

# PROPOSED AGGREGATE MINE ON A PORTION OF REMAINING EXTENT OF FARM 89, NGQUZA HILL LOCAL MUNICIPALITY, EASTERN CAPE PROVINCE.

## SITE SENSITIVITY REPORT



**MAY 2024**

**REFERENCE NUMBER:** EC 30/5/1/3/2/10843 MP

**PREPARED FOR:**

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## **EXECUTIVE SUMMARY**

The Applicant, Henred Trading (Pty) Ltd, applied for environmental authorisation (EA) and a mining permit to mine stone aggregate/ gravel on a portion of Remaining Extent of Farm 89, Ingquza Hill Local Municipality, Eastern Cape Province.

The proposed mining footprint will be 5 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 5 ha in extent and the applicant, Henred Trading (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 N2 highway and building contracts in and around the Lusisiki area.

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 (pink polygon) and stockpile area (green 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 high sensitivity area from an agricultural perspective, a high sensitivity area from an animal species perspective, a very high sensitivity area from an aquatic biodiversity perspective, a medium sensitivity area from a civil aviation perspective, a medium sensitivity area from a plant species perspective, a low sensitivity area from a defense perspective, a low 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 Remaining Extent of Farm 89, Ingquza Hill Local Municipality, Eastern Cape Province, identified the following list of specialist assessment for inclusion in the assessment report:</p> <ul style="list-style-type: none"> <li>■ Agricultural Impact Assessment;</li> <li>■ Archaeological and Cultural Heritage Impact Assessment;</li> <li>■ Paleontology Impact Assessment;</li> <li>■ Terrestrial Biodiversity Impact Assessment;</li> <li>■ Aquatic Biodiversity Impact Assessment;</li> <li>■ Hydrology Assessment;</li> <li>■ Noise Impact Assessment;</li> <li>■ Radioactivity Impact Assessment;</li> <li>■ Traffic Impact Assessment;</li> <li>■ Geotechnical Assessment;</li> <li>■ Socio-economic Assessment;</li> </ul>			

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<ul style="list-style-type: none"> <li>■ Plant Species Assessment;</li> <li>■ Animal Species Assessment.</li> </ul> <p>Henred Trading 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"> <li>■ Agricultural Impact Assessment (AIA):</li> </ul> <p>According to Soil and Agricultural Potential Assessment Report (Appendix M), the proposed mining will have an overall low residual impact on the agricultural production ability of the land. This is because most of the site consists of low potential soil, such as Glenrosa and Mispah with limited soil profile which restrict profile water storage capacity, aeration, and drainage, and no active crop fields either under rainfed or irrigation condition. Therefore, is the specialist's opinion that, the proposed development may be favorably considered and the implementation of mitigation measures to ensure low residual expected significant impacts occurrence.</p>			
<ul style="list-style-type: none"> <li>■ Archaeological and Cultural Heritage Impact Assessment (HIA) &amp; Paleontology Impact Assessment (PIA):</li> </ul> <p>According to the Heritage Impact Assessment (Appendix M3), the project area is located on an elevated terrain and thick grasses cover the landscape. Small rocky outcroppings are found scattered throughout the landscape. The general landscape lacks topographic focal points such as hills and watercourses which would have attracted archaeologically significant human occupation. This was verified through the lack of heritage resources identified within both the MP and Stockpile areas. The larger area does however boast a rich living heritage consisting of various villages and communities throughout the landscape who have implemented a lifestyle similar to that of Late Iron Age communities. The Project will not impact on any of these communities.</p> <p>According to the South African Heritage Resource Authority (SAHRA) Paleontological sensitivity map the study area is of low palaeontological sensitivity and no palaeontological studies are required however a protocol for finds is required. The impact to heritage resources is expected to be low provided that the recommendations in this report are adhered to, based on the South African Heritage Resource Authority (SAHRA) 's approval. Should the Applicant implement the mitigation measures proposed in the EMPr the impact of the proposed activity on the surrounding area in general is deemed to be of low significance.</p>			

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<p> <span style="color: green;">■</span> Terrestrial Biodiversity Impact Assessment (TBIA) &amp; Animal Species Assessment (ASA):         </p> <p>           According to the Terrestrial Biodiversity Assessment report conducted by The Biodiversity Company (Pty) Ltd, dated May 2024 attached as appendix M2, the primary expected impacts of the proposed project will be the loss of habitat, flora SCC and emigration of fauna. Based on the outcomes of the SEI determination, the PAOI possess a 'High' SEI. This denotes that avoidance mitigation wherever possible must be implemented. This includes changes to project infrastructure design to limit the amount of habitat impacted. Due to the small size of the PAOI (5 ha) should all edge effects be managed by implementing the mitigation measures mentioned in this report, the overall cumulative post mitigation impact significance associated with the proposed project is considered to be low.         </p> <p>           Considering that this area has been identified as being of significance for biodiversity maintenance and ecological processes (CBA), development may proceed but offsets might be required by the Competent Authority. The prescribed mitigation measures must be considered by the Competent Authority for the issued authorisation.         </p>			

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	<p data-bbox="152 379 909 403">Aquatic Biodiversity Impact Assessment (ABIA) &amp; Hydrology Assessment (HA):</p> <p data-bbox="152 448 2134 608">As per the Wetland Functional and Impact Assessment (Appendix M1), four HGM units have been identified in relation to the proposed project, which have been classified as; two channelled valley-bottom (HGM 1 &amp; HGM 2), multiple unchannelled valley-bottom wetlands (HGM 3) and a single hillslope seep (HGM 4). Along with these natural wetlands, a few drainage features were identified and delineated. The health and integrity of the wetland systems ranged from “B – Largely Natural” to “D – Largely Modified” class with ecosystem service provision ranging from “Intermediate” to “High”. The Ecological Importance and Sensitivity of the wetlands are presented within the “Moderate” range.</p> <p data-bbox="152 724 2134 839">Considering the assessment findings, no fatal flaws are evident for the proposed project at this stage in relation to freshwater resources. It is the opinion of the specialists that the project may be favourably considered for authorisation, on condition that all prescribed mitigation measures are implemented. This includes the avoidance of sensitive freshwater habitats and, the minimisation of development within these areas in the case of linear infrastructure such as the access roads. With being said, a water use application in terms of the National Water Act, 1998 (Act No 36 of 1998) is currently underway</p>		
	<p data-bbox="152 887 465 911">Noise Impact Assessment (NIA):</p> <p data-bbox="152 962 2134 1031">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>		



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<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>		
<p>Traffic Impact Assessment (TIA):</p>	<p>Access to the proposed mining area will be via the Ghanja Road, 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 R61 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>		

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<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>			

