



for
ZANDHOOGTE ESTATE

On

A Portion of Remainder Farm Zandhoogte
139, Tergniet (Mossel Bay District)

In terms of the

National Environmental Management Act (Act No. 107
of 1998, as amended) & 2014 Environmental Impact
Regulations

Prepared for Proponent:
IDEAL TRADING 301 CC

Date: 17 September 2021

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Report Reference: MOS600/07

Department Reference: G-BA-EIA-G7

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Registration: EAPASA 2019/1444

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PURPOSE OF THIS REPORT:

Final Basic Assessment Report

APPLICANT:

IDEAL TRADING 103 CC

CAPE EAPRAC REFERENCE NO:

MOS600/07

SUBMISSION DATE

17 September 2021

PUBLIC PARTICIPATION

Pre-Application Basic Assessment Report made available for public review and comment for a 30-day review and comment period.

(GEO600/02)

Draft BAR was available for 30-day review and commenting period.


Revised Draft BAR available for 30-day review and commenting period.

DOCUMENT TRACKING

DOCUMENT HISTORY

DOC REF	REVISION	DATE	AUTHOR
MOS600/02	Pre-Application Basic Assessment Report	2020-12-08	Ms Louise-Mari van Zyl
MOS600/05	Draft Basic Assessment Report	2021-03-18	Ms Louise-Mari van Zyl
MOS600/07	Revised draft Basic Assessment report	2021-09-17	Ms Louise-Mari van Zyl

APPROVAL FOR RELEASE


NAME	TITLE	SIGNATURE
Ms Louise-Mari van Zyl	MS	

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DESIGNATION	NAME	METHOD
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DISTRIBUTION OF DRAFT REPORT

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Cape EAPrac website	www.cape-eaprac.co.za	Electronic


in terms of the
National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended &
Environmental Impact Regulations 2014

ZANDHOOGTE ESTATE

A Portion of Remainder Farm Zandhoogte 139, Tergniet (Mossel Bay District)

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1. CONTENT OF BASIC ASSESSMENT REPORTS

Appendix 1 of the 2014 EIA Regulations (as amended) contains the required contents of a Basic Assessment Report. The checklist below serves as a summary of how these requirements were incorporated into this Basic Assessment Report.

Requirement	Details
<p>(a) Details of -</p> <p>(i) The EAP who prepared the report; and</p> <p>(ii) The expertise of the EAP, including, curriculum vitae.</p> <p>(iii) Applicant Details</p>	Ms Louise-Mari van Zyl
<p>(b) The location of the activity, including –</p> <p>(i) The 21 digit Surveyor General code of each cadastral land parcel;</p> <p>(ii) Where available, the physical address and farm name;</p> <p>(iii) Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties.</p>	C0510000000013900000
<p>(c) a plan which locates the proposed activity or activities applied for as well as the associated structures and infrastructure at an appropriate scale, or, if it is</p> <p>(i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or</p> <p>(ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken.</p>	Refer to Appendix B for site plans
<p>(d) a description of the scope of the proposed activity, including -</p> <p>(i) All listed and specified activities triggered and being applied for; and</p> <p>(ii) A description of the activities to be undertaken including associated structures and infrastructure.</p>	Refer to main report
<p>(e) A description of the policy and legislative context within which the development is proposed, including –</p> <p>(i) An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report; and</p> <p>(ii) How the proposed activity complies with and responds to the legislation and policy context,</p>	Refer to main report

Requirement	Details
<p><i>plans, guidelines, tools frameworks and instruments.</i></p>	
<p><i>(f) A motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location.</i></p>	Refer to main report
<p><i>(g) A motivation for the preferred site, activity and technology alternative.</i></p>	Refer to Appendix F1 for Planning Report
<p><i>(h) A full description of the process followed to reach the proposed preferred alternative within the site, including -</i></p> <ul style="list-style-type: none"> <i>(i) Details of all alternatives considered;</i> <i>(ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;</i> <i>(iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;</i> <i>(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;</i> <i>(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts:</i> <ul style="list-style-type: none"> <i>(aa) can be reversed;</i> <i>(bb) may cause irreplaceable loss of resources; and</i> <i>(cc) can be avoided, managed or mitigated.</i> <i>(vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;</i> <i>(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;</i> <i>(viii) The possible mitigation measures that could be applied and level of residual risk;</i> <i>(ix) The outcome of the site selection matrix;</i> <i>(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and</i> <i>(xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity.</i> 	Refer to main report
<p><i>(i) A full description of the process undertaken to identify, assess and rank the impacts the</i></p>	Refer to main report

Requirement	Details
<p><i>activity will impose on the preferred location through the life of the activity, including –</i></p> <ul style="list-style-type: none"> <i>(ii) A description of all environmental issues and risks that were identified during the environmental impact assessment process; and</i> <i>(iii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.</i> 	
<p><i>(j) An assessment of each identified potentially significant impact and risk, including -</i></p> <ul style="list-style-type: none"> <i>(i) Cumulative impacts;</i> <i>(ii) The nature, significance and consequences of the impact and risk;</i> <i>(iii) The extent and duration of the impact and risk;</i> <i>(iv) The probability of the impact and risk occurring;</i> <i>(v) The degree to which the impact and risk can be reversed;</i> <i>(vi) The degree to which the impact and risk may cause irreplaceable loss of resources; and</i> <i>(vii) The degree to which the impact and risk can be mitigated.</i> 	Refer to main report
<p><i>(k) Where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included in the final assessment report.</i></p>	Refer to main report
<p><i>(l) An environmental impact statement which contains:</i></p> <ul style="list-style-type: none"> <i>(i) A summary of the key findings of the environmental impact assessment;</i> <i>(ii) A map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and</i> <i>(iii) A summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.</i> 	Refer to main report
<p><i>(m) Based on the assessment, and where applicable, impact management measures from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr.</i></p>	Refer to main report and Appendix G for EMP
<p><i>(n) Any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation.</i></p>	Refer to main report
<p><i>(o) A description of assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed.</i></p>	Refer to main report

Requirement	Details
<i>(p) A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.</i>	Refer to main report
<i>(q) Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded and the post construction monitoring requirements finalised.</i>	Refer to main report
<i>(r) An undertaking under oath or affirmation by the EAP in relation to:</i> <i>(i) The correctness of the information provided in the reports;</i> <i>(ii) The inclusion of comments and inputs from stakeholders and I&APs;</i> <i>(iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and</i> <i>(iv) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.</i>	Refer to Appendix K
<i>(s) Where applicable, details of any financial provisions for the rehabilitation, closure and ongoing post decommissioning management of negative environmental impacts.</i>	Not applicable to this application
<i>(t) Any specific information that may be required by the competent authority.</i>	
<i>(u) Any other matters required in terms of section 24(4)(a) and (b) of the Act.</i>	

BASIC ASSESSMENT REPORT

**THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND
THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.**

NOVEMBER 2019

(For official use only)	
Pre-application Reference Number (if applicable):	
EIA Application Reference Number:	
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

GENERAL PROJECT DESCRIPTION

(This must include an overview of the project including the Farm name/Portion/Erf number)

The **Remainder Farm Zandhoogte 139** is roughly 38.23ha in extent and consists of four (4) portions (refer to Figure 1) of which only **Portion A** is the focus of this development application and investigation:

- **Portion A = +/-10.20ha [subject development area]**
- Portion B = +/-0.77ha [between Main Road 102, Provincial Road]
- Portion C = 8.48ha [remains Agriculture] and
- Portion D = Remainder Farm 139 [remains Agriculture north of the N2].

The property is zoned 'Agriculture Zone' and was utilised for grazing until recently.



Figure 1: Site orientation map for Remainder Zandhoogte 139.

The proposal entails the following:

- Rezoning of **Portion A** (10.2ha) to Subdivisional Area to enable the subdivision of the property in various residential uses, namely:
 - 160x General Residential Zone I erven (group housing) = 49.18% of site (5ha)
 - 3x General Residential Zone III erven (apartments) = 8.53% of site (0.87ha)
 - 4x Private Open Space erven = 12.76% of site (1.3ha)
 - 1x Public Street (Transport Zone II) = 4.66% of site (1.47ha)
 - 4x Private Street (Transport Zone III) = 24.87% of site (2.53ha)
- Link services infrastructure, namely water, sewage reticulation, stormwater drainage, 11kVA overhead line, will link up with the existing municipal services.
- Upgrade of existing Municipal water line from Tergniet to the Municipal Tergniet reservoir.
- Provision for two (2) on-site conservancy/holding tanks for each phase of the development should occupation happen before June 2023. The tanks can be connected to
- Upgrade of Impala Avenue by expanding the road with a dedicated right turn lane to access the southern portion of the development.



Figure 2: Preferred Alternative 1 for Zandhoogte Estate (Source: Vreken June 2020).

The development will be developed in **two (2) phases** with the Phase 1 being north of Impala Way and the Phase 2 south of Impala Way. Please refer to Appendix B for a detailed map of the preferred layout plan.

It is expected to achieve occupation on Phase 1 by June 2023 and to complete both phases within a period of eight (8) years.



Figure 3: Northern (phase 1) and southern (phase 2) portions of the proposed development study area with main roads indicated.

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.
2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".
3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.
4. All applicable sections of this BAR must be completed.
5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.
6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at <http://www.westerncape.gov.za/eadp> to check for the latest version of this BAR.
7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.
8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.

9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.
10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.
11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.
12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.
13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link <https://screening.environment.gov.za/screeningtool> to generate the Screening Tool Report. The screening tool report must be attached to this BAR.
14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA'), the submission of the Report must also be made as follows, for-

Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

<p>CAPE TOWN OFFICE: REGION 1 and REGION 2</p> <p>(Region 1: City of Cape Town, West Coast District) (Region 2: Cape Winelands District & Overberg District)</p>	<p>GEORGE OFFICE: REGION 3</p> <p>(Central Karoo District & Garden Route District)</p>
<p>BAR must be sent to the following details:</p> <p>Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1 or 2) Private Bag X 9086 Cape Town, 8000</p> <p>Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 1 and 2) at: Tel: (021) 483 5829 Fax (021) 483 4372</p>	<p>BAR must be sent to the following details:</p> <p>Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530</p> <p>Registry Office 4th Floor, York Park Building 93 York Street George</p> <p>Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 805 8650</p>

MAPS

<p>Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.</p>	
<p>Locality Map:</p>	<p>The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map.</p> <p>The map must indicate the following:</p> <ul style="list-style-type: none"> • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale. <p>For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.</p> <p>Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western</p>

	Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	<p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development must be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> ○ Watercourses / Rivers / Wetlands ○ Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable); ○ Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"); ○ Ridges; ○ Cultural and historical features/landscapes; ○ Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow <p>A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.</p>
Site photographs	<p>Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as Appendix C. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.</p>

Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR

ACRONYMS

BGCMA:	Breede-Gourits Catchment Management Agency
CBA:	Critical Biodiversity Area
DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs (National)
DEA& DP:	Department of Environmental Affairs and Development Planning (Provincial)
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EAP:	Environmental Assessment Practitioner
ECO:	Environmental Control Officer
EMPr:	Environmental Management Programme
ESA:	Ecological Support Area
HWC:	Heritage Western Cape
I&AP:	Interested & Affected Party
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
SACAA:	South African Civil Aviation Authority
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

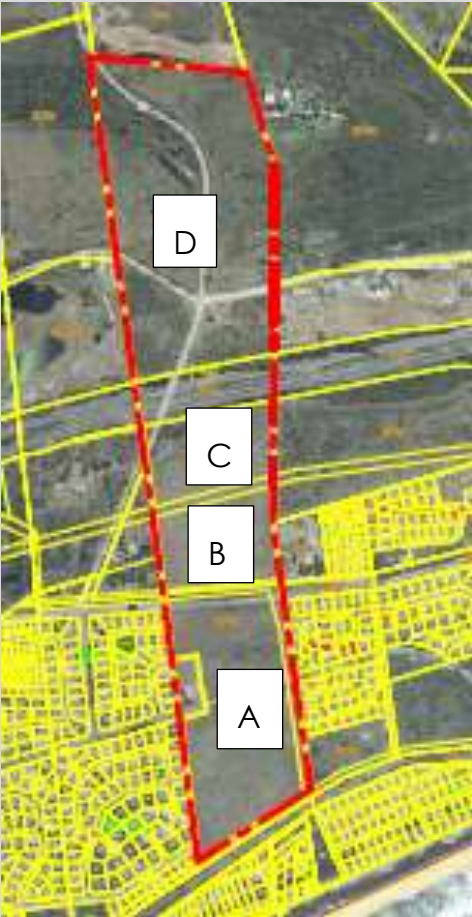
SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	CAPE TOWN OFFICE:		GEORGE OFFICE:	
	REGION 1 (City of Cape Town, West Coast District)	REGION 2 (Cape Winelands District & Overberg District)	REGION 3 (Central Karoo District & Garden Route District)	
<p>Duplicate this section where there is more than one Proponent</p> <p>Name of Applicant/Proponent:</p> <p>Name of contact person for Applicant/Proponent (if other):</p> <p>Company/ Trading name/State Department/Organ of State:</p> <p>Company Registration Number:</p> <p>Postal address:</p> <p>Telephone:</p> <p>E-mail:</p>	IDEAL TRADING 301 CC			
	Christo Spies / Dick Francois Swanich			
	2010/122651/23			
	P.O BOX 89			
	Hartenbos	Postal code:	6520	
	Telephone:	Cell:	076 635 1997	
	E-mail: christo@cobrafuel.co.za	Fax:		
	Company of EAP:	Cape Environmental Assessment Practitioners (Cape EAPrac)		
	EAP name:	Ms Louise-Mari van Zyl		
Postal address:	PO Box 2070			
	George	Postal code:	6530	
Telephone:	044 874 0365	Cell:	071 603 4132	
E-mail: louise@cape-eaprac.co.za	Fax:	044 874 0432		
Qualifications:	MA Geography & Environmental Studies			
EAPASA registration no:	2019/1444			

