



Application Reference : Gaut 002/24-25/E0003

PROPOSED DEVELOPMENT OF A NEW MALTING PLANT IN SEDIBENG DISTRICT MUNICIPALITY

APPENDIX I – Other Information

Appendix I(a): Site Sensitivity Verification Report



REPORT

Site Sensitivity Verification (SSV) Report-Proposed Development of a New Malting Plant in the Sedibeng District Municipality, Gauteng Province

SSV Report

Client: Soufflet Malt South Africa

Reference: MD6264-RHD-XX-XX-RP-X-0001

Status: Draft/01

Date: 29 July 2024

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Document title: Site Sensitivity Verification (SSV) Report-Proposed Development of a New Malting Plant in the Sedibeng District Municipality, Gauteng Province

Subtitle: SSV Report

Reference: MD6264-RHD-XX-XX-RP-X-0001

Your reference

Status: Draft/01

Date: 29 July 2024

Project name: Proposed Development of a New Malting Plant in the Sedibeng District Municipality, Gauteng Province

Project number: MD6264

Author(s): Seshni Govender

Drafted by: Seshni Govender

Checked by: Prashika Reddy

Date: 23-07-2024

Approved by: Prashika Reddy

Date: 23-07-2024

Classification

Project related

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1 Introduction

Government Notice No. 320, dated 20 March 2020, includes the requirement for a Site Sensitivity Verification (SSV) exercise to be undertaken by either an Environmental Assessment Practitioner (EAP) of a specialist to confirm the current use of the land and the environmental sensitivity of the site under consideration identified by the National Web-based Environmental Screening Tool (EST).

The SSV must be undertaken through the use of:

- A desktop analysis, using satellite imagery;
- A preliminary on-site inspection; and
- Any other available and relevant information.

The outcome of the SSV is recorded in the form of this report that-

- Confirms or disputes the current use of the land and the environmental sensitivity as identified by the EST, such as new development or infrastructure, the change in vegetation cover or status etc.;
- Contains a motivation and evidence of either the verified or different use of the land and environmental sensitivity; and
- Is submitted together with the relevant reports prepared in accordance with the requirements of the Environmental Impact Assessment (EIA) Regulations.

2 National Web-based Environmental Screening Tool

An EST Report for the proposed Project was generated on 23 January 2024 (**Appendix A**) to determine the current use of the land and the environmental sensitivity of the site under consideration. Table 3-2 confirms or disputes the current use of the land and the sensitivity and contains a motivation of either the verified or different use of the land.

3 Specialist Input into the SSV Exercise

Table 3-1: Specialist input into the SSV

Theme	Assessment	Specialist Details
Air Quality	Air Quality and Climate Change Assessment	Airshed Planning Professionals
Aquatic Biodiversity Theme	Aquatic Biodiversity Compliance Statement	Scientific Aquatic Services
Archaeological and Cultural Heritage and Palaeontology	Heritage Impact Assessment	PGS Heritage
Geohydrology and Hydrology	Geohydrological Impact Assessment Hydrological Impact Assessment	GCS Water & Environmental Consultants
Noise	Noise Impact Assessment	Enviro Acoustic Research
Socio-economic	Socio-Economic Impact Assessment	Eco Thunder Consulting
Traffic	Traffic Impact Assessment	Royal HaskoningDHV

Table 3-2: Current use of the land and the sensitivity in terms of the EST and SSV

Theme	Assessment Protocol	Sensitivity - EST	Sensitivity – EAP/Specialist	Motivation
Agriculture	Protocol for the Specialist Assessment and Minimum Report Content Requirements of Environmental Impacts on Agricultural Resources (GN 320 of 20 March 2020)	High	Low	<p>The Project is located within an urban area within the Graceview Industrial Park. The Project is within Zone 5 (<i>Industrial and Commercial Focus Zone</i>) of the Gauteng Province Environmental Management Framework and therefore the development of the Malt Plant will not have an unacceptable negative impact on the agricultural production capability of the Project study area as the land is currently not being used for agricultural activities.</p> <p>No further assessment is being conducted for the Agricultural Theme.</p>
Animal Species	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal Species (GN 1150 of 2020 of 30 October 2020)	Medium	Low	<p>The EST has indicated that a small portion of the western section as Medium due to the possible presence of <i>Mammalia-Hydrictis maculicollis</i> (spotted-necked otter) with the majority of the site has been classified as a Low sensitivity. The Project is located in an urban area within the Graceview Industrial Park and the likeliness of the <i>Hydrictis maculicollis</i> being present on site is considered unlikely due to the transformed nature of the site and with the closest riparian habitat located approximately ~1 km away from the site separated by an access road bordering the Kliprivier Business Park and Graceview Industrial Park.</p> <p>No further assessment is being conducted for the Animal Species Theme.</p>
Aquatic Biodiversity	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Aquatic Biodiversity (GN 320 of 20 March 2020)	Low	Low	<p>The designation of Low sensitivity by the EST is supported and not disputed. The site visit confirmed that no freshwater ecosystems occur within the study or associated investigation area, which motivates the consideration of classifying the area as being of a “low” sensitivity within the context of this development.</p>

Theme	Assessment Protocol	Sensitivity - EST	Sensitivity – EAP/Specialist	Motivation
				An Aquatic Biodiversity Compliance Statement has been undertaken for the Project.
Archaeological and Cultural Heritage	Site Sensitivity Verification Requirements where a Specialist Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)	Low	Low	<p>According to the EST, the Project area mostly has a Low heritage sensitivity, while the northern section intersects a Provincial Heritage Site (Klip River Quarry) giving it a High heritage sensitivity rating. The fieldwork has shown that no archaeological and heritage resources were present in the area and thus the original screening rating is supported.</p> <p>A Heritage Impact Assessment has been undertaken for the Project to comply with the NHRA.</p>
Civil Aviation Theme	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Civil Aviation Installations (GN 320 of 20 March 2020)	High	Low	<p>The EST indicates the site is within 8km of other civil aviation aerodrome and dangerous and restricted airspace, the airfield identified within this radius is the Klipriver Airfield located ~ 6km south east of the site. The Panorama Airfield and the Johannesburg Flying Academy are located ~11km north and the Tedderfield Air Park is located ~13km northwest from the site.</p> <p>There will be no impact on the communication systems, navigation, or surveillance systems due to the distance and the elevation of the proposed development from any of the ATNS facilities.</p> <p>Comments will be requested from the ATNS, however, no assessment will be conducted for the CAA Theme.</p>
Defence Theme	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Defence Installations (GN 320 of 20 March 2020)	Low	Low	<p>There are no defence installations in close proximity to the sites.</p> <p>No assessment will be conducted for the Defence Theme.</p>
Palaeontology	Site Sensitivity Verification Requirements where a Specialist	Very High	Low	The EST has indicated the site as very high sensitivity. However, no fossiliferous outcrops were detected in the field

Theme	Assessment Protocol	Sensitivity - EST	Sensitivity – EAP/Specialist	Motivation
	Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)			survey of 13 June 2024, therefore the sensitivity is contested, and is indicated as Low by the Palaeontological Specialist. A Palaeontological Impact Assessment has been conducted for the Project to comply with the NHRA.
Plant Species	Protocol for the Specialist Assessment and Minimum Report content requirements for Environmental Impacts on Terrestrial Plant Species (GN 1150 of 2020 of 30 October 2020)	Low	Low	The site has been classified as a Low sensitivity, the Project is located in an urban area within the Graceview Industrial Park. No further assessment will be conducted for the Plant Species Theme.
Terrestrial Biodiversity	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (GN 320 of 20 March 2020)	Low	Low	The site has been classified as a Low sensitivity, the Project is located in an urban area within the Graceview Industrial Park. No further assessment will be conducted for the Terrestrial Biodiversity Theme.
Specialist studies identified in the EST but no sensitivity defined				
Air Quality	Site Sensitivity Verification Requirements where a Specialist Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)	No Status	Low	The main findings from the air quality impact assessment are: <ul style="list-style-type: none"> Ambient air quality data from the Kliprivier AQMS shows compliance with short-term SO₂, NO₂ and CO standards, although short-term peak concentrations can occur. Daily PM₁₀ and PM_{2.5} concentrations as well as 8-hour rolling average O₃ concentrations were in non-compliance with the NAAQS. Emissions quantification and dispersion modelling show that the new malting plant does not result in a substantive concentrations of criteria air pollutants (SO₂, NO₂, CO, VOCs, PM₁₀, and PM_{2.5}). Increased odour impacts are possible at receptors located towards the south and south-west of the facility, but the quantum of the impacts are likely to be overestimated by the assessment.

Theme	Assessment Protocol	Sensitivity - EST	Sensitivity – EAP/Specialist	Motivation
				<p>It is the opinion of the Air Quality specialist that the Project, with effective mitigation measures implemented and corrective action taken when necessary, has a low impact on ambient air quality beyond the property boundary. Regular maintenance of control equipment and continued monitoring of sources (including all baghouses and kilns) is recommended along with periodic ambient monitoring.</p> <p>An Air Quality Assessment has been undertaken for the Project.</p>
Climate Change	<p>Site Sensitivity Verification Requirements where a Specialist Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)</p>		Low - Moderate	<p>Based on the information available at the conceptual phase of design, Scope 1 emissions for the Project construction would be 2 645 t CO₂e (mostly due to fuel use of 473 t CO₂e per annum). In the operational phase, Scope 1 emissions over the Project lifetime amount to 950 102 t CO₂e (19 002 t CO₂e per annum) due to gas combustion in the combined heat and power genset (CHP). This was calculated to represent a maximum 0.0054% of the remaining South African annual GHG budget. The site clearance and replacement with permanent infrastructure would potentially result in a reduction in the National grassland carbon sink by 0.002%.</p> <p>The proposed Project is rated to have a low impact significance since Scope 1 GHG emissions during the operational phase will not exceed the 25 Gg CO₂-e per year threshold.</p> <p>It is the opinion of the Climate Change specialist that the Project has a low to moderate impact on climate change in respect of the remaining National budget and therefore its approval is supported.</p> <p>A Climate Change Assessment has been undertaken for the Project.</p>

Theme	Assessment Protocol	Sensitivity - EST	Sensitivity – EAP/Specialist	Motivation
Geohydrology	Site Sensitivity Verification Requirements where a Specialist Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)		Low	<p>This geohydrological assessment is required to evaluate the geohydrological risk associated with the proposed new malt plant and groundwater abstraction activities.</p> <p>The proposed Project is considered a “clean” operation, as it will entail the likely abstraction of groundwater, processing of malt and storage of temporary wastewater on site. The only risk would be if there are leakages or spillages associated with the proposed on-site wastewater treatment plant.</p> <p>The proposed activities pose a low risk to the geohydrological environment.</p> <p>A Geohydrological Assessment has been undertaken for the Project.</p> <p>This study will also be used in support of the Water Use Licence Application process as per the National Water Act, 1998 (Act No. 36 of 1998) as amended.</p>
Hydrology	Site Sensitivity Verification Requirements where a Specialist Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)		Low	<p>This hydrology assessment report was requested to evaluate the surface water drainage, stormwater and flooding risks associated with the Project area and proposed activities.</p> <p>The proposed activities associated with the new malt plant pose a low risk to the hydrological environment. The site itself is devoid of any recognised drainage lines or rivers/streams and free flow from overland drainage from the site towards the R59 is noted.</p> <p>A Hydrological Assessment has been undertaken for the Project.</p> <p>This study will also be used in support of the Water Use Licence Application process as per the National Water Act, 1998 (Act No. 36 of 1998) as amended.</p>

Theme	Assessment Protocol	Sensitivity - EST	Sensitivity – EAP/Specialist	Motivation
Noise	Protocol for Specialist Assessment and Minimum Report Content Requirements for Noise Impacts (GN 320 of 20 March 2020)		Very High	<p>The potential noise sensitive areas layer is not included in the EST report generated for the activity, but was obtained from the <i>Utilities Infrastructure => Electricity => Generation => Renewable => Wind</i> category, with the noise sensitive areas considered to have a very high sensitivity which was also confirmed during the site visit that identified and confirmed various residential activities within the potential area of influence from the Project activities.</p> <p>An Environmental Noise Impact Assessment has been conducted for the Project.</p>
Socio-Economic	Site Sensitivity Verification Requirements where a Specialist Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)		Low	<p>The SEIA has identified potential challenges and provided robust mitigation strategies to address them, ensuring that the Project aligns with South Africa's broader developmental goals. With the implementation of the recommended measures, there are no socio-economic objections to the development proceeding, and no fatal flaws have been identified.</p> <p>A Socio-Economic Impact Assessment has been conducted for the Project.</p>
Traffic	Site Sensitivity Verification Requirements where a Specialist Assessment is required but no Specific Assessment Protocol has been prescribed (GN 320 of 20 March 2020)		Low	<p>A Traffic assessment was compiled to determine the road network and access requirements to adequately serve the total development site. The analysis indicated that all the intersections are currently operating at acceptable levels.</p> <p>A Traffic Impact Assessment has been conducted for the Project.</p>

In summary the following specialist assessments have been undertaken for the Project:

- Air Quality and Climate Change Impact Assessment
- Aquatic Biodiversity Compliance Statement
- Geohydrological Impact Assessment
- Heritage Impact Assessment
- Hydrological Impact Assessment
- Palaeontological Impact Assessment
- Environmental Noise Impact Assessment
- Socio-Economic Impact Assessment
- Traffic Impact Assessment

Report compiled by Seshni Govender (Registered EAP) and the various specialist team members.

Seshni Govender
Registered EAP

Appendix A

DFFE Environmental Screening Tool

**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS
REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE
ENVIRONMENTAL SENSITIVITY**

EIA Reference number: TBD

Project name: New Malt Plant - Sedibeng

Project title: New Malt Plant - Sedibeng

Date screening report generated: 23/01/2024 11:10:06

Applicant: Malteries Soufflet

Compiler: RHDHV

Compiler signature:
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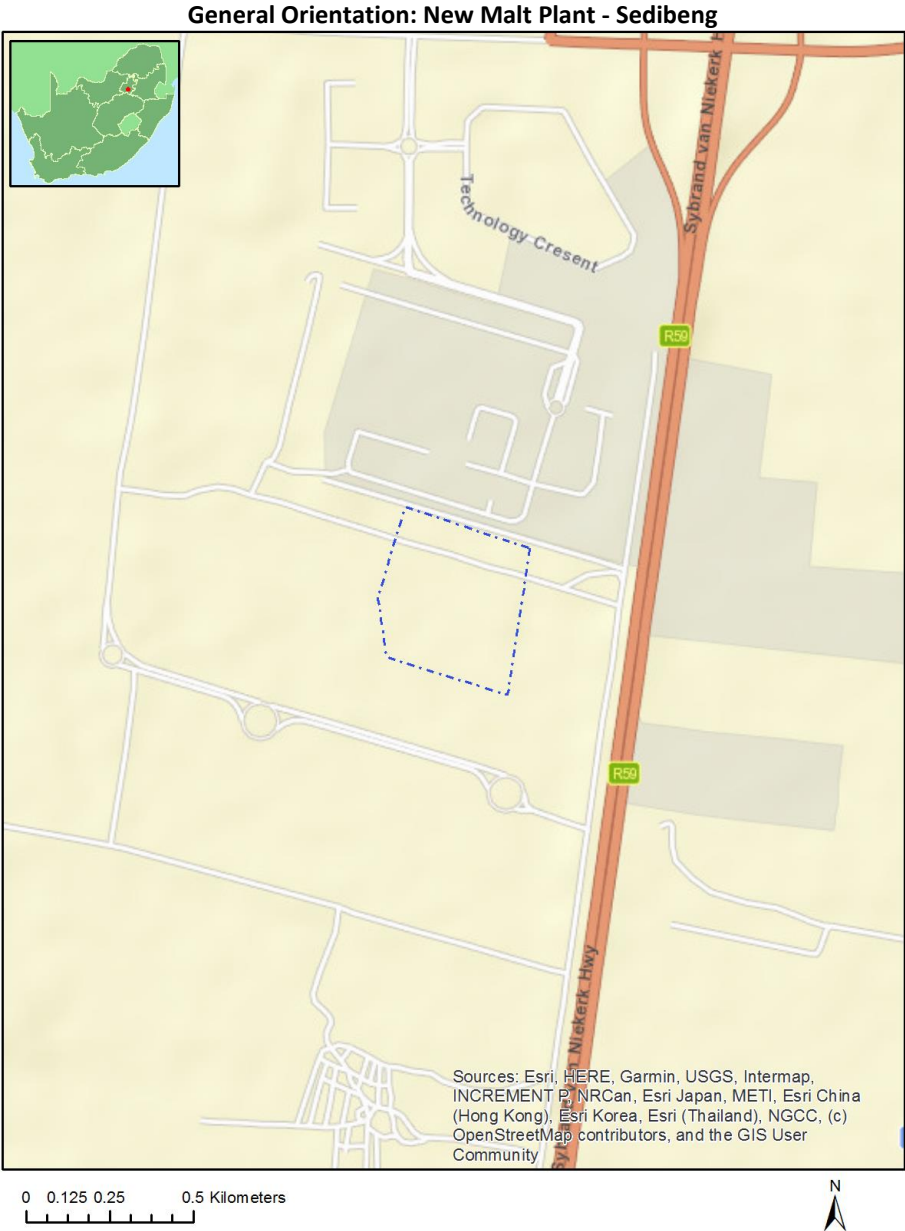
Application Category: Activity requiring permit or licence in terms of National or Provincial legislation governing the release or generation of emissions | Emissions

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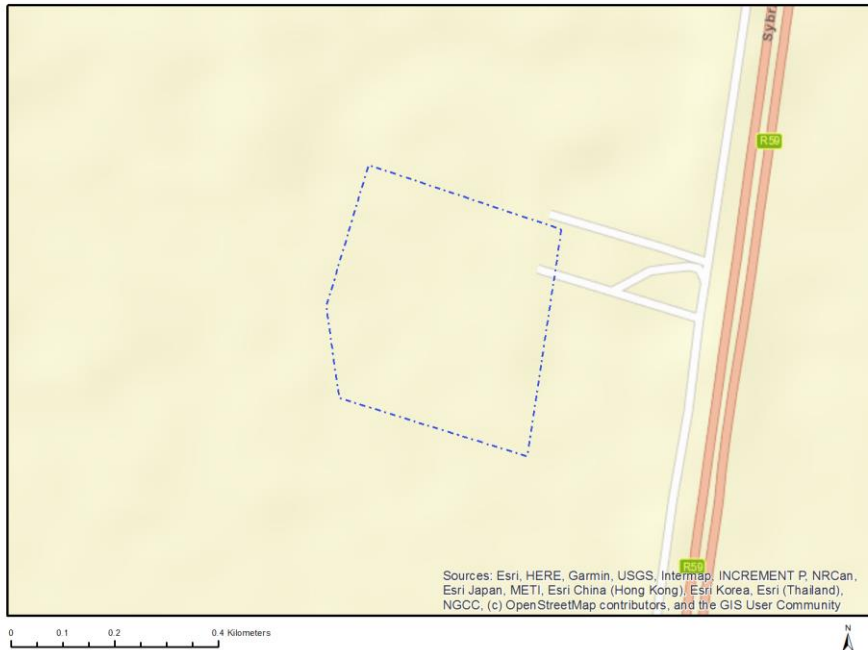
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Proposed Project Location

Orientation map 1: General location



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	GRACEVIEW	244	0	26°25'51.97S	28°4'7.29E	Erven
2	GRACEVIEW	244	5	26°25'54.83S	28°4'23.77E	Erven
3	GRACEVIEW	243	0	26°25'32.94S	28°4'12.8E	Erven
4	WATERVAL	150	0	26°25'42.4S	28°5'24.34E	Farm
5	WATERVAL	150	83	26°25'31.16S	28°4'8.96E	Farm Portion
6	WATERVAL	150	100	26°25'51.79S	28°4'4.38E	Farm Portion

Development footprint¹ vertices:

No development footprint(s) specified.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	14/12/16/3/3/2/375/AM1	Solar PV	Approved	17.6
2	12/12/20/2530	Solar PV	Approved	23.3

¹ “development footprint”, means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

3	14/12/16/3/3/2/825	Solar PV	Approved	0.8
4	12/12/20/2551	Solar PV	Approved	23.3
5	14/12/16/3/3/1/569	Solar PV	Approved	23
6	002/15-16/E0152	Solar PV	Approved	16.5

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Gauteng EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/GPEMF_2021_Gazette_and_summary.pdf

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

Activity requiring permit or licence in terms of National or Provincial legislation governing the release or generation of emissions | Emissions.

