

## **Appendix 8:**

### Site Sensitivity Verification Report

**Site Sensitivity Verification Report for Driefontein Quarry Section 102  
extension of Mining Eight area and EMP update**

**DRIEFONTEIN QUARRY (AFRIMAT): SITE SENSITIVITY REPORT FOR AN EXTENSION MINING RIGHT THROUGH A SECTION 102 AND EMP UPDATE ON FARM 396 (PREVIOUSLY KNOWN AS FARM ZAND FONTEIN NO. 185 PTN 12), BREDASDORP REGISTRATION DISTRICT OF WESTERN CAPE PROVINCE**

**1) Background**

This quarry currently has an outdated EMP which is still written Afrikaans. Consequently, while this is part of Section 102 application extension of Mining Right area, this application also serves as an update of the current EMP to be in-line with current relevant laws. However, the reader is reminded that the law is not retrospective and thus update of the EMP cannot be used to apply current laws on aspects that were approved in previous EMP.

Afrimat Aggregates (Operations) (Pty) Ltd (hereafter referred to as Afrimat) has been operating this Driefontein Quarry since the early 1990s as Prima Klipbrekers. This quarry supplies the Bredasdorp and surrounds area with competent aggregate material for building and civil engineering projects. Consequently, Afrimat has an established market share in the region.

In late 2021, the mine management determined that mine reserves are becoming limited within the approved Mining Right area. Furthermore, with preliminary construction industry news that Bredasdorp will be receiving considerable attention in the foreseeable future, it has become clear to mine management that extension of this mine would be beneficial for such projects. Consequently, this Section 102 application is now lodged.

Please see Figure 1 Location Plan, Figure 2 Mine Plan and Layout of the site.