<p>Duplicate this section where there is more than one landowner</p> <p>Name of landowner:</p> <p>Name of contact person for landowner (if other):</p> <p>Postal address:</p> <p>Telephone:</p> <p>E-mail:</p>	Same as Applicant		
		Postal code:	
		Cell:	
		Fax:	
<p>Name of Person in control of the land:</p> <p>Name of contact person for person in control of the land:</p> <p>Postal address:</p> <p>Telephone:</p> <p>E-mail:</p>	Same as Applicant		
		Postal code:	
	()	Cell:	
		Fax:	

<p>Duplicate this section where there is more than one Municipal Jurisdiction</p> <p>Municipality in whose area of jurisdiction the proposed activity will fall:</p> <p>Contact person:</p> <p>Postal address:</p> <p>Telephone:</p> <p>E-mail:</p>	Mossel Bay Municipality		
	Jaco Roux		
	PO Box 25		
		Postal code:	6500
	044 606 5071	Cell:	083 740 6898
	jroux@mosselbay.gov.za	Fax:	

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INCLUDED IN THE APPLICATION FORM

1.	Is the proposed development (please tick):	New ✓		Expansion
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.			
<p>Greenfield.</p> <p>Prior Environmental Authorisation (EA) was issued for development of the Vista de Bahia Retirement village on the southern portion of Portion A.</p> <p>The original EA was valid until 13 October 2009 and the validity period was successfully extended till 13 October 2015 permitting a retirement village south of Impala Way.</p> <p>The then owner of the property since passed away and Ideal Trading 301 CC bought the property for development purposes.</p> <p>The property is divided into four (4) portions due to the various roads that traverse the property:</p> <ul style="list-style-type: none"> • Portion A = +/-10.20ha [subject development area] • Portion B = +/-0.77ha [Main Road 344, Provincial Road] • Portion C = 8.48ha [remains Agriculture] and • Portion D = Remainder Farm 139 [remains Agriculture north of the N2]. <div style="text-align: center; margin: 10px 0;">  </div> <p style="text-align: center;">Figure 4: Orientation map showing Portion A in relation to the Remainder Zandhoogte 139.</p>				

Area A is the focus of this development application.

Area B is the MR334 provincial road (excluded from this application).

Area C This portion is excluded from the development application.

Area D is situated outside of the urban edge and falls within the 800m buffer of the sewage works. This portion is excluded from the development application.

The study site (Areas A) falls completely within the urban area of Tergniet. The majority of the study site is surrounded by existing residential development on the south, west and eastern boundaries that are single residential properties, mostly double storey structures.

The railway line (Transnet) and PetroSA watermain (servitude) form the southern border of Area A, and MR334 the northern border. Portion A is bisected by Impala Way (municipal road) which will serve as the point of access to both the northern and southern portions.

All internal services will link to the existing municipal services that are already available via the registered servitudes and that services the surrounding Tergniet township.

The Mossel Bay Municipality informed the Applicant in August 2021, that although bulk services were predicted to be available to this development (due to prior approvals and commitments on services allocation already committed to this development), the following also applies (please refer to the NOTE below for information on the MidBrak Sewer upgrade):

- Upgrade of the existing municipal water line within the existing 4m wide municipal servitude, that feeds Tergniet township from the existing municipal Tergniet reservoir; and
- Due ongoing Midbrak Sewer upgrade, which includes upgrade of the Great Brak Wastewater Treatment Works, the Applicant is advised to provide on-site conservancy/holding tanks should Phase 1 achieve occupation prior to June 2023 when the Midbrak Sewer upgrade will be complete.

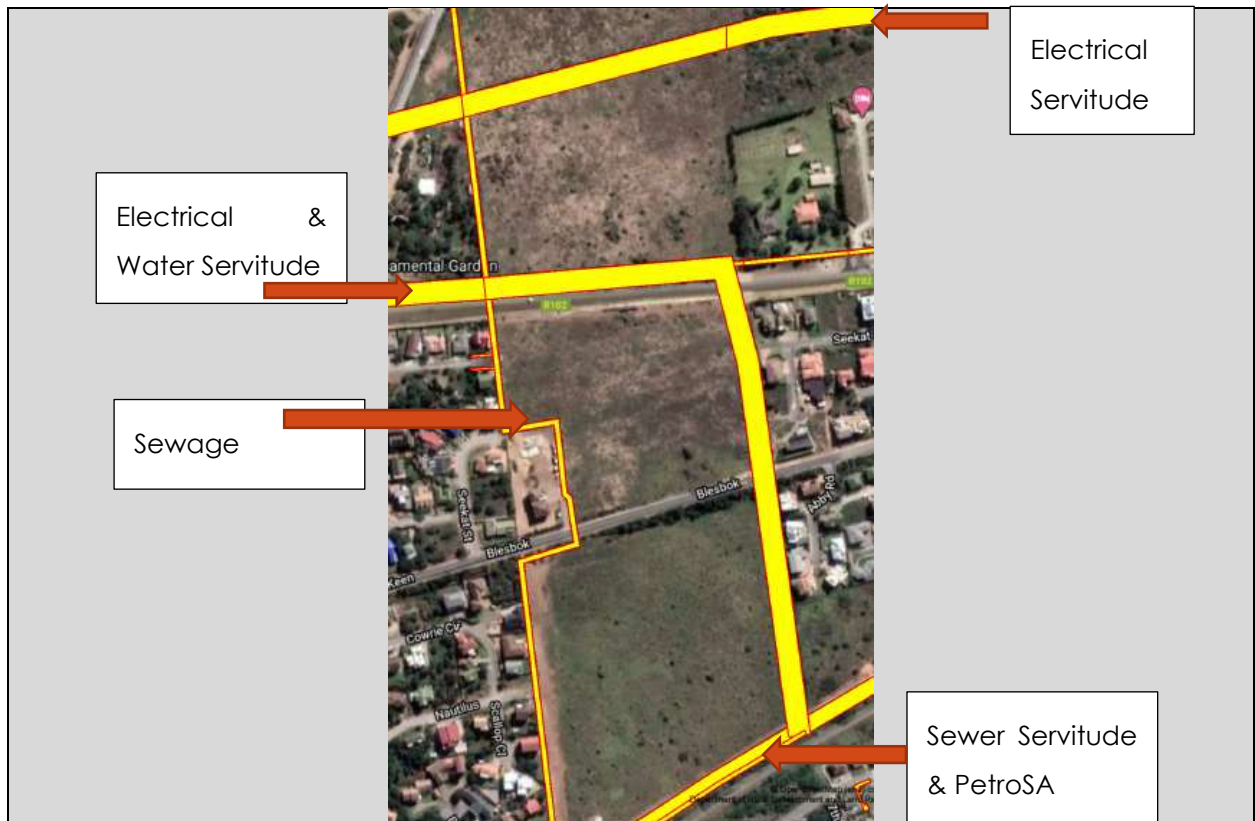


Figure 5: Servitudes present across Remainder Zandhoogte 139 (Portion A).

The intention of the Applicant is to development in two (2) phases, with **Phase 1** starting in 2022, finishing by 2024 and **Phase 2** from 2024 -2028.

NOTE: The Municipality awarded a contract to Lejamo Construction in June 2020 for installation of the Midbrak sewer network for the greater area. The network crosses over Remainder Farm Zandhoogte 139, along the southern boundary next to the railway/PetroSA waterline, as well as along the western boundary. The DEADP authorised this municipal sewer line (reference for this pipeline is 16/3/3/6/4/D6/35/0267/19 dated 28 January 2020). Construction finished May 2021. The section of pipeline installed across the study site is already finished. Phases 3 of the MidBrak Sewer upgrade was completed in August 2021 and the fourth and final stage will be finished by June 2023 (inclusive of an upgrade to the Great Brak Wastewater Treatment Works).

3.	For Linear activities or developments
3.1	Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:
Development site (Remainder Farm 139 Zandhoogte), along MR344 (Provincial road reserve), across the N2 (SANRAL road reserve), along Sandhoogte Road (District road reserve), along eastern boundary of Portion 1 Farm 330 (Halliday Farm, private property).	



Figure 6: Route alignment of existing municipal water line that will be upgraded (Source: Element Engineers Aug 2021).

3.2	Development footprint of the proposed development for all alternatives.	1730m
	<ul style="list-style-type: none"> • Upgrade 195m of existing 110mm diameter to 160mm diameter along R344 (indicated with red line in above figure). • Upgrade 1055m of existing 150mm diameter to 200mm diameter within Provincial/District Road across the N2 (indicated with yellow line in above figure). • Upgrade 480m of existing 150mm diameter to 200mm diameter across Portion 1 Farm 330 (Halliday Farm) within municipal services servitude. 	
3.3	Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.	
	<p>Development site (Remainder Farm 139 Zandhoogte), along MR344 (Provincial road reserve), across the N2 (SANRAL road reserve), along Sandhoogte Road (District road reserve), along eastern boundary of Portion 1 Farm 330 (Halliday Farm, private property).</p> <ul style="list-style-type: none"> • Upgrade 195m of existing 110mm diameter to 160mm diameter along R344 (indicated with red line in above figure). • Upgrade 1055m of existing 150mm diameter to 200mm diameter within Provincial/District Road across the N2 (indicated with yellow line in above figure). • Upgrade 480m of existing 150mm diameter to 200mm diameter across Portion 1 Farm 330 (Halliday Farm) within municipal services servitude. <p>The existing water line will be 'replaced' with a larger pipeline in sections by means of 'pipe bursting'. This implies the larger pipe being pushed-and-pulled in-situ, and the fractured (old) pipe remnants remains on the outside of the new pipe.</p> <p>This method is considered much less intrusive compared to the traditional method of trenching, as it only required access points at 100m-200m intervals to access the existing/defunct pipe, instead of excavation of trenches to expose the old pipeline and install the new pipeline. The</p>	

access points are backfilled and closed up once the bursting tool machine moves onto the next interval.



Figure 7: Comparison between standard excavation/traditional upgrade method and trenchless/pipe bursting method (Source: <https://www.google.curryandsonsconstruction.com>).



Figure 8: Schematic example of pipe bursting method (Source: <https://www.google.com.Fpipespy.com>).

The pipe bursting method is preferred from an environmental perspective due to the limited amount of disturbance along the route.

3.4.	Indicate how access to the proposed routes will be obtained for all alternatives.			
The pipeline is an existing municipal water line that is accessible within the various road reserves and municipal servitude (across Portion 1/330). The appointed engineers/contractors will need to obtain wayleaves from Provincial and National Roads authorities prior to the upgrade.				
3.6	Starting point co-ordinates for all alternatives			
	Latitude (S)	34°	03'	53.76"
	Longitude (E)	22°	11'	20.83"
	Middle point co-ordinates for all alternatives			
	Latitude (S)	34°	03'	44.66"
	Longitude (E)	22°	11'	18.69"
	End point co-ordinates for all alternatives			

	Latitude (S)	34°	03'	16.36"
	Longitude (E)	22°	11'	06.44"
Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.				
4. Other developments				
4.1	Property size(s) of all proposed site(s):			10.2ha
4.2	Developed footprint of the existing facility and associated infrastructure (if applicable):			
4.3	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:			10.2ha
4.4	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).			

The development of **Portion A of Remainder Zandhoogte 139** is considered infill development. The land is surrounded by existing township development and qualifies for optimising vacant land within urban areas. The proposal includes the following components:

LEGEND:					
	ZONING	LAND USE	QTY	AREA (HA)	%
	General Residential Z1	Group Housing	160	5,0193	49.18
	General Residential Z3	Flats	3	0,8701	8.53
	Open Space Zone II	Private Open Space	4	1,3018	12.76
	Transport Zone II	Public Street	1	0,4754	4.66
	Transport Zone III	Private Street	4	2,5391	24.87
	TOTAL		172	10,2056	100

Figure 9: Development breakdown for Preferred Alternative 1 Zandhoogte Estate (Source: Vreken 2020).

- **Density overall:** Approximately 20 units/ha (differs across the site)
- **General Residential III (apartments):** consist of three erven along MR334, each with provision for 12x, 24x and 12x apartments (total 48 apartments) offering a mixture of 2-3 bedroom units. The three blocks will not exceeding three (3) storeys in height and will be set back from the MR334 by parking space that will be landscaped.
- Provincial Roads in their comment, stipulated that a **solid wall** must be constructed along the shared boundary of Portion A and the MR344 to their satisfaction.

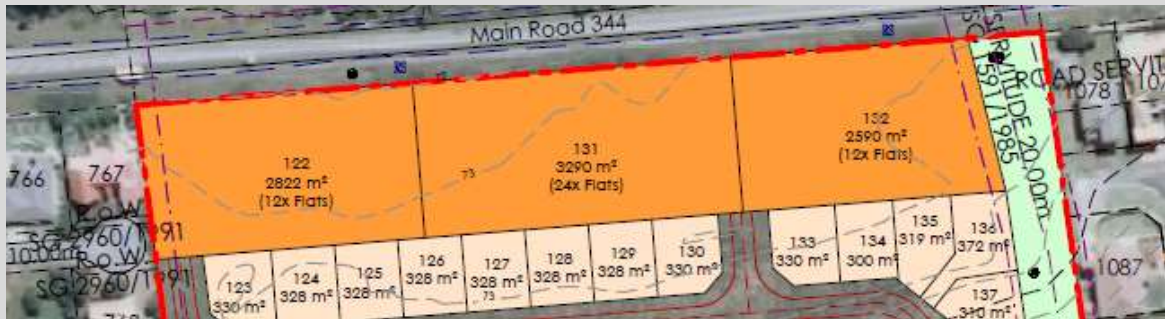


Figure 10: Three General Residential flat block erven (48 apartment units).