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Central corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf
Air Quality-Vaal Triangle Airshed Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Final_VTAPA_AQMP_20090408_-15_April_2009.pdf
Strategic Gas Pipeline Corridors-Phase 3: Richards Bay to Gauteng	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf
Gauteng EMF-Industrial and large commercial focus zone 5	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Zone5_2021.pdf

Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

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

Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

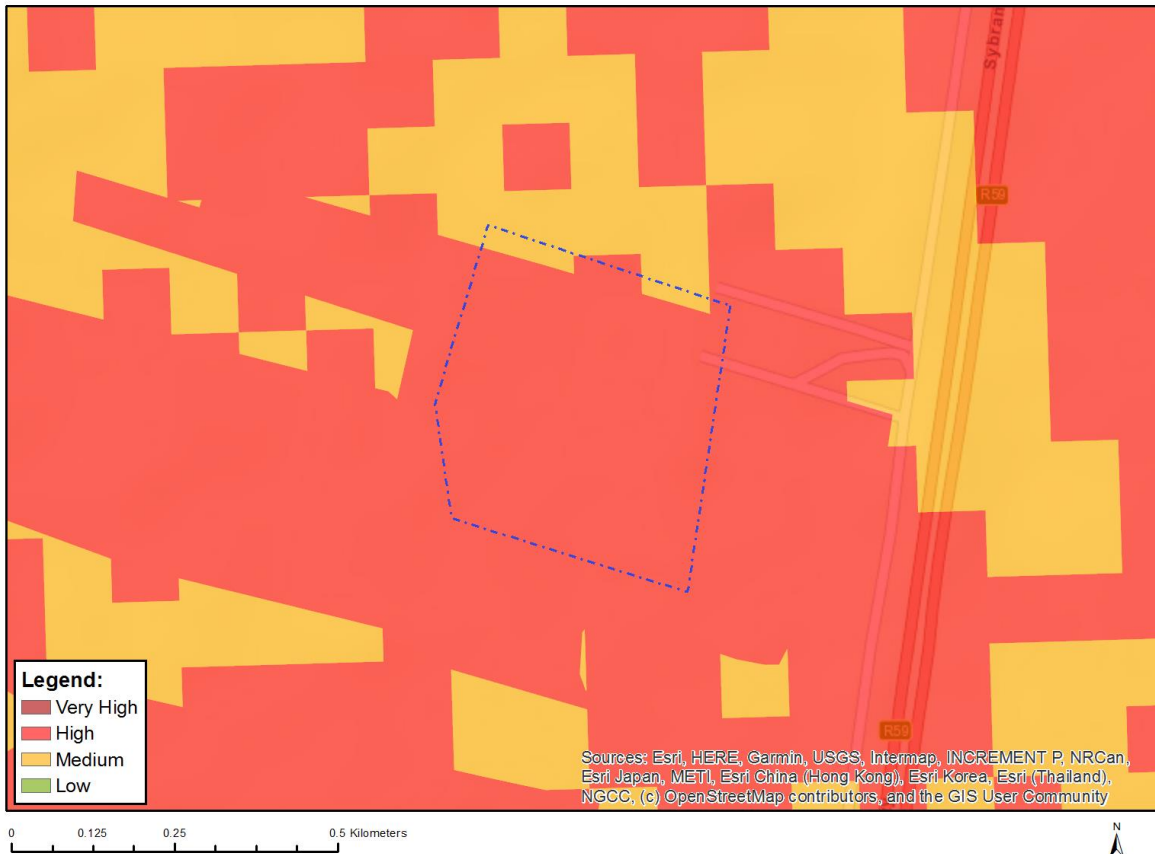
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Archaeological and	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Archaeological_Assessment_Protocols.pdf

	Cultural Heritage Impact Assessment	ssmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
5	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Terrestrial Biodiversity Assessment Protocols.pdf
6	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Aquatic Biodiversity Assessment Protocols.pdf
7	Hydrology Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
8	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Noise Impacts Assessment Protocol.pdf
9	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
10	Health Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
11	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
12	Ambient Air Quality Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
13	Air Quality Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
14	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Plant Species Assessment Protocols.pdf
15	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Animal Species Assessment Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

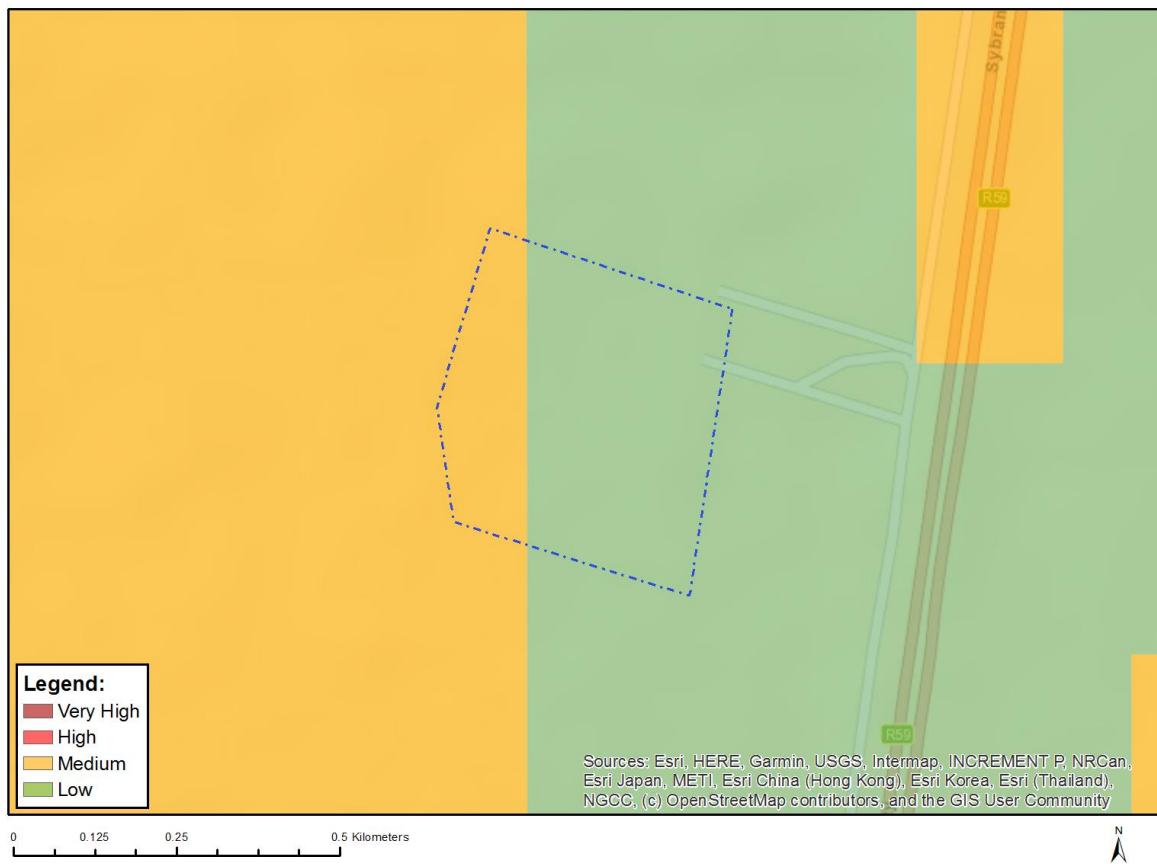


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Subject to confirmation
Medium	Mammalia-Hydriectis maculicollis

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

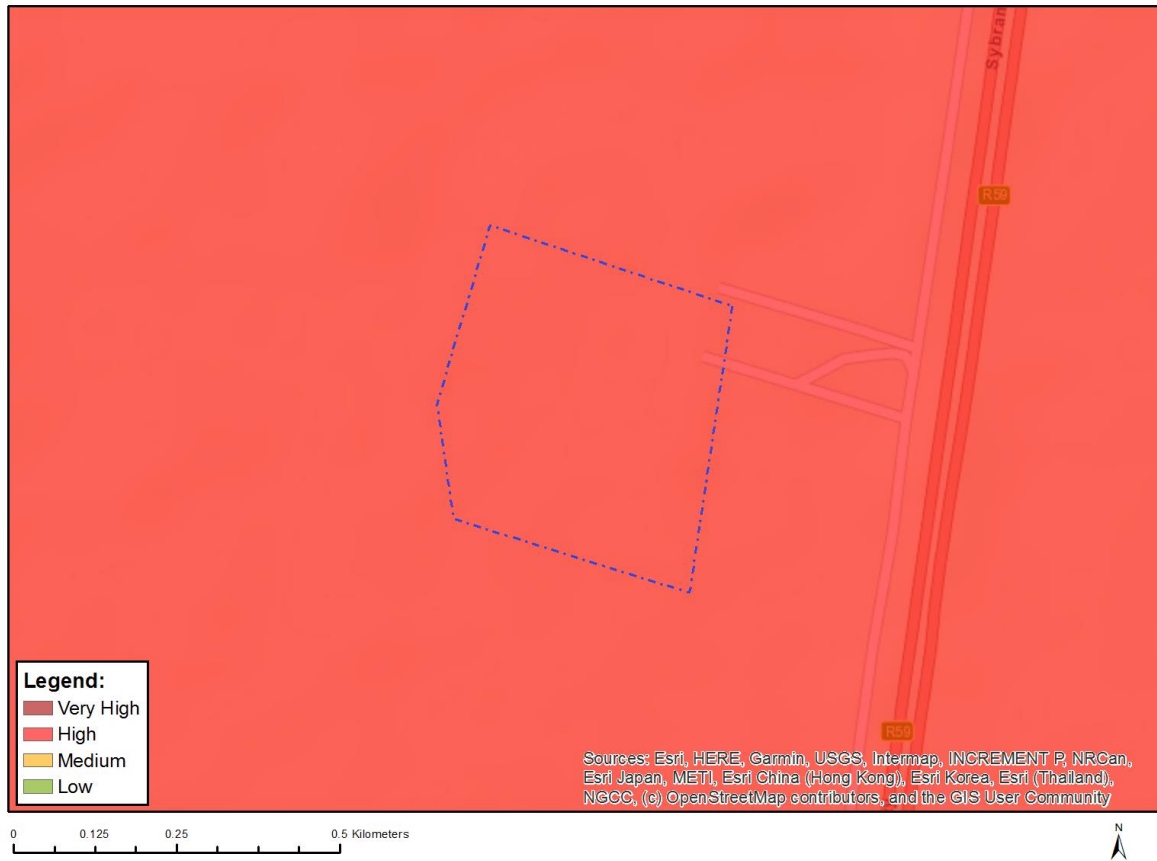


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Within 2km of a Grade II Heritage site

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
High	Dangerous and restricted airspace as demarcated
Medium	Between 15 and 35 km from a civil aviation radar

MAP OF RELATIVE DEFENCE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

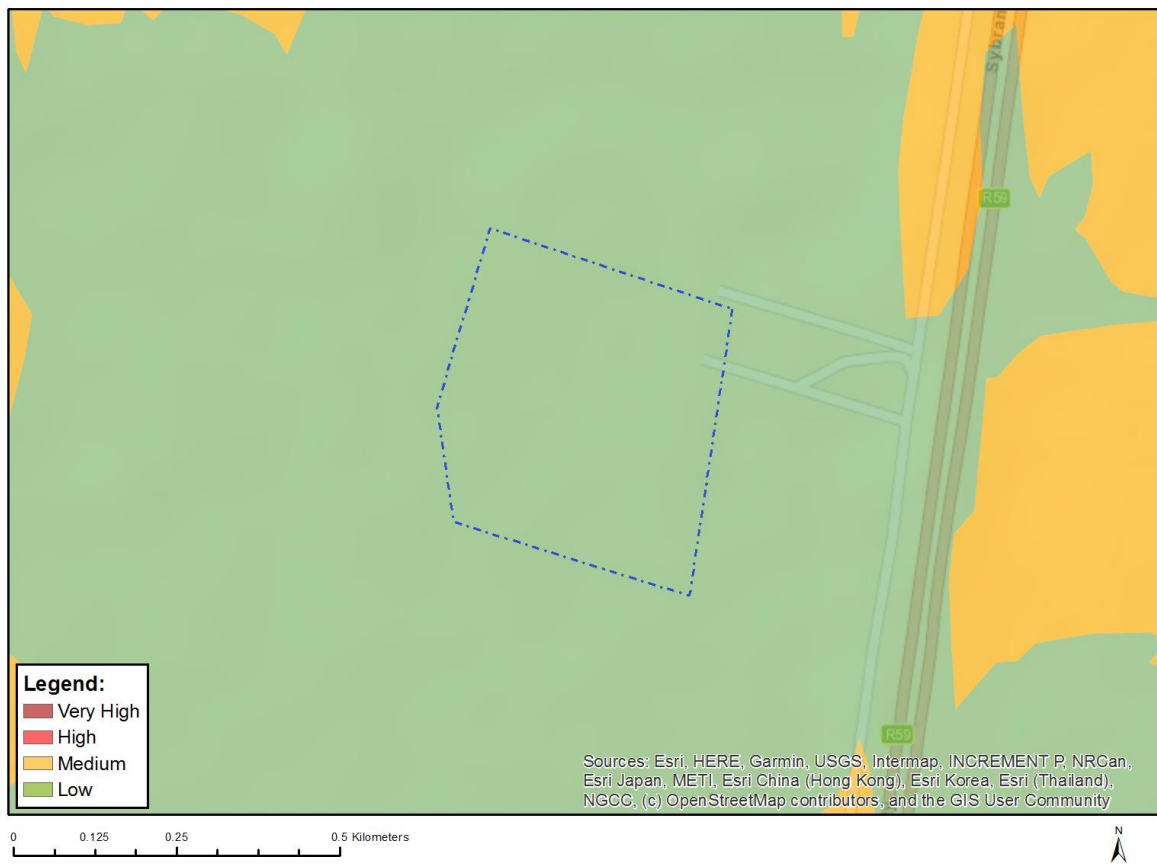


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Features with a Very High paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



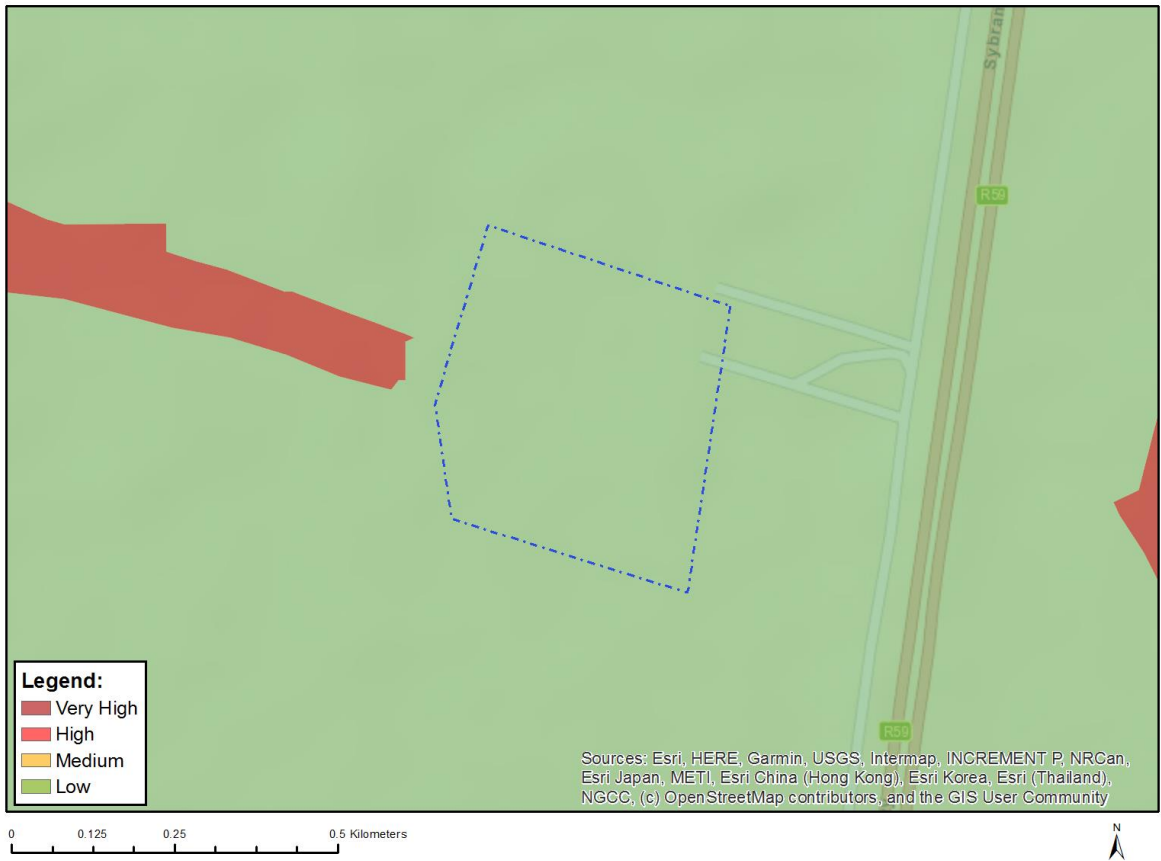
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Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

Royal HaskoningDHV is an independent consultancy which integrates 140 years of engineering expertise with digital technologies and software solutions. As consulting engineers, we care deeply about our people, our clients and society at large. Through our mission Enhancing Society Together, we take responsibility for having a positive impact on the world. We constantly challenge ourselves and others to develop sustainable solutions to local and global issues related to the built environment and the industry.

Change is happening. And it's happening fast – from climate and digital transformation to customer demands and hybrid working. The speed and extent of these changes create complex challenges which cannot be addressed in isolation. New perspectives are needed to accommodate the broader societal and technological picture and meet the needs of our ever-changing world.

Backed by the expertise of over 6,000 colleagues working from offices in more than 20 countries across the world, we are helping organisations to turn these challenges into opportunities and make the transition to smart and sustainable operations. We do this by seamlessly integrating engineering and design knowledge, consulting skills, software and technology to deliver more added value for our clients and their asset lifecycle.

We act with integrity and transparency, holding ourselves to the highest standards of environmental and social governance. We are diverse and inclusive. We will not compromise the safety or well-being of our team or communities – no matter the circumstances.

We actively collaborate with clients from public and private sectors, partners and stakeholders in projects and initiatives. Our actions, big and small, are driving the positive change the world needs, and are enhancing society now and for the future.

Our head office is in the Netherlands, and we have offices across Europe, Asia, Africa, Australia and the Americas.

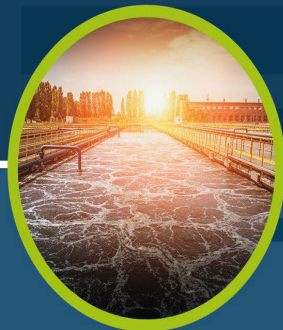


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 Regional Office Locations


**Royal
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Enhancing Society Together

Appendix I(b): Non Technical Summary Afrikaans



REPORT

Nie-tegniese opsomming: Omgewings en Sosiale Impak Studie vir die voorgestelde Mout Aaleg Ontwikkeling naby Sedibeng Brouery, Gauteng Provinsie (Ref Gaut 002/24- 25/E0003)

Nie-tegniese Opsomming

Client: Soufflet Malt
Reference: MD6264-RHD-XX-XX-RP-X-0001
Status: Final/01
Date: 20 September 2024



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1. Inleiding

Soufflet Malt South Africa (Pty) Ltd, n filiaal van die Soufflet Group, het finansiering verkry van die International Finance Corporation (IFC) vir die vestiging van 'n mout aanleg en geassosieerde infrastruktuur ("the Project"). Die projek is suid van die Heineken Sedibeng Brouery geleë, in die Graceview Industriële deel (Erf 244 Graceview) en is 'n groen strook area (omtrek 10ha) in die Sedibeng district – en Midvaal Plasslike Munisipaliteit – MLM (Figuur 1).

Die Projek word beoog as 'n belangrike vervanging en verbetering van garsprodukte in die landbou-sektor in Suid Afrika. Die bier sektor in Suid Afrika dra by in om en by 1 in elke 66 werksgeleenthede in die land, met die voorsienings-ketting wat boere, verpakkingsvervaardigers, brouerge, verspreiders en kleinhandelaars insluit. Daar word verwag dat die Projek vir so jaar operasioneel sal wees met 'n jaarlikse kapasiteit van 100 kiloton (KT) per jaar in Fase 1 en 135KT per jaar in Fase 2 vir die plaaslike mark.

Soufflet Malt South Africa het Royal HaskoningDHV aangestel om onafhaklike omgewingsimpak Praktisynsdienste te voorsien vir die Projek. Daarmee saam, word Royal HaskoningDHV bygestaan deur die volgende spesialiste:

- Varswater;
- Geraas;
- Geohidrologie en Hidrologie;
- Sosio-ekonomies;
- Lugkwaliteit en Klimaatsverandering;
- Erfenis en Paleontologie; en
- Verkeer.

Hierdie nie-tegniese opsomming voorsien:

- 'n Beskrywing en Motivering vir die Projek;
- 'n Beskrywing van die Omgewingswetgewing;
- 'n Beskrywing van die moontlik belangrike impak van die Projek op die omgewing en sosiale omgewing insluitende die belanghebbende betrokkenheid tot op datum onderneem; en
- Maatreëls voorgestel om moontlik ernstige nadelige gevolge in die omgewing te vermy en verminder..

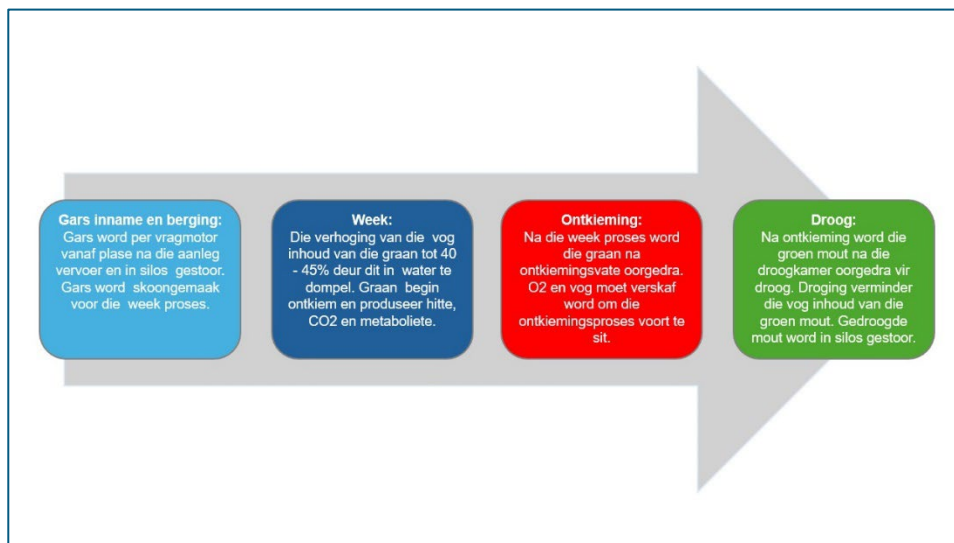
2. Beskrywing

Die mout produksieproses word geïllustreer in figuur 2 en behels die volgende:

- Gars inname en berging.
- Weeking: Inisiasie van groei deur geforseerde deur geforseerde graan hidrasie.
- Ontkieming; Beheerde groei van die gars om die endosperm wysiging te fasiliteer.
- Verdroging: Die beëindiging van graan groei om die ontrekkingspotensiaal te stabiliseer deur graan dehidrasie.
- Distribusie: Die gedroogte mout word versend na die Heineken Sedibeng Brouery deur middel van 'n vervoerband stelsel..



Figuur 1: Ligingskaart (insluitend projekuitleg)



Figuur 2 : Mout Proses

Die sleutelkomponente van die Projek word beskryf in Tabel 1.

Tabel 1: Projek Komponente

Komponent	Beskrywing
Werksgebou	Die proses van garsinname, skoonmaak en gradering en mout vermenging, skoonmaak en grootmaat verskeping neem in die gebou plaas.
Mout geboue / Infrastruktuur	Gars bergingsilos; Weekings gebou; Ontkiemingshouers; Oonde; Mout bergingsilos; Vervoer na die Heineken Sedibeng Brouery.
Energie sisteem	<ul style="list-style-type: none"> ▪ Kapasiteit van die CHP (insluitend die rugsteur stelsel) – 8 Megawatt (MW) hitte energie, 4MW verkoelingsenergie en hitte uitruilers. ▪ 70 gigawatt per uur (gwh) gas vir die CHP sal gebruik word. Ongeveer 70 gwh gas sal per jaar gebruik word. ▪ Ketekapasiteit (rugsteur) – 2 x 6 MW vloeibare natuurlike gas (LNG) as 'n brandstof bron. ▪ Die Solar PV Projek sal nie deel wees van die projek omvang nie maar in die toekoms heroorweeg.
Waterberging	<ul style="list-style-type: none"> ▪ Die moutproses verbruik groot volume water daaglik. Die verwagte waterverbruik vir die huidige mandate is gebaseer op die proses massa energie balans sigblad wat projekteer op 1000m³/dag piek lading. ▪ Water sal voorsien word deur of die munisipaliteit en/of Rand Water, so wel as tweek boorgate met 'n gekombineerde kapasiteit van 300m³ per dag. ▪ Een varswater tenk van 1000m³ is beskikbaar vir berging. Hierdie volume sluit in 10% ekstra kapasiteit vir mout produksie gebruiksheefte vir 24 uur. ▪ Een prosesseringswatertenk van 1000m³ is beskikbaar vir water bergingsvolume. Hierdie volume sluit die opsie in vir 50% herwinne water..
Afvalwater berging en op perseel afvalwater bahndelingsaanleg (WWTP)	<p>Afvoer water sal direk in die ERWAT stelsel weggevoer word.</p> <ul style="list-style-type: none"> ▪ Behandeling van die volgende afvalwater strome: <ul style="list-style-type: none"> ○ Huishoudelike riool/afvalwater vanaf die Administratiewe gebou. ○ Industriële afvoerwater/afvalwater met die oorsprong vanaf die was en ontkiemingsproses tot 'n maksimum van 900m³/d. ○ Volume van afvalwater behandel per dag – 575m³ (Fase 1). ○ Op perseel WWTP 'n ontwerp kapasiteit van 575m³ (Fase 1) en 750m³ (Fase 2).

Komponent	Beskrywing
	<ul style="list-style-type: none"> ○ Beton tenk op die bodem van die weekingsgebou wat sal dien as grootmaat proses van afvalwater berging met 'n kapasiteit van 1000m³.
Ammoniak berging	Ongeveer 1.5 ton (2000m ³).
Bykomstige infrastruktuur	Administrasie gebou, Konstruksie neerleggingsarea, Interne Vervoer sisteem om graan te vervoer tussen die weekingsgebou, Ontkiemings houers, verdrogingsarea, Verpakking en chemise bergingsgeboue, Fuurpomp kamer hekhuis, weegbrug trokstasie area, afval/optel area, interne toegangspaaie en staf parking.