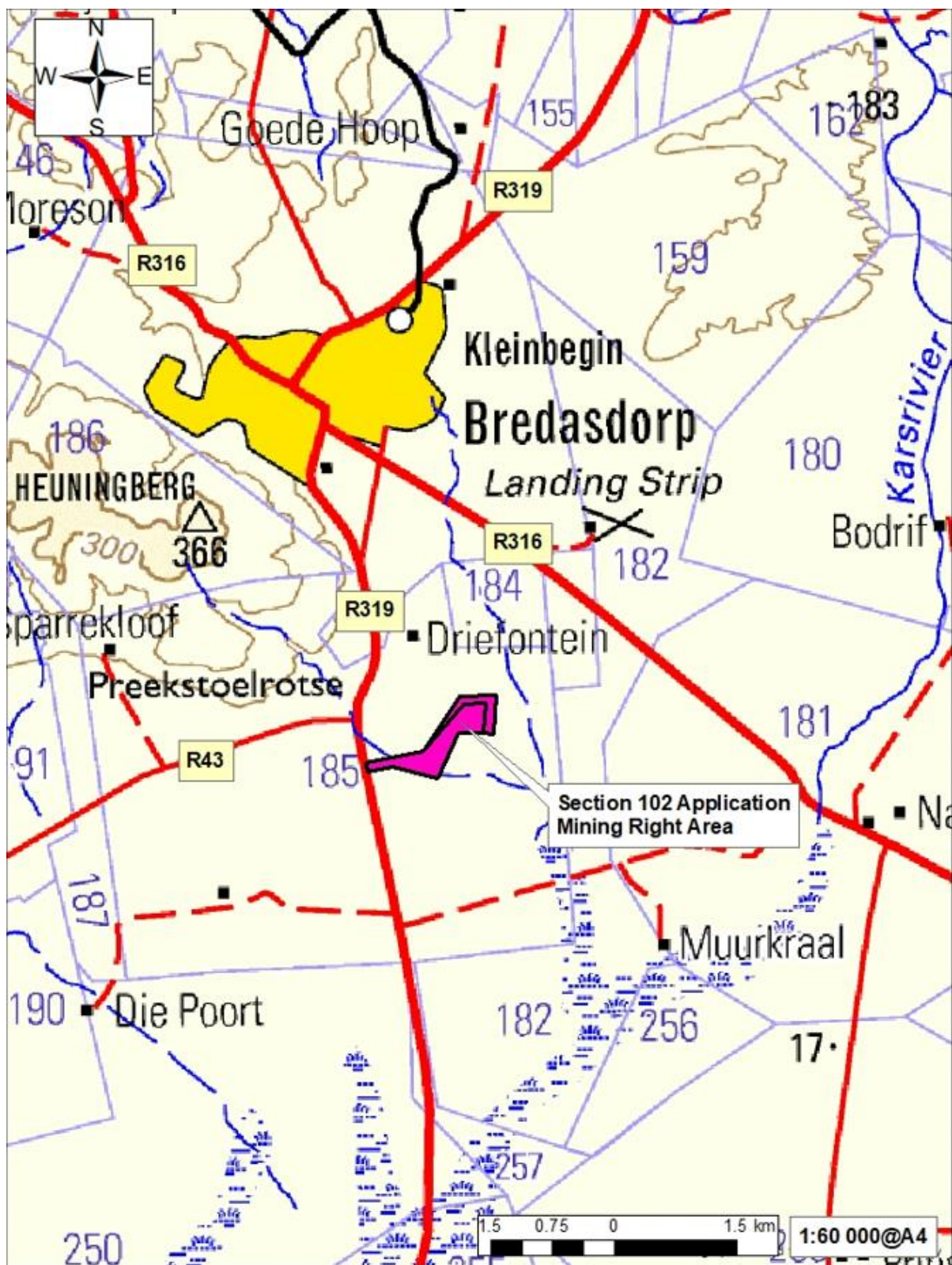


Figure 1: Locality Plan

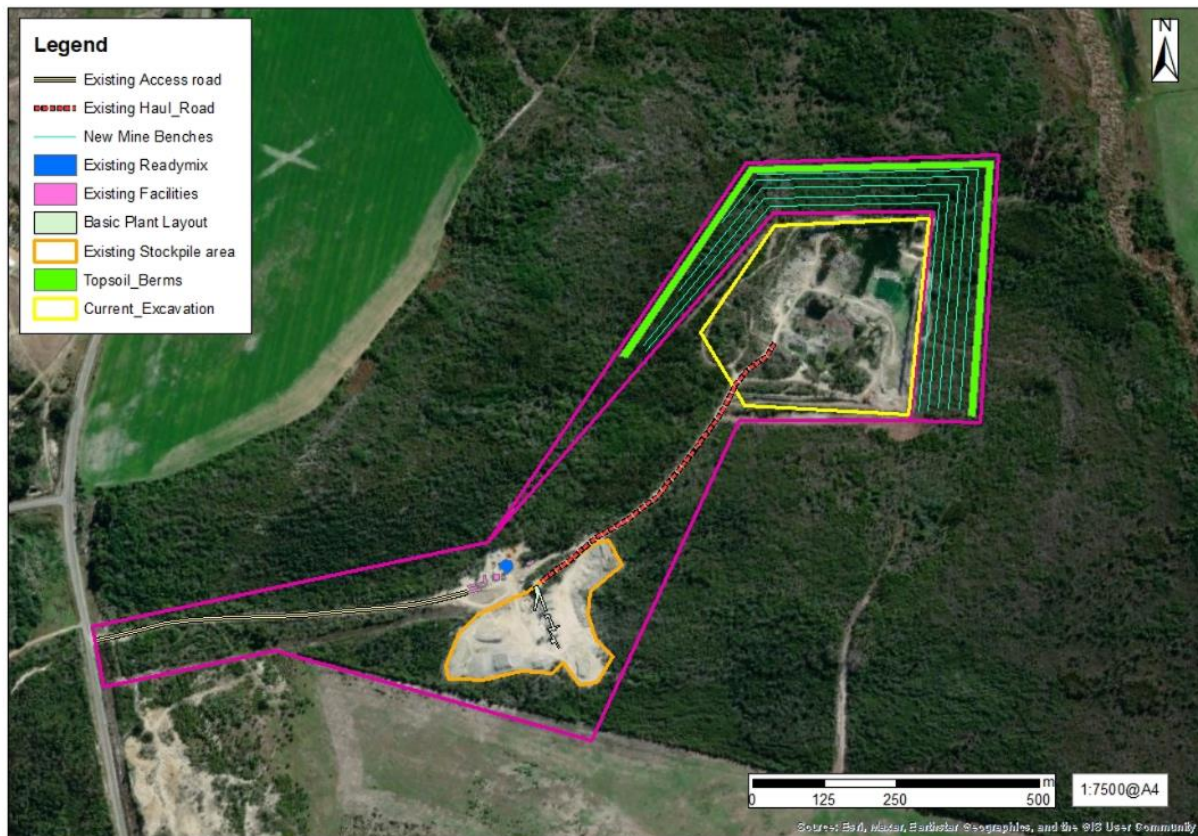


Figure 2: Mine Plan

## 2) Screening tool classification of the site

The screening tool report for the application classified the site sensitivity against the environmental elements as follows:

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme		X		
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme			X	
Paleontology Theme		X		
Plant Species Theme	X			
Terrestrial Biodiversity Theme	X			



Furthermore, the Screening Tool Report identifies the following specialist studies needed for the development:

No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf</a>
2	Landscape/Visual Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
3	Archaeological and Cultural Heritage Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
4	Palaeontology Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
5	Terrestrial Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf</a>
6	Aquatic Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf</a>
7	Hydrology	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols</a>

	Assessment	<a href="#">/Gazetted General Requirement Assessment Protocols.pdf</a>
8	Noise Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted%20Noise%20Impacts%20Assessment%20Protocol.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Noise Impacts Assessment Protocol.pdf</a>
9	Radioactivity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
10	Traffic Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
11	Geotechnical Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
12	Climate Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
13	Health Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
14	Socio-Economic Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
15	Ambient Air Quality Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
16	Seismicity Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf</a>
17	Plant Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Plant Species Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Plant Species Assessment Protocols.pdf</a>