Figure 11: Schematic architectural image of apartment (Source: Van der Merwe Orffer Architects).



Figure 12: Schematic architecture image of apartments facing the MR344 (Source: Van der Merwe Orffer Architects).



Figure 13: Architect image showing elevated image of apartment units with parking bordering the MR334 and housing units within the northern portion of the site (Source: Van der Merwe Orffer Architects).

- **Group housing (different types):** Sizes of erven vary between 580m² – 265m² with two larger erven (+/-900m²) along Impala Avenue.



Figure 14: Schematic architectural image of a housing unit type (Source: Van der Merwe Orffer Architects).



Figure 15: Schematic architectural image of a housing unit (Source: Van der Merwe Orffer Architects).

- **Landscaping:** Internal open space areas are for landscaping, recreational use and services. A stormwater retention pond is proposed in the south-eastern corner of the application area as part of internal open space. Landscaping will focus along the MR334 and apartment units. Indigenous plants that can be transplanted (from search and rescue) must be transplanted into the open space areas prior to site clearing. The protected tree species found in the servitude areas must be demarcated and avoided during construction to form part of the final landscaping. Forestry permits must be obtained for any trimming/removal if necessary.
- **Fencing:** All boundaries to be site will be fenced with a combination of solid wall and/or see-through i.e. ClearVu/Palisade to accommodate services and protected tree

species, except for the southern boundary of Phase 1 (north of Impala Avenue) which will be ClearVu overlooking Impala Avenue. Existing fences of primary neighbouring properties will not necessarily be broken down, or replaced by the development boundary fence. Where necessary it will be built back-to-back unless otherwise agreed between the affected landowners. Finishing of the structure will be the same on both sides of the fence/wall.

- **Water:** Bulk supply has been reserved for this development since 2007 (prior approvals). Existing municipal water lines run along the MR334 as well as Impala Way. Connecting pipes will vary between 75mm and 110mm diameter. Bulk annual daily demand for the development has been calculated at 149kl/day. The existing municipal water line that feeds Tergriet from the existing municipal reservoir north of the N2, situated at 34° 04' 14.40" S / 22° 10' 58.92" E will be upgraded. Water saving measures such as rainwater tanks (group housing units), duel flush toilets, low flow shower heads must be installed for all units. The Municipality has confirmed available surplus capacity.
- **Sewage:** The Municipal MidBrak Sewer upgrades are currently underway. The 250mm main sewer line running through the southern portion of the study site was installed by May 2021. Household connection lines will be 110mm diameter and main lines will be 160mm diameter. Average daily flow for the proposed development is calculated at 138kl/day. The municipal system pumps sewage to the Great Brak Wastewater Treatment Works (WWTW) which is due for upgrade by June 2023. The Mossel Bay Municipality has confirmed that development may proceed and that sufficient capacity will be available for the development with upgrades implemented. The Municipality has recommended that conservancy/holding tanks be installed within the development in the event that occupation of Phase 1 happens prior to this date. The Applicant prefers to schedule project implementation in such a way that occupation of Phase 1 will align with the June 2023 date when the development can link directly to the upgraded Midbrak Sewer system rather than implementing the conservancy/holding tanks as an interim measure. This assessment however takes cognisance of the option to install interim conservancy/holding tanks for each phase should the upgrades not be completed by then. Please refer to the Civil Engineering Report for more details.



Figure 16: Position for possible 76kl conservancy/holding tank for Phase 2 within Municipal servitude on the property (Source: Element Engineers).



Figure 17: Position of potential 62kl conservancy/holding tank for Phase 1 (Source: Element Engineers).

- **Fire:** Fire hydrants are supplied as part of the development services layout.
- **Solid Waste:** On-site collection points are provided as part of the proposal for each portion. Waste will be collected by the Municipality as part of the greater Tergriet collection. Construction waste will be handled at the designated Great Brak site. The Municipality must confirm sufficient landfill space at these licensed facilities and waste management must be done in accordance with the Directorate Community Services requirements.
- **Electricity:** The estimated capacity load for the development is 630kVA. According to Element Engineers (2019) there is sufficient capacity on the existing 11kV reticulation line to accommodate this load. Nonetheless use will be made of energy saving streetlights, LED in all units, heat/solar pumps or similar to conserve energy. The existing overhead line that runs along the length of the eastern boundary of the study site will be removed and replaced with a 70mm underground cable within the same servitude, along the same alignment. A new 630kVA mini-sub will be installed on the Impala Avenue Road reserve that will connect to the existing ring main mini-sub that already feeds into the 11kVA line. Connection will be underground within Impala Avenue reserve. Protected species found within the road reserve must be considered for relocation if it cannot be retained in place (i.e. Euchaetis albertiniana). Protected tree species to be avoided. Forestry permit must be obtained for any trimming and/or removal if necessary.



Figure 18: The existing overhead line that runs along the eastern boundary of the site will be replaced with an underground cable.

- Stormwater:** Due to the moderate gradient of the site (especially the southern portion) it is likely that lateral movement of stormwater will be fast, and this can liquify silty soils and transport topsoil. A formal system will be developed consisting of street kerbing, lined channels, stormwater pipes, catchpits and a retention pond in the south-eastern corner of the property. All pipe outlets will be fitted with headwalls and gabion/reno mattresses as energy dissipaters to prevent unwanted erosion. All outlets will be fitted with litter traps which will be the responsibility of the managing agent (body corporate / homeowners association) to clean out to prevent blockages. Each group housing unit must be fitted with rainwater tanks to reduce runoff.



Figure 19: Stormwater drainage catchments for the study site (Source: Element Engineers 2019).

Drainage of the southern portion (**Zone A**) amounts to approximately 80% of the total runoff. A stormwater retention pond is provided in the south-eastern corner of the site, abutting the PetroSA water line servitude and Transnet Railway line. Infiltration levels in the area is very high and flow from the retention pond will filter into the sand at the lowest point of the site towards the east (refer to Figure 19 for discharge direction). Stormwater management during construction must prevent unnecessary erosion/flooding of neighbouring properties.

Zone B drains to Impala Avenue. A culvert will be constructed underneath Impala Avenue from where it will discharge into a constructed open channel along the eastern boundary of the southern portion (within the servitude) into the retention pond in the south-eastern corner in Zone A. This open channel must avoid the protected tree located within the servitude area. Provincial Roads stipulated that no stormwater from the northern portion may be discharged onto the MR344 road reserve.

Zone C drains towards the MR334 and will discharge into an existing culvert underneath the MR334. Provincial Roads stipulated that no stormwater may be discharge to MR344 from this development.

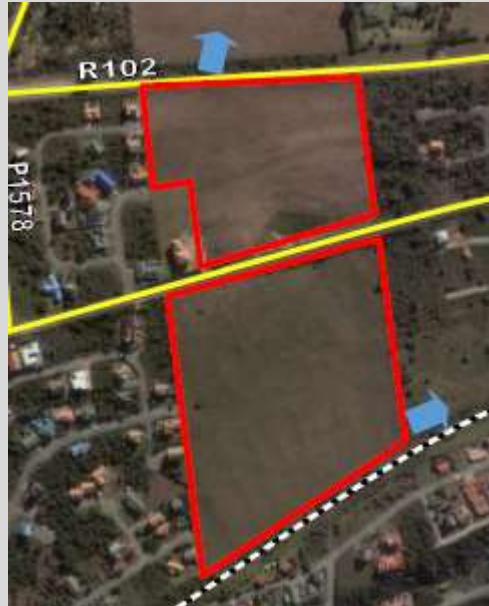


Figure 20: Image indicating stormwater discharge direction from the site (Source: Element Engineers Stormwater Management Plan, 2019).

4.5	Indicate how access to the proposed site(s) will be obtained for all alternatives.
	<ul style="list-style-type: none"> • Access: <ul style="list-style-type: none"> ○ In accordance with the Provincial Roads Department conditions and the TIA, the existing (original) farmhouse entrance will be closed and consolidated to recreate a new dual access directly off Impala Avenue to the northern portion for 48 group housing units and three apartments properties (48 apartments); ○ Dual access directly off Impala Avenue to the southern portion for 112 group housing units. ○ Access will be 6m wide and internal roads 5.2m wide.



Figure 21: Two dual accesses off Impala Street to the north and southern portions.

This intersection is approximately 134m from the Impala Road intersection, +/-100m from the Seekat Road intersection (P1578) to the west and in excess of 200m to the closest intersection to the east. The average sight distance is 110m according to Urban Engineering which is more than the minimum 80m, which puts the proposed new intersection with sufficient space for a minor road with a 60km speed limit.

Urban Engineers conducted a Traffic Impact Assessment in 2019 (traffic counts conducted on At Rheeboek Street/Impala Avenue intersection and at the study site). Taking into account that the MR334 was upgraded during 2020 the overall road conditions have improved since 2019 and a higher than average growth rate was assumed for the area (3.5% per annum = considered high growth) over a period of five (5) years (till 2024). The anticipated traffic flows are depicted in Figure 12 below:

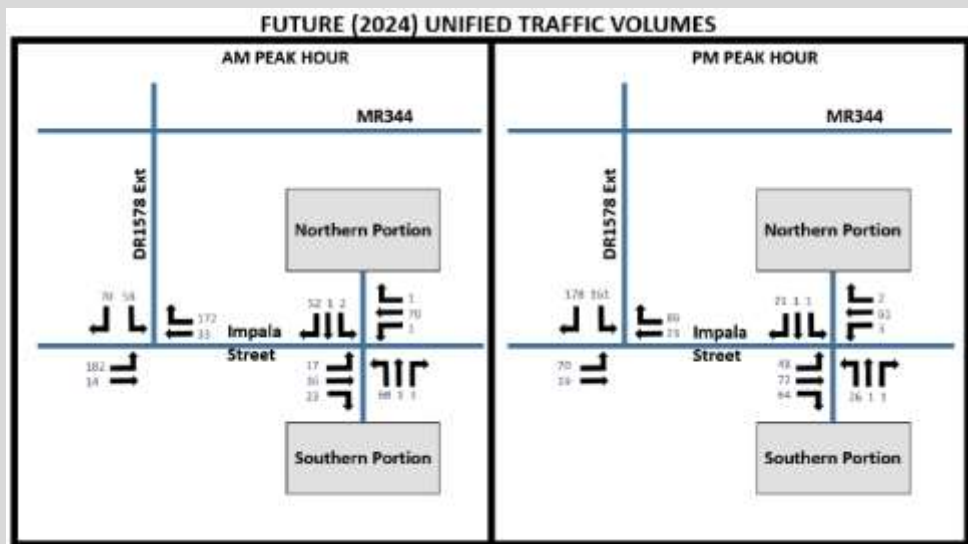


Figure 22: 2024 Traffic volumes for the proposed new intersection and Impala/Rheeboek intersection (Source: Urban Engineering 2019).

The findings of the TIA stipulate that the **Rheebok/Impala Avenue intersection** operates at an overall range between level B & C (A being the best and F being the worst), which is deemed to be **acceptable** when approaching the intersection from the easterly side. The **current** LoS (status quo) when approaching the intersection from the western direction however, is **unacceptable**. According to the traffic engineer this is not as a result of the proposed development.

Upgrade of the western approach is a municipal function to improve the *current* LoS constraints. Volume/capacity ratios are considered **acceptable**, especially coming from the **eastern side** (from the development direction towards the intersection).

The additional traffic associated with the proposed development will impact on the level of service (LoS) associated with the Rheebok/Impala Avenue intersection, but within acceptable limits (Level B).

To mitigate traffic impacts, a **dedicated 3m wide right turn lane** must be constructed on **Impala Avenue** to ensure that traffic turning into the southern portion of the development, does not cause traffic delays (bottle necks) along Impala Avenue travelling in an easterly direction. This upgrade must allow at least three (3) vehicle stacking distance. This upgrade must be completed **prior to occupation of the southern portion**.

No permanent direct access is proposed via any of the existing, internal road networks within the eastern or western residential areas i.e. via existing, neighbouring residential streets/areas. If deemed necessary, temporary construction access may be requested from the Department of Transport (from the MR334) for the northern portion and from Transnet for access along the railway line, or the Municipality for Seester Street in the south.

Permanently locked gates will provide **emergency exits** to Seester Street (southern portion) and the MR334 only (northern portion).

The entrances to the northern/southern portions will have **gatehouses to control access** and will have **sufficient space for public transport** i.e. taxi's / waste removal vehicles to turn around safely before re-entering Impala Avenue.



Figure 23: Architectural proposal for entrance to the northern and southern portions off Impala Avenue.

The site has a moderate gradient in a south-easterly direction with the highest difference in elevation between Impala Avenue and the southern portion of the study site. Point of access for the preferred Alternative has been informed by slope analysis (Element Engineers) and is proposed at the least steep portion of the study site. Approximately 20% of the site (orange) is steeper than 1:7,5 but not steeper than 1:6.