3. Projek Alternatiewe

Die alternatiewe wat in oorweging geneem is vir die Projek word in Tabel 2 bespreek.

Tabel 2: Projek Alternatiewe

Alternatiewe	Beskrywing
Voorstel (Verkies)	Ontwikkeling van 'n nuwe Groenveld mout aanleg met die verbruik van 'n CHP (insluitend 'n rugsteunstelsel) met 8MW hitte energie, 4MW verkoelingsenergie en 3MW elektriese krag deur die CHP aanleg, hitte pompe en hitte ruilers. Gas behoeftes vir die CHP lei tot ongeveer 150 000 Giga Joule (GJ).
Alternatief 1	Ontwikkeling van 'n nuwe Groenveld mout aanleg met die verbruik van die Eskom Infrastruktuur vir 65MW of elektriese krag en gasketels vir hitte geleideude opwekking. Gemiddelde gasverbruik van 300,000GJ.

4. Projek Motivering

Soufflet Groep, die wêreld se voorste mout produseerder, bedryf meer as 41 mout aanlegte wêreldwyd en is tans die grootse mouter in die wêreld. As gevolg van hierdie veelvuldige bekwaamheid, het die Soufflet Groep die kundigheid. Ontwikkel in prosesbestuur om 'n hoë kwaliteit mout te vervaardig en om energieverbruik te verbeter

Die belangrikste diesnte benodig by die mout aanleg is elektrisiteit, water, saamgeperste lug, vloeibare natuurlike gas (LNG), en verkoelings/verhittingstelsels. Elektriesiteit sal opgewerk word deur die Combined Heat and Power (CHP) – (gekombineerde hitte en krag – GHK) stelsel terwyl die hitte opgewet word deur uitlaatgasse wat deur hitte pompe en hitteverruilers deurgelaat deur word om hoë en doeltreffende hittegeleiding te verseker. Ekstra hitte energies al ook inkom vanaf die hittepompe in die vorm van afkoeling. Hierdie siklus, sogenoemde trigenetasie is die mees gevorderdste in terme van energie doeltreffendheid. Water vir die mout proses sal vanaf die plaaslike munisipaliteit verkry word.

Vanaf 'n sosio-ekonomiese benadering, word dit verwag dat die Projek direkte en indirekte voordele sal inhou via die sosio-ekonomiese omgewing. Die verwagte voordele van die Projek sluit die volgende in: werkskepping, besigheidsgeleenthede, inkomste gehering, voorsiening van roumateriale en kennis en tegnologiese opleiding.

Die sosio-ekonomiese voordele gekoppel met die gebruik van trigenetasie tegnologie en die ligging van die Projek in 'n industriële park wat gezoneer is vir industriële gebruik, so wel as die plasing van die Projek in Zone 5 van die Gauteng Provinsie EMF (waar sekere aktiwiteite in die EIA Regulasies 2014 (soos gewysig) waarin ongewingsmagtiging uitgesluit word van hawaging) end us die noodsaaklikheid en wenslikheid van die Projek ondersteun, soon voorgestel.

5. Wetgewende Verseistes

Omdat die Projek krag generasie aktiwiteite insluit onder Noteringskennisgewing 1 van die EIA Regulasies, 2014, (soos gewysig), benodig Soufflet Malt omgewingsmagtiging vanaf die Bevoegde owerheid, die Gauteng Departement van Landbou, Plaaslike Ontwikkeling en omgewing (GDARDE). Die Projek moet ook voldoen met die IFC Uitvoeringstandaarde en goeie Internasionale Industrie Praktyke (Performance Standards and Good International/Industry Practices (GIIP)).

6. Opsomming van Moontlike Impak in verband met die Projek

6.1 Geohidrologie

Die voorgestelde aktiwiteite bevat 'n lae risiko vir die geohidrologiese omgewing. Daar is voorgestel dat 'n formele grondwater, moniteringplan oorweg moet word vir moontlik impak op die afloop water omgewing en om record te hou van die omgewingsimpak wat sal plaasvind. Geen ophoop effek word verwag op die dolomite afdeling waarvan die water verkry sal word nie a.g.v. die lae volumes wat verwag word.

6.2 Hidrologie

Die voorgestelde aktiwiteite bevat 'n lae risiko vir die hidrologiese omgewing. Versagtende keuses vir die afset van negatiewe impakte sluit in dat die ESMP in weking moet kom gedurende die operasionele en ontmantelingstase van die Projek.

Alhoewel geen formele oppervlakwater monitoring voorgestel is nie, behoort maandelikse visuele assessering onderneem te word in werksareas wat verband hou met die voorbereiding, operasionele en ontmantelingsfase aktiwiteite. Indien visuele en moniteringswaarnemings areas kommer uitwys (bv. Waar besoedeling sigbaar wrd word gedurende die operasionele fase) dan word gebasseer op die skaal van impak waargeneem. Stormwater monitoring sal ook 'n visuele component benodig waarby die stormwatersisteem elke maand visueel beoordeel word om probleme te identifiseer (bv. Verstoppe stelsels, erosie en sedimentasie) end it dan regstel. Stormwater beheerplan behoort ingesluit te word in die ontwerp van die aanleg.

Terwyl geen formele oppervlak watermonitering beoog word nie, behoort maandelikse evaluerings ter opsigte van voorbereiding operasionele en beëindigingsfase aktiwiteite onderneem te word. Indien visuele monitering observasies areas van kommer uitwys (bv. Waar besoedeling opgemerk word gedurende die operationele fase) word aanbeveel dat onderhandelings maatstawwe geformuleer word gebasseer op die mate van die impak waargeneem. Stormwater waarneming sal ook 'n visuele component benodig waar die stormwater sisteem elke maand visuele geassesseer word om probleme te identifiseer (bv. Verstoppe stelsels, erosie, en sedimentasie), en dan 'n regstelling aanbring.

6.3 Geraasvlakke

Dit word verwag dat die aanleg hoorbaar sal wees by die naaste sensitiewe geluidopvanger gedurende die nag, maar word nie beskou as 'n groot impak nie. Alhoewel daar moontlik klagtes mag ontstaan (maar onswaarskynlik), sal die implementering van die algemene voorkomende maatreeëls in plek val om ergemis met die Projek te bekamp.

Twee-jaarlikse geraas assessering word aanbeveel by NSR01 vir die eerste jaar van bedryf (somer en gedurende winter). Daar word aanbeveel dat geraas moniterings vereistes van SANS 10103:2008 oorweeg moet word.

6.4 Verkeer

Gedurende die implementering van mitigasie vereistes soos ingesluit in die ESMP kan verkeer impak (agteruitgang van die pad network, verhoging van verkeer volumes, agteruitgang van padveiligheids toestande) bestuur word gedurende die Projek.

6.5 Erfenis en Paleontologie

Geen erfenis en paleontologie hulpbronne is geïdentifiseer nie, maar sonder om afbreek te doen aan die deeglikheid waarmee die veldwerk wat onderneem is, is dit noodsaaklik om te beseft dat die erfenis hulpbronne wat gedurende die veldwerk geïdentifiseer is, nie noodwendig alle moontlike erfenisse verteenwoordig in die area nie end at Chance Find Procedure/Protokol (Toevallige ontdekking Prosedure) geïmplimenteer moet word in geval enige erfenis of paleontologiese hulpbronne opgegrawe word gedurende konstruksie.

6.6 Sosio-ekonomies

Die voorgestelde Projek is goeie geposisioneer om by te dra tot volhoubare ontwikkeling van die Sedibeng District Munisipaliteit. Die Projek se fokus op werkskepping, ekonomiese stimulasie, volhoubare praktyke, en gemeenskapsonderhandeling verseker dat langtermyn voordele sal voorsien aan beide die plaaslike gemeenskap en die breër ekonomie.

Die Sosio-ekonomiese studie het potensiële uitdagings geïdentifiseer en deeglike mitigasie strategie voorsien om hulle aan te spreek, wat verseker dat die Projek in lyn is met Suid Afrika se breër doelwitte. Deur die implimentasie van die voorgestelde maatstawwe, is daar geen sosio-ekonomiese besware vir die voortgaan van die ontwikkeling en geen ernstige tekortkominge is geïdentifiseer nie.

6.7 Lugkwaliteit

Dit is die opinie van die spesialis dat die Projek met effektiewe mitigasie maatreëls in plek, en korrektiewe aksie geneem waar nodig, dat daar 'n lae impak is op omgewings lugkwaliteit buite die eiendomsgrense greelde onderhoud van beheertoerusting en voorgesete monitoring van bronne (insluitende alle sakhuse en oonde) word aanbeveel insluitende gereelde monitoring van lugkwaliteit. 'n Reuk klagtes Register sal op die terrain gehou word en klagtes sal toepaslik hanteer word.

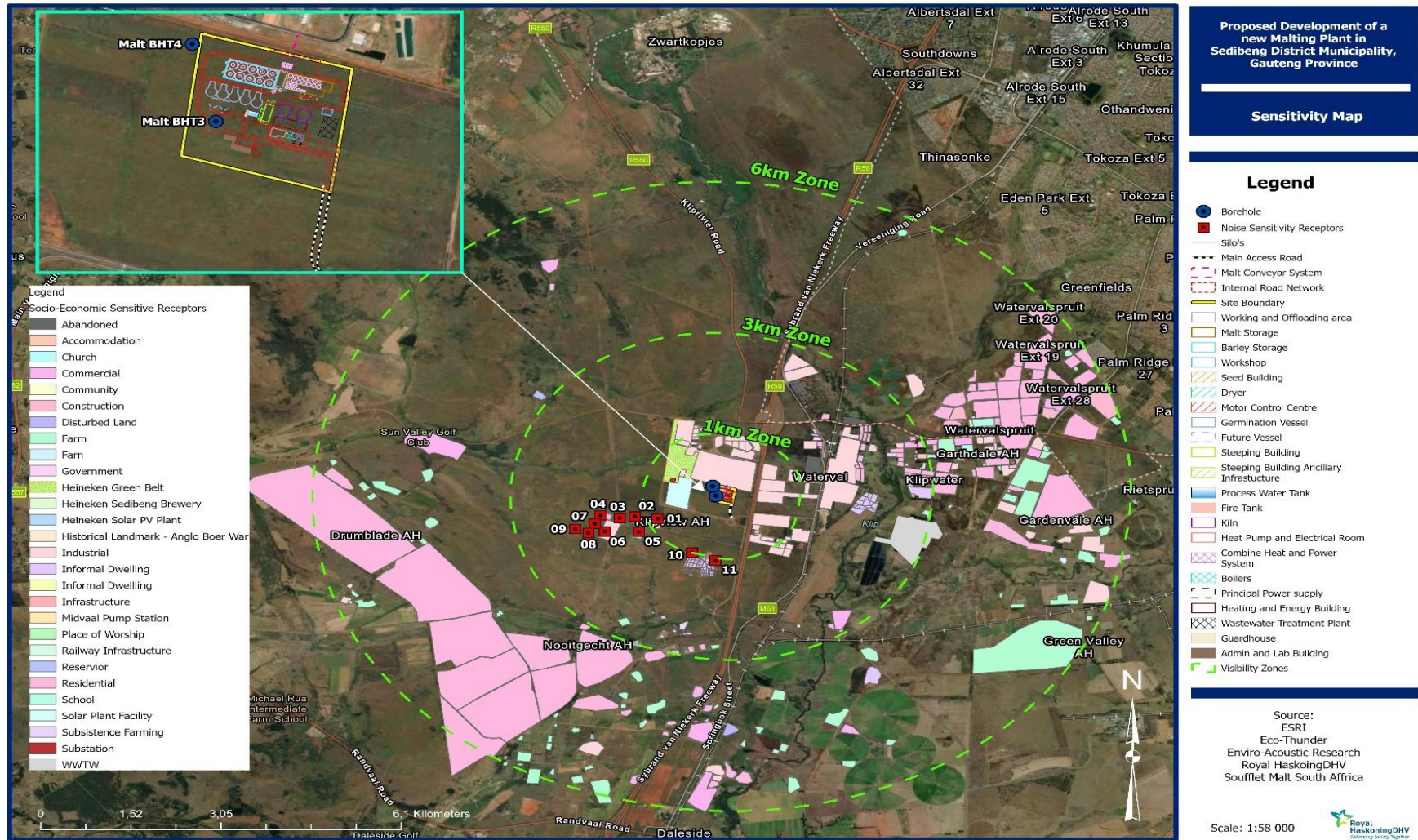
6.8 Klimaatverandering

Die Projek het 'n lae tot matige impak op klimaatsverandering en inagreming van die Nasionale begroting word goedkeuring ondersteun. Dit word verwag dat die Projek die CO₂-e uitlate jaarliks deur die SAGERS web-gebaseerde monitasie en aameld stelsel moet rapporteer.

6.9 Varswater

Geen impak op die varswater omgewing of varswater kenmerke in die area omliggend van die studie area word verwag nie en die risiko profile vir die varswater omgewing word laag tot weglaatbaar oorweg.

Die sensitiwiteits kaart vir die Projek is verskaf op bladsy 7.



Figuur 3: Sensitiwiteits Kaart

Projek verwant

'n Opsomming van die potensiale impak geassosieer met die Projek deur sy lewensiklus word aangebied in Tabel 3 tot Tabel 5.

Tabel 3: Konstruksie fase Impak Opsomming

Disipliene	Impak	Sonder Mitigasie	Met Mitigasie
Geotegnies	Vorming van sinkgate	Matig (-)	Matig (-)
Geohidrologie	Grondweke en konstruksie aktiwiteite	Matig (-)	Laag (-)
	Berging van Afvalwater	Matig (-)	Laag (-)
Hidrologie	Versteuring na vadose zone	Matig (-)	Laag (-)
	Dadwerke en konstruksie aktiwiteite	Matig (-)	Laag (-)
Geraas	Konstruksie aktiwiteite: dag-tyd	Laag (-)	Laag (-)
	Konstruksie aktiwiteite: nag-tyd	Laag (-)	Laag (-)
Verkeer	Agteruitgang van pad network toestand.	Matig (-)	Matig (-)
	Verhoging in verkeer volumes	Matig (-)	Matig (-)
	Agteruitgang van padveiligheid toestande	Matig (-)	Matig (-)
Paleontologie	Impak op Paleontologiese hulpbronne	Matig (-)	Laag (-)
Erfenis	Skade/vernietiging van argeologiese efenis hulbronne	Laag (-)	Laag (-)
Sosio-ekonomies	Direkte en Indirekte werksgeleenthede en vaarpligheids ontwikkeling	Laag (+)	Matig (+)
	Ekonomiese veelvuldige effekte	Lssg (+)	Matig (+)
	Toestroming van wersookens en verandering in bevolking	Matig (-)	Laag (-)
	Veiligheid en sekuriteit	Matig (-)	Laag (-)
	Lastige impak insluitende geraas en stof	Matig (-)	Laag (-)
Stof en emissies	Stof en emissies generering gedurende konstruksie	Matig (-)	Laag (-)
Afvalstowwe	Afvalstof generering gedurende konstruksie	Laag (-)	Laag (-)

Tabel 4: Operasie Fase Impak Opsomming

Disipliene	Impak	Sonder Mitigasie	Met Mitigasie
Geohidrologie	Oorabstraksie van grondwater vanaf booraate	Matig (-)	Laag (-)
	Swak kwaliteit sypel afloop akumulasie op terrein	Matig (-)	Laag (-)
Hidrologie	Kontaminasie a.g.v. swak kwaliteit afloop	Matig (-)	Laag (-)
Geraas	Operasionele aktiwiteite: dagtyd	Laag (-)	Laag (-)
	Operasionele aktiwiteite: nagtyd	Laag (-)	Laag (-)
Sosio-ekonomies	Direk en indirekte indiensnemingsgeleenthede en vaardigheid ontwikkeling	Matig (+)	Matig (+)
	Ekonomies veelvuldige effekte.	Matig (+)	Matig (+)
	Beroepsgerigte gesondheid veiligheids impak	Matig (-)	Matig (-)
Lug kwaliteit ¹	Verhaging in uurlikse en jaarlikse omgewings NO ₂ konsentrasies	Sien voetnota 1	Laag (-)
	Verhaging in uurlikse en jaarlikse omgewings PM konsentrasies.	Sien voetnota 1	Laag (-)
	Reuk impak nabygeleë sensore	Sien voetnota 1	Laag (-)
	Lastige stof impak by nabye sensore	Sien voetnota 1	Laag (-)
Klimaat verandering ²	Bydrae na die oorblywende Suid-Afrikaanse koolstof begroting	Sien voetnota 2	Matig (-)
	Klimaatvernaderings impak risikos na die Projek (stygende temperture, hittestress, en veldvure	Sien voetnota 2	Matig (-)

¹ Mitigasie sluit in ontwerp

² Omdat klimaat verandering 'n globale verkynsel is, is die waardeeringskriteria nie ten volle van toepassing op 'n waardeering van die impak van GHG vrystellings op klimaatverandering nie. Alhoewel die kriteria huidig die beste opsie is vir die klimaatsvernadering impak analise.

Tabel 5: ontmanteling/Sluiting fase Impak Opsomming

Disipliene	Impak	Sonder Mitigasie	Met Mitigasie
Geohidrologie	Terugslag van grondwater en uitdiensgestelde boorgate gebruik vir grondwater voorsiening	Matig (+)	Geen verder mitigasie voorgestel.
	Swak kwaliteit sytel aflowp vanaf uitdiensgestelde aktiwiteite	Matig (-)	Laag (-)
Hidrologie	Swak kwaliteit sytel aflowp vanaf uitdiensgestelde aktiwiteite	Matig (-)	Laag (-)
Afval	Afval generasie gedurende uitareasgestelde aktiwiteite	Laag (-)	Laag (-)

7. Omgewings en Sosiale Bestuursplan (OSBP)

'n OSBP is saamgestel vir die Projek wat die mitigasie en bestuursmaatreëls beskryf om te verseker dat die sosiale en omgewingsimpakte, risikos en verantwoordlikhede gedurende die OSBP geïdentifiseer, gedurende die OSBP studie effektief bestuur word gedurende die konstruksie fase en om verder te verseker dat die verbetering van die positiewe omgewingsvoordele van die ontwikkeling behaal word.

8. Belanghebbende Betrokkenheid (BBP)

'n Belanghebbende Betrokkenheidsplan is voorberei in ooreenstemming met die IFC vereiste om 'n tweerigting konsultasieproses toe te laat. Die BBP verseker dat die konsultasie met belanghebbendes en die publiek proaktief is, in teenstelling met reaktief, end at dit gedurende die verloop van die Projek geïmplimenter sal word (m.a.w. ontwerp, konstruksie, bedryf en ontmanteling). Gemeenskapsbetrokkenheid is 'n belangrike deel van projek ontwikkeling en behoort 'n deurlopende proses te wees wat die openbaarmaking van inligting na geïnteresseerde en projek betrokke partye behels. Die doel van gemeenskapsbetrokkenheid is on oor tyd 'n positiewe verhouding te bou en onderhou met gemeenskappe en besighede wat naby die projek is en om die belangrike impakte te identifiseer en verminder.

Vir die konsultasie en openbaarmaakingsproses geassosier met die projek, het die span die vereistes in die nasionale wetgewing vermeld, gevolg, en verder verbeterde verbrutenis verwagtinge met die insluiting van vereistes van betrokkenheid van belanghebbendes van die IFC. Tabel 6 voorsien 'n opsomming van die betrokkenheid van belanghebbendes onderneem vir die Projek.

Tabel 6: Opsomming van Belanghebbende betrokkenheids aktiwiteite

Aktiwiteit	Beskrywing
Identifikasie van Belanghebbendes	Belanghebbendes is geïdentifiseer en 'n databasis van die belangstellende en geïmpakteerde partye (I&AP's) is saamgestel.
Verspreiding van 'n agtergrond inligtings document (AID/BID)	BID/AID's se verspreiding was elektronies en per hand na I&APs.

Aktiwiteit	Beskrywing
Oprig van Terrain Kennisgewings	Van die terrain A2 terreinkennisgewings is opgerig in die volgende areas: Omtrek van die terrain, De Deur Publieke Biblioteek, Meyerton Publiek Biblioteek en Kliprivier Ploisestasië.
Koerant advertensie	Northern Star (Plaaslike koerant).
Vergaderings	Besonderhede van vergaderings beplan sal gedeel word met I&APs.
Hersiening van konsep ESIA verslag	Die konsep ESIA verslag sal geadverteer en beskikbaar gestel word vir 'n periode van 30 dae vir belanghebbendes hersiening en kommentar.
Kommentaar en Reaksie verslag	Kommentaar ontvang vir die Projek en toepaslike kommentaar sal opgeteken word in die Kommentaar en Reaksie verslag
Omgewingsgoedkeuring	Alle gerigistreeerde I&AP's sal inkennis gestel word ivm die Omgewingsgoedkeuring wanneer uitgereik deur die Bevoegde geslag.

9. Geleentheid om Kommentaar te lewer

Die konsep ESIA verslag en ESMP is beskikbaar vir 'n 30 dag hersieningsperiode vanaf 19 Augustus- 17 September 2024. Die konsep ESIA verslag en ESMP sal beskikbaar gestel word by die volgende plekke: :

- De Deur Publiek Biblioteek, De Deur Munisiplale Geboue hoek van Weilbach & Middle Staat, De Deur, 1884;
- Meyerton (Hoof) Biblioteek, Loch Straat, Meyerton, 1961; en
- Royal HaskoningDHV webwerf <https://www.royalhaskoningdhv.com/en/countries/south-africa/environmental-reports>

10. Gevolgtrekking

Die Projek hou nie nadelige impak op die inmiddelike omgewing nie end die matige impak geidentifiseer kan aansienlik verminder word deur die gebruik van voorkomende maatreëls voorgestel in die ESMP. Daarom bevel die EAP die voorgestelde Projek aan om Voort te gaan soos beplan.

Appendix I(c): Non Technical Summary English





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HaskoningDHV**
Enhancing Society Together

REPORT

Non-technical Summary: Environmental and Social Impact Assessment of the Proposed Malting Plant Development near Sedibeng Brewery, Gauteng Province (Ref Gaut 002/24-25/E0003)

Non-technical Summary

Client: Soufflet Malt
Reference: MD6264-RHD-XX-XX-RP-X-0001
Status: Final/01
Date: 20 September 2024



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Document title: Non-technical Summary: Environmental and Social Impact Assessment of the Proposed Malting Plant Development near Sedibeng Brewery, Gauteng Province (Ref Gaut 002/24-25/E0003)

Subtitle: Non-technical Summary

Reference: MD6264-RHD-XX-XX-RP-X-0001

Your reference

Status: Final/01

Date: 20 September 2024

Project name: MD6264

Project number: MD6264

Author(s): Sibongile Gumbi

Drafted by: Sibongile Gumbi

Checked by: Prashika Reddy

Date: 06-08-2024

Approved by: Prashika Reddy

Date: 06-08-2024

Classification: Project related

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1. Introduction

Soufflet Malt South Africa (Pty) Ltd, a subsidiary of the Soufflet Group, has obtained funding from the International Finance Corporation (IFC) for the establishment of a malt plant and associated infrastructure (“the Project”). The Project is located to the south of the Heineken Sedibeng Brewery within the Graceview Industrial Part (Erf 244 Graceview) and is a greenfield area (approximately 10ha) within the Sedibeng District - and Midvaal Local Municipality – MLM (Figure 1).

The Project is envisaged as an import substitution and enhancement of barley production in the agricultural sector in South Africa. The beer sector in South Africa contributes to roughly 1 in every 66 jobs in the country, with the supply chain comprising farmers, packaging manufacturers, brewers, distributors, and retailers. The Project, is expected to be operational for 50 years, will have an annual capacity of 100 Kilo Tonnes (KT)/year in Phase 1 and 135KT/year in Phase 2 for the local market.