18	Animal Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Animal Species Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Animal Species Assessment Protocols.pdf</a>

### 3) Site visit by Environmental Specialist to assess site against screening tool reporting and need for specialist site sensitivities of environmental elements at this stage

The EAP Mr Siphumelelo Mbali, who has been part of management and leader of more than 25 EA applications and Environmental Audit Reports as an EAP, visited the site in 27 August 2022 to assess the screening tool assessment in relation to what the site has been used for with consideration of what Afrimat intends to use the site for which is extension of its Mining Right.

The following photos (overleaf) shows the site condition as per the 27 August 2022 site visit:





**Photo 1: Showing existing quarry excavation in relation to extension area in the background**



**Photo 2: Standing on the eastern side of the quarry excavation looking south**



**Photo 3: Standing on the eastern side of the quarry excavation looking north**



**Photo 4: Showing status vegetation on the extension area being highly infested with Port Jackson**



**Photo 5: Standing on the eastern side of the quarry excavation looking west showing current excavation**



**Photo 6: Standing on the southern side of the quarry excavation looking east further alien plant infestation**



#### 4) Discussion in relation to Site Verification report and reporting as per standard procedure

This Site Sensitivity Report is intended to determine if the Screening Tool designation is consistent with what is found on site i.e ground-truthing. Such ground-truthing will then ensure that reasonable considerations are taken before excessive costs are incurred by relevant applicants. For instance, excessive cost may be able to be afforded by larger companies but for small start-up applicants these costs may be too much and close the mining industry up.

Nonetheless, the EAP appreciates that these Regulations and Protocols are in place to ensure especially the mining companies do not cause catastrophic environmental disasters and they must be respected.