According to Element Engineers there is **no slope instability** on the site. Access off Impala Avenue has been positioned outside of the steepest portion to avoid too much infill for the access to the southern portion. The presence of a small protected tree within the road reserve, at the point of new access (to the south) has been noted and a forestry permit may be required for its removal.



Figure 24: Slope analysis for the study site indicating the steepest part of the site (orange).

4.6	SG Digit code(s) of the proposed site(s) for all alternatives:	C	0	5	1	0	0	0	0	0	0	0	0	0	1	3	9	0	0	0	0
4.7	Coordinates of the proposed site(s) for all alternatives:																				
	Latitude (S)	34°					4'					4''									
	Longitude (E)	22°					11'					27''									

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. EXEMPTION APPLIED FOR IN TERMS OF THE NEMA AND THE NEMA EIA REGULATIONS

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	YES	NO
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2. IS THE FOLLOWING LEGISLATION APPLICABLE TO THE PROPOSED ACTIVITY OR DEVELOPMENT

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	YES	NO
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.	YES	NO
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA").	YES	NO
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA").	YES	NO
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	YES	NO
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) ("NEMBA").	YES	NO
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	YES	NO
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983).	YES	NO

3. OTHER LEGISLATION

List any other legislation that is applicable to the proposed activity or development.

3.3. Spatial Planning and Land Use Management, 2013 (ACT 16 OF 2013)

Section 42 of SPLUMA prescribe certain aspects that must be taken into consideration when deciding on a land development application. These are:

- (1). Development principles set out in Chapter 2 of SPLUMA
- (2). Protect and promote the sustainable use of agricultural land
- (3). National and provincial government policies the municipal development framework and take into account:
 - (i) The public interest
 - (ii) The constitutional transformation imperatives and the related duties of the State.
 - (iii) The facts and circumstances relevant to the application
 - (iv) The respective rights and obligations of all those affected
 - (v) The state and impact of engineering services, social infrastructure and open space requirements and
 - (vi) Any factors that may be prescribed, including timeframes for making decisions.

3.4. National Forest Act

The study site contains two protected trees.

- One small milkwood tree in the north-western corner of the northern portion is situated within the **building line**. This tree will not be affected by the development and will be incorporated as part of the open space/landscaping. Care must be taken when the fence and/or infrastructure is installed in proximity to this tree to avoid unnecessary damage to it.
- Another large milkwood tree is found on the southern portion, long the eastern boundary, within the **building line and electrical servitude**. This tree will not be affected by the development and will be incorporated as part of the open space/landscaping. Care must be taken when infrastructure is installed in proximity to this tree to avoid unnecessary damage to it.
- A small protected tree is present within the municipal road reserve at the point where road works will be required for upgrade of Impala Avenue and the access point to the southern portion. **A forestry permit will be required for the possible removal of this tree** to upgrade the access.

Final engineering designs for services must consider the location of each of these trees to ensure that they are avoided where possible (*pers.comm. Hannes Lourens, Element Engineers*).

- **Rare/Endangered species** (*Euchaetes albertiniana* approx. 10) occur within the Impala Avenue road reserve and may require prior permission from CapeNature for relocation/removal for installation of services/road upgrade. Necessary permit/license to be confirmed by botanist prior to earthworks within the road reserve.

The Department of Environmental, Fisheries & Forestry has been approached for comment as part of the application process and formal Forestry License applications will be submitted to the Department for consideration once building plans are approved.

CapeNature has submitted comment on the development application and confirmed that the impact on biodiversity (subject to the necessary permits/licenses) will be minimal.

4. POLICIES

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.

4.1 Western Cape Provincial SDF

The Western Cape Provincial SDF was approved in 2014 by the Western Cape Parliament and serves as a strategic spatial planning tool that "communicates the provinces spatial planning agenda". The PSDF puts in place a coherent framework for the Province's urban and rural areas that:

- Gives spatial expression to National and provincial development agendas.
- Serves as basis for coordinated and integrated planning alignment on National and Provincial Departmental Programmes.
- Supports municipalities to fulfil their mandates in line with national and provincial Agendas.
- Communicates government's spatial development agenda.

The proposed development compliments the SDF's spatial goals that aim to take the Western Cape on a path towards:

- Greater productivity, competitiveness, and opportunities within the spatial economy.
- More inclusive developments and strengthening the economy in rural areas.

- Strengthening resilience and sustainable development.
- Complying with infill development to optimise vacant land in urban areas.

4.2. Eden Spatial Development Framework (2017)

The Eden District Spatial Development Framework was approved in 2017 and aims to establish a strong strategic direction and vision, towards increasing levels of detail in the spatial recommendations that are directive rather than prescriptive and providing guidance to local municipalities in the District regarding future spatial planning, strategic decision making and regional integration. The vision and strategic direction identify four key drivers of spatial change within the District. These four strategies lie at the heart of this SDF and the problem statement, spatial concept, spatial proposals and implementation are organised around these directives.

The proposed development of the study site is regarded as being consistent with the Eden District SDF.

4.3. Mossel Bay Spatial Development Framework (2017)

The Spatial Development Framework (SDF) is one of the sectoral plans of an Integrated Development Plan. The Municipality has identified towns which has high growth potential. According to the results of the growth potential study that was conducted by provincial authority, growth and development strategies must be focused on towns that has relatively growth potential towards other towns, the Mossel Bay area being one of the areas with a high growth potential.

The application area is located inside a demarcated urban edge of Tergniet and is also earmarked as a proposed "densification area". The proposal is therefore consistent with the local Municipal Spatial Development Framework complying with infill development to optimise vacant land in urban areas.

4.4. Municipal Integrated Development Plan (2017-2022)

The key pillars of sustainability for the Mossel Bay Municipality are social well-being, Economic Viability and Environmental Integrity. According to the Municipal IDP, the key development priorities for Mossel Bay include:

- Commercial Development
- Industry Development
- Bulk Infrastructure Development
- Property Development
- Water security

The IDP highlights the following aspects for Mossel Bay in the IDP:

- There has been a change in the attitude of most residents towards a positivity regarding growth.
- Growth is inevitable and the focus should be on managing growth within urban areas, to protect what is important to residents.
- When a critical mass development has is reached the element of crime will also manifest, therefore development should be strictly managed and guided towards a common goal of maintaining the "ambience" and "free" characteristics of the town.

The IDP recognises the need for property development in the Mossel Bay area, and also the need for growth and development on vacant land within the urban edge. It is the considered opinion that the proposed development of the study site is consistent with Mossel Bay IDP.

5. GUIDELINES

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.

The following Spatial Policy Statements & Guidelines are applicable to the proposed land development planning application:

Strategy: Growth management Policy 3.3.

Optimize existing infrastructure capacity and economic opportunity by directing mixed use, higher density development to areas of opportunity.

Guideline 3.3.7.

Promote compact development.

- Density should occur within 800-1 600m or 10-20 minutes from transport hubs and areas with mixed use activity.
- The promotion of a more compact city form requires an increase in average gross density. However, an increase in density should maintain the character and form certain heritage areas and natural environments so as to not damage or negatively impact the surroundings.
- Appropriate urban density is key to achieving the Eden SDF's policy objectives.
- Complying with infill development to optimise vacant land in urban areas.

The proposed development is in proximity to existing commercial nodes and beaches.

The proposed development therefor conforms to the concept of integrated and compact urban development.

6. PROTOCOLS

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form

The Screening Tool identifies the following studies as potentially being applicable to the proposed development:

Table 1: Result summary from the national Screening Tool (2021).

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

The environmental process commenced mid-2019 with specialist appointments and various studies. The Notice of Intent was submitted to the Department on 2 November 2020 thereby commencing the formal process. The **protocols (its registrations and details of reports) are not applicable** to the studies that commenced prior to May and October 2020 (botanical / heritage).

The Screening Tool was compiled in 2019 and run again with the updated version in 2021. The differences between the two versions are stipulated per discipline:

- Biodiversity (very high to **LOW sensitivity**)
- Archaeology & Heritage (high to **LOW sensitivity**)
- Palaeontology (**MEDIUM**, the same)
- Agriculture (**MEDIUM**, the same)
- Civil Aviation (**MEDIUM**, the same)
- Botanical (**MEDIUM**, the same)
- Defence (**LOW**, the same)
- Aquatic (**LOW**, the same)

The site is not deemed botanically sensitive due to historical land use (grazing / moving / multiple servitudes for services). A protected tree is present in the *Impala Road reserve*, and two more within the boundary/building line/servitudes of the study site on the property borders. Forestry applications may be required for the removal/trimming of said protected trees.

The presence of rare/endangered species (*Euchaetes albertiniana* approx. 10) was noted by the botanist within the Impala Avenue road reserve. These plants may require prior permission from CapeNature for relocation/removal for installation of services/road upgrade. Necessary permit/license to be confirmed by botanist prior to earthworks within the road reserve.

The site does not contain habitat that supports or sustains sensitive faunal species. This has been confirmed by Dr vd Vyfer as part of a faunal compliance statement. No further studies are required.

As part of the planning application the Heritage Western Cape confirmed that the site is not deemed sensitive and they issued their approval without the need for any further investigations/assessments.

The Department of Agriculture confirmed that despite the zoning being Agriculture. The site is within the urban edge and designated for township development, thus Act 70 of 70 does not apply. No further soil studies or agriculture potential studies are required.

The site is situated far from the closest airport and poses no threat to civil aviation operations. An obstacle application has been submitted to the SACAA and their provisional approval has been obtained.

Defence is not considered of any concern and no further studies are required.

The site does not contain any aquatic features. There are no wetlands or drainage lines on or within 500m from the boundary of the site. The BGCMA has confirmed that no approvals are required to the Water Act and Confluent Consulting confirmed the same as part of their compliance statement.

The option of providing interim sewage conservancy/holding tanks on each phase has been considered by all of the applicable specialists who confirmed that the impact of such is acceptable and of no consequence to the outcome/findings of their original assessments.

The necessary upgrade of the municipal water line from the site to the municipal reservoir (approximately 1.7km) falls mainly within road reserves and crosses a private property closest to the reservoir. The pipeline will be upgraded through a pipe bursting method which requires holes at intervals (approximately 100-200m apart) for the new pipe to be fed underground. The holes are small and according to the specialists are of no consequence to the outcome/findings of their original assessments.

Copies of all specialist studies are included as Appendix F of this report.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1	Describe the portion of the proposed development to which the applicable listed activity relates.
27	<p>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for</p> <ul style="list-style-type: none"> (i) The undertaking of a linear activity; or (ii) Maintenance purposes undertaken in accordance with a maintenance management plan. 	<p>The Dune Thicket that may have occurred in the study area was removed from the entire proposed development area many years ago and the area was used as agricultural lands thereafter. These lands have not been ploughed in recent years, however the site has been brushcutted frequently and used for grazing. As a result the ground cover consist mostly of grass species, with some pioneer/climax species. The site has not been exposed to ecological burns.</p> <p>The property falls outside designed CBA areas and the vegetation type on the site is considered to be 'least concerned'. The water line upgrade does not fall within designated CBA. Although the vegetation type is considered 'endangered' the implimentation method will not result in the removal of indigenous vegetation as pipe bursting will be used.</p>
28	<p>Residential, mixed, retail, commercial, industrial or institutional development where such land was used for agriculture or after 1 April 1998 and where such development</p> <p>(i) will occur within an urban area, where the total land to be developed is bigger than 5 hectares.</p>	<p>The property is roughly 10.2ha and is is zoned Agriculture I and was used for agriculture/grazing till change in ownership. The development footprint exceeds 5ha and is considered infill development within an established urban landscape.</p>
Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3	Describe the portion of the proposed development to which the applicable listed activity relates.

Note:

- The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.
- Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.

List the applicable waste management listed activities in terms of the NEM:WA

	Provide the relevant Basic Assessment Activity(ies) as set out in Category A	Describe the portion of the proposed development to which the applicable listed activity relates.

List the applicable listed activities in terms of the NEM:AQA

Activity No(s):	Provide the relevant Listed Activity(ies)	Describe the portion of the proposed development to which the applicable listed activity relates.

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.
<p>The proposal entails the following:</p> <ul style="list-style-type: none"> • Rezoning of Portion A (10.2ha) to Subdivisional Area to enable the subdivision of the property in various residential uses, namely: <ul style="list-style-type: none"> ○ 160x General Residential Zone I erven (group housing) = 49.18% of site (5ha) ○ 3x General Residential Zone III erven (apartments) = 8.53% of site (0.87ha) ○ 4x Private Open Space erven = 12.76% of site (1.3ha) ○ 1x Public Street (Transport Zone II) = 4.66% of site (1.47ha) ○ 4x Private Street (Transport Zone III) = 24.87% of site (2.53ha) • Link services infrastructure, namely water, sewage reticulation, stormwater drainage, 11kVA overhead line, will link up with the existing municipal services. • Upgrade of Impala Avenue by expanding the existing road with a dedicated right turn lane to access the southern portion of the development. • Upgrade of existing municipal water line from site to municipal Tergniet reservoir. • Possible on-site conservancy/holding tanks for each phase should occupation be prior to June 2023. The Applicant has opted to implement the project in such a way that this interim measure is highly unlikely to be a requirement. 	
2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.
<p>The site does not have existing development rights other than what is associated with Agricultural zoning. Act 70 of 70 does not apply despite the zoning, as the site has been earmarked for township</p>	

development in line with optimising vacant land within urban areas. This has been confirmed by both the Provincial Planning as well as the Provincial Agriculture Departments (Western Cape).