Soufflet Malt South Africa has appointed Royal HaskoningDHV to provide independent Environmental Assessment Practitioner (EAP) services for the proposed Project. In addition, Royal HaskoningDHV were assisted by the following specialists:

- Freshwater;
- Noise;
- Geohydrology and Hydrology;
- Socio-economic;
- Air Quality and Climate Change;
- Heritage and Palaeontology; and
- Traffic.

This Non-technical Summary provides:

- a description and motivation of the Project;
- a description of the environmental legislation including international requirements;
- a description of the likely significant impacts of the Project on the environmental and social environment as well as the stakeholder engagement undertaken to date; and
- Measures envisaged in order to avoid, prevent or reduce likely significant adverse effects on the environment.

2. Description

The malting production process is illustrated in Figure 2 and entails the following:

- Barley intake and storage.
- Steeping: initiation of growth through forced grain hydration.
- Germination: controlled growth of barley to facilitate endosperm modification.
- Kilning: the termination of grain growth to fix extract potential and malt specifications through grain dehydration.
- Distribution – the kilned malt is dispatched to the Heineken Sedibeng Brewery via a conveyor system.



Figure 1: Locality Map (including Project Layout)

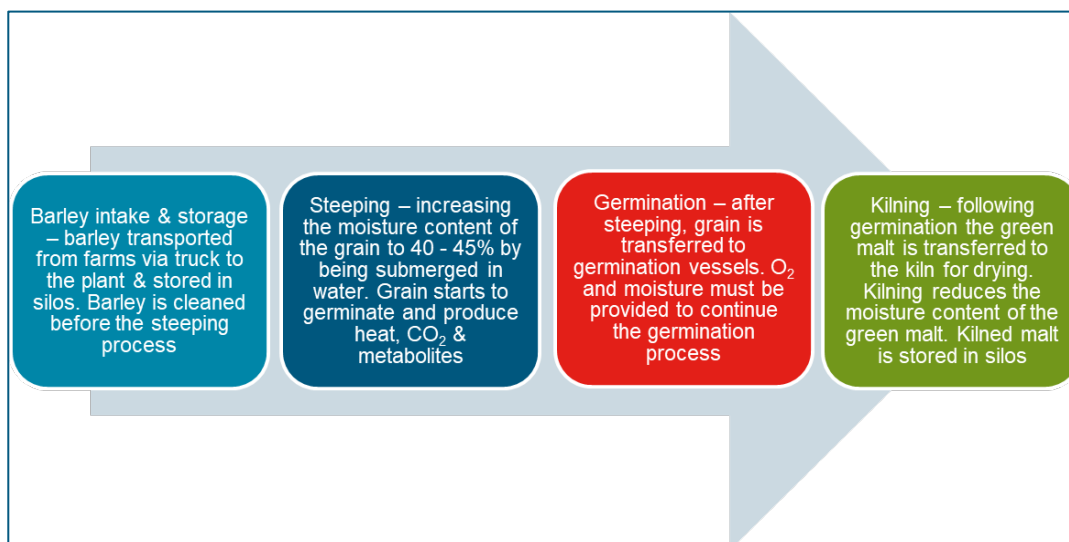


Figure 2 : Malting Process

The key components of the Project are outlined in Table 1.

Table 1: Project Components

Component	Description
Working building	The process of barley intake, cleaning and grading and malt blending, cleaning and bulk shipping will take place at this building.
Malt buildings/infrastructure	Barley storage silos; Steeping building; Germination vessels; Kilns; Malt storage silos; Conveyor to the Heineken Sedibeng Brewery.
Energy system	<ul style="list-style-type: none"> Capacity of the CHP (including back up system) – 8 Megawatt (MW) of heating energy, 4MW of cooling energy and 3MW of electrical power through the CHP, heat pumps and heat exchangers. 70 gigawatt hour (GWh) gas for the CHP will be used. Approximately 70GWh of gas will be used per year. Capacity of the boilers (back-up) – 2 x 6MW using liquified natural gas (LNG) as a fuel source. The Solar PV Project will not form part of the project scope but will be considered in future.
Water storage	<ul style="list-style-type: none"> The malting process consumes large amounts of water daily. The expected water usage for the current mandate based on the process mass energy balance spreadsheet is projected at 1000m³/day peak load. Water will either be provided by the Municipality and/or Rand Water as well as two boreholes with a combined capacity of 300m³ per day. One freshwater tank of 1000m³ available water storage volume. This volume includes 10% spare capacity for malt production usage demand for 24 hours. One process water tank of 1000m³ available water storage volume. This volume including the option to be 50% recycled water.
Wastewater storage and on-site wastewater treatment plant (WWTP)	<p>Effluent will be discharged directly into the ERWAT system.</p> <ul style="list-style-type: none"> Treatment of the following wastewater streams: <ul style="list-style-type: none"> Domestic sewage/wastewater from the Administration building. Industrial effluent/wastewater emanating from the washing and germination process of a maximum of 900m³/d. Volume of wastewater treated per day – 575m³ (Phase 1). On-site WWTP with a design capacity of 575m³ (Phase 1) and 750m³ (Phase 2).

Component	Description
	<ul style="list-style-type: none"> Concrete tank at the bottom of the steeping building which will serve as (bulk) process effluent storage with a capacity of 1000m³.
Ammonia storage	Approximately 1.5 tonnes (2000m ³).
Ancillary infrastructure	Admin building, Construction laydown area, Internal conveyor system to transport grain between the Steeping building, Germination vessels, Kilning area, Bagging and chemical storage buildings, Fire pump room, gatehouse, weighbridge, truck staging area, waste pick-up area, internal access roads, staff parking.

3. Project Alternatives

The alternatives considered for the Project are presented in Table 2.

Table 2: Project Alternatives

Alternative	Description
Proposal (Preferred)	Development of a new greenfield malt plant utilising a CHP (including back up system) with 8MW of heating energy, 4MW of cooling energy and 3MW of electrical power through the CHP plant, heat pumps and heat exchangers. Gas requirements for the CHP amount to approximately 150,000 Giga Joule (GJ).
Alternative 1	Development of a new greenfield malt plan utilising the Eskom grid for 6.5MW of electrical power and gas boilers for thermal heat generation. Average gas consumption of 300,000GJ.

4. Project Motivation

Soufflet Group, the world's leading malt producer, operates more than 41 malting plants worldwide and is currently the biggest maltster in the world. Due to this great experience, the Soufflet Group has developed the know-how in process management to achieve high quality malt and to optimize energy consumption.

The main utilities required by the malt plant are electricity, water, compressed air, liquified natural gas (LNG) and cooling/heating systems. Electricity will be generated by the Combined Heat and Power (CHP) system while the heat generated through exhaust gases will be passed through heat pumps and heat exchangers to achieve high thermal efficiencies. Complementary heat energy will also be coming from the heat pumps in the form of cooling. This cycle, so called trigeneration, is the state of the art in term of energy optimization. Water for the malting process will be sourced from the local municipality.

From a socio-economic perspective, the Project is anticipated to bring direct and indirect benefits to the socio-economic environment. The likely benefits of the Project include: job creation, business opportunities, revenue generation, provision of raw materials, and knowledge and technology transfer.

The socio-economic benefits coupled with the use of trigeneration technology and the location of the Project within an industrial park which is zoned for industrial use, as well as the siting of the Project in Zone 5 of the Gauteng Province EMF (where certain activities in the EIA Regulations 2014 (as amended) are excluded from enquiring an environmental authorisation), highly supports the need and desirability of the Project, as proposed.

5. Legislative Requirements

As the Project includes electricity generation activities listed under Listing Notice 1 of the EIA Regulations, 2014 (as amended), Soufflet Malt requires an Environmental Authorisation from the Competent Authority, the Gauteng Department of Agriculture, Rural Development and Environment (GDARDE). The Project must also comply with the IFC Performance Standards and Good International Industry Practices (GIIP).

6. Summary of Potential Impacts Associated with the Project

6.1 Geohydrology

The proposed activities associated with the Project pose a low risk to the geohydrological environment. It is proposed that a formal groundwater monitoring plan be considered to monitor any potential impacts on the downstream environment and to maintain a record of the environmental impact that will take place. No cumulative impact is anticipated on the dolomite compartment from which water will be drawn, due to the low volumes proposed.

6.2 Hydrology

The proposed activities pose a low risk to the hydrological environment. Mitigation options to offset negative impacts included in the ESMP should be implemented during the operational and decommissioning phases of the Project.

Whilst no formal surface water monitoring is proposed, monthly visual assessments in work areas associated with the preparation, operational and decommissioning phase activities should be undertaken. If visual and monitoring observations show areas of concern (i.e., where pollution is observed during the operational phase) then it is advised mitigation measures to be formulated based on the scale of impact observed. Stormwater monitoring would also require a visual component where the stormwater system is visually assessed every month to identify issues (i.e., clogged systems, erosion and sedimentation) and then rectify the issues observed. Stormwater interventions as proposed in the Stormwater Management Plan should be incorporated into the design of the plant.

Whilst no formal surface water monitoring is proposed, monthly visual assessments in work areas associated with the preparation, operational and closure phase activities should be undertaken. If visual and monitoring observations show areas of concern (i.e., where pollution is observed during the operational phase) then it is advised mitigation measures to be formulated based on the scale of impact observed. Stormwater monitoring would also require a visual component where the stormwater system is visually assessed every month to identify issues (i.e., clogged systems, erosion and sedimentation) and then rectify the issues observed.

6.3 Noise

It is expected that the plant could be audible at the closest noise sensitive receptor during the night-time, though it is not regarded as a noise impact. While complaints about noise might be possible (though considered unlikely), the implementation of the general mitigation measures could assist in reducing annoyance with the Project.

Bi-annual noise monitoring is recommended at NSR01 for the first year of operation (summer and during winter). Noise monitoring should consider the requirements of SANS 10103:2008.

6.4 Traffic

With the implementation of mitigation measures as included in the ESMP, traffic impacts (deterioration of the road network, increase in traffic volumes, deterioration of road safety conditions) can be managed for the duration of the Project.

6.5 Heritage and Palaeontology

No heritage and palaeontological resources were located, however, not detracting in any way from the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources located during the fieldwork do not necessarily represent all the possible heritage resources present within the area and Chance Find Procedure/Protocol should be implemented in the event that any heritage or palaeontological resources are unearthed during construction.

6.6 Socio-economic

The proposed Project is well-positioned to contribute to the sustainable development of the Sedibeng District Municipality. The Project's focus on employment creation, economic stimulation, sustainable practices, and community engagement ensures that it will provide long-term benefits to both the local community and the broader economy.

The Socio-economic study has identified potential challenges and provided robust mitigation strategies to address them, ensuring that the Project aligns with South Africa's broader developmental goals. With the implementation of the recommended measures, there are no socio-economic objections to the development proceeding, and no fatal flaws have been identified.

6.7 Air Quality

It is the opinion of the specialist that the Project, with effective mitigation measures implemented and corrective action taken when necessary, has a low impact on ambient air quality beyond the property boundary. Regular maintenance of control equipment and continued monitoring of sources (including all baghouses and kilns) is recommended along with periodic ambient monitoring. An Odour Complaints Register will be kept on site and complaints dealt with appropriately.

6.8 Climate Change

The Project has a low to moderate impact on climate change in respect of the remaining National budget and therefore its approval is supported. The Project will be required to report CO₂-e emissions annually via the SAGERS web-based monitoring and reporting system.

6.9 Freshwater

No impacts to the freshwater environment or freshwater features in the area surrounding the study area are envisioned and the risk profile to the freshwater environment is considered low to negligible.

The sensitivity map for the Project is provided in

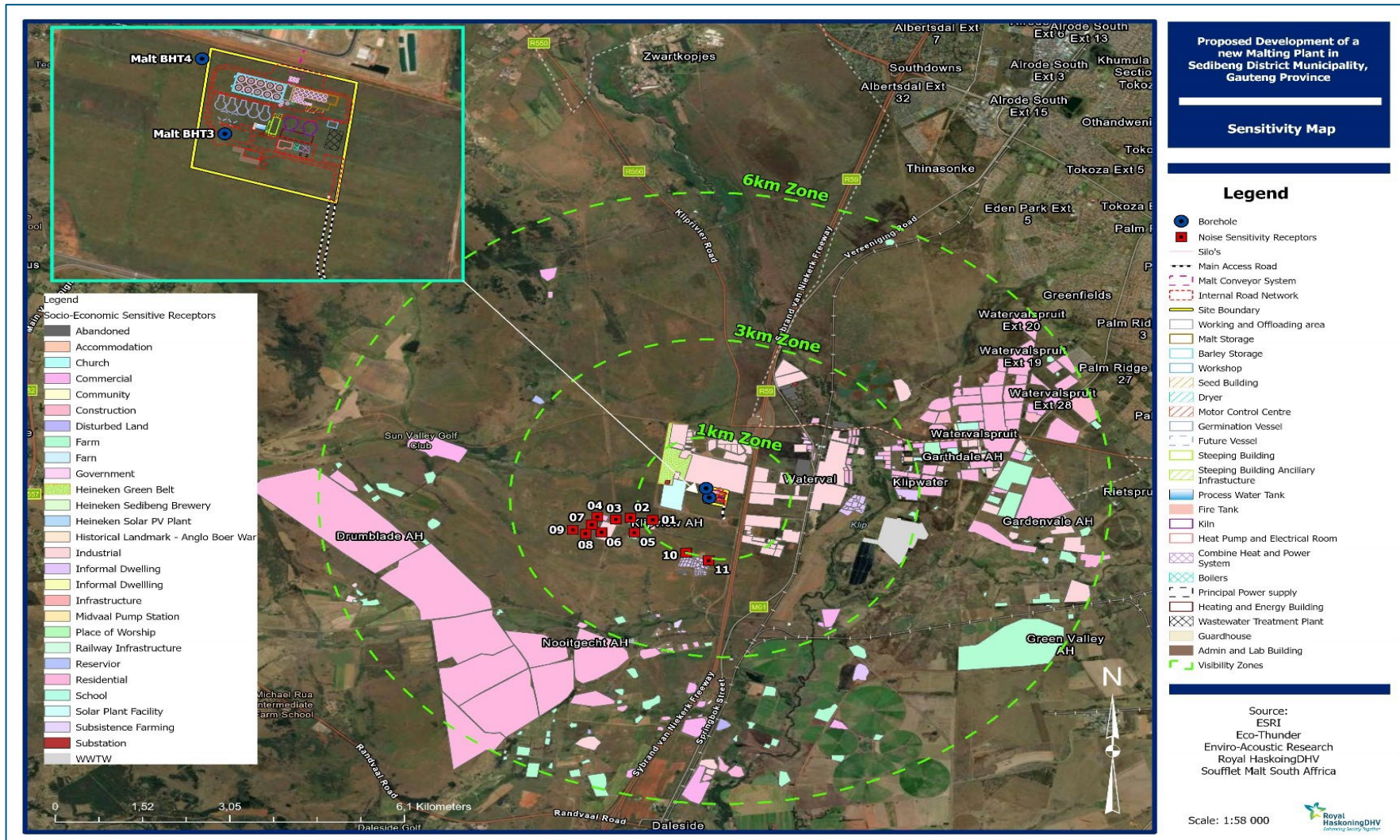


Figure 3: Sensitivity Map

A summary of the potential impacts associated with the Project throughout its lifecycle is presented in Table 3 to Table 5.

Table 3: Construction Phase Impact Summary

Discipline	Impact	Without Mitigation	With Mitigation
Geotechnical	Formation of sinkholes	Moderate (-)	Moderate (-)
Geohydrology	Earthworks and construction activities	Moderate (-)	Low (-)
	Storage of wastewater	Moderate (-)	Low (-)
Hydrology	Disturbance to vadose zone	Moderate (-)	Low (-)
	Earthworks and construction activities	Moderate (-)	Low (-)
Noise	Construction activities: day-time	Low (-)	Low (-)
	Construction activities: night-time	Low (-)	Low (-)
Traffic	Deterioration of road network condition.	Moderate (-)	Moderate (-)
	Increase in traffic volumes.	Moderate (-)	Moderate (-)
	Deterioration of road safety conditions	Moderate (-)	Moderate (-)
Palaeontology	Impact on palaeontological resources	Moderate (-)	Low (-)
Heritage	Damage/destruction to archaeological heritage resources	Low (-)	Low (-)
Socio-economic	Direct and indirect employment opportunities and skills development	Low (+)	Moderate (+)
	Economic multiplier effects	Low (+)	Moderate (+)
	Influx of jobseekers and change in population	Moderate (-)	Low (-)
	Safety and security	Moderate (-)	Low (-)
	Nuisance impacts, including noise and dust	Moderate (-)	Low (-)
Dust and emissions	Dust and emissions generated during construction	Moderate (-)	Low (-)
Waste	Waste generation during construction	Low (-)	Low (-)

Table 4: Operational Phase Impact Summary

Discipline	Impact	Without Mitigation	With Mitigation
Geohydrology	Over-abstraction of groundwater from the boreholes	Moderate (-)	Low (-)
	Poor-quality seepage or runoff accumulation on the site	Moderate (-)	Low (-)
Hydrology	Contamination due to poor quality runoff	Moderate (-)	Low (-)
Noise	Operational activities: day-time	Low (-)	Low (-)
	Operational activities: night-time	Low (-)	Low (-)
Socio-economic	Direct and indirect employment opportunities and skills development	Moderate (+)	Moderate (+)
	Economic multiplier effects	Moderate (+)	Moderate (+)
	Occupational Health and Safety impacts	Moderate (-)	Moderate (-)
Air Quality ¹	Increase in hourly and annual ambient NO ₂ concentrations	See Footnote 1	Low (-)
	Increase in hourly and annual ambient PM concentrations	See Footnote 1	Low (-)
	Odour impacts at nearby receptors	See Footnote 1	Low (-)
	Nuisance dust impacts at nearby receptors	See Footnote 1	Low (-)
Climate Change ²	Contribution to the remaining South African Carbon budget	See Footnote 2	Moderate (-)
	Climate change impact risks to the Project (increased temperatures, heat stress, and wildfires)	See Footnote 2	Moderate (-)

¹ Mitigation included in design.

² Since climate change is a global phenomenon, the assessment criterion is not fully applicable to an assessment of the impacts of GHG emissions on climate change. However, the criterion is currently the best tool for the climate change impact analysis.

Table 5: Decommissioning/Closure Phase Impact Summary

Discipline	Impact	Without Mitigation	With Mitigation
Geohydrology	Rebound of groundwater table and decommissioning of boreholes used for groundwater supply	Moderate (+)	No further mitigation proposed
	Poor quality seepage from decommissioning activities	Moderate (-)	Low (-)
Hydrology	Poor quality seepage from decommissioning activities	Moderate (-)	Low (-)
Waste	Waste generation during decommissioning	Low (-)	Low (-)

7. Environmental and Social Management Plan (ESMP)

An ESMP has been compiled for the Project that prescribes mitigation and management measures to ensure social and environmental impacts, risks and liabilities identified during the ESIA study are effectively managed during the construction phase and to further ensure the enhancement of the positive environmental benefits of the development are achieved.

8. Stakeholder Engagement

A Stakeholder Engagement Plan (SEP) has been prepared in accordance with IFC requirements to allow for a two-way consultation process. The SEP ensured that consultation with stakeholders and the public is proactive, as opposed to reactive, and will be implemented through the course of the Project (i.e. design, construction, operation and decommissioning). Community engagement is an important part of project development and should be an on-going process involving the disclosure of information to interested and project-affected parties. The purpose of community engagement is to build and maintain over time a constructive relationship with communities and businesses located in close proximity to the project and to identify and mitigate the key impacts.

For the consultation and disclosure process associated with the Project, the team followed the requirements stated in the national legislation and further improved engagement expectations with the inclusion of the IFC's stakeholder engagement requirements. Table 6 provides a summary of the stakeholder engagement undertaken for the Project.

Table 6: Summary of Stakeholder Engagement Activities

Activity	Description
Identifying Stakeholders	Stakeholders were identified and a database of all Interested and Affected Parties (I&APs) was compiled.
Distribution of a Background Information Document (BID)	BIDs were distributed electronically and by hand to I&APs.
Erection of Site Notices	A number of A2 site notices were erected in the following places: Perimeter of the site, De Deur Public Library, Meyerton Public Library and Kliprivier Police Station.
Newspaper Advert	Northern Star (Local Newspaper).
Meetings	Details of meetings planned will be shared with I&APs.

Activity	Description
Review of draft ESIA Report	The draft ESIA Report will be advertised and made available for a period of 30 days for stakeholder review and comment.
Comments and Response Report	Comments received for the Project and associated responses will be captured in the Comments and Response Report.
Environmental Approval	All registered I&APs will be notified about the environmental approval once issued by the Competent Authority.

9. Opportunity to Comment

The draft ESIA Report and ESMP are available for a 30-day review period from 19 August – 17 September 2024. The draft ESIA Report and ESMP will be available at the following places:

- De Deur Public Library, De Deur Municipal Buildings Corner of Weilbach & Middle Street, De Deur, 1884;
- Meyerton (Main) Library, Loch Street, Meyerton, 1961; and
- Royal HaskoningDHV website <https://www.royalhaskoningdhv.com/en/countries/south-africa/environmental-reports>

10. Conclusion

The Project does not pose detrimental impacts on the receiving environment and the moderate impacts identified can be mitigated significantly using the mitigation measures proposed in the ESMP. Therefore, the EAP recommends the proposed Project proceed as planned.

Appendix I(d): Non Technical Summary Sesotho



REPORT

**Kakaretso Ena Eo E Seng Ea Tekheniki: Tekolo Ea
Tšebeletso Ea Tikoloho Le Sechaba (Esia) Le
Tumello Ea Tshebeliso Ea Metsi (Wua), Mokhoa
Oa Tšebeletso Ea Ntshetso-Pele E E Ncha Ea
Malting Mmasipaleng Oa Sedibeng Sedibeng,
Porofenseng Ya Gauteng**

Kakaretso Ena Eo E Seng Ea Tekheniki

Client: Soufflet Malt
Reference: MD6264-RHD-XX-XX-RP-X-0001
Status: Final/01
Date: 20 September 2024



Project related



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Document title: Kakaretso Ena Eo E Seng Ea Tekheniki: Tekolo Ea Tšebeletso Ea Tikoloho Le Sechaba (Esia) Le Tumello Ea Tshebeliso Ea Metsi (Wua), Mokhoa Oa Tšebeletso Ea Ntshetso-Pele E E Ncha Ea Malting Mmasipaleng Oa Sedibeng Sedibeng, Porofenseng Ya Gauteng

Subtitle: Kakaretso Ena Eo E Seng Ea Tekheniki

Reference: MD6264-RHD-XX-XX-RP-X-0001

Your reference

Status: Final/01

Date: 20 September 2024

Project name: MD6264

Project number: MD6264

Author(s): Sibongile Gumbi

Drafted by: Sibongile Gumbi

Checked by: Prashika Reddy

Date: 06-08-2024

Approved by: Prashika Reddy

Date: 06-08-2024

Classification: Project related

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1. Selelekela

Soufflet Malt South Africa (Pty) Ltd, e leng lekalana la Soufflet Group, e fumane ditjhelete ho tswa ho International Finance Corporation (IFC) bakeng sa ho thehwa ha polante ya malt le meralo ya motheo e amanang le yona ("Project"). Projeke e fumaneha ka nqa borwa ba Heineken Sedibeng Brewery ka hara Karolo ya Indasteri ya Graceview (Erf 244 Graceview) mme ke sebaka sa greenfield (hoo e ka bang 10ha) ka hara Setereke sa Sedibeng - le Masepala wa Lehae wa Midvaal - MLM (Setšoantšo 1).