Consequently, this report informs the I&APs on the Screening Tool Report request for identified specialists reports and subsequent protocols as follows:

Identified specialist report	EAP comment
Agricultural Impact Assessment	The area identified for extension is highly infested with alien plants (especially Port Jackson). Furthermore, no agricultural activities are taking place and thus no agricultural impact assessment appears warranted.
Landscape/Visual Impact Assessment	Visual impact is likely to be minimal as this site is highly infested with alien plants which then effectively acts as a visual screening tool. Nonetheless, at such distances and proposed mitigation measures no specialist report is needed for this impact.
Archaeological and Cultural Heritage Impact Assessment and Palaeontology Impact Assessment	Archaeological and Cultural Heritage Impact Assessment is rated as low by the screening tool and no specialist report is warranted for this theme.
Terrestrial Biodiversity Impact Assessment	Terrestrial Biodiversity may be impacted by the extension of the Mining Right area, but the area is highly infested. Consequently, the Aquatic Biodiversity Impact Assessment as per below may suffice to address Terrestrial Biodiversity impacts.
Aquatic Biodiversity Impact Assessment	As the extension area is classified a Aquatic Biodiversity CBA, a specialist report to assess Aquatic Biodiversity impact at Draft EIA-EMP will be undertaken.
Hydrology Assessment	Matters of hydrology impact will also be addressed by Aquatic Biodiversity Impact study.
Noise Impact Assessment	The site is in a rather remote area relative to surrounding land uses and thus noise is not likely to be a significant impact. Nonetheless, the EMP proposes noise mitigation measures.
Radioactivity Impact Assessment	There is no aspect that would cause significant impacts on radioactive perspective to warrant a specialist protocol report.
Traffic Impact Assessment	This is an already existing site and thus traffic impact will remain the same and a new traffic impact study is not warranted.
Geotechnical Assessment	The site is remote and blasting is not likely to have significant impacts and Afrimat is experienced in blasting. Furthermore, at the operating quarry no blasting impact complaints have been received at the current quarry.
Climate Impact Assessment	Climate impact cannot be determined to be significant on this partly excavated site and the small scale of the extension area does not warrant climate impact.
Health Impact Assessment	The proposed activities are similar to the already operational mine. Consequently, Afrimat knows how to manage effectively and comply with all regulations. The same will be applied for the extension area.

Socio-Economic Assessment	This aspect will be address in the reporting with I&AP commenting throughout the process.
Ambient Air Quality Impact Assessment	The extension is for an existing Mining Excavation area. Therefore, there is no need for specialist impact assessment for this aspect.
Seismicity Assessment	The proposed activities of development and depth of development do not pose a significant seismic risk.
Plant Species Assessment	As the EAP visited the site and noted the heavy infestation of alien plants, to have a specialist vegetation at this point is not warranted. As a mitigation measure, a pre-mining search and rescue appears to be the plausible option unless the I&APs can provide more critical information to warrant plant impact assessment.
Animal Species Assessment	The Screening Tool Report had identified animal assessment impact as being potentially significant (high). The EAP visited the site and walked all over the proposed excavation area and did not find any birds nests or excessive animal burrows. Therefore, with the vast same type of vegetation and landscape, a simple chase and rescue operation before works commence in a particular area should be adequate to limit impact on animal species impact.

### **5) Recommendation and conclusions on compliance statements for identified environmental themes**

Environmental themes reporting have an important role in decision making, the applicability of having such report/s must be assessed on a site specific and case by case instance with reasonable considerations of prevailing site conditions.

At the present moment, with the information that the EAP has, the EAP believes Aquatic Biodiversity Impact Assessment would be the appropriate specialist report to be undertaken during the application as the site is highly infested with alien plants and other specialist may be only an academic exercise. Nonetheless, should I&AP raise pertinent matters needing further specialist engagement, then such specialist inputs will be considered.