Figure 25: Zoning map from the Mossel Bay GIS database showing property as Agriculture (light green) with surrounding Single Residential (yellow). The hashed area indicates the study site.

3. Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

No existing approvals in place for the property.

An Environmental Authorisation (EA) and Planning Approval was issued previously. The EA was valid until 2015 for the Vista de Bahia Retirement Village on the portion south of Impala Avenue. The EA has since lapsed.

The water pipeline (to be upgraded) falls within an existing, registered 4m wide services servitude.

4. Explain how the proposed development will be in line with the following?

4.1 The Provincial Spatial Development Framework.

The proposed development is aligned to the PSDF's spatial goals that aim to take the Western Cape on a path towards:

- (i) Avoidance of urban sprawl;
- (ii) Greater productivity, competitiveness and opportunities within the spatial economy;
- (iii) More inclusive development and strengthening the economy in rural areas;
- (IV) Optimising vacant land within urban areas rather than urban sprawl.

4.2 The Integrated Development Plan of the local municipality.

The IDP supports local economic development and investment in support of socio-economic upliftment and growth in tourism.

The key pillars of sustainability for the Mossel Bay Municipality are Social Well-Being, Economic Viability and Environmental Integrity. According to the Municipal IDP, the key development priorities for Mossel Bay include:

- Commercial Development

	<ul style="list-style-type: none"> • Industry Development • Bulk Infrastructure Development • Property development • Water Scarcity <p>The development will amount to a number of temporary employment opportunities during construction, as well as a number of permanent employment opportunities, for skilled, semi-skilled and unskilled persons through opportunities in administration, healthcare, landscaping and security.</p>
4.3.	The Spatial Development Framework of the local municipality.
	<p>Mossel Bay has been identified by the SDF as one of the towns which has high growth potential. The application area is located inside the demarcated urban edge of Tergniet, and it is also earmarked as a proposed “densification” area.</p> <p>Section E(9) of the Basic Assessment report template (Planning Context and Need & Desirability) specifically enquires about how a project/activity will help to optimise vacant land within urban areas. This development proposal achieves these criteria, as opposed to urban sprawl.</p>
4.4.	The Environmental Management Framework applicable to the area.
	Not applicable
5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.
	<p>The site is transformed and not deemed sensitive from a biodiversity perspective as confirmed by the independent ecologist, botanist and aquatic specialists, who inspected the property as part of this application. Cape Nature has affirmed these findings and in their comment stated that the impact of development is expected to be low.</p> <p>Protected trees that do occur within the western and eastern service servitudes (within the building lines) may be affected with services/fencing through trimming. Detail engineering design will be done to avoid the removal of these two trees which will be incorporated into the open space/landscaped areas. Department of Forestry has been given the opportunity to comment previously. A formal Forestry Permit application will be submitted to the Department in the event that trimming of trees may be required.</p> <p>Protected tree that occur within the Impala Avenue road reserve may be affected with services and expansion of Impala Avenue to create a dedicated right turn lane into the southern portion of the development. Department of Forestry has been given the opportunity to comment previously. A formal Forestry Permit application will be submitted to the Department in the event that trimming/removal of this tree may be required.</p> <p>Rare/Endangered species (<i>Euchaetes albertiniana</i> approx. 10) occur within the Impala Avenue road reserve and may require prior permission from CapeNature for relocation/removal for installation of services/road upgrade. Necessary permit/license to be confirmed by botanist prior to earthworks within the road reserve. Cape Nature has affirmed these findings and in their comment stated that the impact of development is expected to be low.</p>
6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.
	The site is not deemed sensitive from a biodiversity, botanical, or aquatic perspective.
7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.
	The property falls outside the Eden Coastal Management Line (CML), Coastal Development Zone (CDZ) and 100yr Erosion Risk Zone.
8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

The national DEA updated the Screening Tool in February 2021. The updated Screening Tool has been considered for the purpose of this BAR.

9. Explain how the proposed development will **optimise vacant land available within an urban area.**

The vacant land will be developed into residential development.

Land that is situated close to public amenities, transport routes and commercial businesses is ideal for urban densification.

Development of the study site helps with avoidance of urban sprawl, supports greater productivity and opportunities within the spatial economy, strengthens the economy in rural areas by allowing permanent residents rather than seasonal influx/tourism only thereby ensuring more inclusive development within Tergniet.

10. Explain how the proposed development will **optimise the use of existing resources and infrastructure.**

- Access into the proposed development will be from Impala Avenue (upgrade required for a dedicated right turn lane into the southern portion of the development coming from the intersection);
- Water, sewer reticulation and electrical services will be connected into existing municipal services with no requirements for additional bulk upgrades.

11. Explain whether the necessary **services are available** and whether the **local authority has confirmed sufficient, spare, unallocated service capacity.** (Confirmation of all services must be included in Appendix E).

Mossel Bay Municipality previously confirmed availability of services when development was authorised on the southern portion of the site. Element Engineers, have reported that sufficient services capacity is available based on their engagement with the Mossel Bay Municipal Technical Department.

- **Water:** Bulk supply has been reserved for this development since 2007 (prior approvals). Existing municipal water lines run along the MR334 as well as Impala Way. Connecting pipes will vary between 75mm and 110mm diameter. Bulk annual daily demand for the development has been calculated at 149kl/day. Water saving measures such as **rainwater tanks (group housing units only), dual flush toilets, low flow shower heads** must be installed for all units. The Municipality has confirmed sufficient spare bulk water availability for this development. The existing water supply line feeding Tergniet township from the existing Municipal reservoir north of the site, must be upgraded to prevent unnecessary pressure/supply constraints.
- **Sewage:** The Municipal MidBrak Sewer upgrades are currently underway. The 250mm main sewer line running through the southern portion of the study site was finalised by May 2021. Household connection lines will be 110mm diameter and main lines will be 160mm diameter. Average daily flow for the proposed development is calculated at 138kl/day. The municipal system pumps sewage to the Great Brak Wastewater Treatment Works (WWTW). The WWTW is due for upgrade as part of the MidBrak Sewer upgrade and works will be finished by June 2023. The development can link to Municipal infrastructure by this time. Should *occupation* of phase 1 be earlier than June 2023 (not planned as such) the Municipality has advised that on-site conservancy/holding tanks be provided similar to the remainder of Tergniet.
- **Fire:** Fire hydrants are supplied as part of the development services layout.
- **Solid Waste:** On-site collection points are provided as part of the proposal for each portion. Waste will be collected by the Municipality as part of the greater Tergniet collection. Construction waste will be handled at the designated Great Brak site. The Municipality has confirmed sufficient landfill space at these licensed facilities. Waste management must comply with Directorate Community Services requirements.
- **Electricity:** The estimated capacity load for the development is 630kVA. According to Element Engineers (2019) there is sufficient capacity on the existing 11kV reticulation line to

accommodate this load. Nonetheless use will be made of **energy saving streetlights**, LED in all units, **heat/solar pumps** or similar to conserve energy. The existing overhead line that runs along the length of the eastern boundary of the study site will be removed and replaced with a 70mm underground cable within the same servitude, along the same alignment. A new 630kVA mini-sub will be installed on the Impala Avenue pavement that will connect to the existing ring main mini-sub that already feeds into the 11kVA line. Connection will be underground within Impala Avenue reserve. The Municipality has confirmed sufficient capacity.

- **Stormwater:** Due to the moderate gradient of the site (especially the southern portion) it is likely that lateral movement of stormwater will be fast and this can liquify silty soils and transport topsoil. A formal system will be developed consisting of street kerbing, lined channels, stormwater pipes, catchpits and a retention pond in the south eastern corner of the property. All pipe outlets will be fitted with **headwalls** and **gabion/reno mattresses** as **energy dissipaters** to prevent unwanted erosion. All outlets will be fitted with **litter traps** which will be the responsibility of the managing agent (body corporate / homeowners association) to clean out to prevent blockages. Each group housing unit must be fitted with rainwater tanks to **reduce runoff**.

Conservation measures:

Potable water supply:

- i. Each group housing unit must be fitted with rainwater storage tanks (not applicable to apartment blocks).
- ii. Units must be fitted with dual flush toilets, low flow shower heads.

Solid Waste:

- I. Recycling at source is recommended.

Electricity and electricity distribution:

- I. All units to be fitted with LED lights;
- II. Energy saving street lights must be installed;
- III. Solar/heat pumps (or similar) must be used throughout the development.

Stormwater design (SUDS orientated):

- i. Group housing units must be fitted with rainwater tanks to reduce intensity runoff volumes (apartments excluded);
- ii. Exposed surfaces such as gardens and private open space consist of sandy soils with high permeability levels with quick absorption capacity,
- iii. All paving must be segmented, permeable paving that supports infiltration to reduce stormwater volumes at source which is in line with the SUDS stormwater approach.

12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability.
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The development proposal is **consistent with all the applicable spatial planning policies**, it is consistent with the Mosel Bay IDP and consistent with the **character of the area**.

A similar development was **previously approved** on the southern portion of the site (approximately 6ha) with both environmental authorisation and planning authorisation issued (since lapsed).

The site is situated within the **urban edge** and is spatially located in an environment that contains the same type of (residential) developments, thus the character of the area will not be impacted negatively by providing similar development types.

Development of the site supports the principle of **optimising vacant land** within urban areas which is supported as part of the local Municipal SDP as well as the Provincial SDF.

The site can be readily connected to **municipal services** and as such can utilise existing structures/infrastructure without the need to expand/construct new structures/infrastructure outside of the urban environment.

Development proposed is similar to surrounding developments also being of a **residential nature**. The **location, type and scale** of the proposed development is therefore considered to be acceptable.

The **primary rights (Agriculture)** cannot be implemented due to a lack of water rights as well as the health & safety related to keeping of livestock in urban areas. The Department of Agriculture also confirmed that the site has marginal agriculture potential.

The site's location is such that it can made use of **existing access** via Impala Avenue which is an existing municipal road (subject to upgrade recommended in the TIA).

The site and associated infrastructure areas are **not deemed to be environmental sensitive** and as a result it will not introduce unacceptable environmental impacts.

With the use of energy and **resource efficient methods** i.e. rainwater harvesting, solar heating/heat pumps etc, the development will manage unwanted additional demand on resources within an urban context.

The development must **maximise local employment** and product sourcing to ensure that social and economic benefits from the proposed development is implemented. Social responsibility is important in terms of the need and desirability of a project as it can help to support families that are involved with the construction/development sector.

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. ~~Exclusively for linear activities:~~ Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in App J.

Approved Public Participation Plan attached as Appendix I.

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

Public participation as indicated in the Public Participation Plan complied with.

Comments received during the mandatory 30-day commenting period on the pre-application BAR and draft BAR (version 1) have been considered by the project team and responded to with this BAR. Due to the additional requirements by Mossel Bay Municipality regarding services, this revised draft BAR is circulated for a further 30-day commenting period. Comments on the additional services requirements will be reflected in the Final BAR for decision-making.

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

Department of Health
 Department of Transport
 Department of Water Affairs (via BGCMA)
 Mossel Bay Municipality
 CapeNature
 Department of Agriculture
 SACAA
 Department of Forestry

Department of Environmental Affairs & Development Planning
 Heritage Western Cape
 Garden Route District Municipality
 SANRAL
 Transnet
 PetroSA

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

5. if any of the State Departments and Organs of State did not respond, indicate which.

Comments have not been received from:
 Transnet
 PetroSA
 Garden Route District Municipality
 Department of Forestry
 Department of Health
 SANRAL

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

The following key comments were received from I&APs:

- Traffic impact associated with the development (most notably from the apartments) that may impact on traffic from Impala Avenue;
 - The Traffic engineer confirmed that they rely on specific traffic trip generator calculation models that are acceptable to the local and provincial roads authorities when considering TIAs. They used 0.65 trips/unit as the norm for calculating traffic generated by the apartments.
 - Provision is made for upgrade of Impala Avenue to accommodate additional traffic and prevent unwanted congestion
- Bulk service availability (water, sewage, electricity capacity)
 - Element engineers have engaged with the Mossel Bay Municipality who confirmed via their consultation that sufficient bulk service capacity is available for water, electricity and solid waste management.
 - The Municipality confirmed both availability and acceptance of the electrical engineering requirements.
 - The Municipality confirmed that the TIA as submitted must be implemented and detailed stormwater management plan must be submitted to the Municipality for final approval at detail design phase.
 - The Municipality confirmed that solid waste management must adhere to their Community Service standards.

- The Municipality confirmed that the development can connect to the Municipal upgraded Midbrak Sewer system by June 2023. Interim measures include on-site conservancy / holding tanks for each phase should *occupation* be earlier. The Applicant has confirmed however that project implementation will not precede this date.
- Presence of protected trees on the property
 - Services will avoid the protected trees that are found within the building lines/servitude areas. The one protected tree in Impala Avenue that may be affected with road works will require a Forestry permit prior to removal/trimming.
- Compliance with Protocols and Environmental Regulations
 - With the exception of Dr Jan Vlok (botanical report) who conducted the botanical study, and the heritage application that was compiled prior to the Specialist Protocols coming into effect, all other studies were conducted in accordance with the Protocols.
- Ensure that the project complies with needs & desirability.
 - The project falls within an urban area and the type of development conforms to infill development with the focus of optimising vacant land within urban areas. Services can be supplied by the municipality. Biodiversity impacts are considered to be minimal. Socio-economic benefits must be maximised by ensuring that local labour and market suppliers are utilised.
- Too high density for the area
 - The proposal has a lower density compared to the previously approved retirement village;
 - The site is suitable for infill development to optimise the use of vacant land within urban areas.
- Dust and noise during construction
 - Working hours are limited to weekdays 7h00 – 18h00 and Saturdays 8h00 – 14h00;
 - No working on public holidays or Sundays
 - Dust control measures must be implemented and compliance ensured by the appointed Environmental Control Officer (ECO) for the duration of earthworks and construction phase.
 - All machinery must adhere to noise regulations and SABS standards.
- Increase in theft and crime during construction
 - Contractors must be briefed by the ECO prior to construction and during construction if deemed necessary on compliance with the EMP
 - EMP stipulates that no contractor/worker may leave the construction site to enter the surrounding residential areas during working hours;
 - Any crime related to the project(workers) must be reported to the site office for investigation.
- Fire management
 - The site is surrounded by residential development and does not form part of a natural ecosystem dependent on ecological burns.
- Fencing of the development
 - The site will be fenced with a combination of solid wall and/or see through type structures to accommodate protected trees/municipal services;
 - Contractors must ensure that existing fences/walls of neighbouring properties are not compromised during construction of the wall or development.