Morero ona o lebelletsoe honkela sebaka tlhahiso ea kantle ho naha le ntlafatso ea tlhahiso ea harese lekaleng la temo Afrika Boroa. Lekala la biri ka Afrika Boroa le kenya letsoho mosebetsing o ka bang 1 ho e meng le e meng e 66 ka har'a naha, 'me ketane ea phepele e kenyelletsa lihoai, bahlahisi ba liphutheloana, ba ritelang joala, baabi le barekisi. Morero, o lebelletsoe ho sebetsa ka lilemo tse 50, o tla ba le matla a selemo le selemo a Lithane tse 100 tsa Kilo (KT)/selemo Mokhahlelong oa pele "Phase 1" le 135KT/selemo Karolong ea 2 "phase 2" bakeng sa mmaraka oa lehae.

Soufflet Malt Aforika Borwa e kgethile Royal HaskoningDHV ho fana ka ditshebeletso tse ikemetseng tsa Setsebi sa Tekolo ya Tikoloho (EAP) bakeng sa Morero o sisintsweng. Ho feta moo, Royal HaskoningDHV e ile ea thusoa ke litsebi tse latelang:

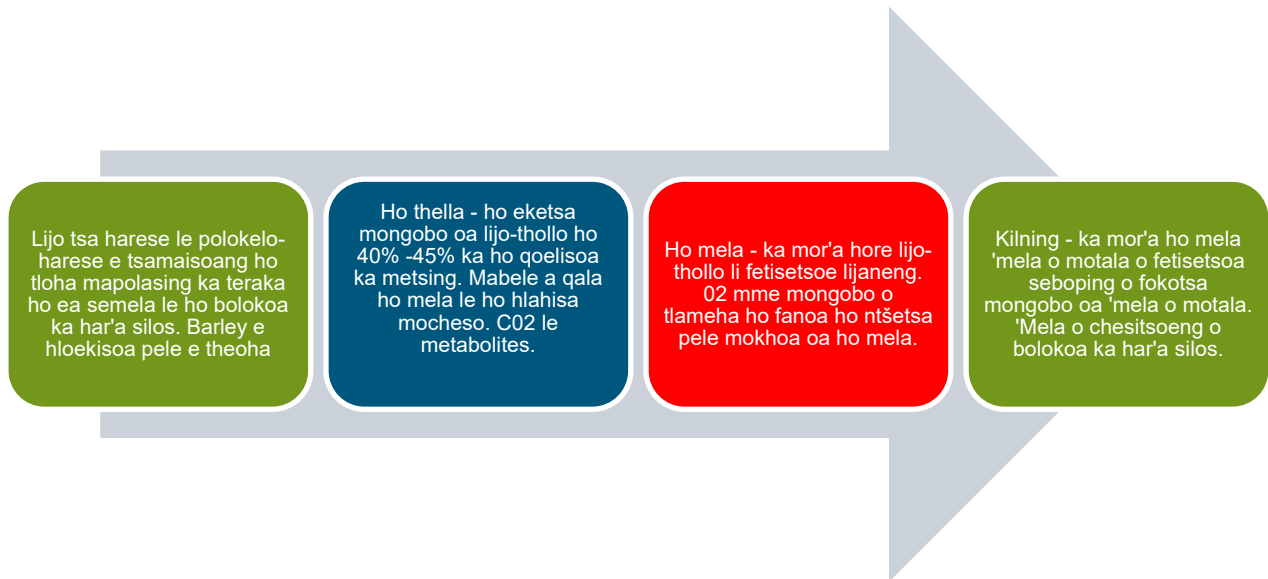
- Metsi a hloekileng;
- Lerata;
- Geohydrology le Hydrology;
- Tsa moruo oa kahisano;
- Boleng ba Moea le Phetoho ea Tlelaemete;
- Lefa le Palaeontology; le
- Sephethephethe.

Kakaretso ena eo e seng ea tekheniki e fana ka:

- Tlhaloso le khothatso ea Morero;
- Tlhaloso ea molao oa tikoloho ho kenyeletsoa litlhoko tsa machaba;
- Tlhaloso ea litšusumetso tse kholo tse ka bang teng tsa Morero tikolohong le tikolohong ea sechaba hammoho le boitlamo ba baamehi bo entsoeng ho fihlela joale; le
- Mehato e reriloeng molemong oa ho qoba, ho thibela kapa ho fokotsa litlamorao tse ka bang teng tse mpe tikolohong.

2. Tlhaloso

Mokhoa oa tlhahiso ea 'mmela o bontšitsoe



Lijo tsa harese le polokelo-harese e tsamaisoang ho tloha mapolasing ka teraka ho ea semela le ho bolokoa ka har'a silos. Barley e hloekisoa pele e theoha

Ho thella - ho eketsa mongobo oa lijo-thollo ho 40% -45% ka ho qoelisoa ka metsing. Mabele a qala ho mela le ho hlahisa mocheso. CO₂ le metabolites.

Ho mela - ka mor'a hore lijo-thollo li fetisetsoe lijaneng. O2 mme mongobo o tlameha ho fanoa ho ntšetsa pele mokhoa oa ho mela.

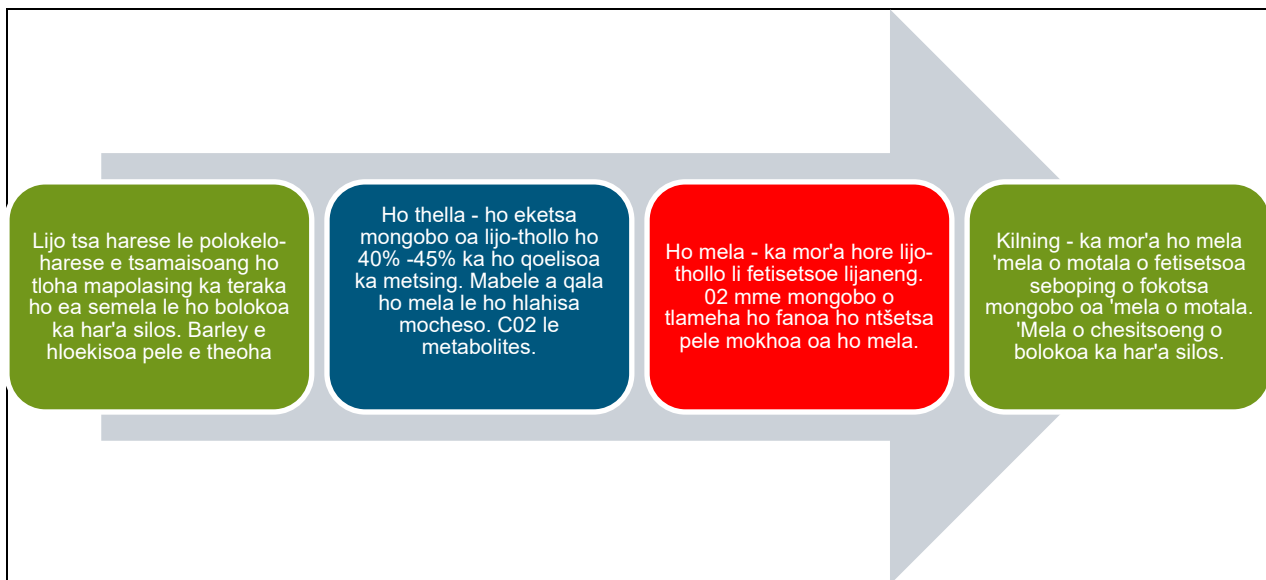
Kilning - ka mor'a ho mela 'mela o motala o fetisetsoa seboping o fokotsa mongobo oa 'mela o motala. 'Mela o chesitsoeng o bolokoa ka har'a silos.

Setšoantšo sa 2 “Figure 2” mme e kenyelletsa tse latelang:

- Ho ja le ho boloka harese.
- Ho thella/ Ketso ya ho hola: ho qala ho hola ka matla a mabele.
- Ho mela: kholo e laoloang ea harese ho thusa ho fetola endosperm.
- Kilning: ho kgaotsa ho hola ha dijothollo ho lokisa bokgoni ba ho monya le malt ka ho felloa ke metsi mmeleng.
- Kabo - 'mela o chesitsoeng o romelloa ho Heineken Sedibeng Brewery ka mokhoa oa conveyor.



Setšoantšo 1: 'Mapa oa Sebaka (ho kenyeletsoa le Moralo oa Morero)



Setšoantšo sa 2: Mokhoa oa Malting

Likarolo tsa bohlokoa tsa Morero li hlalositsoe ho Letlapa 1.

Letlapa 1: Likarolo tsa Morero

Karolo	Tlhaloso
Moaho o sebetsang	Ts'ebetso ea ho kenngoa ha harese, ho hloekisa le ho hlophisa le ho kopanya 'mela, ho hloekisa le ho romela ka bongata ho tla etsahala mohahong ona.
Meaho/moaho wa malt	Lithako tsa polokelo "silo" ea harese; Moaho oa moepa; Lijana tsa ho mela; Kilns; Lithako tsa polokelo ea 'mela; lebanta le tsamaisang thepa ho isa Heineken Sedibeng Brewery.
Tsamaiso ea matla	<ul style="list-style-type: none"> Bokhoni ba CHP (ho kenyeletsoa le sistimi ea ho khutlisa) - 8 Megawatt (MW) ea matla a ho futhumatsa, 4MW ea matla a ho pholisa le 3MW ea matla a motlakase ka CHP, lipompo tsa mocheso le liphahlo tse futhumatsang mocheso. 70 gigawatt hour (GWh) gase bakeng sa CHP e tla sebelisoa. Hoo e ka bang 70GWh ea khase e tla sebelisoa ka selemo. Bokhoni ba li-boilers (back-up) - 2 x 6MW ho sebelisa khase ea tlhaho e nang le metsi (LNG) e le mohloli oa mafura. Solar PV Project e ke ke ea ba karolo ea morero "project" empa e tla shejoa nakong e tlang.
Polokelo ea metsi	<ul style="list-style-type: none"> Ts'ebetso ea malting e sebelisa metsi a mangata letsatsi le letsatsi. Ts'ebeliso e lebelletsoeng ea metsi bakeng sa taelo ea hajoale e ipapisitseng le ts'ebetso ea ho leka-lekanya matla e lebelletswe hoba 1000m³/day peak load. Metsi a tla fanoa ke Masepala le/kapa Rand Water hammoho le likoti tse peli "2 bore holes" tse kopaneng tsa 300m³ ka letsatsi. Tanka e le 'ngoe ea metsi a hloekileng ea 1000m³ e fumanehang ea polokelo ea metsi. Volume ena e kenyelletsa 10% ea matla a polokelo bakeng sa tlhokahalo ea tšebeliso ea tlhahiso ea 'mela bakeng sa lihora tse 24. Tanka e le 'ngoe ea metsi ea 1000m³ e fumanehang ea polokelo ea metsi. Volume ena ho kenyelletsa le khetho ea ho ba 50% ea metsi a tsosolositsoeng.
Polokelo ea metsi a litšila le setsi sa ho hloekisa	Matlakala a tla qhallwa ka kotloloho mokgweng wa ERWAT. <ul style="list-style-type: none"> Phekolo ea melapo e latelang ea metsi a litšila:

Karolo	Tlhaloso
metsi a litšila setšeng (WWTP)	<ul style="list-style-type: none"> ○ Likhoerekhoere tsa ka tlung/metsi a litšila a tsoang mohahong oa Tsamaiso. ○ Matlakala a indasteri/metsi a ditshila a tswang mokgweng wa ho hlatswa le ho mela ho fihla ho 900m³/d. ○ Bophahamo ba metsi a litšila a hloekisoang ka letsatsi - 575m³ (Mokhahlelo oa 1). ○ WWTP ea setšeng e nang le bokhoni ba moralo oa 575m³ (Mokhahlelo oa 1) le 750m³ (Mokhahlelo oa 2). ○ Tanka ea konkrite e botlaaseng ba moepa o tla sebetsa e le (bongata) polokelo ea litšila tse nang le matla a 1000m³.
Ho boloka Ammonia	Hoo e ka bang lithane tse 1.5 (2000m ³).
Lisebelisoa tsa tlatsetso	Moaho oa tsamaiso, sebaka sa kaho ea kaho, tsamaiso ea ka hare ea lipalangoang ho tsamaisa lijo-thollo pakeng tsa moaho oa Steeping, likepe tsa ho mela, sebaka sa Kilning, Meaho ea polokelo ea mekotla le lik'hemik'hale, kamore ea pompo ea mollo, heke, borokho bo boima, sebaka sa teraka, sebaka sa ho lata litšila, phihlelo ea kahare. litsela, ho paka makoloi.

3. Mekhoa e meng ea Morero

Mekhoa e meng e nahanoang bakeng sa Morero e hlahisoa ho Letlapa la 2.

Letlapa la 2: Mekhoa e meng ea Morero

E 'ngoe	Tlhaloso
Tlhahiso (E Ratoang)	Nts'etsopela ea semela se secha sa 'mela o motala se sebelisang CHP (ho kenyeletsoa le sistimi ea ho khutlisa) e nang le 8MW ea matla a futhumatsang, 4MW ea matla a ho pholisa le 3MW ea matla a motlakase ka polante ea CHP, lipompo tsa mocheso le liphahlo tse futhumatsang mocheso. Litlhoko tsa khase bakeng sa CHP li fihla ho hoo e ka bang 150,000 Giga Joule (GJ).
E 'ngoe 1	Nts'etsopela ea leano le lecha la 'mela o motala le sebelisang marang-rang a Eskom bakeng sa 6.5MW ea matla a motlakase le liboiler tsa khase bakeng sa ho fehla mocheso oa mocheso. Karolelano ea tšebeliso ea khase ea 300,000GJ.

4. Tšusumetso ea morero

Sehlopha sa Soufflet, se ithommeng pele lefatšeng ka ho hlahisa 'mela, se nale ditlhahiso tsa mmela tse fetang 41 lefatšeng ka bophara, 'me hajoale ke sona se hlahisang 'mela o moholo ka ho fetisisa lefatšeng. Ka lebaka la boiphihlelo bona bo botle, Sehlopha sa Soufflet se ntlafalitse tsebo ea ho laola ts'ebetso ho fihlela 'mela oa boleng bo holimo le ho ntlafatsa tšebeliso ea matla.

Lisebelisoa tse ka sehloohong tse hlokoang ke setsi sa 'mela ke motlakase, metsi, moea o petelitsong, khase ea tlhaho e entsoeng ka metsi (LNG) le lisebelisoa tsa ho hatsa le ho futhumatsa. Motlakase o tla hlahisoa ke the Combined Heat and Power (CHP) tsamaiso ha mocheso o hlahisoang ke likhase tsa ho tsoa o tla fetisoa ka lipompo tsa mocheso le lisebelisoa tsa mocheso ho finyella katleho e phahameng ea mocheso. Matla a tlatsetso a mocheso le ona a tla be a tsoa lipompong tsa mocheso ka mokhoa oa ho pholisa. Potoloho ena, eo ho thoeng ke trigeneration, kea boemo ba nakong ea ntlafatso ea matla. Metsi bakeng sa ts'ebetso ea 'mele a tla fumanoa ho masepala oa lehae.

Ho latela pono ea moruo oa sechaba, Morero o lebelletsoe ho tlisa melemo e tobileng le e sa tobang tikolohong ea moruo oa sechaba. Melemo e ka bang teng ea Morero e kenyelletsa: tlhahiso ea mesebetsi, menyetla ea khoebo, tlhahiso ea lekeno, phano ea thepa e sebelisoang, le phetiso ea tsebo le theknoloji.

Melemo ea moruo oa kahisano hammoho le ts'ebeliso ea thekenoloji ea trigeneration le sebaka sa Morero ka har'a serapa sa liindasteri se behetsoeng tšebeliso ea indasteri, hammoho le ho beoa ha Morero sebakeng sa 5 sa EMF Profinseng ea Gauteng (moo mesebetsi e itseng Melawana ya EIA 2014 (jwalo ka ha e lokisitswe) ha e akaretswe ho botsiseng tumello ya tikoloho), e tshehetsa haholo tlhokeho le takatso ya Morero, jwalokaha ho sisintswe.

5. Litlhoko tsa Molao

Kaha Morero ona o kenyelletsa mesebetsi ea ho fehla motlakase e thathamisoeng tlas'a Lethathamo la Tsebiso ea 1 ea Molao ea EIA, 2014 (joalokaha e lokisitsoe), Soufflet Malt e hloka Tumello ea Tikoloho ho tsoa ho Bolaoli bo nang le Bokhoni, Lefapha la Gauteng la Temo, Ntlafatso ea Mahae le Tikoloho (GDARDE). Morero o boetse o tlameha ho latela Molao ea Ts'ebetso ea IFC le Mekhoa e Metle ea Indasteri ea Machabeng (GIIP).

6. Kakaretso ea Liphello Tse ka 'nang tsa E-ba teng Tse Amanang le Morero

6.1 Geohydrology

Mesebetsi e sisintsoeng e amanang le Morero e beha kotsi e tlase tikolohong ea geohydrological. Ho sisinyeha hore ho nahanoa leano la molao la ho lekola metsi a ka tlas'a lefatše ho beha leihlo litlamorao life kapa life tse ka bang teng tikolohong e ka tlaase ho noka le ho boloka tlaleho ea tšusumetso ea tikoloho e tla etsahala. Ha ho na tšusumetso e ntseng e eketseha e lebelletsoeng karolong ea dolomite eo metsi a tla ntšoa ho eona, ka lebaka la methamo e tlase e sisintsoeng.

6.2 Hydrology

Mesebetsi e reriloeng e beha kotsi e tlase tikolohong ea metsi. Likhetho tsa phokotso ho felisa litlamorao tse mpe tse kenyelletsoeng ho ESMP li lokela ho kengoa ts'ebetsong nakong ea mekhahlelo ea ts'ebetso le ea ho felisa mesebetsi oa Morero.

Le hoja ho se na tlhahiso ea molao ea metsi holim'a metsi, litlhahlobo tsa khoeli le khoeli tsa pono libakeng tsa mesebetsi tse amanang le mesebetsi ea mokhahlelo oa boitokiso, ts'ebetso le pheliso ea ts'ebetso li lokela ho etsoa. Haeba litebello tsa pono le leihlo li bontša libaka tse amehileng (ke hore, moo tšilafalo e bonoang nakong ea tšebetso) joale ho eletsoa hore ho etsoe mehato ea phokotso ho ipapisitsoe le sekala sa tšusumetso e bonoang. Tlhokomelo ea metsi a sefefe e tla boela e hloke karolo e bonahalang moo tsamaiso ea metsi a sefefe e hlahlojoang khoeli le khoeli ho hloaea litaba (ke hore, litsamaiso tse koalehileng, khoholeho ea mobu le sedimentation) ebe ho lokisa litaba tse hlokometsoeng. Merero ea metsi a sefefe joalo ka ha e sisintsoe Leanong la Taolo ea Metsi a Sehlotsoana e lokela ho kenyelletsoa moralong oa polante.

Le ha ho sa sisingwa ho beha leihlo la metsi holim'a metsi, khoeli le khoeli ho lokela ho etsoa litlhahlobo tsa khoeli le khoeli libakeng tsa mesebetsi tse amanang le tokiso, ts'ebetso le ho koala. Haeba litebello tsa pono ea leihlo li bontša libaka tse amehileng (ke hore, moo tšilafalo e bonoang nakong ea tšebetso) joale ho eletsoa hore ho etsoe mehato ea phokotso ho ipapisitsoe le sekala sa tšusumetso e bonoang. Tlhokomelo ea metsi a sefefe e tla boela e hloke karolo e bonahalang moo tsamaiso ea metsi a sefefe e hlahlojoang khoeli le khoeli ho hloaea litaba (ke hore, litsamaiso tse koalehileng, khoholeho ea mobu le sedimentation) ebe ho lokisa litaba tse hlokometsoeng.

6.3 Lerata

Ho lebeletsoe hore semela sena se ka utloahala nakong ea bosiu se amohelang lerata, le hoja se sa nkoe e le tšusumetso ea lerata. Le hoja litletlebo ka lerata li ka khoneha (le hoja ho nkoa e le ntho e ke keng ea etsahala), ho kengoa tšebetsong ha mehato e akaretsang ea phokotso ho ka thusa ho fokotsa ho teneha ha Morero.

Tlhokomelo ea lerata habeli ka selemo e khothaletsoa ho NSR01 bakeng sa selemo sa pele sa ts'ebetso (lehlabula le mariha). Tlhokomelo ea lerata e lokela ho ela hloko litlhoko tsa SANS 10103:2008.

6.4 Sephethepethe

Ka ho kenya tšebetsong mehato ea phokotso joalo ka ha e kenyelitsoe ho ESMP, litlamorao tsa sephethepethe (ho senyeha ha marang-rang a litsela, keketseho ea bongata ba sephethepethe, ho mpefala ha maemo a polokeho mebileng) li ka laoloa nakong eohle ea Morero.

6.5 Lefa le Palaeontology

Leha ho le joalo, ha ho na mehloli ea lefa le ea khale ea khale e ileng ea fumanoa, leha ho le joalo, e sa fokotse ka tsela leha e le efe botebo ba mosebetsi oa tšimo o entsoeng, hoa hloka hloka hore mehloli ea lefa e fumanehang nakong ea mosebetsi ha e hlile ha e emele mehloli eohle ea lefa e ka bang teng sebakeng seo. Mokhoa oa ho Fumana Monyetla (Protocol) o lokela ho kengoa ts'ebetsong ha ho ka sibolloa mehloli ea lefa kapa ea khale ea khale nakong ea kaho.

6.6 Tsa bophelo le moruo

Morero "project" o sisintsweng o maamong a matle a ho kenya letsoho ntlafatsong ya moshwelella ya Masepala wa Setereke sa Sedibeng. Sepheo sa Morero mabapi le tlhahiso ea mesebetsi, khothatso ea moruo, mekhoha ea moshoelella, le lipuisano tsa sechaba li netefatsa hore e tla fana ka melemo ea nako e telele ho baahi ba lehae le moruo ka bophara.

Boithuto ba moruo oa kahisano bo hloaile liqholotso tse ka bang teng le ho fana ka maano a matla a phokotso ho a rarolla, ho netefatsa hore morero "Project" e ikamahanya le merero e pharalletseng ea ntlafatso ea Afrika Boroa. Ka ho kengoa ts'ebetsong ha mehato e khothaletsoang, ha ho na khanyetso ea moruo oa sechaba mabapi le tsoelopele, 'me ha ho na liphoso tse bolaeang tse lemohuoang .

6.7 Boleng ba Moea

Ke maikutlo a setsebi hore Morero, ka mehato e sebetsang ea phokotso e kenngoeng tšebetsong le mehato ea tokiso e nkhoang ha ho hloka hloka, e na le tšusumetso e tlase boleng ba moea o tikolohong ho feta moeli oa thepa. Tlhokomelo ea kamehla ea lisebelisoa tsa taolo le ho lekola mehloli e tsoelang pele (ho kenyelletsoa le li-baghouses le li-kilns) ho khothaletsoa hammoho le tlhahlobo ea nako le nako ea tikoloho. Rejistara ea Litletlebo tsa Monko o tla bolokoa setšeng 'me litletlebo li sebetsanoa ka nepo.

