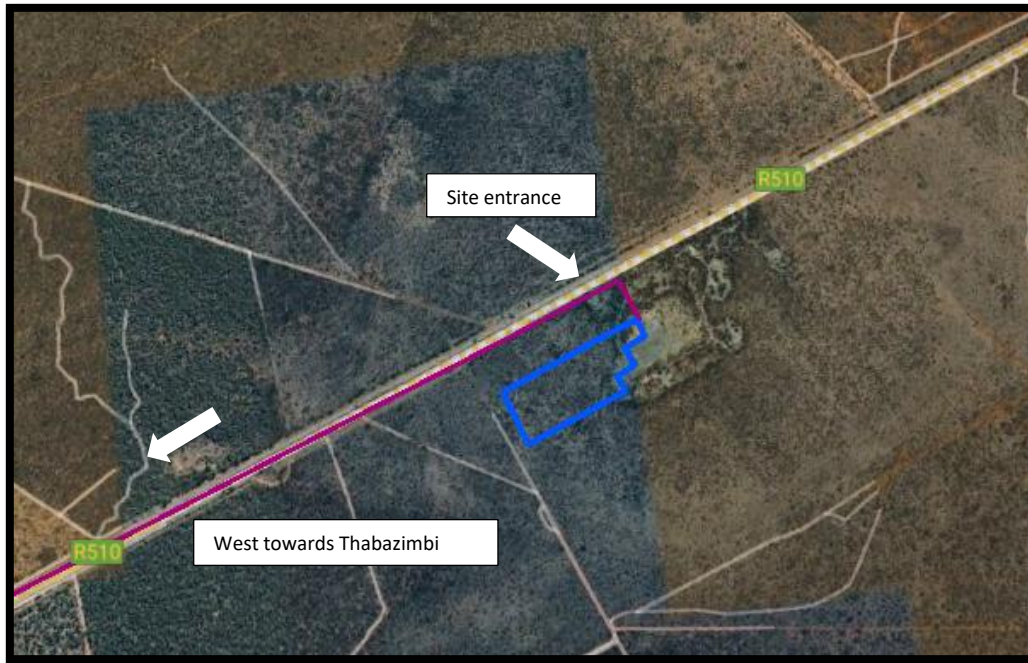


Figure 1: Satellite view showing the direction (purple line) to the proposed mining area (blue polygon)

This report addresses the findings of the Screening Tool Report (Appendix N), generated from the National Web Based Environmental Screening Tool, and provides motivation for the various specialist studies identified to be conducted. As per the Screening Tool Report, the proposed site is located within a very high sensitivity area from an agricultural perspective, a medium sensitivity area from an animal species perspective, a low sensitivity area from an aquatic biodiversity perspective, a low sensitivity area from a civil aviation perspective, a low sensitivity area from a plant species perspective, a low sensitivity area from a defense perspective, a medium sensitivity form a paleontology perspective and a very high sensitivity area from a terrestrial biodiversity perspective.

Summary of specialist reports.

(This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form):-

Table 1: Summary of specialist reports

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with X if applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED
<p>The screening report for an environmental authorisation, as required in terms of the 2014 NEMA EIA Regulations on a portion of Portion 1 of Farm Ruigtevley 97 KQ, Thabazimbi Local Municipality, Limpopo Province identified the following list of specialist assessment for inclusion in the assessment report:</p> <ul style="list-style-type: none"> ■ Agricultural Impact Assessment; ■ Archaeological and Cultural Heritage Impact Assessment; ■ Paleontology Impact Assessment; ■ Terrestrial Biodiversity Impact Assessment; ■ Aquatic Biodiversity Impact Assessment; ■ Hydrology Assessment; ■ Noise Impact Assessment; ■ Radioactivity Impact Assessment; ■ Traffic Impact Assessment; ■ Geotechnical Assessment; ■ Socio-economic Assessment; 			