Refer to the Issues & Response Report for a detailed summary of the comments received during the process to date.

With regards to applicability of the POPIA legislation. This revised BAR has already been circulated for public review and comment (prior to the coming into effect of POPIA), therefore the information and contact details contained herein is already in the public domain.

Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that "*Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority.*"

All the comments received from I&APs on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
 - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
 - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
 - if a facsimile was sent, a copy of the facsimile Report;
 - if an electronic mail was sent, a copy of the electronic mail sent; and
 - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

1. GROUNDWATER

1.1.	Was a specialist study conducted?	YES	NO
1.2.	Provide the name and/or company who conducted the specialist study.		
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		

2. SURFACE WATER

2.1.	Was a specialist study conducted?	YES	NO
2.2.	Provide the name and/or company who conducted the specialist study.		
	Dr James Dubrowski from Confluent Consulting.		
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		
	<p>The site does not contain any watercourses as confirmed by the EAP as part of this application. The previous application process (Environmental Authorisation was issued) also did not identify any watercourse on the site. The pipeline that must be upgraded does not cross any watercourses.</p> <p>The Screening Tool indicated potential sensitivity and the delegated authority requested that an Aquatic Compliance Statement be undertaken.</p> <p>The specialist confirmed that the site does not contain any watercourses.</p> <p>BGCMA in their comment on the application confirmed that the site contains no watercourses and that no further assessment/approvals are required.</p>		

3. COASTAL ENVIRONMENT

3.1.	Was a specialist study conducted?	YES	NO
3.2.	Provide the name and/or company who conducted the specialist study.		
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.		

3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.

4. BIODIVERSITY

4.1.	Were specialist studies conducted?	YES	NO
4.2.	Provide the name and/or company who conducted the specialist studies.		
	<p>Dr Jan Vlok / Regalis Consulting conducted a botanical impact assessment in addition to the original botanical assessment performed by Dr Dave McDonald for the prior approval process. Dr Jan Vlok was appointed prior to the specialist protocols came into effect.</p> <p>Stefan de Kock / Perception Planning conducted the heritage application. The application was completed prior to the specialist protocols coming into effect.</p> <p>Dr James Dubrowski / Confluent Consulting conducted the aquatic investigation confirming no watercourses will be affected.</p> <p>Dr Marius vd Vyfer / Chepri Consulting conducted the faunal investigation confirming that there is no on-site evidence of protected species.</p>		
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.		

NSBA

NBF

NFEPA

CapeFarm Mapper

SANBI protected species

Protected Tree Species List

Western Cape Biodiversity Spatial Plan

Protected Trees have been identified and incorporated into the preferred Alternative.

The site is not deemed sensitive due to its transformed nature. Species diversity is very low and only a few pioneer and climax species are notable from the otherwise homogenous grass cover.



Figure 26: 2019 Aerial images of the study site as the northern and southern portions (Source: van Aardt 2019).

4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.
Optimisation of vacant land within urban areas is in support of urban sprawl which contributes to loss of habitat, fragmentation and loss of ecological functioning.	
4.5.	Explain what impact the proposed development will have on the site specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.
The site is not indicated as a CBA, ESA or FPA. Due to the low ecological sensitivity of the site for fauna, flora and biodiversity, and its value as vacant land within the urban edge, it was not considered necessary to amend the layout plan to avoid remaining natural areas other than individual protected trees.	
4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.
4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

The botanical / fauna and biodiversity of the site is deemed to be LOW.

This is set against the backdrop of surrounding land use types being a combination of urban developments, roads/railway (south/north) with only the vacant portion to the east remaining undeveloped.

Already, connectively to other remaining natural environments (outside of the study site) have been severely compromised due to human intervention and development with roads/railways surrounding the site, surrounded by urban development.

Lack of fire management (due to the risk it holds for existing urban developments) and regular mowing and grazing, have resulted in a homogenous habitat, consisting mostly of grasses with a few pioneer/climax species.

As a result, the development footprint optimises the entire site for the use of urban development to maximise development in favour of urban sprawl outside of defined urban areas.

5. GEOGRAPHICAL ASPECTS

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.

None will be affected.

6. HERITAGE RESOURCES

6.1.	Was a specialist study conducted?	YES	NO
6.2.	Provide the name and/or company who conducted the specialist study.		
	Stefan de Kock (Perception Planning)		
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		
	Heritage Western Cape considered the specialist submissions and issued their decision confirming that no further assessments are required. Heritage Western Cape confirmed.		

7. HISTORICAL AND CULTURAL ASPECTS

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.

None will be affected.

8. SOCIO/ECONOMIC ASPECTS

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.		
	<p>Tergniet is a well-known and popular tourism and retirement destination within the Southern Cape. It is well managed by the Municipality and has a low crime rate. The town has access to the coast and a number of recreational features, which creates ample opportunity for residents and visitors to contribute to the local economy.</p> <p>The character of the immediate area where the study site is location is similar in style which is mostly single residential development with a mixture of single and double storey buildings.</p>		

8.2.	Explain the socio-economic value/contribution of the proposed development.
<p>The development will create temporary employment opportunities during the construction phases to semi- and unskilled workers. Full time workers will be required in skilled and semi-skilled positions for maintenance and management.</p> <p>Primary and secondary spending will arise from buying of building materials and operational spending will be associated with products and materials for maintenance (of houses / infrastructure).</p>	
8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.
<p>At least 50% of materials must be sources locally + minimum 50% local labour must be sourced locally.</p> <p>Ownership of the property / company is private. No public shareholding offered.</p>	
8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.
<p>The development will result in temporary impacts during the construction phase.</p> <p>The removal of ground cover will cause dust particles to become airborne which may result in dust pollution for periods of time.</p> <p>Construction activities are associated with temporary noise that will impact on immediate neighbouring land uses.</p> <p>Inconvenience during upgrade of Impala Avenue to create dedicated right turning land into the southern portion of the development.</p>	

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. DETAILS OF THE ALTERNATIVES IDENTIFIED AND CONSIDERED

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred property and site alternative .	
<p>No alternative properties/site is considered for this application.</p> <p>Section E(9) of this Basic Assessment report template (Planning Context and Need & Desirability) specifically enquires about how a project/activity will help to optimise vacant land within urban areas. This development proposal achieves this criteria, as opposed to urban sprawl.</p>	
Provide a description of any other property and site alternatives investigated.	
No alternative sites were considered.	
Provide a motivation for the preferred property and site alternative including the outcome of the site selection matrix.	
No alternative sites were considered.	
Provide a full description of the process followed to reach the preferred alternative within the site.	
<p>The property was previously owned by another party. Development rights were applied for on the southern portion at the time and it was granted for a retirement village (Vista de Bahia Retirement Village).</p> <p>The owner since passed away and the new owners wishes to development the site. The development rights lapsed in 2015.</p> <p>The portion of the development that falls within the urban edge (portion immediately north and south of Impala Avenue) is designated for township development.</p> <p>A site development proposal was compiled for group housing and apartments. Access was proposed in the centre of the development portions (off Impala Avenue).</p> <p>The gradient of the site and minimum requirements for safe distances between intersections (minimum 80m) dictated that the site development plan be amended by (a) moving the entrances to the west and consolidating it with the existing farmhouse entrance, (b) providing for a dedicated right turn lane on Impala Avenue into the southern portion to ensure that traffic and mobility is not affected for vehicles traveling in an easterly direction (towards Tergniet/Rheebok).</p> <p>The preferred alternative is being subjected to public participation and changes (if deemed necessary) will be considered either as mitigation to the preferred alternative, or as stand-alone alternatives.</p> <p>The Mossel Bay Municipality has recommended the Applicant consider two interim measures should <i>occupation</i> of Phase 1 be prior to June 2023 when the development can connect to the upgraded MidBrak Sewer system. One option is on-site conservancy/holding tanks and the second is an on-site package plant.</p> <p>The Applicant intends to commence construction in 2022 once all approvals are in place. It is envisaged that occupation will be after June 2023 in which case neither of the interim measures will be required. Due to cost and maintenance the interim option of on-site package plant is not considered feasible and has therefore not been considered. The option of on-site conservancy/holding tanks are</p>	

feasible and should they be required, can be converted and incorporated into the sewage system linking to the MidBrak Sewer System with ease.

Provide a detailed motivation if no property and site alternatives were considered.

No alternative site was considered as the site is pre-identified for township development, is in proximity to existing amenities and in character with the surrounding land use, as well as being within the urban edge and able to readily connect to municipal services.

The No-Go and Alternative 2 was initially considered, but Alternative 2 is not feasible because of access restrictions and no upgrade to Impala Avenue would have resulted in unacceptable traffic conditions. This alternative was therefore not considered any further and therefore not assessed.

List the positive and negative impacts that the property and site alternatives will have on the environment.

POSITIVE	NEGATIVE
Income generation for the municipality from future rates and taxes	Loss of vacant land that contains limited natural elements.
Upgrade of Impala Avenue to ensure no negative traffic impacts.	Additional traffic generated by the development.
Optimising development opportunity within the urban edge.	Change in land use from vacant to developed.
Utilisation of vacant land in an urban context.	Temporary noise and dust pollution during construction period.
Temporary employment opportunities during construction (to semi-skilled and unskilled workers mostly).	Temporary risk of increase in crime during construction.
Permanent employment opportunities during operational phase (to skilled and semi-skilled workers mostly).	Temporary increase in heavy vehicular traffic along Main Road during construction.
Provision of safety (through development) of an otherwise vacant piece of land with no access control.	Additional pressure on non-renewable services.

1.2. **Activity alternatives** to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred **activity alternative**.

Residential development.

The site is earmarked for urban expansion in terms of the SDF and will be utilised in accordance with the local spatial planning provisions in line with optimising the use of vacant land within urban areas.

Provide a description of any **other activity alternatives** investigated.

No-Go Alternative: No development.

Property remains vacant until such time as a successful development application is approved.

Provide a motivation for the preferred **activity alternative**.

- The site is earmarked for urban expansion in terms of the SDF;

- The site is a strategic property located within the built-up area of Tergniet;
- Bulk services are allocated for development of the site;
- The site is close to existing amenities in town;
- Optimising vacant land within the urban edge of Tergniet.
- Primary rights (Agriculture) cannot be exercised due to lack of water rights and health & safety concerns associated with keeping livestock in urban areas.
- Medium and higher density urban developments is in line with the planning proposals of infill development to ensure more affordable housing.

Provide a detailed motivation if no activity alternatives exist.

The No-Go alternative has been considered, however it is not deemed reasonable or feasible considering the development is within the urban edge. The primary rights cannot be optimised due to lack of agricultural resources i.e. irrigation water and health & safety issued pertaining to keeping of livestock in urban areas.

List the positive and negative impacts that the **activity alternatives** will have on the environment.

The proposed development will not result in any positive impacts on the natural environment.

1.3. **Design or layout alternatives** to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred **design or layout alternative**.

Alternative 1: (Preferred alternative): As discussed in this BAR.

Alternative 2: (Original alternative): Not deemed feasible due to unsafe access (non-compliant with road policies).

Alternative 3 (No-Go Alternative): Status quo

Provide a description of any other **design or layout alternatives** investigated.

The definition of 'alternatives' must be considered, as well as references in NEMA to alternatives:

- **"alternative"** in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the (a) property on which or location where the activity is proposed, (b) type of activity to be undertaken, (c) **design or layout of the activity;** (d) technology to be used in the activity, or € operational aspects of the activity.
 - Excluding components or elements of a development i.e. by changing design or layout, **complies with the definition of an 'alternative'**.
- In the same context, Section 24O of NEMA stipulates that "...where appropriate, **any feasible and reasonable alternatives and...any feasible and reasonable modification or changes to the activity that may minimise impacts on the environment**" must be considered.
 - The test is both **feasible AND reasonable**. When a proposal does not comply with minimum policy requirements, it is not feasible nor reasonable.
- Lastly, the 'general objective' of Integrated Environmental Management is to "...identify, predict and evaluate actual and potential impacts on the environment....and alternatives and options for mitigation....with a view to minimising negative impacts, maximising benefits and promoting compliance with environmental management principles".

The site is not deemed sensitive from an environmental perspective. Alternatives are associated with internal layout/concept changes and technology alternatives.

Alternative 3: Is the No-Development (or No-Go) alternative whereby the site remains vacant. This alternative is not deemed feasible mainly because the property is earmarked for urban development in terms of the Spatial Development Framework and the site being located within the urban edge of Tergniet, surrounded by existing urban developments. If *this* development is not authorised, the owners will undertake another application for development or they'll sell it to another developer who will apply for development rights.