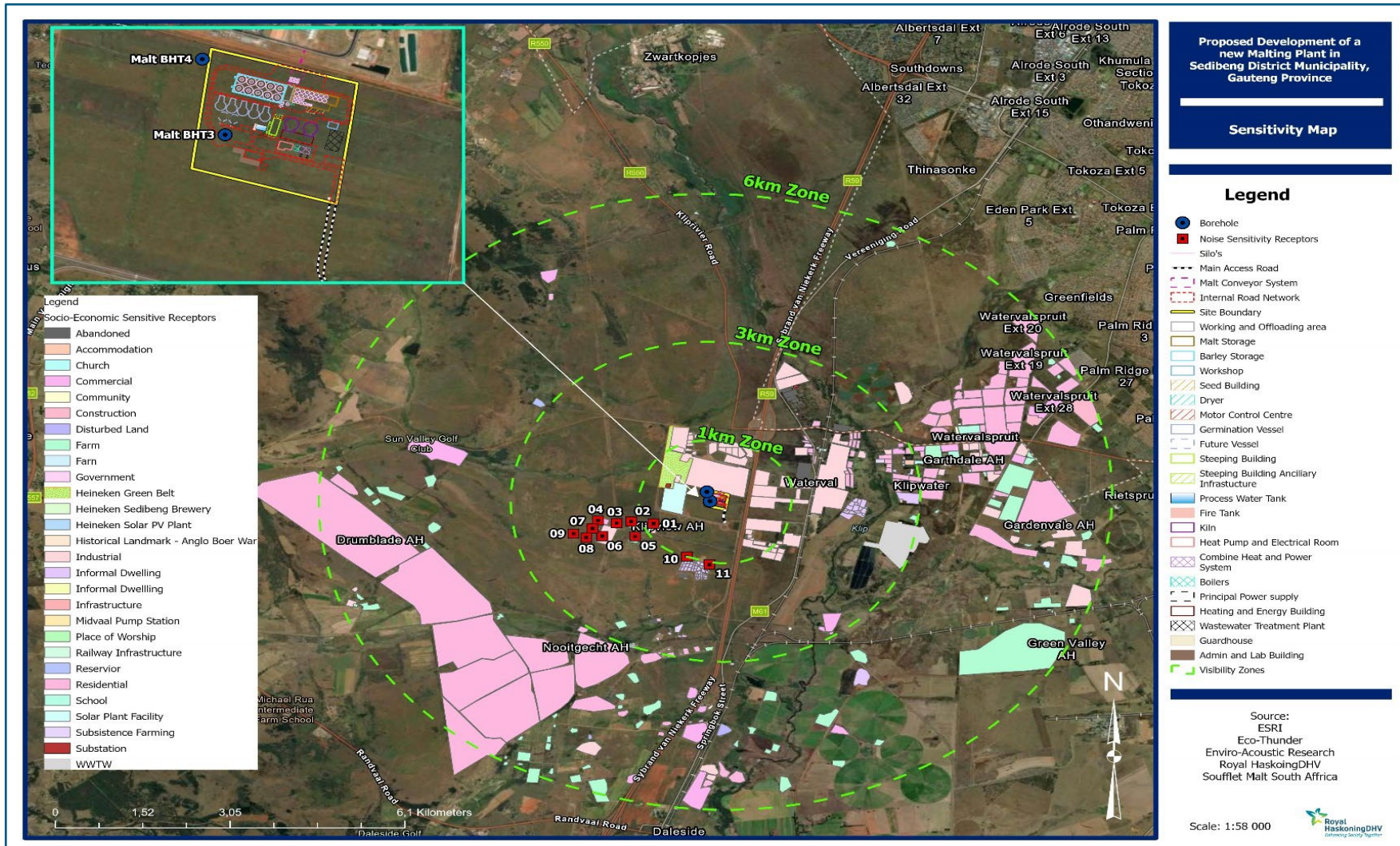
6.8 Phetoho ea Tlelaemete

Morero ona o na le tšusumetso e tlase ho isa ho e leka-lekaneng phetohong ea tlelaemete mabapi le tekanyetso e setseng ea Naha ka hona tumello ea eona ea tšebetso Morero o tla hlokeha ho tleleha likhase tsa CO₂-e selemo le selemo ka mokhoa oa tlhahlobo le tleleho oa marang-rang oa SAGERS.

6.9 Metsi a hloekileng

Ha ho litšusumetso tikolohong ea metsi a hloekileng kapa likarolo tsa metsi a hloekileng sebakeng se pota-potileng sebaka sa boithuto tse nahanoang 'me boemo ba kotsi tikolohong ea metsi a hloekileng bo nkuoa bo le tlase ho isa bohōleng bo itseng.

'Mapa oa sensitivity bakeng sa Morero o fanoa ka



Setšoantšo sa 3: Sensitivity Map

Kakaretso ea litšusumetso tse ka bang teng tse amanang le Morero nakong eohle ea bophelo ba eona e hlahisoa ho Lethathamo 3ho ea ho Lethathamo 5.

Lethathamo 3: Kakaretso ea Tšusumetso ea Mokhahlelo oa Kaho

Taeo	Tšusumetso	Ntle le ho Fokotsa	Ka Mitigation
Geotechnical	Ho thehoa ha li-sinkholes	E itekanetseng (-)	E itekanetseng (-)
Geohydrology	Mesebetsi ea lefats'e le ea kaho	E itekanetseng (-)	Tlase (-)
	Ho boloka metsi a litšila	E itekanetseng (-)	Tlase (-)
Hydrology	Tšitiso sebakeng sa vadose	E itekanetseng (-)	Tlase (-)
	Mesebetsi ea lefats'e le ea kaho	E itekanetseng (-)	Tlase (-)
Lerata	Mesebetsi ea kaho: nako ea letsatsi	Tlase (-)	Tlase (-)
	Mesebetsi ea kaho: bosiu -nako	Tlase (-)	Tlase (-)
Sephethephetho	Ho senyeha ha maemo a marangrang a litsela.	E itekanetseng (-)	E itekanetseng (-)
	Keketseho ea sephethephetho.	E itekanetseng (-)	E itekanetseng (-)
	Ho senyeha ha maemo a poloheho mebileng	E itekanetseng (-)	E itekanetseng (-)
Palaeontology	Tšusumetso ho mehloli ea paleontological	E itekanetseng (-)	Tlase (-)
Lefa	Tšenyotimetso ho mehloli ea lefa la baepolli ba lintho tsa khale	Tlase (-)	Tlase (-)
Tsa bophelo le moruo	Menyetla ea mesebetsi e tobileng le e sa tobang le nts'etsopele ea litsebo	Tlase (+)	E itekanetseng (+)
	Liphello tse ngatafatsa moruo.	Tlase (+)	E itekanetseng (+)
	Ho ata ha batho ba batlang mesebetsi le ho fetoha ha baahi	E itekanetseng (-)	Tlase (-)
	Tšireletseho le tšireletso	E itekanetseng (-)	Tlase (-)
	Litšusumetso tse senyang, ho kenyelletsa lerata le lerōle	E itekanetseng (-)	Tlase (-)
Lerōle le mesi	Lerōle le mesi e hlahisoang nakong ea kaho	E itekanetseng (-)	Tlase (-)
Tshenyeho	Ho hlahisa litšila nakong ea kaho	Tlase (-)	Tlase (-)

Lethathamo 4: Kakaretso ea Tšusumetso ea Mokhahlelo oa Ts'ebetso

Taeo	Tšusumetso	Ntle le ho Fokotsa	Ka Mitigation
Geohydrology	Ho moa metsi a ka tras'a lefatše ho feta tekano mekoting	E itekanetseng (-)	Tlase (-)
	P oor-quality seepage kapa ho bokellana ha metsi setšeng	E itekanetseng (-)	Tlase (-)
Hydrology	Tšilafalo ka lebaka la ho phalla ha boleng bo tlase	E itekanetseng (-)	Tlase (-)
Lerata	ts'ebetso : nako ea letsatsi	Tlase (-)	Tlase (-)
	ts'ebetso : bosiu -nako	Tlase (-)	Tlase (-)
Tsa bophelo le moruo	Menyetla ea mesebetsi e tobileng le e sa tobang le nts'etsopele ea litsebo	E itekanetseng (+)	E itekanetseng (+)
	Liphello tse ngatafatsa moruo.	E itekanetseng (+)	E itekanetseng (+)
	Liphello tsa Bophelo bo Botle le Tšireletseho Mosebetsing	E itekanetseng (-)	E itekanetseng (-)
Boleng ba Moea ¹	Keketseho ea likhakanyo tsa hora le tsa selemo le selemo tsa NO ₂	Sheba Mongolo o botlaaseng ba leqephe 1	Tlase (-)
	Keketseho ea likhakanyo tsa PM tsa hora le selemo.	Sheba Mongolo o botlaaseng ba leqephe 1	Tlase (-)
	Litšusumetso tsa monko ho li-receptor tse haufi	Sheba Mongolo o botlaaseng ba leqephe 1	Tlase (-)
	Lerōle la khathatso le ama li-receptor tse haufi	Sheba Mongolo o botlaaseng ba leqephe 1	Tlase (-)
Phetoho ea Tlalaemete ²	Tlatsetso ho tekanyetso e setseng ea Khabone ea Afrika Boroa	Sheba Mongolo o botlaaseng ba leqephe 2	E itekanetseng (-)
	Likotsi tse amang phetoho ea maemo a leholimo Morero (thempereichara e ntseng e eketseha, khatello ea mocheso, le mello ea hlaha).	Sheba Mongolo o botlaaseng ba leqephe 2	E itekanetseng (-)

¹Phokotso e kenyelitsoe moqapong.²Kaha phetoho ea tlaemete ke ntho e etsahalang lefatšeng ka bophara, ntšha ea tlhahlobo ha e sebetse ka botlalo tlhahlobong ea litlamorao tsa meso ea GHG phetohong ea tlaemete. Leha ho le joalo, criterion phetohong ke sesebelisoa se setle ka ho fetisisa sa tlhahlobo ea phello ea tlaemete.

Lethathamo 5: Kakaretso ea Tšusumetso ea Mokhahlelo oa ho Tlosa / oa ho Koala

Taeo	Tšusumetso	Ntle le ho Fokotsa	Ka Mitigation
Geohydrology	Ho khutlisetsoa morao ha metsi a ka tlas'a lefatše le ho felisoa ha likoti tse sebelisoang bakeng sa phepelo ea metsi a ka tlas'a lefatše	E itekanetseng (+)	Ha ho na phokotso e 'ngoe e sisintsoeng
	Boemo bo bobbe bo tsoa ho tsoa mesebetsing ea ho tlosa	E itekanetseng (-)	Tlase (-)
Hydrology	Boemo bo bobbe bo tsoa ho tsoa mesebetsing ea ho tlosa	E itekanetseng (-)	Tlase (-)
Tshenyeho	Ho hlahisa litšila nakong ea ho tlosa	Tlase (-)	Tlase (-)

7. Leano la Taolo ea Tikoloho le Sechaba (ESMP)

ESMP e bokelletsoe bakeng sa Morero o hlahosang mehato ea phokotso le taolo ho netefatsa litlamorao sechabeng le tikolohong, likotsi le melato e hloailoeng nakong ea boithuto ba ESIA li laoloa ka nepo nakong ea mokhahlelo oa kaho le ho netefatsa ntlafatso ea melemo ea tikoloho ea ntlafatso. lia fihleloa.

8. Ho Kopanela Batho

Moralo oa Likamano tsa Bathahaselli (SEP-“ Stakeholder Engagement Plan”) o lokisitsoe ho latela litlhoko tsa IFC ho lumella mokhoa oa litsela tse peli oa lipuisano. SEP e netefalitse hore therisano le bankakarolo le sechaba e sebetsa ka matla, ho fapana le ho sebetsa, 'me e tla kengoa ts'ebetsong nakong ea Morero (ke hore moralo, kaho, ts'ebetso le pheliso). Puisano ea sechaba ke karolo ea bohlokoa ea nts'etsopeleng ea morero 'me e lokela ho ba ts'ebetso e tsoelang pele e kenyeletsang ho fana ka boitsebiso ho batho ba nang le thahasello le ba anngoeng ke morero. Sepheo sa ho sebelisana le sechaba ke ho aha le ho boloka likamano tse hahang ha nako e ntse e ea le sechaba le likhoebo tse leng haufi le morero le ho tseba le ho fokotsa litlamorao tsa bohlokoa.

Bakeng sa therisano le ts'ebetso ea phatlalatso e amanang le Morero, sehlopha se ile sa latela litlhokahalo tse boletsoeng molaong oa naha le ho ntlafatsa litebello tsa lipuisano ka ho kenyelletsa litlhoko tsa boikamahanyo ba IFC. Lethathamo 6le fana ka kakaretso ea boitlamo ba baamehi bo entsoeng bakeng sa Morero.

Lethathamo 6: Kakaretso ea Liketsoana tsa Melato

Ketsahalo	Tihaloso
Ho Khetholla ba amehang	Bakamehi ba ne ba tsebahatsoa le a database ea kaofela Mekha e Thahasellang le e Amehileng (I&APs) e ne e hlophisoa.
Phatlalatso ea Tokomane ea Boitsebiso ba Background (BID)	Li-BID ba ne ba ajoa ka mokhoa oa elektronike le ka letsoho ho I&APs.

Ketsahalo	Tlhaloso
Tlhomamiso ea Litsebiso tsa Sebaka	Ho ile ha etsoa litsebiso tse ngata tsa sebaka sa A2 libakeng tse latelang: Sebaka sa sebaka seo, Laeborari ea Sechaba ea De Deur , Laeborari ea Sechaba ea Meyerton le Seteishene sa Sepolesa sa Kliprivier.
Phatlalatso ea Likoranta	Northern Ster (Local Koranta).
Likopano	Lintlha tsa likopano tse reriloeng li tla arolelanoa le I&APs.
Tlhahlobo ea moralo oa Tlaleho ea EIA	The moralo oa Tlaleho oa ESIA o tla phatlalatsoa le entsoe fumaneha bakeng sa a nako ea 30 matsatsi bakeng sa tlhahlobo le maikutlo a ba amehang.
Tlaleho ea Maikutlo le Likarabo	Maikutlo a amohetsoeng bakeng sa Morero le likarabo tse amanang le ona li tla kenngoa Tlalehong ea Maikutlo le Likarabo.
Kamohelo ea Tikoloho	Li-I&AP tsohle tse ngolisitsoeng li tla tsebisoa ka tumello ea tikoloho hang ha e fanoa ke Bolaoli bo nang le Bokhoni.

9. Monyetla oa ho Hlalosa

Moralo oa Tlaleho ea ESIA le ESMP li fumaneha bakeng sa nako ea tlhahlobo ea matsatsi a 30 ho tloha ka la 19 Phato - 17 Loetse 2024. Moralo oa Tlaleho ea ESIA le ESMP li tla fumaneha libakeng tse latelang:

- Laeborari ea Sechaba ea De Deur , Mehaho ea Masepala ea De Deur Sekhutlong sa Weillbach & Middle Street, De Deur , 1884;
- Meyerton (E Khōlō), Loch Street, Meyerton , 1961; le
- Sebaka sa marang-rang sa Royal HaskoningDHV <https://www.royalhaskoningdhv.com/en/countries/south-africa/environmental-reports>

10. Qetello

Morero ha o hlahise litšusumetso tse kotsi tikolohong e amoheloang 'me litšusumetso tse itekanetseng tse hloailoeng li ka fokotsoa haholo ho sebelisoa mehato ea phokotso e sisintsoeng ho ESMP. Ka hona, EAP e khothaletsa Morero o sisintsoeng hore o tsoele pele joalo ka ha ho reriloe.

Appendix I(e): Screening Report



**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS
REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE
ENVIRONMENTAL SENSITIVITY**

EIA Reference number: Soufflet Malting Plant

Project name: Malting Plant Pipeline

Project title: Malting Plant

Date screening report generated: 17/05/2024 15:43:17

Applicant: Soufflet Malting

Compiler: RHDHV

Compiler signature:
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Application Category: Utilities Infrastructure | Pipelines | Water | Waste Water

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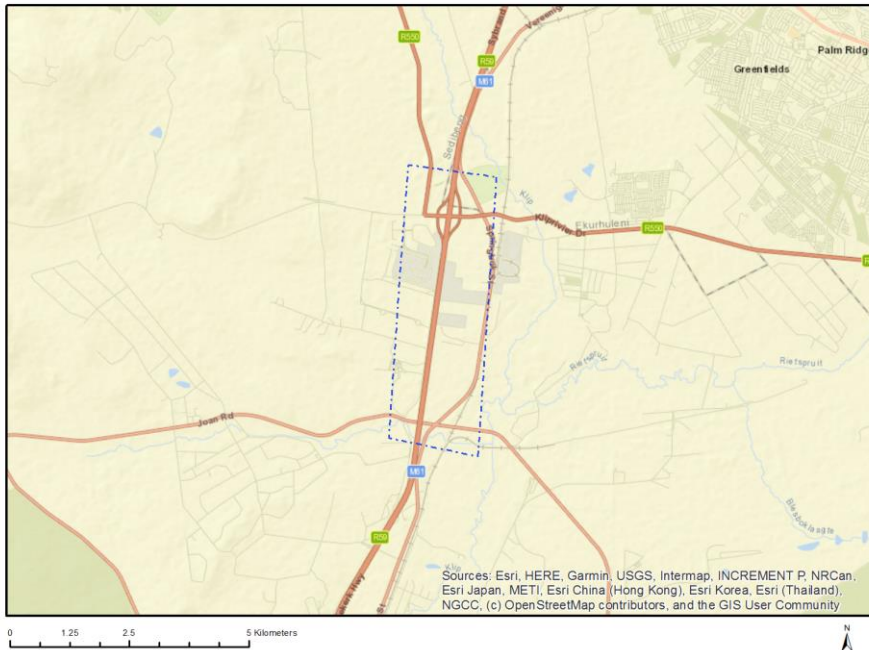
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Proposed Project Location

Orientation map 1: General location



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	GRACEVIEW	247	0	26°26'5.96S	28°4'23.49E	Erven
2	GRACEVIEW	244	4	26°26'3.92S	28°4'18.24E	Erven
3	KLIPRIVER BUSINESS PARK	85	0	26°25'24.77S	28°4'56.93E	Erven
4	KLIPRIVER BUSINESS PARK	125	0	26°24'51.71S	28°4'36.08E	Erven
5	KLIPRIVER BUSINESS PARK	120	0	26°24'50.16S	28°4'46.45E	Erven
6	KLIPRIVER BUSINESS PARK	118	0	26°24'54.66S	28°4'54.24E	Erven
7	KLIPRIVER BUSINESS PARK	27	0	26°24'59.12S	28°4'48.99E	Erven
8	KLIPRIVER BUSINESS PARK	29	0	26°24'59.17S	28°4'55.5E	Erven
9	KLIPRIVER BUSINESS PARK	99	0	26°25'6.54S	28°4'49.68E	Erven
10	KLIPRIVER BUSINESS PARK	106	0	26°25'17.33S	28°4'54.65E	Erven
11	KLIPRIVER BUSINESS PARK	108	0	26°25'21.62S	28°4'52.55E	Erven
12	KLIPRIVER BUSINESS PARK	15	0	26°24'58.96S	28°4'17.74E	Erven
13	KLIPRIVER BUSINESS PARK	13	0	26°24'59.11S	28°4'23.27E	Erven
14	KLIPRIVER BUSINESS PARK	1	0	26°24'45.82S	28°4'26.58E	Erven
15	KLIPRIVER BUSINESS PARK	58	0	26°25'5.28S	28°4'27.3E	Erven

	PARK					
16	KLIPRIVER BUSINESS PARK	60	0	26°25'11.12S	28°4'28.33E	Erven
17	KLIPRIVER BUSINESS PARK	67	0	26°25'21.09S	28°4'16.5E	Erven
18	KLIPRIVER BUSINESS PARK	129	0	26°25'14.48S	28°4'10.78E	Erven
19	KLIPRIVER BUSINESS PARK	48	0	26°25'18.13S	28°4'5.49E	Erven
20	GRACEVIEW	243	0	26°25'32.94S	28°4'12.8E	Erven
21	KLIPRIVER BUSINESS PARK	89	0	26°25'29.65S	28°4'45.59E	Erven
22	KLIPRIVER BUSINESS PARK	124	0	26°24'49.2S	28°4'36.91E	Erven
23	KLIPRIVER BUSINESS PARK	119	0	26°24'55.45S	28°4'47.94E	Erven
24	KLIPRIVER BUSINESS PARK	94	0	26°25'23.8S	28°5'2.91E	Erven
25	KLIPRIVER BUSINESS PARK	109	0	26°25'20.67S	28°4'46.4E	Erven
26	KLIPRIVER BUSINESS PARK	23	0	26°24'49.33S	28°4'25.59E	Erven
27	KLIPRIVER BUSINESS PARK	16	0	26°24'59.11S	28°4'15.3E	Erven
28	KLIPRIVER BUSINESS PARK	5	0	26°24'46.43S	28°4'35.68E	Erven
29	KLIPRIVER BUSINESS PARK	2	0	26°24'45.15S	28°4'29.89E	Erven
30	KLIPRIVER BUSINESS PARK	61	0	26°25'13.68S	28°4'29.33E	Erven
31	KLIPRIVER BUSINESS PARK	68	0	26°25'19.61S	28°4'12.54E	Erven
32	KLIPRIVER BUSINESS PARK	90	0	26°25'27.35S	28°4'39.53E	Erven
33	KLIPRIVER BUSINESS PARK	92	0	26°25'24.54S	28°4'45.49E	Erven
34	KLIPRIVER BUSINESS PARK	113	0	26°24'38.88S	28°4'48.84E	Erven
35	KLIPRIVER BUSINESS PARK	122	0	26°24'44.07S	28°4'38.26E	Erven
36	KLIPRIVER BUSINESS PARK	24	0	26°24'47.08S	28°4'26.64E	Erven
37	KLIPRIVER BUSINESS PARK	8	0	26°24'53.73S	28°4'32.72E	Erven
38	KLIPRIVER BUSINESS PARK	6	0	26°24'49.14S	28°4'34.53E	Erven
39	GRACEVIEW	253	0	26°26'15.57S	28°4'17.27E	Erven
40	GRACEVIEW	251	0	26°26'9.11S	28°3'55.81E	Erven
41	GRACEVIEW	244	0	26°25'51.97S	28°4'7.29E	Erven
42	GRACEVIEW	249	0	26°26'1.97S	28°4'4.23E	Erven
43	KLIPRIVER BUSINESS PARK	93	0	26°25'24.66S	28°4'50.4E	Erven
44	KLIPRIVER BUSINESS PARK	86	0	26°25'25.09S	28°4'55.08E	Erven
45	KLIPRIVER BUSINESS PARK	97	0	26°25'12.87S	28°4'44.24E	Erven
46	KLIPRIVER BUSINESS PARK	98	0	26°25'10.14S	28°4'46.58E	Erven
47	KLIPRIVER BUSINESS PARK	101	0	26°25'6.79S	28°4'57.68E	Erven
48	KLIPRIVER BUSINESS	102	0	26°25'12.44S	28°4'59.4E	Erven