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<ul style="list-style-type: none"> ■ Plant Species Assessment; ■ Animal Species Assessment. <p>Inzalo Crushing and Aggregates Pty) Ltd (hereafter referred to as the applicant) appointed Greenmined Environmental (Pty) Ltd as the environmental impact assessment practitioner (EAP) to undertake the EIA associated with the mining permit application. In light of this Greenmined would like to respond as follows to the list of required specialist studies:</p> <ul style="list-style-type: none"> ■ Agricultural Impact Assessment (AIA): <p>As mentioned earlier, the geology of the proposed area can be described as sandstone and mudstone of the Matlabas Subgroup and sandstone, subordinate conglomerate, siltstone and shale of the Kransberg Subgroup (both Mokolian Waterberg Group) are found in the north. Archaean granite and gneiss of the Swazian Erathem and granite of the Lebowa Granite Suite (Bushveld Igneous Complex) are found in the west and southeast of the area, respectively. Soils are plinthic catena, eutrophic, red-yellow apedal, freely drained, high base status, Hutton and Clovelly with some Glenrosa and Mispah soil forms. Several areas have less sandy soil than that of SVcb 12 Central Sandy Bushveld. Land types mainly Bd, Ah, Ae and Fa.</p>			
<ul style="list-style-type: none"> ■ Archaeological and Cultural Heritage Impact Assessment (HIA) & Paleontology Impact Assessment (PIA): <p>According to the Heritage Impact Assessment (Appendix M2), the project area is characterised by a wooded area with reddish sand and gravel soils. The project area is generally flat and does not have any hills or topographical focal points that would have attracted human settlement in antiquity. Two observations were made including a small cement and brick foundation (48 m to the west of the development footprint) recorded as RV002 and a degraded road just to the west of the development footprint recorded as RV001. It should be noted that RV002 can be associated with unmarked graves and this area should be avoided during development. The features potential to contribute to aesthetic, historic, scientific, and social aspects are non-existent, and they are of no significance apart from mentioning them in this report. According to the South African Heritage Resource Authority (SAHRA) Paleontological sensitivity map the study area is of insignificant/zero palaeontological sensitivity and no further studies are required or this aspect.</p> <p>The impact to heritage resources is expected to be low provided that the recommendations in HIA report are adhered to and based on the South African Heritage Resource Authority (SAHRA) 's approval.</p>			

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<p>Terrestrial Biodiversity Impact Assessment (TBIA) & Animal Species Assessment (ASA):</p> <p>According to the Terrestrial Biodiversity Statement (Appendix M), the location, state and size of the ecosystem suggests that it is unlikely that any functional habitat or SCCs will be lost as a result of the impacts arising from the proposed activities. However, these assumptions pertain to the terrestrial habitat within the PAOI only. It is the opinion of the specialist that the proposed development is favourable only if all mitigation measures provided in this and other specialist reports are implemented, as well as the following:</p> <ul style="list-style-type: none"> • A site walkdown during the correct flowering season (between November and March) must be conducted for all protected plant species present on site, along with the acquisition of permits for the relocation/destruction of species; • An alien invasion plant (AIP) management plan must be compiled and implemented; and • A rehabilitation plan must be compiled and implemented for all areas of the PAOI impacted by the project activities. 			

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	<p>■ Aquatic Biodiversity Impact Assessment (ABIA) & Hydrology Assessment (HA):</p> <p>The proposed mining area falls within the A41A quaternary catchment which falls within the upper reaches of the Matlabas/Mokolo Sub Water Management Area that is situated in the LIMPOPO Water Management Area which is managed by the Department of Water and Sanitation (DWS). The proposed mining area is not located within 500m of any water resources. Any other water will be bought from a registered source and transported to site.</p> <p>According to the Aquatic Compliance Statement (Appendix M1), no natural wetlands were identified within the proposed development area; therefore, no ecological and impact assessments were conducted for the proposed project. As per the specialist statement, the proposed project is not anticipated to have any impact on the aquatic biodiversity of the area as no natural freshwater resources were identified within the proposed development area. Therefore, the proposed development can be favourably considered for authorisation.</p>		
	<p>■ Noise Impact Assessment (NIA):</p> <p>The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the machinery already operational at the property. Due to the small scale of the operation a NIA is not deemed applicable.</p>		
	<p>■ Radioactivity Impact Assessment</p> <p>A radioactivity impact assessment is not deemed necessary for the proposed mining operation that will not store any chemicals on site, perform activities of radioactive nature or generate hazardous waste of radioactive nature.</p>		

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<p>▀ Traffic Impact Assessment (TIA):</p>	<p>Access to the proposed mining area will be via the R510, making use of the existing internal/haul roads to access the mining area. Haul roads will be extended as the open cast mining progress and will be rehabilitated as part of the final reinstatement of the area. Trucks delivering the materials to the destinations will take the R510 national route. In light of the small scale of the proposed operation a TIA is not deemed necessary, should the Applicant implement the mitigation measures to be proposed in the EMPr.</p>		
<p>▀ Geotechnical Assessment:</p>	<p>No reason for a geotechnical assessment could be identified as no permanent infrastructure will be established at the proposed mining area.</p>		
<p>▀ Socio-economic Assessment (SEA):</p>	<p>The material to be sourced from the mining area will be used for the upgrading of the road infrastructure in the vicinity of the site. The proposed mine will be operated on an area with very low agricultural potential. Should any additional workers to be required on this mining activity they will be sourced from the local community. Workers will daily be transported to the site. The establishment of the mining area on the farm will also assist the property owner in the diversification of their income. Considering this a SEA is not deemed applicable to this project.</p> <p>In light of the above mentioned, we propose that the no specialist studies are currently deemed applicable to the proposed mining operation.</p>		