Section E(9) of the Basic Assessment report template (Planning Context and Need & Desirability) specifically enquires about how a project/activity will help to optimise vacant land within urban areas. This development proposal achieves this criteria, as opposed to urban sprawl.

It is **not reasonable, nor feasible** to keep it as a vacant piece of land considering that the primary rights (Agriculture) cannot be exercised due to lack of water rights and health & safety issues associated with keeping livestock in urban areas.

Provide a motivation for the preferred **design or layout alternative**.

- The site is not deemed to be sensitive from an ecological/biodiversity perspective, since it is transformed for the most part;
- The remaining natural vegetation on the property is of Least Concerned conservation value at a site specific level;
- The site does not contain any watercourses or aquatic habitat;
- The consulting engineers has confirmed that sufficient bulk services are available;
- The existing road network can accommodate the proposed development with upgrades to the access on Impala Avenue to mitigate traffic congestion coming from the intersection;
- The site is not deemed sensitive and may be excavated should an excavation permit be issued by HWC;
- All of the on-site protected trees (situated within servitudes, building lines, services corridors and open spaces) are avoided and more can be planted with landscaping;
- The land use is similar to surrounding land use types and will not deter from the character of the area.

Provide a detailed motivation if no design or layout alternatives exist.

List the positive and negative impacts that the **design alternatives** will have on the environment.

Alternative 1 (preferred) POSITIVE	(Alternative 3) No-GO POSITIVE
Upgrade of Impala Avenue with dedicated right turning land into the southern portion.	Not applicable
Reduced landscape impact by removing the existing overhead 11kVA line along the eastern boundary of the site and replacing it with underground cabling.	
Alternative 1 NEGATIVE	No-GO NEGATIVE
Replacing the overhead 11kVA line with an underground cable may impact on a protected tree within the servitude.	Underutilisation of vacant land that could result in investment opportunities, rates & taxes income.
Loss of habitat / protected trees	No income or employment opportunities generated from vacant land

1.4. Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred technology alternatives:

<ul style="list-style-type: none"> • Solar and/or heat pumps and/or gas geysers (or similar) for heating of water • water tanks at each residential house (group housing units only) • LED lights only • Dual flush toilets • Low flow shower heads • Gas stoves optional, recommended for individual homes by Developer • Solar panels <i>optional</i>, on condition that it does not contribute to glint and glare for pilots (CAA condition of provisional approval) 	
Provide a description of any other technology alternatives investigated.	
Provide a motivation for the preferred technology alternative.	
<p>The use of solar/heat pumps/gas geysers reduces the demand on (municipal) electricity.</p> <p>The use of rainwater tanks provides households with water for gardening or other uses that reduces the demand on municipal water supply.</p> <p>The use of LED lights reduces the demand for municipal electricity.</p> <p>Use of low flow shower heads and dual flush toilets reduces the pressure on municipal potable water supply.</p> <p>Use of solar panels on roofs optional provided that it does not contribute to glint and glare effect for pilots from the nearby airfields.</p> <p>Use of on-site conservancy / holding tanks vs on-site package plant for handling of sewage should occupation be pre-June 2023. The Applicant envisage to develop from 2022, thus occupation is likely to be post June 2023 therefore it is not anticipated to develop the conservancy/holding tank alternative.</p>	
Provide a detailed motivation if no alternatives exist.	
List the positive and negative impacts that the technology alternatives will have on the environment.	
POSITIVE	NEGATIVE
Reduced water demand on municipal supply with rainwater tanks, dual flush toilets and low flow shower heads.	Reduced income generation potential for Municipality when renewable energy devices are implemented.
Reduced electricity demand on municipal supply with use of alternatives such as solar or heat pumps/gas geysers.	Reduced income generation potential for Municipality when rainwater harvesting replaces municipal water supply.
Conservancy tank is an acceptable option for handling sewage throughout Tergniet. It does not result in odours and requires no mechanical maintenance.	Expensive to pump out on a long-term basis. The Applicant however does not anticipate achieving <i>occupation</i> before June 2023 therefore it is unlikely to implement this interim option.
1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred operational alternative.	

Recycle at source to reduce pressure on landfill sites.	
Provide a description of any other operational alternatives investigated.	
Provide a motivation for the preferred operational alternative.	
Recycle at source to reduce pressure on landfill sites.	
Provide a detailed motivation if no alternatives exist.	
List the positive and negative impacts that the operational alternatives will have on the environment.	
POSITIVE	NEGATIVE
Recycle at source to reduce pressure on landfill sites.	Not applicable.
1.6.	The option of not implementing the activity (the 'No-Go' Option).
Provide an explanation as to why the 'No-Go' Option is not preferred.	
<p>If this development proposal is not authorised, the owner will still endeavour to sell the property to another developer, therefore it is assumed that the No-Go alternative is only temporary as development will happen on the site regardless of who/what is developed on the property.</p> <p>The location of the property in the centre of town on a reasonably flat piece of land, with good access to road network and services will result in the property being developed.</p> <p>Vacant land remains of concern within urban areas as they are typically targeted for land grabs and come with potential criminal operations seeing as there is no access control or security at present.</p> <p>Vacant land remains of concern for illegal dumping.</p> <p>Exercising the primary rights (agriculture) is not deemed feasible as there are no water rights allocated to the property.</p> <p>The alternative of grazing/pastures brings with it some challenges with regards to health & safety of keeping livestock within an urban area.</p>	
1.7.	Provide an explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.
<p>An alternative could be developed by only focussing on the southern portion and leaving the northern portion for now because the southern portion obtained environmental authorisation in 2009 already.</p> <p>However the northern portion is also within the urban edge and therefore developing the two portions as one development is a reasonable/feasible alternative.</p>	
1.7.	Provide a concluding statement indicating the preferred alternative, including the preferred location of the activity.

The site is ideally located for the proposed activity. The following key aspects have been taken into account:

- Site location suitability (in the centre of town, close to amenities)
- Accessibility (to existing road networks that can be upgraded with minimal impact)
- Services capacity (Municipality has confirmed capacity for electricity and water subject to water line upgrade and linking to the Midbrak Sewer system post June 2023)
- Services connections (existing water, electricity, sewage available in proximity to the site)
- Low site sensitivity (no watercourses, low botanical/ecological/faunal sensitivity other than individual milkwood trees)
- Vacant land within the urban edge
- Compatibility with the surrounding land use character

2. “NO-GO” AREAS

Explain what “no-go” area(s) have been identified during identification of the alternatives and provide the co-ordinates of the “no-go” area(s).

There are currently no ‘No-Go’ areas identified for this site.

3. METHODOLOGY TO DETERMINE THE SIGNIFICANCE RATINGS OF THE POTENTIAL ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

Criteria for Assessment

These criteria are drawn from the EIA Regulations, published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act No. 73 of 1989.

These criteria include:

- **Nature of the impact**

This is the appraisal of the type of effect the construction, operation and maintenance of a development would have on the affected environment. This description should include what is to be affected and how.

- **Extent of the impact**

Describe whether the impact will be: local extending only as far as the development site area; or limited to the site and its immediate surroundings; or will have an impact on the region, or will have an impact on a national scale or across international borders.

- **Duration of the impact**

The specialist / EAP should indicate whether the lifespan of the impact would be short term (0-5 years), medium term (5-15 years), long term (16-30 years) or permanent.

- **Intensity**

The specialist / EAP should establish whether the impact is destructive or benign and should be qualified as low, medium or high. The study must attempt to quantify the magnitude of the impacts and outline the rationale used.

- **Probability of occurrence**

The specialist / EAP should describe the probability of the impact actually occurring and should be described as improbable (low likelihood), probable (distinct possibility), highly probable (most likely) or definite (impact will occur regardless of any prevention measures).

The impacts should also be assessed in terms of the following aspects:

- **Legal requirements**

The specialist / EAP should identify and list the relevant South African legislation and permit requirements pertaining to the development proposals. He / she should provide reference to the procedures required to obtain permits and describe whether the development proposals contravene the applicable legislation.

- **Status of the impact**

The specialist / EAP should determine whether the impacts are negative, positive or neutral ("cost – benefit" analysis). The impacts are to be assessed in terms of their effect on the project and the environment. For example, an impact that is positive for the proposed development may be negative for the environment. It is important that this distinction is made in the analysis.

- **Accumulative impact**

Consideration must be given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts must be evaluated with an assessment of similar developments already in the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

- **Degree of confidence in predictions**

The specialist / EAP should state what degree of confidence (low, medium or high) is there in the predictions based on the available information and level of knowledge and expertise.

Based on a synthesis of the information contained in the above-described procedure, specialists were required to assess the potential impacts in terms of the following significance criteria:

No significance: the impacts do not influence the proposed development and/or environment in any way.

Low significance: the impacts will have a minor influence on the proposed development and/or environment. These impacts require some attention to modification of the project design where possible, or alternative mitigation.

Moderate/Medium significance: the impacts will have a moderate influence on the proposed development and/or environment. The impact can be ameliorated by a modification in the project design or implementation of effective mitigation measures.

High significance: the impacts will have a major influence on the proposed development and/or environment and will result in the "no-go" option on the development or portions of the development regardless of any mitigation measures that could be implemented. This level of significance must be well motivated.

4. ASSESSMENT OF SIGNIFICANT IMPACTS AND RISK IDENTIFIED FOR EACH ALTERNATIVE

Note: The following table serves as a guide for summarising the impacts associated with the proposed development. The table should be repeated for each alternative to ensure a comparative assessment.

BOTANICAL / ECOLOGICAL IMPACTS:

Table 2: Botanical/Ecological impacts of Zandhoogte Estate (Vlok 2019).

Impact	Extent	Duration	Intensity	Probability	Score	Significance
Destruction of individual plants of conservation concern (SOCC)	1	4	3	1.0	8.0	Medium
Destruction of local habitat for species of conservation concern.	1	3	2	0.8	4.8	Low
Loss of ecosystem services	1	1	2	1.0	4.0	Low
Compromising a potential ecological corridor	1	4	2	0.4	2.8	Low

IMPACT	Extent	Duration	Intensity	Probability	Significance
Destruction of SOCC	Low	Low	Low	High	Low
Destruction of local habitat/fauna/flora	Low	Long-Term	Medium-Low	High	Low
Loss of ecosystem services	Low	Medium-Low	Low	High	Low
Compromising ecological corridor	Low	Medium-High	Medium-Low	Medium	Low
No-Go alternative	Low	Medium	Low	Low	Low
Mitigation recommended:					
<ul style="list-style-type: none"> Plant indigenous vegetation and protected trees as part of landscaping. Apply for necessary permitting for removal of protected/rare species where necessary. 					

HERITAGE / ARCHAEOLOGICAL IMPACTS:

NID was submitted by Stefan Coetzee (Perception Planning) in 2019. The site does not contain any sensitive heritage features. The site is deemed to have **LOW** sensitivity. A detailed impact assessment is not required. Should any heritage remains be identified during construction the HWC must be notified. HWC approved the proposal.

SOCIO-ECONOMIC IMPACTS:

The development will result in impacts on the local community and on the economic. Considering that the development optimises the use of vacant land within an urban area, the results will be on immediate neighbouring properties during construction (noise, dust etc), as well as short-term and long-term economic factors such as employment opportunities, income generation, capital investment, rates & taxes etc.

IMPACT	Extent	Duration	Intensity	Probability	Significance
Noise	Low	Temporary	Low	High	Low
Dust	Low	Temporary	Low	High	Low
Theft and crime	Low	Temporary	Low	Low	Low
Traffic congestion	Low	Long-term	Low	High	Low
Employment opportunities	High	Long-term	Medium	High	Medium-High positive
Income generation	High	Long-term	Medium	High	Medium-High positive
No-Go alternative	Low	Long-term	Low	Low	Low

Mitigation recommended:

- Ensure a minimum of 50% local labour employment (Mossel Bay Area);
- Ensure a minimum of 50% local sourcing of materials and stock (Mossel Bay Area);
- Workers are to remain on-site during work hours with the exception of buying food, getting medical help or vacating the premises as a result of labour related issues/health issues;
- Applicant must implement TIA with regards to upgrade of Impala Avenue to have the dedicated right turn built prior to occupation of any units in the southern portion)
- Adhere to Site Security Plan (refer to EMP)
- Clear site in a phased manner to reduce exposed areas that could result in dust pollution and inconvenience to neighbours;
- Restrict working hours to workdays (7h00 – 18h00) and Saturdays (8h00 – 13h00) to limit unnecessary noise impacts;
- Appoint and ECO to monitor compliance with the EA and EMP;
- Applicant to maintain a complaints register that must be presented and discussed during monthly meetings to ensure prompt actions.

TRAFFIC IMPACTS:

Development of the southern portion will contribute to traffic congestion as vehicles wanting to enter the development (southern portion) will block traffic flow coming from the intersection towards Tergniet. A dedicated slip lane on Impala Avenue to the southern portion, will address this impact, most notably said slip lane must be completed prior to any occupation of units within the southern portion of the development.

IMPACT	Extent	Duration	Intensity	Probability	Significance
Traffic congestion	Medium	Permanent	Medium	High	Low
No-Go alternative	Low	Temporary	Low	Low	Medium
Mitigation recommended:					
<ul style="list-style-type: none"> Developer must construct a dedicated slip lane into the southern portion of the development prior to occupation of any units within the southern portion of the development. 					