	PARK					
49	KLIPRIVER BUSINESS PARK	105	0	26°25'14.6S	28°4'54.66E	Erven
50	KLIPRIVER BUSINESS PARK	20	0	26°24'53.58S	28°4'25.19E	Erven
51	KLIPRIVER BUSINESS PARK	19	0	26°24'54.53S	28°4'20.82E	Erven
52	KLIPRIVER BUSINESS PARK	55	0	26°25'5.12S	28°4'11.66E	Erven
53	KLIPRIVER BUSINESS PARK	56	0	26°25'4.61S	28°4'16.44E	Erven
54	KLIPRIVER BUSINESS PARK	64	0	26°25'23.6S	28°4'31.87E	Erven
55	KLIPRIVER BUSINESS PARK	65	0	26°25'22.79S	28°4'22.27E	Erven
56	GRACEVIEW	246	0	26°26'7.01S	28°4'17.37E	Erven
57	KLIPRIVER BUSINESS PARK	127	0	26°25'23.77S	28°4'27.37E	Erven
58	KLIPRIVER BUSINESS PARK	95	0	26°25'19.55S	28°4'40.71E	Erven
59	KLIPRIVER BUSINESS PARK	96	0	26°25'16.11S	28°4'41.72E	Erven
60	KLIPRIVER BUSINESS PARK	103	0	26°25'19.41S	28°5'0.12E	Erven
61	KLIPRIVER BUSINESS PARK	104	0	26°25'11.71S	28°4'55.57E	Erven
62	KLIPRIVER BUSINESS PARK	22	0	26°24'49.07S	28°4'29.97E	Erven
63	KLIPRIVER BUSINESS PARK	21	0	26°24'51.98S	28°4'29.22E	Erven
64	KLIPRIVER BUSINESS PARK	18	0	26°24'54.81S	28°4'16.76E	Erven
65	KLIPRIVER BUSINESS PARK	17	0	26°24'57.5S	28°4'11E	Erven
66	KLIPRIVER BUSINESS PARK	4	0	26°24'43.26S	28°4'36.09E	Erven
67	KLIPRIVER BUSINESS PARK	3	0	26°24'43.92S	28°4'33.5E	Erven
68	KLIPRIVER BUSINESS PARK	62	0	26°25'16.11S	28°4'30.94E	Erven
69	KLIPRIVER BUSINESS PARK	63	0	26°25'19.34S	28°4'31.78E	Erven
70	KLIPRIVER BUSINESS PARK	84	0	26°25'31.59S	28°4'57.64E	Erven
71	KLIPRIVER BUSINESS PARK	88	0	26°25'30.45S	28°4'51.32E	Erven
72	GRACEVIEW	242	0	26°25'26.49S	28°3'50E	Erven
73	KLIPRIVER BUSINESS PARK	117	0	26°24'53.51S	28°4'51.31E	Erven
74	KLIPRIVER BUSINESS PARK	115	0	26°24'46.69S	28°4'47.81E	Erven
75	KLIPRIVER BUSINESS PARK	111	0	26°25'13.87S	28°4'50.46E	Erven
76	KLIPRIVER BUSINESS PARK	12	0	26°24'59.21S	28°4'25.7E	Erven
77	KLIPRIVER BUSINESS PARK	10	0	26°24'56.74S	28°4'29.3E	Erven
78	KLIPRIVER BUSINESS PARK	57	0	26°25'4.51S	28°4'21.46E	Erven
79	KLIPRIVER BUSINESS PARK	74	0	26°25'17.18S	28°4'26.51E	Erven

80	KLIPRIVER BUSINESS PARK	76	0	26°25'16.24S	28°4'20.08E	Erven
81	KLIPRIVER BUSINESS PARK	49	0	26°25'14.71S	28°4'5.25E	Erven
82	GRACEVIEW	244	5	26°25'54.83S	28°4'23.77E	Erven
83	KLIPRIVER BUSINESS PARK	82	0	26°25'25.68S	28°4'59.6E	Erven
84	KLIPRIVER BUSINESS PARK	91	0	26°25'23.2S	28°4'39.6E	Erven
85	KLIPRIVER BUSINESS PARK	121	0	26°24'43.07S	28°4'45.36E	Erven
86	KLIPRIVER BUSINESS PARK	28	0	26°24'59.22S	28°4'52.85E	Erven
87	KLIPRIVER BUSINESS PARK	100	0	26°25'5.77S	28°4'54.66E	Erven
88	KLIPRIVER BUSINESS PARK	107	0	26°25'18.91S	28°4'51.01E	Erven
89	KLIPRIVER BUSINESS PARK	25	0	26°24'52.78S	28°4'7.27E	Erven
90	KLIPRIVER BUSINESS PARK	14	0	26°24'58.93S	28°4'20.59E	Erven
91	KLIPRIVER BUSINESS PARK	7	0	26°24'51.67S	28°4'34.07E	Erven
92	KLIPRIVER BUSINESS PARK	59	0	26°25'8.84S	28°4'26.69E	Erven
93	KLIPRIVER BUSINESS PARK	66	0	26°25'21.89S	28°4'18.98E	Erven
94	KLIPRIVER BUSINESS PARK	71	0	26°25'9.61S	28°4'15.64E	Erven
95	KLIPRIVER BUSINESS PARK	53	0	26°25'12.3S	28°4'6.03E	Erven
96	GRACEVIEW	252	0	26°26'12.01S	28°4'5.39E	Erven
97	KLIPRIVER BUSINESS PARK	83	0	26°25'30.65S	28°5'3.15E	Erven
98	KLIPRIVER BUSINESS PARK	87	0	26°25'27.58S	28°4'53.97E	Erven
99	KLIPRIVER BUSINESS PARK	116	0	26°24'48.98S	28°4'49.79E	Erven
100	KLIPRIVER BUSINESS PARK	114	0	26°24'46.45S	28°4'45.82E	Erven
101	KLIPRIVER BUSINESS PARK	110	0	26°25'16.77S	28°4'48.45E	Erven
102	KLIPRIVER BUSINESS PARK	112	0	26°25'10.85S	28°4'51.89E	Erven
103	KLIPRIVER BUSINESS PARK	123	0	26°24'46.57S	28°4'37.84E	Erven
104	KLIPRIVER BUSINESS PARK	11	0	26°24'58.43S	28°4'27.98E	Erven
105	KLIPRIVER BUSINESS PARK	9	0	26°24'55.27S	28°4'30.93E	Erven
106	KLIPRIVER BUSINESS PARK	72	0	26°25'9.62S	28°4'20.95E	Erven
107	KLIPRIVER BUSINESS PARK	75	0	26°25'16.75S	28°4'23.78E	Erven
108	KLIPRIVER BUSINESS PARK	77	0	26°25'15.69S	28°4'16.62E	Erven
109	KLIPRIVER BUSINESS PARK	79	0	26°25'10.76S	28°4'12.12E	Erven
110	KLIPRIVER BUSINESS PARK	33	0	26°25'9.19S	28°4'5.83E	Erven
111	KLIPRIVER BUSINESS	128	0	26°25'12.48S	28°4'18.93E	Erven

	PARK					
112	ZWARTKOPJES	143	0	26°22'51.99S	28°4'12.69E	Farm
113	WITKOP	180	0	26°29'0.21S	28°4'49.22E	Farm
114	WATERVAL	150	0	26°25'42.4S	28°5'24.34E	Farm
115	NOOITGEDACHT	176	0	26°26'42.82S	28°1'19.31E	Farm
116	WATERVAL	150	35	26°26'23.64S	28°4'51.96E	Farm Portion
117	WATERVAL	150	48	26°27'16.22S	28°4'21.17E	Farm Portion
118	WATERVAL	150	86	26°24'48.41S	28°4'43.98E	Farm Portion
119	ZWARTKOPJES	143	29	26°24'24.32S	28°4'53.31E	Farm Portion
120	WATERVAL	150	76	26°24'37.81S	28°4'52.31E	Farm Portion
121	WATERVAL	150	29	26°25'6.69S	28°4'34.16E	Farm Portion
122	WITKOP	180	184	26°27'16.76S	28°5'1.5E	Farm Portion
123	WATERVAL	150	88	26°24'59.16S	28°4'41.95E	Farm Portion
124	WATERVAL	150	53	26°26'0.26S	28°5'4.55E	Farm Portion
125	WATERVAL	150	69	26°26'46.44S	28°4'53.4E	Farm Portion
126	WITKOP	180	128	26°27'23.49S	28°4'42.24E	Farm Portion
127	WATERVAL	150	13	26°27'12.72S	28°4'23.69E	Farm Portion
128	NOOITGEDACHT	176	4	26°27'8.32S	28°3'49.99E	Farm Portion
129	WATERVAL	150	18	26°25'14.59S	28°4'37.05E	Farm Portion
130	WATERVAL	150	49	26°26'58.71S	28°4'15.41E	Farm Portion
131	WATERVAL	150	92	26°25'28.36S	28°4'49.61E	Farm Portion
132	WATERVAL	150	59	26°25'37.37S	28°5'2.28E	Farm Portion
133	WATERVAL	150	36	26°26'11.7S	28°4'32.24E	Farm Portion
134	WATERVAL	150	87	26°24'54.42S	28°4'17.18E	Farm Portion
135	WATERVAL	150	52	26°26'7.66S	28°5'3.22E	Farm Portion
136	WATERVAL	150	54	26°26'15.82S	28°5'1.77E	Farm Portion
137	WATERVAL	150	70	26°27'13.22S	28°4'40.75E	Farm Portion
138	WATERVAL	150	19	26°24'45.06S	28°5'3.46E	Farm Portion
139	WATERVAL	150	24	26°26'5.44S	28°4'37.42E	Farm Portion
140	WATERVAL	150	57	26°26'2.79S	28°5'4.9E	Farm Portion
141	WATERVAL	150	97	26°25'17.94S	28°4'52.04E	Farm Portion
142	WATERVAL	150	93	26°25'8.24S	28°4'51.67E	Farm Portion
143	WITKOP	180	130	26°27'21.7S	28°4'19.27E	Farm Portion
144	WATERVAL	150	46	26°25'12.93S	28°5'4.14E	Farm Portion
145	WITKOP	180	20	26°27'45.09S	28°4'45.69E	Farm Portion
146	WITKOP	180	183	26°27'19.38S	28°4'27.43E	Farm Portion
147	WATERVAL	150	31	26°25'56.14S	28°5'6.94E	Farm Portion
148	WATERVAL	150	106	26°25'40.7S	28°4'52E	Farm Portion
149	WATERVAL	150	101	26°26'9.88S	28°3'59.41E	Farm Portion
150	ZWARTKOPJES	143	25	26°22'41.25S	28°3'44.83E	Farm Portion
151	WATERVAL	150	110	26°25'50.89S	28°4'46.19E	Farm Portion
152	WATERVAL	150	90	26°25'12.34S	28°4'20.94E	Farm Portion
153	NOOITGEDACHT	176	5	26°27'49.98S	28°2'30.53E	Farm Portion
154	WATERVAL	150	77	26°24'57.88S	28°5'4.91E	Farm Portion
155	WATERVAL	150	91	26°25'23.81S	28°4'26.56E	Farm Portion
156	WATERVAL	150	102	26°25'45.13S	28°5'1.28E	Farm Portion
157	WATERVAL	150	107	26°26'13.3S	28°4'42.8E	Farm Portion
158	NOOITGEDACHT	176	35	26°27'17.1S	28°3'56.84E	Farm Portion
159	WATERVAL	150	120	26°26'7.82S	28°4'55.69E	Farm Portion
160	WATERVAL	150	47	26°25'10.54S	28°5'3.58E	Farm Portion
161	WATERVAL	150	84	26°25'35.96S	28°4'55.46E	Farm Portion
162	WATERVAL	150	83	26°25'31.16S	28°4'8.96E	Farm Portion
163	WITKOP	180	126	26°27'32.75S	28°4'16.49E	Farm Portion
164	WATERVAL	150	26	26°26'14.91S	28°4'54.54E	Farm Portion
165	WITKOP	180	182	26°27'19.76S	28°4'15.23E	Farm Portion
166	WATERVAL	150	68	26°25'10.43S	28°5'2.45E	Farm Portion
167	WATERVAL	150	61	26°25'35.49S	28°4'43.81E	Farm Portion
168	WATERVAL	150	73	26°25'36.38S	28°4'49.61E	Farm Portion
169	WATERVAL	150	60	26°25'38.55S	28°4'58.27E	Farm Portion
170	WATERVAL	150	38	26°25'34.11S	28°4'35.69E	Farm Portion

171	WATERVAL	150	109	26°25'46.03S	28°4'44.26E	Farm Portion
172	WATERVAL	150	89	26°25'10.13S	28°4'2.15E	Farm Portion
173	WATERVAL	150	22	26°26'19.52S	28°4'34.48E	Farm Portion
174	WATERVAL	150	28	26°25'40.21S	28°4'57.3E	Farm Portion
175	WATERVAL	150	85	26°25'45.03S	28°4'58.24E	Farm Portion
176	WATERVAL	150	27	26°25'44.43S	28°4'48.65E	Farm Portion
177	WATERVAL	150	105	26°25'40.33S	28°4'34.86E	Farm Portion
178	WATERVAL	150	25	26°25'59.03S	28°4'47.55E	Farm Portion
179	WATERVAL	150	10	26°25'8.3S	28°5'0.06E	Farm Portion
180	WATERVAL	150	103	26°25'44.98S	28°4'55.15E	Farm Portion
181	WATERVAL	150	104	26°25'43.99S	28°4'37.86E	Farm Portion
182	WATERVAL	150	6	26°26'42.66S	28°4'10.23E	Farm Portion
183	WATERVAL	150	34	26°26'23.82S	28°4'33.08E	Farm Portion
184	WATERVAL	150	100	26°25'51.79S	28°4'4.38E	Farm Portion
185	KLIPRIVER BUSINESS PARK	26	0	26°24'42.92S	28°4'31.26E	Public Place
186	KLIPRIVER BUSINESS PARK	126	0	26°24'41.18S	28°4'38.4E	Public Place

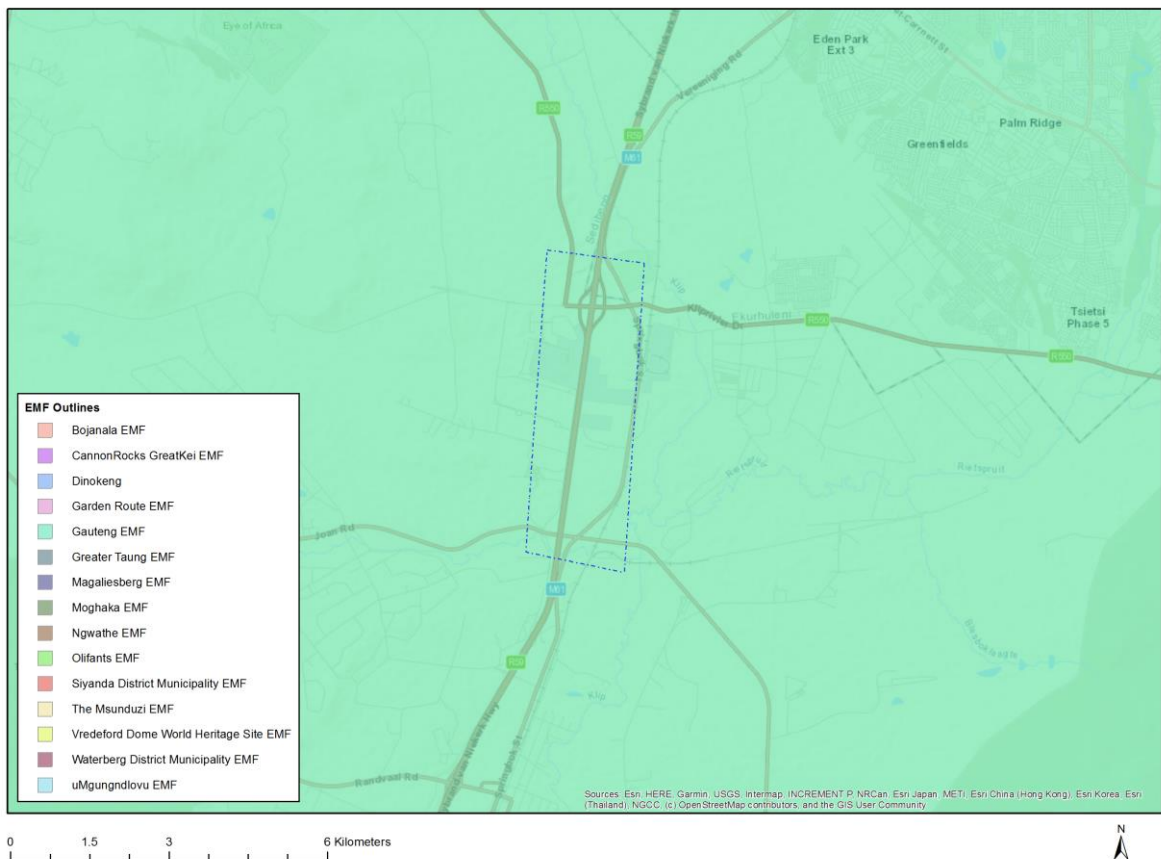
Development footprint¹ vertices:
No development footprint(s) specified.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	14/12/16/3/3/2/375/AM1	Solar PV	Approved	14.9
2	14/12/16/3/3/2/825	Solar PV	Approved	0
3	002/15-16/E0152	Solar PV	Approved	14.1
4	12/12/20/2551	Solar PV	Approved	21.2
5	12/12/20/2530	Solar PV	Approved	21.2
6	14/12/16/3/3/1/569	Solar PV	Approved	20.5

¹ “development footprint”, means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Gauteng EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/GPEMF_2021_Gazette_and_summary.pdf

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is: **Utilities Infrastructure | Pipelines | Water | Waste Water.**

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Central corridor	https://screening.environment.gov.za/ScreeningDownloads/Developmen

	tZones/Combined_EGI.pdf
Air Quality-Vaal Triangle Airshed Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Final_VTAPA_AQMP_20090408_-15_April_2009.pdf
Air Quality-Highveld Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/HIGHVELD_PRIORITY_AREA_AQMP.pdf
Strategic Gas Pipeline Corridors-Phase 3: Richards Bay to Gauteng	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf
Gauteng EMF-Urban development zone 1	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Zone1_2021.pdf
Gauteng EMF-Industrial and large commercial focus zone 5	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Zone5_2021.pdf
Main Electricity Distribution Substation	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Distribution_Transmission.pdf

Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

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			

Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

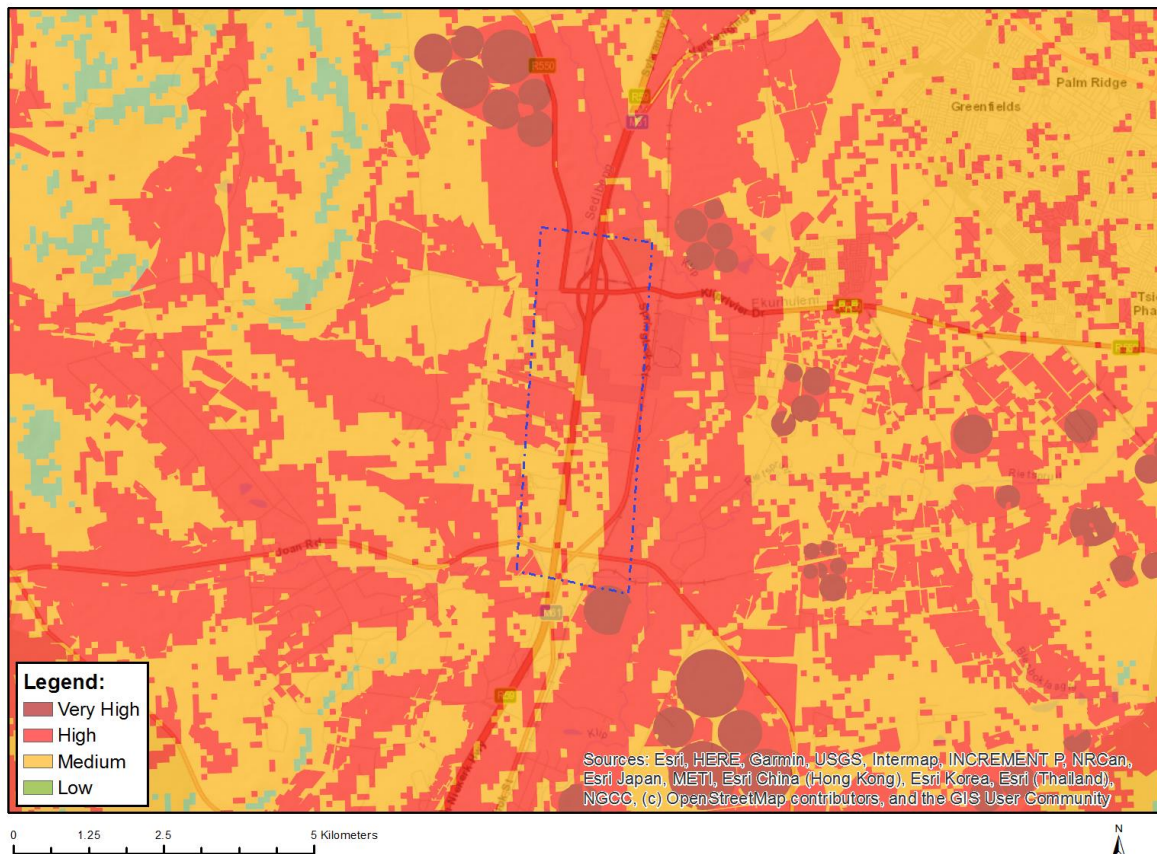
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf

3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf
6	Hydrology Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
7	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
8	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
9	Seismicity Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
10	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
11	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

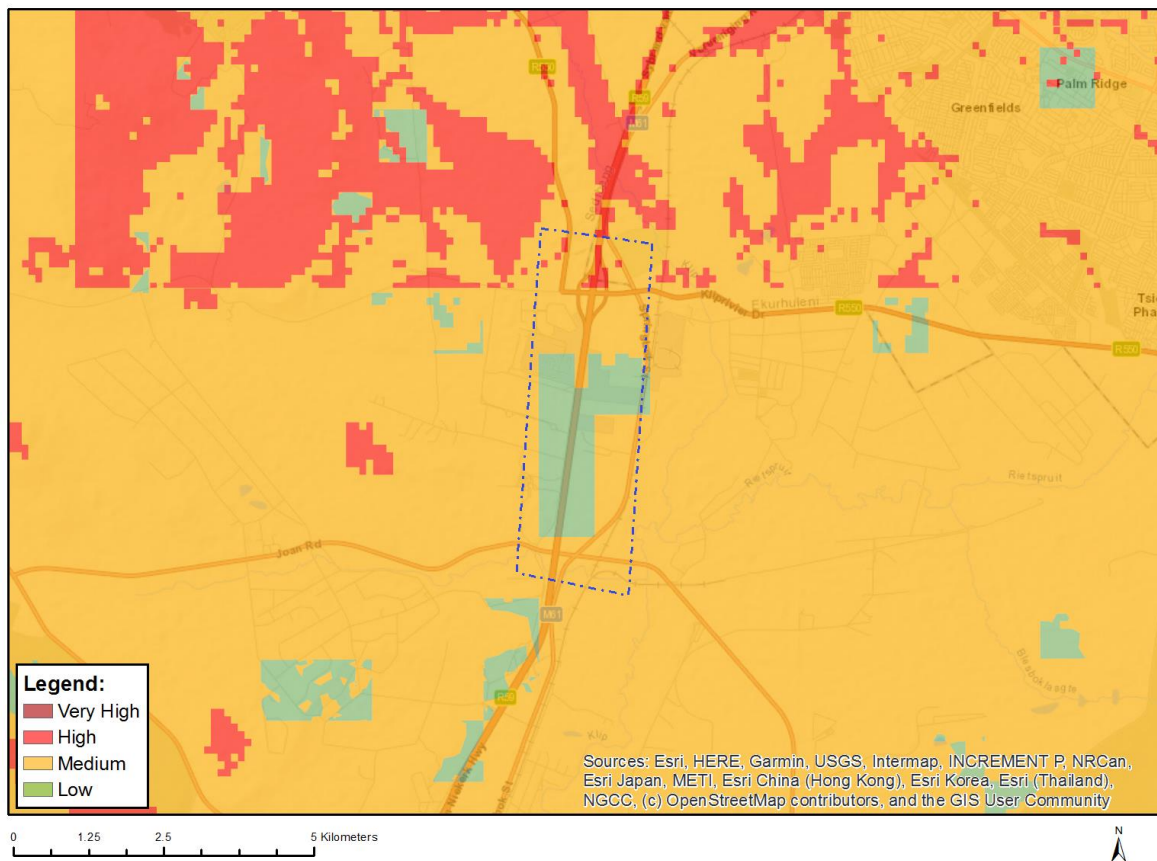


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
Very High	Pivot Irrigation;Land capability;09. Moderate-High/10. Moderate-High