FAUNAL IMPACTS:

Faunal compliance statement was completed by Dr Marius vd Vyfer from Chepri Consulting services. He confirmed that the listed Species as per SANBI database was not found on the property. Due to highly transformed nature of the site, the faunal sensitivity is **LOW** and impact of development is expected to be **minimal**. No detailed assessment is required and no mitigation/interventions are stipulated.

AQUATIC IMPACTS:

Aquatic compliance statement was compiled by Dr James Dubrowski from Confluent Consulting services. He confirmed that the site does not fall within a sub-quaternary catchment that has been categorised as a freshwater ecosystem protected area (NFEPA) or strategic water source area (SWSA). There are no natural drainage areas and no hydro-geomorphological features present on the site. The site is deemed to have a **LOW** sensitivity and impact of development is expected to be **minimal**. No detailed assessment is required and no mitigation/interventions are stipulated.

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.
<p>Heritage/Archaeology:</p> <ul style="list-style-type: none"> • Any excavation or exposure of artefacts must be reported immediately; • ECO to demarcate area and notify HWC without delay. <p>Botany/Fauna/Ecology/Aquatic:</p> <ul style="list-style-type: none"> • Search and rescue of reptiles/mammals prior to construction/vegetation removal. • Apply for Forestry Permits should any trimming/roots be affected on protected trees. • Demarcate drip-line of all on-site protected trees; • ECO must ensure that any fauna entering the site during construction is captured and relocated with the necessary permits; • No fauna found on site during construction may be killed or harmed; • Excavations must be closed as soon as possible to avoid animals/reptiles from getting trapped; • Landscaping must include species occurring natural in the immediate area; • Apply stormwater management to reduce runoff containing silt and to prevent erosion. <p>Traffic:</p> <ul style="list-style-type: none"> • Upgrade of Impala Avenue with dedicated right turn lane into the southern portion of the development coming from the intersection, prior to occupation of any of the units in the southern portion. • Stormwater may not be discharge onto the MR344. • The northern boundary of Portion A must have a solid wall for Provincial Roads authority's approval at detail design level. 	
2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr
<p>Heritage/Archaeology:</p> <ul style="list-style-type: none"> • Any excavation or exposure of artefacts must be reported immediately; • ECO to demarcate area and notify HWC without delay. <p>Botany/Fauna/Ecology/Aquatic:</p> <ul style="list-style-type: none"> • Search and rescue of reptiles/mammals prior to construction/vegetation removal. • Apply for Forestry Permits should any trimming/roots be affected on protected trees. • Demarcate drip-line of all on-site protected trees; • ECO must ensure that any fauna entering the site during construction is captured and relocated with the necessary permits; • No fauna found on site during construction may be killed or harmed; • Excavations must be closed as soon as possible to avoid animals/reptiles from getting trapped; • Landscaping must include species occurring natural in the immediate area; • Apply stormwater management to reduce runoff containing silt and to prevent erosion. <p>Traffic:</p>	

	<ul style="list-style-type: none"> Upgrade of Impala Avenue with dedicated right turn lane into the southern portion of the development coming from the intersection, prior to occupation of any of the units in the southern portion. Stormwater may not be discharge onto the MR344. The northern boundary of Portion A must have a solid wall for Provincial Roads authority's approval at detail design level.
3.	List the specialist investigations and the impact management measures that will not be implemented and provide an explanation as to why these measures will not be implemented.
	None identified.
4.	Explain how the proposed development will impact the surrounding communities.
	<p>There will be mostly temporary impacts associated with the construction phase, namely noise and potentially dust pollution. The following key mitigation measures are submitted as part of the BAR. Refer to the EMP for more details:</p> <ul style="list-style-type: none"> Construction activities must be limited to Mondays – Fridays (7h00 – 18h00) and Saturdays (8h00 – 13h00); Work may not take place on Sunday's or public holidays; Vegetation clearing must be done in phases to avoid large pieces of land being exposed to wind (which could result in dust pollution); Rehabilitation of work areas to take place as soon as possible to minimise dust pollution; Dust suppression measures to be implemented if the ECO deems it necessary; An ECO must be appointed to oversee construction and must keep record of any complaints regarding noise/dust pollution; Upgrade of Impala Avenue (right turn lane into the southern portion of the development coming from the intersection) must happen prior to occupation of any of the units on the southern portion to avoid traffic congestion.
5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.
	<ul style="list-style-type: none"> Water will become a very scarce resource as periods of drought will be longer. The use of rainwater tanks for each group housing unit is important (apartments excluded); Rain fall intervals will become less, but downpours may be more severe. Stormwater management on the site is important to prevent unnecessary erosion and/or flooding. The use of rainwater tanks will assist with reducing flooding as it will help to retain water.
6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.
	None.
7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.
	<p>The specialists all agree that the site is not deemed sensitive.</p> <p>Therefore their recommendations for mitigation/management are limited and easy to incorporate without significant changes to the preferred layout.</p>
8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.
	<p>1. AVOID IMPACTS</p> <p>Avoidance of protected trees within the building lines, servitudes and municipal road reserve.</p>

2. MITIGATE IMPACTS

Landscape with indigenous plants and incorporate endemic plants from the area into the landscaping to recreate natural areas within the open space areas of the development.

Upgrade Impala Avenue with dedicated right turn lane into the southern portion (from the intersection) of the development site to mitigate traffic congestion along Impala Avenue.

3. MINIMISE IMPACTS

Limit construction activities to specified days and times.

Clear the site in a phased manner to minimise dust pollution.

Only indigenous landscaping permitted in lieu of the loss of remaining on-site natural habitat/vegetation.

Install water tanks at each dwelling to reduce demand on municipal water supply.

Install solar heat pumps / solar panels (or similar devices) at each dwelling to reduce demand on municipal electrical supply.

Offer the option of using gas at each dwelling to reduce the demand on municipal electrical supply.

Use of solar panels on roofs optional provided that it does not contribute to glint and glare effect for pilots from Mossel Bay / George Airport.

4. RECTIFY

None necessary

5. REDUCE

None necessary

6. OFF-SITE

None necessary

SECTION J: GENERAL

1. ENVIRONMENTAL IMPACT STATEMENT

1.1.	Provide a summary of the key findings of the EIA.												
	<ul style="list-style-type: none"> • The site is not deemed sensitive from a botanical/biodiversity/faunal/aquatic perspective. • The site is not deemed sensitive from a heritage/archaeological perspective. • Services are available through existing municipal supply. • Social and economic impacts that will arise from the development is considered mostly positive in the long term and short-term impacts can be managed through construction times, landscaping and improved access; • Proposal is in line with spatial planning for Tergniet and will result in optimising of vacant land within the urban edge of Tergniet. • Similar development was authorised on the site previously establishing the land use for urban development. • The results from the public participation process are important and the outcome of the process must incorporate relevant submissions received during the process • Pipe bursting method must be utilised for upgrade of the municipal water line. • Development may continue on condition that <i>occupation</i> is scheduled post June 2023. If occupation is scheduled pre-June 2023 the interim option of providing conservancy / holding tanks for the respective phases must be implemented. 												
1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)												
	<p>There are no on-site sensitive features.</p> <p>Individual protected milkwood/cheesewood trees are noted within the <u>building line/servitudes</u> and municipal <u>road reserve</u>, but none within the development footprint.</p>												
1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">POSITIVE</th> <th style="width: 50%; text-align: center;">NEGATIVE</th> </tr> </thead> <tbody> <tr> <td>Income generation for the municipality from future rates and taxes</td> <td>Loss of habitat/protected trees.</td> </tr> <tr> <td>Upgrade of the access on Impala Avenue.</td> <td>Increase in traffic associated with development.</td> </tr> <tr> <td>Increase income through rates & taxes.</td> <td>Change in land use from vacant to developed.</td> </tr> <tr> <td>Utilisation of vacant land in an urban context.</td> <td>Temporary noise and dust pollution during construction period.</td> </tr> <tr> <td>Temporary employment opportunities during construction (to semi-skilled and unskilled workers mostly).</td> <td>Temporary risk of increase in crime during construction.</td> </tr> </tbody> </table>	POSITIVE	NEGATIVE	Income generation for the municipality from future rates and taxes	Loss of habitat/protected trees.	Upgrade of the access on Impala Avenue.	Increase in traffic associated with development.	Increase income through rates & taxes.	Change in land use from vacant to developed.	Utilisation of vacant land in an urban context.	Temporary noise and dust pollution during construction period.	Temporary employment opportunities during construction (to semi-skilled and unskilled workers mostly).	Temporary risk of increase in crime during construction.
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Permanent employment opportunities during operational phase (to skilled and semi-skilled workers mostly).	Temporary increase in heavy vehicular traffic along Main Road during construction.
Provision of safety (through development) of an otherwise vacant piece of land with no access control.	Additional pressure on non-renewable services.

2. RECOMMENDATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (“EAP”)

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr
	<ul style="list-style-type: none"> • Planting of any protected trees as part of landscaping in open space areas, must be in areas where they will not have to be trimmed/removed in future. • Appoint Environmental Control Officer (ECO) to oversee construction phase. • Implement and adhere to an approved Environmental Management Plan. • Apply for Forestry Permits in the event that any trimming/roots may be required during construction (layout plans and services avoid the on-site protected trees). • Each group housing unit must be fitted with a rainwater tank (apartments excluded). • Each group housing unit must be fitted with solar or heat pumps/solar panels (optional) to reduce demand on electrical supply. • All landscaping must be indigenous vegetation in lieu of the loss of natural vegetation / habitat (which is transformed/disturbed under the current and historical land use). • Restrict working times and hours to minimise noise/dust pollution. • Employ minimum 50% local labour. • Source minimum 50% construction materials locally. • Upgrade of Impala Avenue with dedicated right turning lane into the southern portion of the development must be completed prior to occupation of any of the units in the southern portion. • Energy saving measures must be implemented. • Resource conservation measures must be implemented. • Pipe bursting method must be utilised for upgrade of the municipal water line. • Development may continue on condition that <i>occupation</i> is scheduled post June 2023. If occupation is scheduled pre-June 2023 the interim option of providing conservancy / holding tanks for the respective phases must be implemented.
2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.
	Please refer to 2.1, 2.3, as well as sections 3, 4 & 5 below.
2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.
	<p>The development as proposed, may be considered for environmental authorisation given it's location within the urban edge of Tergniet, prior approvals for a similar nature, as well as findings of independent specialist and technical studies that did not identify any fatal flaws or unacceptable detrimental environmental/social impacts.</p> <p>The following conditions must be considered:</p> <ul style="list-style-type: none"> • Development may not proceed until such time as all approvals are obtained.

- Local employment must be a priority to ensure maximum social benefit to the wider community.
- An ECO must be appointed prior to construction to oversee site preparation, vegetation removal and construction.
- DAFF permits must be obtained prior to removal / trimming / cutting of any protected trees on the property.
- Upgrade of Impala Avenue with a dedicated right turning lane into the southern portion, must be completed prior to occupation of any unit in the southern portion.
- Upgrade of the municipal water line must be done prior to occupation to prevent unnecessary pressure on the water supply to Tergniet.
- Occupation may only be scheduled for post June 2023 unless on-site conservancy / holding tanks are provided.

2.4. Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

Studies undertaken for the purpose of this application represent snapshots in time and are not reflective of long-term monitoring.

2.5. The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.

10-year validity period for the EA. This timeframe has been confirmed with the Applicant.

Date when activity will be concluded is unknown at this stage, but the Applicant anticipates commencing late 2021 and finishing in 2028.

Post-construction monitoring must be finalised within **6 months of each of the two phases** being completed. **Post-completion reports must be compiled by the ECO** after completion of every phase of the development.

The EA, if granted, must for the period during which it is valid, be audited and such audits must be submitted to the competent authority.

An **independent external audit** must be compiled post-completion of the project by an independent Environmental Auditor in accordance with the applicable Environmental Regulations.

3. WATER

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

- Each group housing must be fitted with rainwater tanks for operational phase to supplement municipal potable water for external use and/or household use (apartments excluded).
- Potable water may not be used during construction.

4. WASTE

Explain what measures have been taken to reduce, reuse or recycle waste.

- The contractor must provide recycle bins on the property during construction and must ensure that staff is aware of what products can be recycled/reused.
- At-source separation of waste must be implemented.

5. ENERGY EFFICIENCY

8.1. Explain what design measures have been taken to ensure that the development proposal will be energy efficient.

- Only LED lights **must be used** within the development.
- Heat and/or solar pumps and/or gas geysers (or similar) **must be used** throughout the development.
- Use of gas for stoves is **optional**.
- Use of **solar panels** on roofs **optional** provided that it does not contribute to glint and glare effect for pilots from nearby airfields.

SECTION K: DECLARATIONS

1. DECLARATION OF THE APPLICANT:

To be supplied for Final Basic Assessment report.

2. DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (“EAP”)

I **Ms Louise-Mari van Zyl**, EAPASA Registration number **2019/1444** as the appointed EAP hereby declare/affirm the correctness of the:

- Information provided in this BAR and any other documents/reports submitted in support of this BAR;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant; and
- Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, and that:
- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
- In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan or document prepared or to be prepared as part of this application;
- I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- I have ensured that the comments of all interested and affected parties were considered, recorded, responded to and submitted to the Competent Authority in respect of this application;
- I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;
- I have kept a register of all interested and affected parties that participated in the public participation process; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;



2021/09/17

Signature of the EAP:

Date:

Cape Environmental Assessment Practitioners (Cape EAPrac)

Name of company (if applicable):

3. DECLARATION OF THE INDEPENDENT SPECIALISTS

To be supplied with Final Basic Assessment Report