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



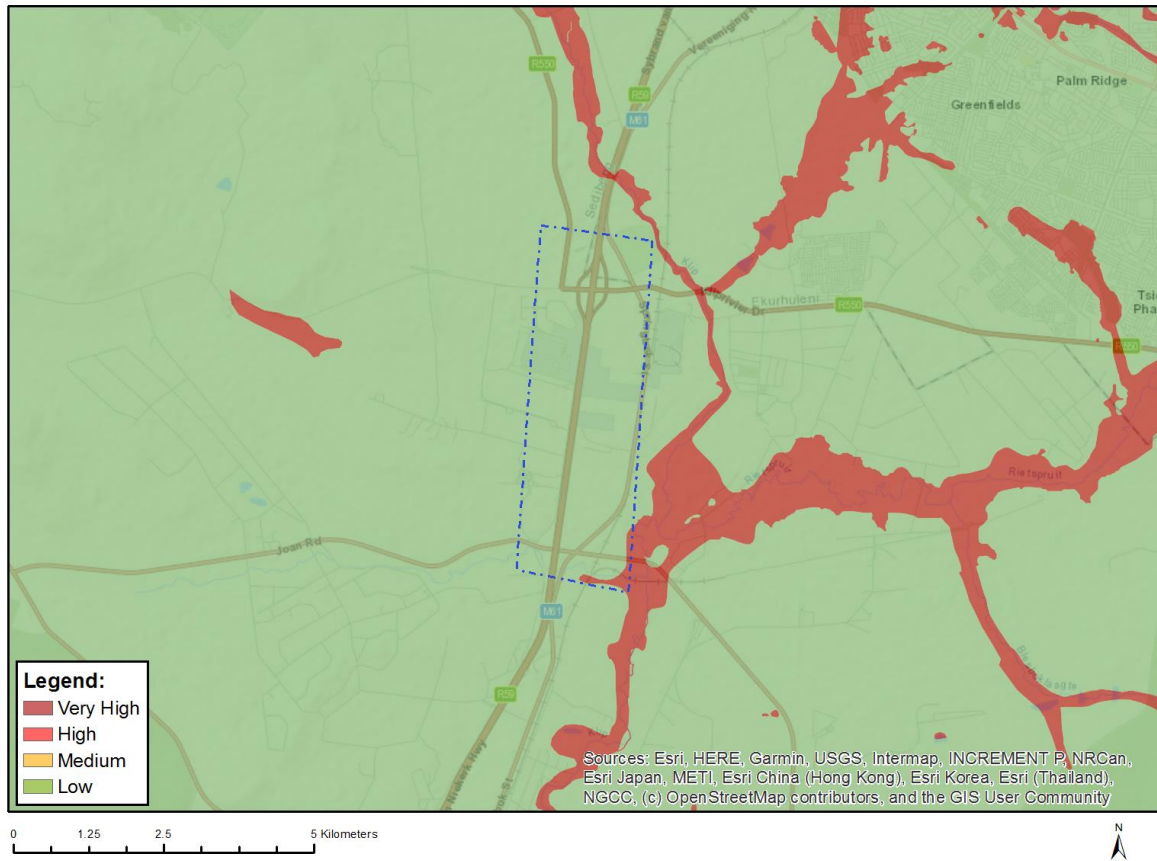
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Tyto capensis
High	Aves-Circus ranivorus
Low	Subject to confirmation
Medium	Aves-Tyto capensis
Medium	Aves-Circus ranivorus
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crociodura maquassiensis
Medium	Mammalia-Dasymys robertsii
Medium	Mammalia-Hydrictris maculicollis
Medium	Mammalia-Ourebia ourebi ourebi

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

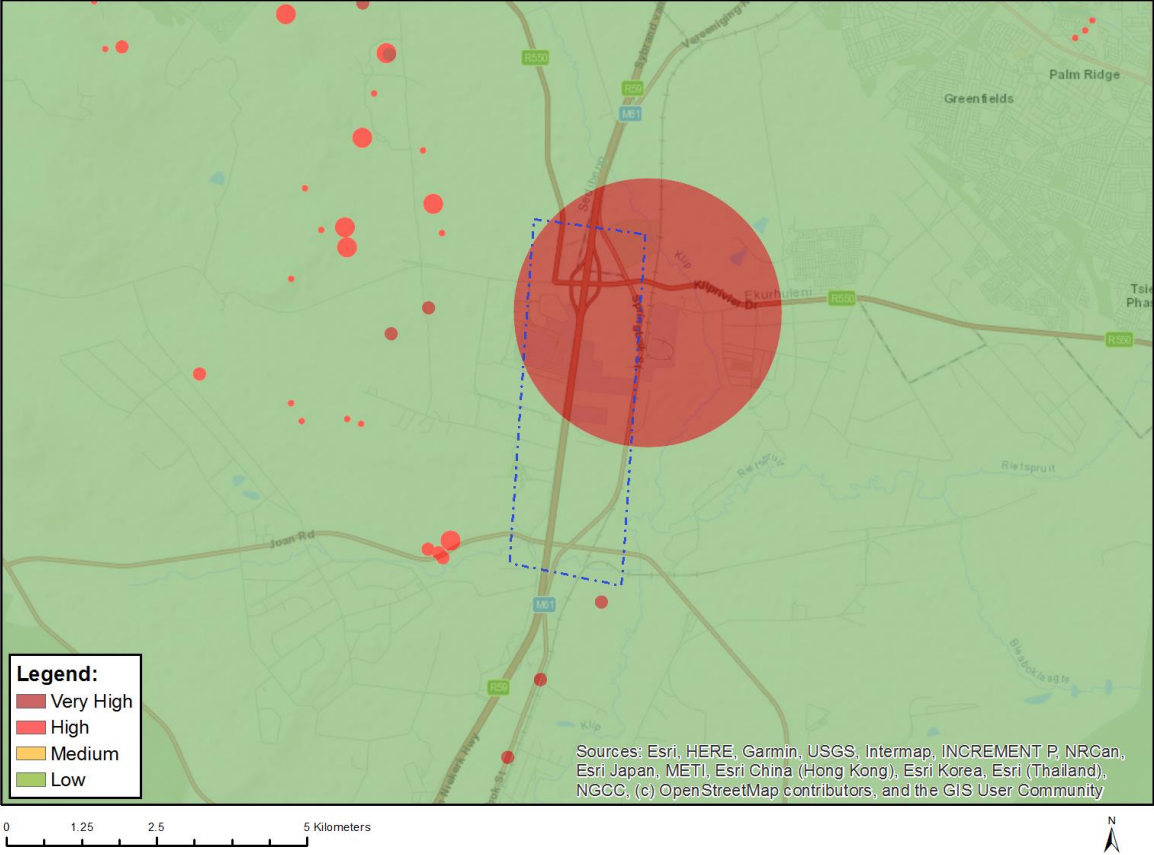


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Wetlands_Dry Highveld Grassland Bioregion (Floodplain)

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

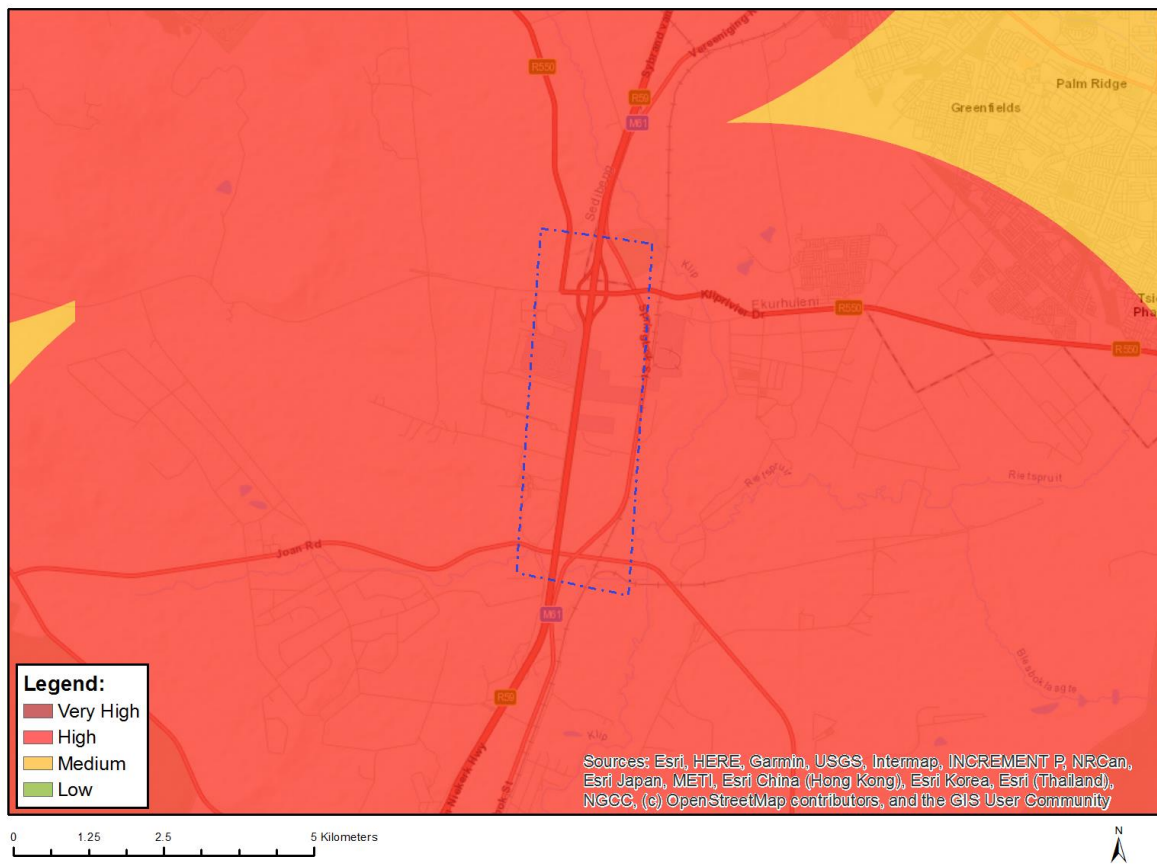


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Within 2km of a Grade II Heritage site

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

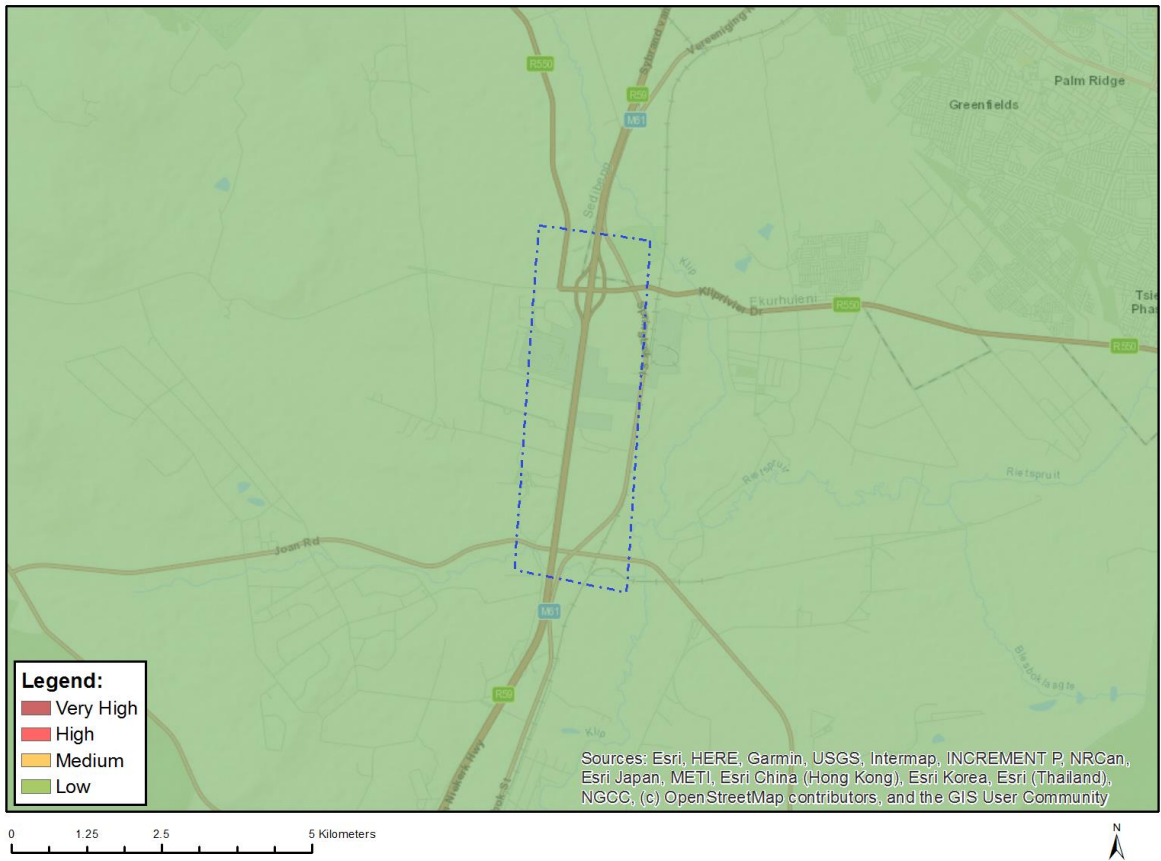


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
High	Dangerous and restricted airspace as demarcated
Medium	Between 15 and 35 km from a civil aviation radar
Medium	Between 15 and 35 km from a major civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

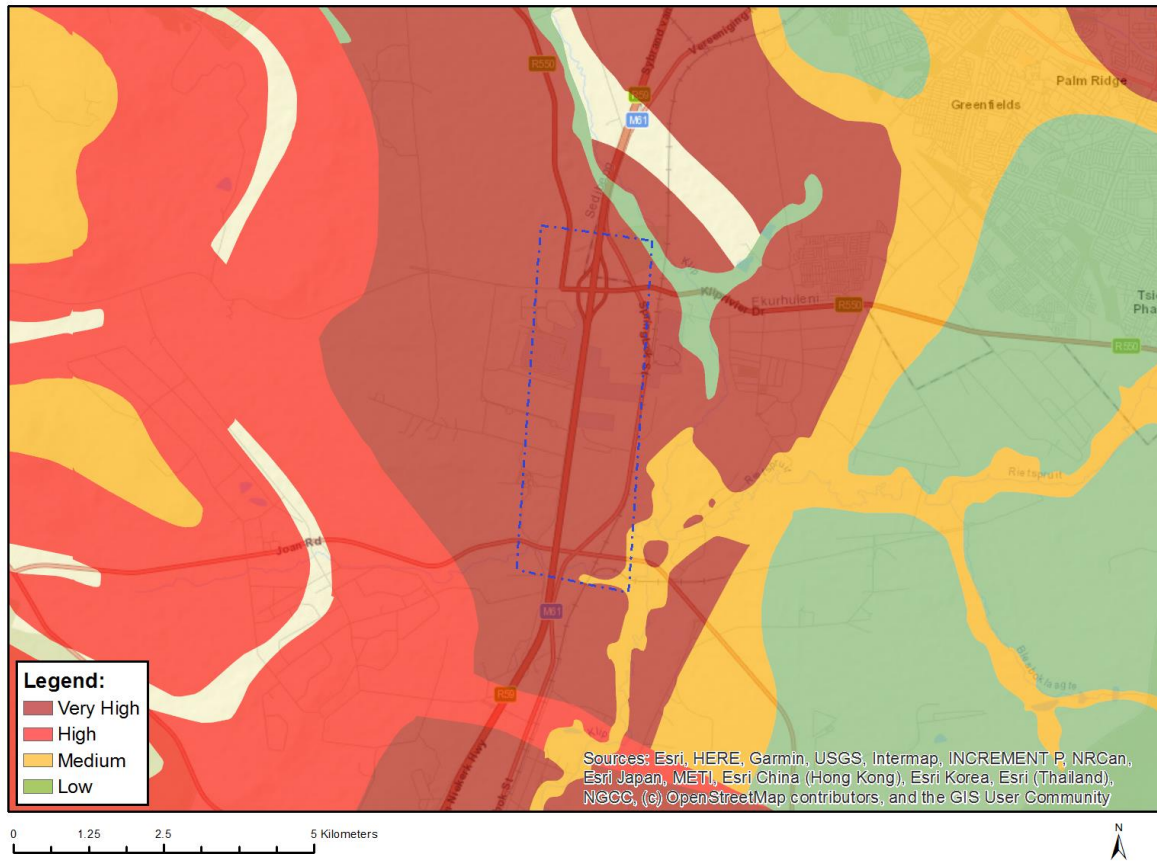


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

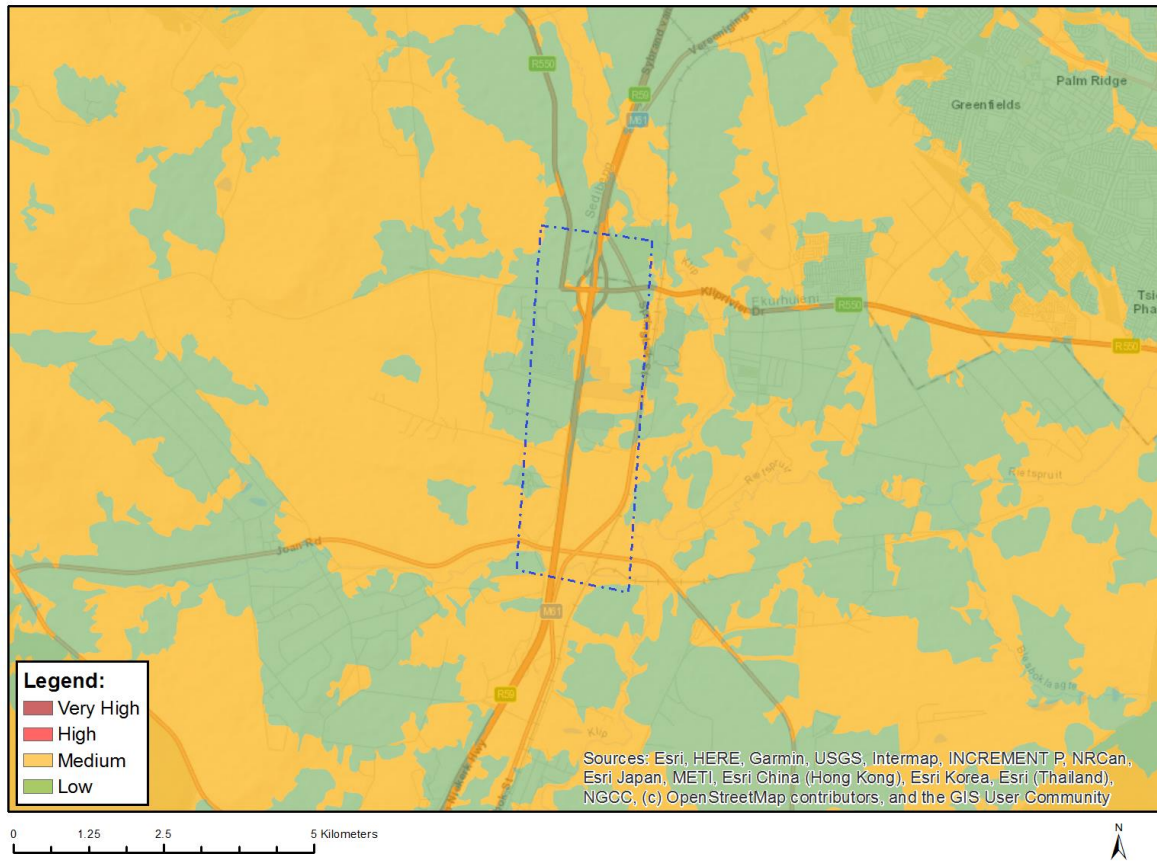


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Features with a Low paleontological sensitivity
Medium	Features with a Medium paleontological sensitivity
Very High	Features with a Very High paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



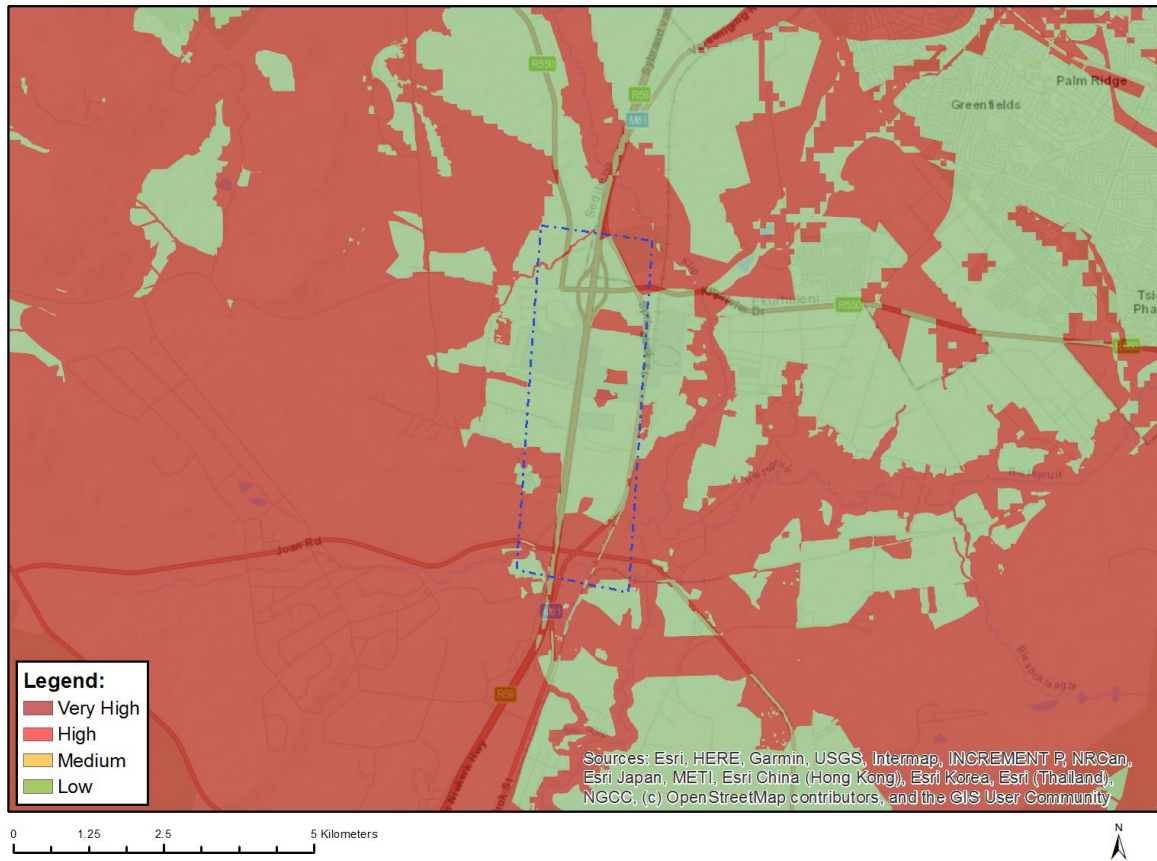
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Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Sensitive species 1252
Medium	Khadia beswickii
Medium	Sensitive species 1147
Medium	Sensitive species 691
Medium	Sensitive species 1248

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	CBA 1
Very High	ESA 1
Very High	ESA 2
Very High	CBA 2
Very High	National Protected Area Expansion Strategy (NPAES)